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1.8 jupyterlab_pygments 0.2.2

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/ImmutableValueGraph.java
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/**
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableBiMapFauxverideShim.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/package-info.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingMapEntry.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractIterator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Sets.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Multimaps.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/BiMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Multisets.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingQueue.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingConcurrentMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/collect/ReverseNaturalOrdering.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SortedSetMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/NullsFirstOrdering.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SingletonImmutableSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/EnumHashBiMap.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Ordering.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/LinkedListMultimap.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Maps.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingSortedSet.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/MapDifference.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/Platform.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/Internal.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/LittleEndianByteArray.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AsyncCallable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/FarmHashFingerprint64.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/ReaderInputStream.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/MacHashFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ConsumingQueueIterator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/CombinedFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/Platform.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/InterruptibleTask.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AggregateFutureState.java
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jar/com/google/common/collect/JdkBackedImmutableMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/JdkBackedImmutableSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/ImmutableSupplier.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ExecutionSequencer.java
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  *

```
 * As of 2010/06/11, this method is identical to the (package private) hash method in OpenJDK 7's
 * java.util.HashMap class.
 */
```

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/Striped.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/UnsignedInts.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/WrappingExecutorService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractScheduledService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/UncheckedExecutionException.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/Weigher.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/CacheStats.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/AbstractCompositeHashFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/Hashing.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/AbstractLoadingCache.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/package-info.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/ForwardingLoadingCache.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/cache/CacheBuilderSpec.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Optional.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/DescendingImmutableSortedMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Ticker.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Present.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/UnsignedInteger.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/Murmur3_32HashFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/PrimitiveSink.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/BoundType.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/AbstractHasher.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/RemovalListeners.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/UnsignedLong.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/Types.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/TypeParameter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RegularImmutableMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ForwardingExecutorService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/PairwiseEquivalence.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/CycleDetectingLockFactory.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/TreeRangeSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RegularContiguousSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Absent.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/RemovalNotification.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractListeningExecutorService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/Hasher.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/HashCode.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/net/MediaType.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/AbstractStreamingHasher.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/Crc32cHashFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/Uninterruptibles.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/net/HostAndPort.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/Murmur3_128HashFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Enums.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/MathPreconditions.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/MessageDigestHashFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/UnsignedLongs.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/RemovalListener.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ListeningScheduledExecutorService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/net/HttpHeaders.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/RemovalCause.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/package-info.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/FunctionalEquivalence.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AsyncFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/Cache.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/BloomFilterStrategies.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/BigIntegerMath.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/AbstractCache.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ExecutionError.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/math/IntMath.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/HashingOutputStream.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/EmptyContiguousSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/DoubleMath.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/Funnels.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/CacheLoader.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/AbstractNonStreamingHashFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/Funnel.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/ForwardingCache.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Queues.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/LongMath.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/DoubleUtils.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractSortedMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/LoadingCache.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/ParseRequest.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/FutureCallback.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/BloomFilter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/HashFunction.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedMultisetFauxverideShim.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/GeneralRange.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingSortedMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SortedIterable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RangeSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractRangeSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Count.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SortedIterables.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedMultiset.java
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*/
/**
  * Returns an array containing all of the elements in the specified collection. This method
  * returns the elements in the order they are returned by the collection's iterator. The returned
  * array is "safe" in that no references to it are maintained by the collection. The caller is
  * thus free to modify the returned array.
  *

```
 * <p>This method assumes that the collection size doesn't change while the method is running.
 *
 * <p>TODO(kevinb): support concurrently modified collections?
 *
 * @param c the collection for which to return an array of elements
 */
```

Found in path(s):
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ObjectArrays.java
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* or implied. See the License for the specific language governing permissions and limitations under
* the License.
*/
/*
 * This method was rewritten in Java from an intermediate step of the Murmur hash function in
 * http://code.google.com/p/smhasher/source/browse/trunk/MurmurHash3.cpp, which contained the
 * following header:
 *
 * MurmurHash3 was written by Austin Appleby, and is placed in the public domain. The author
 * hereby disclaims copyright to this source code.
 */
```

Found in path(s):
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/SmallCharMatcher.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/eventbus/Dispatcher.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/MoreObjects.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ListenerCallQueue.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/Quantiles.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/eventbus/Subscriber.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/TrustedListenableFutureTask.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/TypeToken.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/FluentFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AggregateFuture.java

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/TimeLimiter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractCatchingFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractTransformFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/UncheckedTimeoutException.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/FakeTimeLimiter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/FuturesGetChecked.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/GwtFluentFutureCatchingSpecialization.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/Futures.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/CollectionFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/CaseFormat.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/CharEscaper.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/PatternFilenameFilter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/GwtFuturesCatchingSpecialization.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/CharEscaperBuilder.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/TimeoutFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ImmediateFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/SimpleTimeLimiter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/annotations/VisibleForTesting.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Java8Usage.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/thirdparty/publicsuffix/PublicSuffixType.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/HashingInputStream.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/VerifyException.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/eventbus/SubscriberExceptionHandler.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/Runnables.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Verify.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/eventbus/SubscriberExceptionContext.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/collect/FilteredMultimapValues.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/CharSequenceReader.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Utf8.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/WrappingScheduledExecutorService.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/BaseImmutableMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/JdkBackedImmutableBiMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/IndexedImmutableSet.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AllEqualOrdering.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/TransformedListIterator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/FilteredMultimap.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/CompactLinkedHashSet.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/FilteredSetMultimap.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractSortedKeySortedSetMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableEnumMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/UnmodifiableSortedMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ForwardingBlockingDeque.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingImmutableList.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingBlockingDeque.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/TransformedIterator.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/TreeTraverser.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/DescendingMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/FilteredEntryMultimap.java
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/**
* Holder for extra methods of {@code Objects} only in web. Intended to be empty for regular
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*/
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMapValues.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Collections2.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMapEntrySet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableCollection.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Table.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/EmptyImmutableListMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/CollectPreconditions.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/HashBasedTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Platform.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/TreeBasedTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/collect/StandardRowSortedTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Range.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/UnmodifiableIterator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableMapKeySet.java
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*/
/**
* Holder for web specializations of methods of {@code Shorts}. Intended to be empty for regular
* version.
*/

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/LongAddable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/SmoothRateLimiter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/FilteredKeyMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/Parameter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/ByteSink.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/PairedStatsAccumulator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/Element.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/CharSource.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/package-info.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/ImmutableTypeToInstanceMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/StatsAccumulator.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/ByteSource.java

* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/ChecksumHashFunction.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/Invokable.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/StandardSystemProperty.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/AbstractInvocationHandler.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/TypeToInstanceMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/math/PairedStats.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/LongAddables.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ListenableScheduledFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/hash/LongAddables.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/FileWriteMode.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableRangeMap.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/Traverser.java
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*/
/*
 * This method was rewritten in Java from an intermediate step of the Murmur hash function in
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*/
/**
* Outer class that exists solely to let us write {@code Partially.GwtIncompatible} instead of plain
* {@code GwtIncompatible}. This is more accurate for {@link Futures#catching}, which is available
* under GWT but with a slightly different signature.
*
* <p>We can't use {@code PartiallyGwtIncompatible} because then the GWT compiler wouldn't recognize
* it as a {@code GwtIncompatible} annotation. And for {@code Futures.catching}, we need the GWT
* compiler to autostrip the normal server method in order to expose the special, inherited GWT
* version.
*/

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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/SuccessorsFunction.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/graph/ImmutableNetwork.java
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Found in path(s):
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingSetMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/MinMaxPriorityQueue.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractSequentialIterator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingListMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RowSortedTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingSortedSetMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingImmutableCollection.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/UnmodifiableListIterator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SortedMapDifference.java
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Found in path(s):
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SortedMultiset.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SortedMultisets.java
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Found in path(s):
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/DenseImmutableTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ForwardingFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/UnsignedBytes.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/net/HostSpecifier.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractExecutionThreadService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/JdkFutureAdapters.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/SignedBytes.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/annotations/GwtIncompatible.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SparseImmutableTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/net/UrlEscapers.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/ReferenceEntry.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/MapMakerInternalMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/reflect/TypeResolver.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/Platform.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/MapMaker.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/ArrayBasedUnicodeEscaper.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/CacheBuilder.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/Cut.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/ByteArrayDataInput.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/SettableFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/Callables.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/Service.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractIdleService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/ForwardingFluentFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Platform.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/ByteArrayDataOutput.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/html/HtmlEscapers.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/ArrayBasedEscaperMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/LineProcessor.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/xml/XmlEscapers.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RegularImmutableTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/util/concurrent/ForwardingListenableFuture.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/annotations/GwtCompatible.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/io/ByteProcessor.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/ArrayBasedCharEscaper.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/net/InternetDomainName.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/util/concurrent/AbstractService.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/base/Splitter.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/cache/LocalCache.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/escape/Escapers.java
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/**
  * Not supported. <b>You are attempting to create a map that may contain a non-{@code Comparable}
  * key.</b> Proper calls will resolve to the version in {@code ImmutableSortedMap}, not this dummy
  * version.
  *
  * @throws UnsupportedOperationException always
  * @deprecated <b>Pass a key of type {@code Comparable} to use {@link
  *     ImmutableSortedMap#of(Comparable, Object)}.</b>
  */
```

Found in path(s):
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedMapFauxverideShim.java

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*/
/**
* Holder for web specializations of methods of {@code Floats}. Intended to be empty for regular
* version.
*/
```

Found in path(s):
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/primitives/FloatsMethodsForWeb.java
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* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/DiscreteDomain.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-

jar/com/google/common/collect/ImmutableClassToInstanceMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedSetFauxverideShim.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableAsList.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ArrayTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ForwardingTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/TableCollectors.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableEnumSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RegularImmutableSortedSet.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableSortedMap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SingletonImmutableList.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/SingletonImmutableTable.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ImmutableSetMultimap.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/ComparisonChain.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/RegularImmutableList.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/AbstractIndexedListIterator.java
* /opt/cola/permits/1119092615_1608716259.54/0/guava-30-1-jre-sources-1-jar/com/google/common/collect/EmptyImmutableSetMultimap.java

1.10 textwrap3 0.9.2

1.10.1 Available under license :

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Metadata-Version: 1.1
Name: textwrap3
Version: 0.9.2
Summary: textwrap from Python 3.6 backport (plus a few tweaks)
Home-page: https://github.com/jonathaneunice/textwrap3
Author: Jonathan Eunice
Author-email: jonathan.eunice@gmail.com
License: Python Software Foundation License

Description:
| |travisci| |version| |versions| |impls| |wheel| |coverage|

.. |travisci| image:: https://api.travis-ci.org/jonathaneunice/textwrap3.svg
:target: http://travis-ci.org/jonathaneunice/textwrap3

.. |version| image:: http://img.shields.io/pypi/v/textwrap3.svg?style=flat
:alt: PyPI Package latest release
:target: https://pypi.python.org/pypi/textwrap3

.. |versions| image:: https://img.shields.io/pypi/pyversions/textwrap3.svg
:alt: Supported versions
:target: https://pypi.python.org/pypi/textwrap3

.. |impls| image:: https://img.shields.io/pypi/implementation/textwrap3.svg
:alt: Supported implementations
:target: https://pypi.python.org/pypi/textwrap3

.. |wheel| image:: https://img.shields.io/pypi/wheel/textwrap3.svg
:alt: Wheel packaging support
:target: https://pypi.python.org/pypi/textwrap3

.. |coverage| image:: https://img.shields.io/badge/test_coverage-100%25-663399.svg
:alt: Test line coverage
:target: https://pypi.python.org/pypi/textwrap3

``textwrap3`` is a compatibility back-port of Python 3.6's ``textwrap``
module that supports Python 2.6 forward. (Though honestly, if you're not
already using *at least* 2.7, you're way behind the times!)

This makes a few new
APIs such as ``shorten`` and the ``max_lines`` parameter available
in a compatible way to all Python versions typically in current use.

Import and use it like you would ``textwrap`` from the standard library::

```
from textwrap3 import wrap

text = 'long text here...'
print(wrap(text, 40))
```

The standard `textwrap documentation <https://docs.python.org/3.6/library/textwrap.html>`_
is the best reference material.

Bias and Tweaks
==========

By design, Python 3 sensibilities and expectations rule. Especially when
processing text that includes Unicode characters, ``textwrap3``'s results may
differ a bit from those of the ``textwrap`` of the underlying Python version
(esp. 2.x). In particular, ``textwrap3`` uses the ``re.UNICODE`` flag so that
non-ASCII characters such as accented letters are considered legitimate word
characters.

It also adds one tweak, considering the Unicode em-dash
(``'\N{EM DASH}'`` or ``u'\u2014'``) identical to the simulated ASCII em-dash
``'--'``.

Notes
=====

* See ``CHANGES.yml`` for the Change Log.

* This module is almost entirely the work of Gregory P. Ward
  (``textwrap``'s original author) plus enhancements from the Python
  community. This separate packaging is just a delivery and
  compatibility vehicle. It contributes cross-Python
  version compatibility shims, a few additional tests, and better
  handling of real em-dashes. The vast majority of functionality
  still comes from the standard ``textwrap`` code base, as of the
  Python 3.6 release.

Installation
============

To install or upgrade to the latest version::

    pip install -U textwrap3

You may need to prefix these with ``sudo`` to authorize
installation. In environments without super-user privileges, you may want to
use ``pip``'s ``--user`` option, to install only for a single user, rather
than system-wide. Depending on your system configuration, you may also
need to use separate ``pip2`` and ``pip3`` programs to install for Python
2 and 3 respectively.

Keywords: text wrap fill textwrap
Platform: UNKNOWN
Classifier: Development Status :: 4 - Beta
Classifier: Operating System :: OS Independent
Classifier: License :: OSI Approved :: Python Software Foundation License
Classifier: Intended Audience :: Developers
Classifier: Programming Language :: Python
Classifier: Programming Language :: Python :: 2
Classifier: Programming Language :: Python :: 2.6

Classifier: Programming Language :: Python :: 2.7
Classifier: Programming Language :: Python :: 3
Classifier: Programming Language :: Python :: 3.3
Classifier: Programming Language :: Python :: 3.4
Classifier: Programming Language :: Python :: 3.5
Classifier: Programming Language :: Python :: 3.6
Classifier: Programming Language :: Python :: 3.7
Classifier: Programming Language :: Python :: Implementation :: CPython
Classifier: Programming Language :: Python :: Implementation :: PyPy
Classifier: Topic :: Software Development :: Libraries :: Python Modules
Classifier: Topic :: Text Processing
Classifier: Topic :: Text Processing :: Filters

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* /opt/cola/permits/1193924620_1629395698.03/0/textwrap3-0-9-2-zip/textwrap3-0.9.2/textwrap3.egg-info/PKG-INFO
* /opt/cola/permits/1193924620_1629395698.03/0/textwrap3-0-9-2-zip/textwrap3-0.9.2/PKG-INFO

1.11 libcap 2.22-11.el7

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1.17 xmlschema 1.3.2

1.18 jupyterlab-pygments 0.2.2

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1.19 zlib 1.2.12

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1.24 xsom 2.3.0-b170202.1032

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1.25 tomcat-util-scan 9.0.74

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1.30 traitlets 5.3.0

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1.31 gsasl 1.10.0

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<http://www.gnu.org/philosophy/why-not-lgpl.html>.

1.32 st4 4.3.4

1.32.1 Available under license :

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```
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*/

/** Build an AST from a single StringTemplate template */
parser grammar STParser;

options {
 language=Java;
 tokenVocab=STLexer;
 TokenLabelType=CommonToken;
 output=AST;
 ASTLabelType=CommonTree;
}

tokens {
 EXPR; OPTIONS; PROP; PROP_IND; INCLUDE; INCLUDE_IND; EXEC_FUNC; INCLUDE_SUPER;
 INCLUDE_SUPER_REGION; INCLUDE_REGION; TO_STR; LIST; MAP; ZIP; SUBTEMPLATE; ARGS;
 ELEMENTS; REGION; NULL; INDENTED_EXPR;
 }

@header {
package org.stringtemplate.v4.compiler;
import org.stringtemplate.v4.misc.ErrorManager;
import org.stringtemplate.v4.misc.ErrorType;
}

@members {
ErrorManager errMgr;
Token templateToken;
public STParser(TokenStream input, ErrorManager errMgr, Token templateToken) {
 this(input);
 this.errMgr = errMgr;
 this.templateToken = templateToken;
}
@Override
protected Object recoverFromMismatchedToken(IntStream input, int ttype, BitSet follow)
 throws RecognitionException
{
 throw new MismatchedTokenException(ttype, input);
}
}

@rulecatch {
  catch (RecognitionException re) { throw re; }
}

templateAndEOF : template EOF -> template? ;
```

```
template : element* ;

element
 : {input.LT(1).getCharPositionInLine()==0}? INDENT? COMMENT NEWLINE -> // throw away
 | INDENT singleElement -> ^(INDENTED_EXPR INDENT singleElement?) // singleElement is optional to handle
error returning nil
 | singleElement
 | compoundElement
 ;

singleElement
 : exprTag
 | TEXT
 | NEWLINE
 | COMMENT! // throw away
 ;

compoundElement
 : ifstat
 | region
 ;

exprTag
 : LDELIM expr ( ';' exprOptions )? RDELIM
  -> ^(EXPR[$LDELIM,"EXPR"] expr exprOptions?)
 ;

region
@init {Token indent=null;}
 : i=INDENT? x=LDELIM '@' ID RDELIM {if (input.LA(1)!=NEWLINE) indent=$i;}
  template
  INDENT? LDELIM '@end' RDELIM
  // kill \n for <@end> on line by itself if multi-line embedded region
  ({$region.start.getLine()!=input.LT(1).getLine()}?=> NEWLINE)?
  -> {indent!=null}?
     ^(INDENTED_EXPR $i ^(REGION[$x] ID template?))
  ->                 ^(REGION[$x] ID template?)
 ;

subtemplate
 : lc='{' (ids+= ID ( ',' ids+= ID )* '|' )? template INDENT? '}'
  // ignore final INDENT before } as it's not part of outer indent
  -> ^(SUBTEMPLATE[$lc,"SUBTEMPLATE"] ^(ARGS $ids)* template?)
 ;

ifstat
@init {Token indent=null;}
 : i=INDENT? LDELIM 'if' '(' c1=conditional ')' RDELIM {if (input.LA(1)!=NEWLINE) indent=$i;}
```

```
  t1=template
  ( INDENT? LDELIM 'elseif' '(' c2+=conditional ')' RDELIM t2+=template )*
  ( INDENT? LDELIM 'else' RDELIM t3=template )?
  INDENT? endif= LDELIM 'endif'
 RDELIM
 // kill \n for <endif> on line by itself if multi-line IF
 ({$ifstat.start.getLine()!=input.LT(1).getLine()}?=> NEWLINE)?
 -> {indent!=null}?
    ^(INDENTED_EXPR $i ^('if' $c1 $t1? ^('elseif' $c2 $t2)* ^('else' $t3?)?))
 ->                 ^('if' $c1 $t1? ^('elseif' $c2 $t2)* ^('else' $t3?)?)
;

conditional
scope {
 boolean inside;
}
 : andConditional ( '||'^ andConditional )*
 ;

andConditional : notConditional ( '&&'^ notConditional )* ;

notConditional
 : '!'^ notConditional
 | memberExpr
 ;

notConditionalExpr
 : (ID->ID)
  ( p='.' prop=ID      -> ^(PROP[$p,"PROP"] $notConditionalExpr $prop)
  | p='.' '(' mapExpr ')'    -> ^(PROP_IND[$p,"PROP_IND"] $notConditionalExpr mapExpr)
  )*
 ;

exprOptions : option ( ',' option )* -> ^(OPTIONS option*) ;

option
@init {
 String id = input.LT(1).getText();
 String defVal = Compiler.defaultOptionValues.get(id);
 boolean validOption = Compiler.supportedOptions.get(id)!=null;
}
 : ID
  {
  if ( !validOption ) {
        errMgr.compileTimeError(ErrorType.NO_SUCH_OPTION, templateToken, $ID, $ID.text);
  }
  }
  ( '=' exprNoComma      -> {validOption}? ^('=' ID exprNoComma)
```

```
        ->
 | {
  if ( defVal==null ) {
   errMgr.compileTimeError(ErrorType.NO_DEFAULT_VALUE, templateToken, $ID);
  }
  }
        -> {validOption&&defVal!=null}?
          ^(EQUALS["="] ID STRING[$ID,""+defVal+""])
        ->
 )
;

exprNoComma
 : memberExpr
  ( ':' mapTemplateRef     -> ^(MAP memberExpr mapTemplateRef)
  |         -> memberExpr
  )
;

expr : mapExpr ;

// more complicated than necessary to avoid backtracking, which ruins
// error handling
mapExpr
 : memberExpr
  ( (c=',' memberExpr)+ col=':' mapTemplateRef
        -> ^(ZIP[$col] ^(ELEMENTS memberExpr+) mapTemplateRef)
  |         -> memberExpr
  )
  ( {if ($x!=null) $x.clear();} // don't keep queueing x; new list for each iteration
   col=':' x+=mapTemplateRef ({$c==null}?=> ',' x+=mapTemplateRef )*
        -> ^(MAP[$col] $mapExpr $x+)
  )*
 ;

/**
expr:template(args)  apply template to expr
expr:{arg | ...}     apply subtemplate to expr
expr:(e)(args)       convert e to a string template name and apply to expr
*/
mapTemplateRef
 : qualifiedId '(' args ')'       -> ^(INCLUDE qualifiedId args?)
 | subtemplate
 | lp='(' mapExpr rp=')' '(' argExprList? ')' -> ^(INCLUDE_IND mapExpr argExprList?)
 ;

memberExpr
 : (includeExpr->includeExpr)
```

```
 ( p='.' ID       -> ^(PROP[$p,"PROP"] $memberExpr ID)
 | p='.' '(' mapExpr ')'    -> ^(PROP_IND[$p,"PROP_IND"] $memberExpr mapExpr)
 )*
;

includeExpr
options {k=2;} // prevent full LL(*), which fails, falling back on k=1; need k=2
 : {Compiler.funcs.containsKey(input.LT(1).getText())}? // predefined function
  ID '(' expr? ')'      -> ^(EXEC_FUNC ID expr?)
 | 'super' '.' ID '(' args ')'    -> ^(INCLUDE_SUPER ID args?)
 | qualifiedId '(' args ')'    -> ^(INCLUDE qualifiedId args?)
 | '@' 'super' '.' ID '(' rp=')'   -> ^(INCLUDE_SUPER_REGION ID)
 | '@' ID '(' rp=')'      -> ^(INCLUDE_REGION ID)
 | primary
 ;

primary
 : ID
 | STRING
 | TRUE
 | FALSE
 | subtemplate
 | list
 | {$conditional.size()>0}?=>  '('! conditional ')'!
 | {$conditional.size()==0}?=> lp='(' expr ')'
  ( '(' argExprList? ')'          -> ^(INCLUDE_IND[$lp] expr argExprList?)
  |          -> ^(TO_STR[$lp] expr)
  )
 ;

qualifiedId
 : ( ID         -> ID
  | '/' ID        -> ^('/' ID)
  )
  ( '/' r=ID       -> ^('/' $qualifiedId $r)
  )*
 ;

args: argExprList
 | namedArg ( ',' namedArg )* (',' '...')? -> namedArg+ '...'?
   |   '...'
 |
 ;

argExprList : arg ( ',' arg )* -> arg+ ;

arg : exprNoComma ;
```

```
namedArg : ID '=' arg -> ^('=' ID arg) ;

list: {input.LA(2)==RBRACK}? // hush warning; [] special case
  lb='[' ']' -> LIST[$lb]
 | lb='[' listElement ( ',' listElement )* ']' -> ^(LIST[$lb] listElement*)
 ;

listElement : exprNoComma | -> NULL ;
```

Found in path(s):
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/compiler/STParser.g
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*/
```

Found in path(s):
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/misc/AmbiguousMatchException.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/misc/TypeRegistry.java

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*/
```

Found in path(s):

```
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/InstanceScope.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/misc/Aggregate.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/misc/STCompiletimeMessage.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/gui/JTreeScopeStackModel.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/misc/STGroupCompiletimeMessage.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/misc/STNoSuchPropertyException.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/debug/InterpEvent.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/ModelAdaptor.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
```

jar/org/stringtemplate/v4/misc/STRuntimeMessage.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/debug/AddAttributeEvent.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/debug/ConstructionEvent.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/compiler/CompilationState.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/compiler/FormalArgument.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/gui/JTreeSTModel.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/Interpreter.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/misc/STModelAdaptor.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/misc/Interval.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/compiler/STLexer.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/misc/ErrorManager.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/StringRenderer.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/compiler/GroupLexer.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/NumberRenderer.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/compiler/GroupParser.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/misc/ErrorType.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/misc/STLexerMessage.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/compiler/STException.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/NoIndentWriter.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/STGroupFile.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/STGroup.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/misc/ArrayIterator.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/misc/MultiMap.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/STGroupDir.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/compiler/StringTable.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-

jar/org/stringtemplate/v4/compiler/CodeGenerator.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/compiler/Bytecode.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/misc/STNoSuchAttributeException.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/AutoIndentWriter.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/compiler/CompiledST.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/debug/EvalTemplateEvent.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/misc/AggregateModelAdaptor.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/DateRenderer.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/misc/Misc.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/misc/STMessage.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/misc/MapModelAdaptor.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/misc/ObjectModelAdaptor.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/ST.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/misc/Coordinate.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/misc/ErrorBuffer.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/compiler/Compiler.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/debug/IndentEvent.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/STErrorListener.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/STWriter.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/debug/EvalExprEvent.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/gui/JTreeASTModel.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/gui/STViz.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/AttributeRenderer.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/gui/STViewFrame.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/compiler/BytecodeDisassembler.java
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-
jar/org/stringtemplate/v4/STGroupString.java

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*/
grammar Group;

options {
 language=Java;
}

tokens {
 TRUE='true'; FALSE='false'; LBRACK='['; RBRACK=']';
}

@header {
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*/
package org.stringtemplate.v4.compiler;

import java.util.Collections;
import java.util.Map;
import java.util.LinkedHashMap;
import java.util.List;
import java.util.ArrayList;
import org.stringtemplate.v4.misc.*;
import org.stringtemplate.v4.*;
import java.io.File;
}

@lexer::header {
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```

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*/
package org.stringtemplate.v4.compiler;
import org.stringtemplate.v4.*;
import org.stringtemplate.v4.misc.*;
import java.io.File;
}

@members {
public STGroup group;

@Override
public void displayRecognitionError(String[] tokenNames,
                                    RecognitionException e)
{
  String msg = getErrorMessage(e, tokenNames);
  group.errMgr.groupSyntaxError(ErrorType.SYNTAX_ERROR, getSourceName(), e, msg);
}
@Override
public String getSourceName() {
  String fullFileName = super.getSourceName();
  File f = new File(fullFileName); // strip to simple name
  return f.getName();
}
public void error(String msg) {
  NoViableAltException e = new NoViableAltException("", 0, 0, input);
  group.errMgr.groupSyntaxError(ErrorType.SYNTAX_ERROR, getSourceName(), e, msg);
  recover(input, null);
}

public void addArgument(List<FormalArgument> args, Token t, Token defaultValueToken) {
 String name = t.getText();
 for (FormalArgument arg : args) {
  if (arg.name.equals(name)) {
   group.errMgr.compileTimeError(ErrorType.PARAMETER_REDEFINITION, null, t, name);
   return;
  }
 }
```

```
 args.add(new FormalArgument(name, defaultValueToken));
}
}

@lexer::members {
public STGroup group;

@Override
public void reportError(RecognitionException e) {
  String msg = null;
  if ( e instanceof NoViableAltException ) {
     msg = "invalid character '"+(char)input.LA(1)+"'";
  }
  else if ( e instanceof MismatchedTokenException && ((MismatchedTokenException)e).expecting=="" ) {
     msg = "unterminated string";
  }
  else {
     msg = getErrorMessage(e, getTokenNames());
  }
  group.errMgr.groupSyntaxError(ErrorType.SYNTAX_ERROR, getSourceName(), e, msg);
}
@Override
public String getSourceName() {
  String fullFileName = super.getSourceName();
  File f = new File(fullFileName); // strip to simple name
  return f.getName();
}
}

group[STGroup group, String prefix]
@init {
GroupLexer lexer = (GroupLexer)input.getTokenSource();
this.group = lexer.group = $group;
}
 : oldStyleHeader?
  delimiters?
    ( 'import' STRING {group.importTemplates($STRING);}
  | 'import' // common error: name not in string
   {
   MismatchedTokenException e = new MismatchedTokenException(STRING, input);
   reportError(e);
   }
   ID ('.' ID)* // might be a.b.c.d
  )*
  def[prefix]*
  EOF
 ;
```

```
oldStyleHeader // ignore but lets us use this parser in AW for both v3 and v4
  :   'group' ID ( ':' ID )?
    ( 'implements' ID (',' ID)* )?
    ';'
 ;

groupName returns [String name]
@init {StringBuilder buf = new StringBuilder();}
 : a=ID {buf.append($a.text);} ('.' a=ID {buf.append($a.text);})*
 ;

delimiters
  : 'delimiters' a=STRING ',' b=STRING
    {
  boolean supported = true;
  char startCharacter = $a.getText().charAt(1);
  if (STGroup.isReservedCharacter(startCharacter)) {
   group.errMgr.compileTimeError(ErrorType.UNSUPPORTED_DELIMITER, null, $a,
String.valueOf(startCharacter));
   supported = false;
  }

  char stopCharacter = $b.getText().charAt(1);
  if (STGroup.isReservedCharacter(stopCharacter)) {
   group.errMgr.compileTimeError(ErrorType.UNSUPPORTED_DELIMITER, null, $b,
String.valueOf(stopCharacter));
   supported = false;
  }

  if (supported) {
   group.delimiterStartChar=$a.getText().charAt(1);
   group.delimiterStopChar=$b.getText().charAt(1);
  }
      }
  ;

/** Match template and dictionary defs outside of (...)+ loop in group.
*  The key is catching while still in the loop; must keep prediction of
*  elements separate from "stay in loop" prediction.
*/
def[String prefix] : templateDef[prefix] | dictDef ;
 catch[RecognitionException re] {
  // pretend we already saw an error here
  state.lastErrorIndex = input.index();
  error("garbled template definition starting at '"+input.LT(1).getText()+"'");
 }

templateDef[String prefix]
```

```
@init {
  String template=null;
  int n=0; // num char to strip from left, right of template def
}
 : ( '@' enclosing=ID '.' name=ID '(' ')'
  | name=ID '(' formalArgs ')'
  )
    '::='
    {Token templateToken = input.LT(1);}
    ( STRING     {template=$STRING.text; n=1;}
    | BIGSTRING  {template=$BIGSTRING.text; n=2;}
    | BIGSTRING_NO_NL  {template=$BIGSTRING_NO_NL.text; n=2;}
    | {
     template = "";
     String msg = "missing template at '"+input.LT(1).getText()+"'";
         NoViableAltException e = new NoViableAltException("", 0, 0, input);
       group.errMgr.groupSyntaxError(ErrorType.SYNTAX_ERROR, getSourceName(), e, msg);
       }
    )
    {
    if ( $name.index >= 0 ) { // if ID missing
  template = Misc.strip(template, n);
  String templateName = $name.text;
  if ( prefix.length()>0 ) templateName = prefix+$name.text;
  String enclosingTemplateName = $enclosing.text;
  if (enclosingTemplateName != null && enclosingTemplateName.length()>0 && prefix.length()>0) {
   enclosingTemplateName = prefix + enclosingTemplateName;
  }
  group.defineTemplateOrRegion(templateName, enclosingTemplateName, templateToken,
        template, $name, $formalArgs.args);
 }
    }
|   alias=ID '::=' target=ID  {group.defineTemplateAlias($alias, $target);}
;

formalArgs returns[List<FormalArgument> args = new ArrayList<FormalArgument>()]
scope {
 boolean hasOptionalParameter;
}
@init { $formalArgs::hasOptionalParameter = false; }
 : formalArg[$args] (',' formalArg[$args])*
 |
 ;

formalArg[List<FormalArgument> args]
 : ID
  ( '=' a=(STRING|ANONYMOUS_TEMPLATE|'true'|'false') {$formalArgs::hasOptionalParameter = true;}
  | '=' a='[' ']' {$formalArgs::hasOptionalParameter = true;}
```

```
 | {
  if ($formalArgs::hasOptionalParameter) {
   group.errMgr.compileTimeError(ErrorType.REQUIRED_PARAMETER_AFTER_OPTIONAL,
           null, $ID);
  }
  }
 )
  {addArgument($args, $ID, $a);}
  ;

/*
suffix returns [int cardinality=FormalArgument.REQUIRED]
  :  OPTIONAL
  |  STAR
  |  PLUS
|
  ;
     */

dictDef
 : ID '::=' dict
      {
      if ( group.rawGetDictionary($ID.text)!=null ) {
  group.errMgr.compileTimeError(ErrorType.MAP_REDEFINITION, null, $ID);
      }
      else if ( group.rawGetTemplate($ID.text)!=null ) {
  group.errMgr.compileTimeError(ErrorType.TEMPLATE_REDEFINITION_AS_MAP, null, $ID);
      }
      else {
         group.defineDictionary($ID.text, $dict.mapping);
      }
      }
 ;

dict returns [Map<String,Object> mapping]
@init {mapping=new LinkedHashMap<String,Object>();}
 :  '[' dictPairs[mapping] ']'
 ;

dictPairs[Map<String,Object> mapping]
  : keyValuePair[mapping]
   (',' keyValuePair[mapping])* (',' defaultValuePair[mapping])?
  | defaultValuePair[mapping]
  ;
 catch[RecognitionException re] {
  error("missing dictionary entry at '"+input.LT(1).getText()+"'");
 }
```

```
defaultValuePair[Map<String,Object> mapping]
 : 'default' ':' keyValue {mapping.put(STGroup.DEFAULT_KEY, $keyValue.value);}
 ;

keyValuePair[Map<String,Object> mapping]
 : STRING ':' keyValue {mapping.put(Misc.replaceEscapes(Misc.strip($STRING.text, 1)), $keyValue.value);}
 ;

keyValue returns [Object value]
 : BIGSTRING   {$value = group.createSingleton($BIGSTRING);}
 | BIGSTRING_NO_NL  {$value = group.createSingleton($BIGSTRING_NO_NL);}
 | ANONYMOUS_TEMPLATE {$value = group.createSingleton($ANONYMOUS_TEMPLATE);}
 | STRING    {$value = Misc.replaceEscapes(Misc.strip($STRING.text, 1));}
 | TRUE    {$value = true;}
 | FALSE    {$value = false;}
 | '[' ']'    {$value = Collections.emptyList();}
 | {input.LT(1).getText().equals("key")}?=> ID
      {$value = STGroup.DICT_KEY;}
 ;
 catch[RecognitionException re] {
  error("missing value for key at '"+input.LT(1).getText()+"'");
 }

ID : ('a'..'z'|'A'..'Z'|'_') ('a'..'z'|'A'..'Z'|'0'..'9'|'-'|'_')*
 ;

STRING
 : ""
  ( '\\' ""
  | '\\' ~""
  | {
   String msg = "\\n in string";
     NoViableAltException e = new NoViableAltException("", 0, 0, input);
   group.errMgr.groupLexerError(ErrorType.SYNTAX_ERROR, getSourceName(), e, msg);
   }
   '\n'
  | ~('\\'|'"'|'\n')
  )*
  ""
      {
      String txt = getText().replaceAll("\\\\\"","\"");
  setText(txt);
  }
 ;

BIGSTRING_NO_NL // same as BIGSTRING but means ignore newlines later
 : '<%' ( . )* '%>'
      // %\> is the escape to avoid end of string
```

```
    {
    String txt = getText().replaceAll("\%\\\>","\%>");
 setText(txt);
 }
;

/** Match <<...>> but also allow <<..<x>>> so we can have tag on end.
  Escapes: >\> means >> inside of <<...>>.
  Escapes: \>> means >> inside of <<...>> unless at end like <<...\>>>>.
  In that case, use <%..>>%> instead.
*/
BIGSTRING
 : '<<'
 ( options {greedy=false;}
 : '\\' '>'  // \> escape
 | '\\' ~'>' // allow this but don't collapse in action
 | ~'\\'
 )*
    '>>'
    {
    String txt = getText();
    txt = Misc.replaceEscapedRightAngle(txt); // replace \> with > unless <\\>
 setText(txt);
 }
;

ANONYMOUS_TEMPLATE
  : '{'
   {
 Token templateToken = new CommonToken(input, ANONYMOUS_TEMPLATE, 0, getCharIndex(),
getCharIndex());
 STLexer lexer =
  new STLexer(group.errMgr, input, templateToken, group.delimiterStartChar, group.delimiterStopChar);
 lexer.subtemplateDepth = 1;
 Token t = lexer.nextToken();
 while ( lexer.subtemplateDepth>=1 || t.getType()!=STLexer.RCURLY ) {
  if ( t.getType()==STLexer.EOF_TYPE ) {
        MismatchedTokenException e = new MismatchedTokenException('}', input);
   String msg = "missing final '}' in {...} anonymous template";
     group.errMgr.groupLexerError(ErrorType.SYNTAX_ERROR, getSourceName(), e, msg);
   break;
  }
  t = lexer.nextToken();
 }
 }
   // don't match '}' here; our little {...} scanner loop matches it
   // to terminate.
  ;
```

```
COMMENT
   :   '/*' ( options {greedy=false;} : . )* '*/' {skip();}
   ;

LINE_COMMENT
   : '//' ~('\n'|'\r')* '\r'? '\n' {skip();}
   ;

WS  : (' '|'\r'|'\t'|'\n') {skip();} ;
```

Found in path(s):
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/compiler/Group.g
No license file was found, but licenses were detected in source scan.

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*/

tree grammar CodeGenerator;

options {
 language=Java;
```

```
 tokenVocab=STParser;
 ASTLabelType=CommonTree;
}

@header {
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*/
package org.stringtemplate.v4.compiler;
import org.stringtemplate.v4.misc.*;
import org.stringtemplate.v4.*;
}

@members {
 String outermostTemplateName; // name of overall template
 CompiledST outermostImpl;
 Token templateToken;   // overall template token
 String template;      // overall template text
 ErrorManager errMgr;
 public CodeGenerator(TreeNodeStream input, ErrorManager errMgr, String name, String template, Token
templateToken) {
  this(input, new RecognizerSharedState());
  this.errMgr = errMgr;
  this.outermostTemplateName = name;
```

```
 this.template = template;
 this.templateToken = templateToken;
}

public void addArgument(List<FormalArgument> args, Token t) {
 String name = t.getText();
 for (FormalArgument arg : args) {
  if (arg.name.equals(name)) {
   errMgr.compileTimeError(ErrorType.PARAMETER_REDEFINITION, templateToken, t, name);
   return;
  }
 }

 args.add(new FormalArgument(name));
}

// convience funcs to hide offensive sending of emit messages to
// CompilationState temp data object.

public void emit1(CommonTree opAST, short opcode, int arg) {
 $template::state.emit1(opAST, opcode, arg);
}
public void emit1(CommonTree opAST, short opcode, String arg) {
 $template::state.emit1(opAST, opcode, arg);
}
public void emit2(CommonTree opAST, short opcode, int arg, int arg2) {
 $template::state.emit2(opAST, opcode, arg, arg2);
}
public void emit2(CommonTree opAST, short opcode, String s, int arg2) {
 $template::state.emit2(opAST, opcode, s, arg2);
}
  public void emit(CommonTree opAST, short opcode) {
 $template::state.emit(opAST, opcode);
}
public void insert(int addr, short opcode, String s) {
 $template::state.insert(addr, opcode, s);
}
public void setOption(CommonTree id) {
 $template::state.setOption(id);
}
public void write(int addr, short value) {
 $template::state.write(addr,value);
}
public int address() { return $template::state.ip; }
public void func(CommonTree id) { $template::state.func(templateToken, id); }
public void refAttr(CommonTree id) { $template::state.refAttr(templateToken, id); }
public int defineString(String s) { return $template::state.defineString(s); }
```

```
 @Override
 public void displayRecognitionError(String[] tokenNames, RecognitionException e) {
  Token tokenWithPosition = e.token;
  if (tokenWithPosition.getInputStream() == null) {
   tokenWithPosition = input.getTreeAdaptor().getToken(input.LT(-1));
  }

  String hdr = getErrorHeader(e);
  String msg = getErrorMessage(e, tokenNames);
  errMgr.compileTimeError(ErrorType.SYNTAX_ERROR, templateToken, tokenWithPosition, hdr + " " + msg);
 }
}

templateAndEOF : template[null,null] EOF; // hush warning; ignore

template[String name, List<FormalArgument> args] returns [CompiledST impl]
scope {
   CompilationState state; // automatically get a new state pointer per invocation
}
@init {
 $template::state = new CompilationState(errMgr, name, input.getTokenStream());
 $impl = $template::state.impl;
 if ( $template.size() == 1 ) outermostImpl = $impl;
 $impl.defineFormalArgs($args); // make sure args are defined prior to compilation
 if ( name!=null && name.startsWith(Compiler.SUBTEMPLATE_PREFIX) ) {
     $impl.addArg(new FormalArgument("i"));
     $impl.addArg(new FormalArgument("i0"));
   }
 $impl.template = template; // always forget the entire template; char indexes are relative to it
}
 : chunk
  { // finish off the CompiledST result
      if ( $template::state.stringtable!=null ) $impl.strings = $template::state.stringtable.toArray();
      $impl.codeSize = $template::state.ip;
  }
 ;

chunk
 : element*
 ;

element
 : ^(INDENTED_EXPR INDENT compoundElement[$INDENT]) // ignore indent in front of IF and region blocks
 | compoundElement[null]
 | ^(INDENTED_EXPR INDENT {$template::state.indent($INDENT);} singleElement?
{$template::state.emit(Bytecode.INSTR_DEDENT);})
 | singleElement
 ;
```

```
singleElement
 : exprElement
 | TEXT
  {
  if ( $TEXT.text.length()>0 ) {
   emit1($TEXT,Bytecode.INSTR_WRITE_STR, $TEXT.text);
  }
  }

 | NEWLINE {emit($NEWLINE, Bytecode.INSTR_NEWLINE);}
 ;

compoundElement[CommonTree indent]
 : ifstat[indent]
 | region[indent]
 ;

exprElement
@init { short op = Bytecode.INSTR_WRITE; }
 : ^( EXPR expr (exprOptions {op=Bytecode.INSTR_WRITE_OPT;})? )
  {
  /*
  CompilationState state = $template::state;
  CompiledST impl = state.impl;
  if ( impl.instrs[state.ip-1] == Bytecode.INSTR_LOAD_LOCAL ) {
   impl.instrs[state.ip-1] = Bytecode.INSTR_WRITE_LOCAL;
  }
  else {
   emit($EXPR, op);
  }
  */
  emit($EXPR, op);
  }
 ;

region[CommonTree indent] returns [String name]
@init {
 if ( indent!=null ) $template::state.indent(indent);
}
@after {
 if ( indent!=null ) $template::state.emit(Bytecode.INSTR_DEDENT);
}
 : ^( REGION ID
   {$name = STGroup.getMangledRegionName(outermostTemplateName, $ID.text);}
   template[$name,null]
   {
   CompiledST sub = $template.impl;
```

```
        sub.isRegion = true;
        sub.regionDefType = ST.RegionType.EMBEDDED;
        sub.templateDefStartToken = $ID.token;
   //sub.dump();
   outermostImpl.addImplicitlyDefinedTemplate(sub);
   emit2($start, Bytecode.INSTR_NEW, $region.name, 0);
   emit($start, Bytecode.INSTR_WRITE);
   }
   )
 ;

subtemplate returns [String name, int nargs]
@init {
   $name = Compiler.getNewSubtemplateName();
 List<FormalArgument> args = new ArrayList<FormalArgument>();
}
 : ^( SUBTEMPLATE
   (^(ARGS (ID {addArgument(args, $ID.token);})+))*
   {$nargs = args.size();}
   template[$name,args]
   {
   CompiledST sub = $template.impl;
   sub.isAnonSubtemplate = true;
        sub.templateDefStartToken = $SUBTEMPLATE.token;
          sub.ast = $SUBTEMPLATE;
          sub.ast.setUnknownTokenBoundaries();
          sub.tokens = input.getTokenStream();
   //sub.dump();
   outermostImpl.addImplicitlyDefinedTemplate(sub);
   }
   )
 | SUBTEMPLATE // {}
   {
   CompiledST sub = new CompiledST();
   sub.name = $name;
   sub.template = "";
   sub.addArg(new FormalArgument("i"));
   sub.addArg(new FormalArgument("i0"));
   sub.isAnonSubtemplate = true;
        sub.templateDefStartToken = $SUBTEMPLATE.token;
          sub.ast = $SUBTEMPLATE;
          sub.ast.setUnknownTokenBoundaries();
          sub.tokens = input.getTokenStream();
   //sub.dump();
   outermostImpl.addImplicitlyDefinedTemplate(sub);
   }
 ;
```

```
ifstat[CommonTree indent]
@init {
  /** Tracks address of branch operand (in code block).  It's how
   *  we backpatch forward references when generating code for IFs.
   */
  int prevBranchOperand = -1;
  /** Branch instruction operands that are forward refs to end of IF.
   *  We need to update them once we see the endif.
   */
  List<Integer> endRefs = new ArrayList<Integer>();
  if ( indent!=null ) $template::state.indent(indent);
}
@after {
 if ( indent!=null ) $template::state.emit(Bytecode.INSTR_DEDENT);
}
 : ^( i='if' conditional
   {
        prevBranchOperand = address()+1;
        emit1($i,Bytecode.INSTR_BRF, -1); // write placeholder as branch target
   }
   chunk
   ( ^(eif='elseif'
    {
    endRefs.add(address()+1);
    emit1($eif,Bytecode.INSTR_BR, -1); // br end
    // update previous branch instruction
    write(prevBranchOperand, (short)address());
    prevBranchOperand = -1;
    }
    ec=conditional
    {
         prevBranchOperand = address()+1;
         // write placeholder as branch target
         emit1($ec.start, Bytecode.INSTR_BRF, -1);
    }
    chunk
    )
   )*
   ( ^( el='else'
     {
    endRefs.add(address()+1);
    emit1($el, Bytecode.INSTR_BR, -1); // br end
    // update previous branch instruction
    write(prevBranchOperand, (short)address());
    prevBranchOperand = -1;
    }
    chunk
    )
```

```
  )?
  )
  {
  if ( prevBranchOperand>=0 ) {
   write(prevBranchOperand, (short)address());
  }
      for (int opnd : endRefs) write(opnd, (short)address());
  }
 ;

conditional
 : ^(OR conditional conditional)  {emit($OR, Bytecode.INSTR_OR);}
 | ^(AND conditional conditional)  {emit($AND, Bytecode.INSTR_AND);}
 | ^(BANG conditional)     {emit($BANG, Bytecode.INSTR_NOT);}
 | expr // not all expr are valid, but reuse code gen (parser restricts syntax)
 ;

exprOptions : {emit($start, Bytecode.INSTR_OPTIONS);} ^(OPTIONS option*) ;

option : ^('=' ID expr) {setOption($ID);} ;

expr
@init {int nt = 0, ne = 0;}
 : ^(ZIP ^(ELEMENTS (expr {ne++;})+) mapTemplateRef[ne])
  {emit1($ZIP, Bytecode.INSTR_ZIP_MAP, ne);}
 | ^(MAP expr (mapTemplateRef[1] {nt++;})+)
  {
  if ( nt>1 ) emit1($MAP, nt>1?Bytecode.INSTR_ROT_MAP:Bytecode.INSTR_MAP, nt);
  else emit($MAP, Bytecode.INSTR_MAP);
  }
 | prop
 | includeExpr
 ;

prop: ^(PROP expr ID)      {emit1($PROP, Bytecode.INSTR_LOAD_PROP, $ID.text);}
 | ^(PROP_IND expr expr)    {emit($PROP_IND, Bytecode.INSTR_LOAD_PROP_IND);}
 ;

mapTemplateRef[int num_exprs]
 : ^( INCLUDE qualifiedId
   {for (int i=1; i<=$num_exprs; i++) emit($INCLUDE,Bytecode.INSTR_NULL);}
   args
  )
  {
  if ( $args.passThru ) emit1($start, Bytecode.INSTR_PASSTHRU, $qualifiedId.text);
  if ( $args.namedArgs ) emit1($INCLUDE, Bytecode.INSTR_NEW_BOX_ARGS, $qualifiedId.text);
  else emit2($INCLUDE, Bytecode.INSTR_NEW, $qualifiedId.text, $args.n+$num_exprs);
  }
```

```
| subtemplate
 {
 if ( $subtemplate.nargs != $num_exprs ) {
        errMgr.compileTimeError(ErrorType.ANON_ARGUMENT_MISMATCH,
            templateToken, $subtemplate.start.token, $subtemplate.nargs, $num_exprs);
 }
 for (int i=1; i<=$num_exprs; i++) emit($subtemplate.start,Bytecode.INSTR_NULL);
     emit2($subtemplate.start, Bytecode.INSTR_NEW,
           $subtemplate.name,
           $num_exprs);
 }

| ^( INCLUDE_IND expr
  {
  emit($INCLUDE_IND,Bytecode.INSTR_TOSTR);
  for (int i=1; i<=$num_exprs; i++) emit($INCLUDE_IND,Bytecode.INSTR_NULL);
  }
  args
  {
  emit1($INCLUDE_IND, Bytecode.INSTR_NEW_IND, $args.n+$num_exprs);
  }
  )
;

includeExpr
 : ^(EXEC_FUNC ID expr?)  {func($ID);}
 | ^(INCLUDE qualifiedId args)
  {
  if ( $args.passThru ) emit1($start, Bytecode.INSTR_PASSTHRU, $qualifiedId.text);
  if ( $args.namedArgs ) emit1($INCLUDE, Bytecode.INSTR_NEW_BOX_ARGS, $qualifiedId.text);
  else emit2($INCLUDE, Bytecode.INSTR_NEW, $qualifiedId.text, $args.n);
  }
 | ^(INCLUDE_SUPER ID args)
  {
  if ( $args.passThru ) emit1($start, Bytecode.INSTR_PASSTHRU, $ID.text);
  if ( $args.namedArgs ) emit1($INCLUDE_SUPER, Bytecode.INSTR_SUPER_NEW_BOX_ARGS, $ID.text);
  else emit2($INCLUDE_SUPER, Bytecode.INSTR_SUPER_NEW, $ID.text, $args.n);
  }
 | ^(INCLUDE_REGION ID)  {
        CompiledST impl =
         Compiler.defineBlankRegion(outermostImpl, $ID.token);
        //impl.dump();
        emit2($INCLUDE_REGION,Bytecode.INSTR_NEW,impl.name,0);
        }
 | ^(INCLUDE_SUPER_REGION ID) {
                        String mangled =
                           STGroup.getMangledRegionName(outermostImpl.name, $ID.text);
        emit2($INCLUDE_SUPER_REGION,Bytecode.INSTR_SUPER_NEW,mangled,0);
```

```
        }
 | primary
 ;

primary
 : ID    {refAttr($ID);}
 | STRING   {emit1($STRING,Bytecode.INSTR_LOAD_STR, Misc.strip($STRING.text,1));}
 | TRUE   {emit($TRUE, Bytecode.INSTR_TRUE);}
 | FALSE   {emit($FALSE, Bytecode.INSTR_FALSE);}
 | subtemplate  // push a subtemplate but ignore args since we can't pass any to it here
                {emit2($start,Bytecode.INSTR_NEW, $subtemplate.name, 0);}
 | list
 | ^( INCLUDE_IND
   expr   {emit($INCLUDE_IND, Bytecode.INSTR_TOSTR);}
   args       {emit1($INCLUDE_IND, Bytecode.INSTR_NEW_IND, $args.n);}
   )
 | ^(TO_STR expr) {emit($TO_STR, Bytecode.INSTR_TOSTR);}
 ;

qualifiedId
 : ^(SLASH qualifiedId ID)
 | ^(SLASH ID)
 | ID
 ;

arg : expr ;

args returns [int n=0, boolean namedArgs=false, boolean passThru]
 : ( arg {$n++;} )+
 | {emit($args.start, Bytecode.INSTR_ARGS); $namedArgs=true;}
  ( ^(eq='=' ID expr)
    {$n++; emit1($eq, Bytecode.INSTR_STORE_ARG, defineString($ID.text));}
  )+
  ( '...' {$passThru=true;} )?
   |   '...' {$passThru=true; emit($args.start, Bytecode.INSTR_ARGS); $namedArgs=true;}
 |
 ;

list: {emit($start, Bytecode.INSTR_LIST);}
  ^(LIST (listElement {emit($listElement.start, Bytecode.INSTR_ADD);})* )
 ;

listElement : expr | NULL {emit($NULL,Bytecode.INSTR_NULL);} ;
```

Found in path(s):
* /opt/cola/permits/1574852393_1677244418.008856/0/st4-4-3-4-sources-jar/org/stringtemplate/v4/compiler/CodeGenerator.g

1.33 gmp 6.2.0

1.33.1 Available under license :

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Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

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0. This License Agreement applies to any software library which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Library General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has

a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a

medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by

this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined

library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

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the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

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END OF TERMS AND CONDITIONS

Appendix: How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the library's name and a brief idea of what it does.>
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Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your
school, if any, to sign a "copyright disclaimer" for the library, if
necessary. Here is a sample; alter the names:

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library `Frob' (a library for tweaking knobs) written by James Random Hacker.

<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

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1.40 libnsl 1.3.0-r0

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[This is the first released version of the Lesser GPL. It also counts
as the successor of the GNU Library Public License, version 2, hence
the version number 2.1.]

Preamble

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This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

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complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

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Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be

allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation

and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square

root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the

source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one

of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

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1.50 bytecode 0.13.0.dev0

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1.51 busybox 1.24.1

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1.52 javassist 3.12.1.GA

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1.53 quartz 2.3.2

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1.54 python-setuptools 67.4.0

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1.55 pkix-ssh 13.5

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- GMP is no longer used, and instead we call BN code from OpenSSL
- Zlib is now external, in a library
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Julian Seward, Cambridge, UK.
jseward@bzip.org
bzip2/libbzip2 version 1.0.4 of 20 December 2006
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1.58 tomcat-dbcp 9.0.74

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1.59 ipykernel 6.15.0

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1.63 systemtap 4.7

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1.64 jcip-annotation 1.0

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Class, field, and method level annotations for describing thread-safety policies.

Three class-level annotations describe the intended thread-safety promises of a class:
<code>@Immutable</code>, <code>@ThreadSafe</code>, and <code>@NotThreadSafe</code>.
<code>@Immutable</code> means that the class is immutable,
and implies <code>@ThreadSafe</code>.
<code>@NotThreadSafe</code> is optional;
if a class is not annotated as thread-safe, it should be presumed not to be
thread-safe, but if you want to make it extra clear, use
<code>@NotThreadSafe</code>.

These annotations are relatively unintrusive and are beneficial to
both users and maintainers. Users can see immediately whether a class
is thread-safe, and maintainers can see immediately whether
thread-safety guarantees must be preserved. Annotations are also
useful to a third constituency: tools. Static code-analysis tools may
be able to verify that the code complies with the contract indicated
by the annotation, such as verifying that a class annotated with
<code>@Immutable</code> actually is immutable.

<h2>Field and method annotations</h2>

The class-level annotations above are part of the public documentation
for the class. Other aspects of a class's thread-safety strategy are
entirely for maintainers and are not part of its public documentation.

Classes that use locking should document which state variables are
guarded with which locks, and which locks are used to guard those
variables. A common source of inadvertent non-thread-safety is when a
thread-safe class consistently uses locking to guard its state, but is
later modified to add either new state variables that are not
adequately guarded by locking, or new methods that do not use locking
properly to guard the existing state variables. Documenting which
variables are guarded by which locks can help prevent both types of

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The <code>@GuardedBy(lock)</code> annotation documents that a field or method should
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1.65 lucene 8.5.1

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---

core/src/java/org/apache/lucene/util/compress/LZ4.java is a Java
implementation of the LZ4 (https://github.com/lz4/lz4/tree/dev/lib)
compression format for Lucene's DataInput/DataOutput abstractions.

LZ4 Library
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The snowball stemmers in
 analysis/common/src/java/net/sf/snowball
were developed by Martin Porter and Richard Boulton.
The snowball stopword lists in
 analysis/common/src/resources/org/apache/lucene/analysis/snowball
were developed by Martin Porter and Richard Boulton.
The full snowball package is available from
 http://snowball.tartarus.org/

The KStem stemmer in
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The Arabic,Persian,Romanian,Bulgarian, Hindi and Bengali analyzers (common) come with a default
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analysis/common/src/resources/org/apache/lucene/analysis/ro/stopwords.txt,

analysis/common/src/resources/org/apache/lucene/analysis/bg/stopwords.txt,
analysis/common/src/resources/org/apache/lucene/analysis/hi/stopwords.txt,
analysis/common/src/resources/org/apache/lucene/analysis/bn/stopwords.txt
See http://members.unine.ch/jacques.savoy/clef/index.html.

The German,Spanish,Finnish,French,Hungarian,Italian,Portuguese,Russian and Swedish light stemmers (common) are based on BSD-licensed reference implementations created by Jacques Savoy and Ljiljana Dolamic. These files reside in:
analysis/common/src/java/org/apache/lucene/analysis/de/GermanLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/de/GermanMinimalStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/es/SpanishLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/fi/FinnishLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/fr/FrenchLightStemmer.java
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analysis/common/src/java/org/apache/lucene/analysis/hu/HungarianLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/it/ItalianLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/pt/PortugueseLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/ru/RussianLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/sv/SwedishLightStemmer.java

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The Polish analyzer (stempel) comes with a default stopword list that is BSD-licensed created by the Carrot2 project. The file resides in stempel/src/resources/org/apache/lucene/analysis/pl/stopwords.txt.
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The SmartChineseAnalyzer source code (smartcn) was provided by Xiaoping Gao and copyright 2009 by www.imdict.net.

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==========

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mecab-ipadic-2.7.0-20070801

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or

http://jaist.dl.sourceforge.net/project/mecab/mecab-ipadic/2.7.0-20070801/mecab-ipadic-2.7.0-20070801.tar.gz

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1.66 libjpeg 9b

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```
/*
* jidctint.c
*
* Copyright (C) 1991-1998, Thomas G. Lane.
* Modification developed 2002-2009 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
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*
* This file contains a slow-but-accurate integer implementation of the
* inverse DCT (Discrete Cosine Transform).  In the IJG code, this routine
* must also perform dequantization of the input coefficients.
*
* A 2-D IDCT can be done by 1-D IDCT on each column followed by 1-D IDCT
* on each row (or vice versa, but it's more convenient to emit a row at
* a time).  Direct algorithms are also available, but they are much more
* complex and seem not to be any faster when reduced to code.
*
* This implementation is based on an algorithm described in
*   C. Loeffler, A. Ligtenberg and G. Moschytz, "Practical Fast 1-D DCT
*   Algorithms with 11 Multiplications", Proc. Int'l. Conf. on Acoustics,
*   Speech, and Signal Processing 1989 (ICASSP '89), pp. 988-991.
* The primary algorithm described there uses 11 multiplies and 29 adds.
* We use their alternate method with 12 multiplies and 32 adds.
* The advantage of this method is that no data path contains more than one
* multiplication; this allows a very simple and accurate implementation in
* scaled fixed-point arithmetic, with a minimal number of shifts.
*
* We also provide IDCT routines with various output sample block sizes for
* direct resolution reduction or enlargement without additional resampling:
* NxN (N=1...16) pixels for one 8x8 input DCT block.
*
* For N<8 we simply take the corresponding low-frequency coefficients of
* the 8x8 input DCT block and apply an NxN point IDCT on the sub-block
* to yield the downscaled outputs.
* This can be seen as direct low-pass downsampling from the DCT domain
* point of view rather than the usual spatial domain point of view,
* yielding significant computational savings and results at least
* as good as common bilinear (averaging) spatial downsampling.
*
* For N>8 we apply a partial NxN IDCT on the 8 input coefficients as
* lower frequencies and higher frequencies assumed to be zero.
```

* It turns out that the computational effort is similar to the 8x8 IDCT
* regarding the output size.
* Furthermore, the scaling and descaling is the same for all IDCT sizes.
*
* CAUTION: We rely on the FIX() macro except for the N=1,2,4,8 cases
* since there would be too many additional constants to pre-calculate.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jidctint.c
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/*
* jsimd.h
*
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* Copyright 2011 D. R. Commander
*
* Based on the x86 SIMD extension for IJG JPEG library,
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*
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jsimd.h
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*
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*
* This file contains 2-pass color quantization (color mapping) routines.
* These routines provide selection of a custom color map for an image,
* followed by mapping of the image to that color map, with optional
* Floyd-Steinberg dithering.
* It is also possible to use just the second pass to map to an arbitrary
* externally-given color map.
*
* Note: ordered dithering is not supported, since there isn't any fast
* way to compute intercolor distances; it's unclear that ordered dither's

* fundamental assumptions even hold with an irregularly spaced color map.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jquant2.c
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Since numerous people will be contributing code and bug fixes, it's important
to establish a common coding style. The goal of using similar coding styles
is much more important than the details of just what that style is.

In general we follow the recommendations of "Recommended C Style and Coding
Standards" revision 6.1 (Cannon et al. as modified by Spencer, Keppel and
Brader). This document is available in the IJG FTP archive (see
jpeg/doc/cstyle.ms.tbl.Z, or cstyle.txt.Z for those without nroff/tbl).

Block comments should be laid out thusly:

```
/*
*  Block comments in this style.
*/
```

We indent statements in K&R style, e.g.,
```
 if (test) {
   then-part;
 } else {
   else-part;
 }
```
with two spaces per indentation level. (This indentation convention is
handled automatically by GNU Emacs and many other text editors.)

Multi-word names should be written in lower case with underscores, e.g.,
multi_word_name (not multiWordName). Preprocessor symbols and enum constants
are similar but upper case (MULTI_WORD_NAME). Names should be unique within
the first fifteen characters. (On some older systems, global names must be
unique within six characters. We accommodate this without cluttering the
source code by using macros to substitute shorter names.)

We use function prototypes everywhere; we rely on automatic source code
transformation to feed prototype-less C compilers. Transformation is done

by the simple and portable tool 'ansi2knr.c' (courtesy of Ghostscript).
ansi2knr is not very bright, so it imposes a format requirement on function
declarations: the function name MUST BEGIN IN COLUMN 1. Thus all functions
should be written in the following style:

```
LOCAL(int *)
function_name (int a, char *b)
{
  code...
}
```

Note that each function definition must begin with GLOBAL(type), LOCAL(type),
or METHODDEF(type). These macros expand to "static type" or just "type" as
appropriate. They provide a readable indication of the routine's usage and
can readily be changed for special needs. (For instance, special linkage
keywords can be inserted for use in Windows DLLs.)

ansi2knr does not transform method declarations (function pointers in
structs). We handle these with a macro JMETHOD, defined as

```
 #ifdef HAVE_PROTOTYPES
 #define JMETHOD(type,methodname,arglist)  type (*methodname) arglist
 #else
 #define JMETHOD(type,methodname,arglist)  type (*methodname) ()
 #endif
```

which is used like this:

```
 struct function_pointers {
   JMETHOD(void, init_entropy_encoder, (int somearg, jparms *jp));
   JMETHOD(void, term_entropy_encoder, (void));
 };
```

Note the set of parentheses surrounding the parameter list.

A similar solution is used for forward and external function declarations
(see the EXTERN and JPP macros).

If the code is to work on non-ANSI compilers, we cannot rely on a prototype
declaration to coerce actual parameters into the right types. Therefore, use
explicit casts on actual parameters whenever the actual parameter type is not
identical to the formal parameter. Beware of implicit conversions to "int".

It seems there are some non-ANSI compilers in which the sizeof() operator
is defined to return int, yet size_t is defined as long. Needless to say,
this is brain-damaged. Always use the SIZEOF() macro in place of sizeof(),
so that the result is guaranteed to be of type size_t.

The JPEG library is intended to be used within larger programs. Furthermore,
we want it to be reentrant so that it can be used by applications that process
multiple images concurrently. The following rules support these requirements:

1. Avoid direct use of file I/O, "malloc", error report printouts, etc;
pass these through the common routines provided.

2. Minimize global namespace pollution. Functions should be declared static
wherever possible. (Note that our method-based calling conventions help this
a lot: in many modules only the initialization function will ever need to be
called directly, so only that function need be externally visible.) All
global function names should begin with "jpeg_", and should have an
abbreviated name (unique in the first six characters) substituted by macro
when NEED_SHORT_EXTERNAL_NAMES is set.

3. Don't use global variables; anything that must be used in another module
should be in the common data structures.

4. Don't use static variables except for read-only constant tables. Variables
that should be private to a module can be placed into private structures (see
the system architecture document, structure.txt).

5. Source file names should begin with "j" for files that are part of the
library proper; source files that are not part of the library, such as cjpeg.c
and djpeg.c, do not begin with "j". Keep source file names to eight
characters (plus ".c" or ".h", etc) to make life easy for MS-DOSers. Keep
compression and decompression code in separate source files --- some
applications may want only one half of the library.

Note: these rules (particularly #4) are not followed religiously in the
modules that are used in cjpeg/djpeg but are not part of the JPEG library
proper. Those modules are not really intended to be used in other
applications.

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/coderules.txt
No license file was found, but licenses were detected in source scan.

/*
* jmemmgr.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the JPEG system-independent memory management
* routines. This code is usable across a wide variety of machines; most
* of the system dependencies have been isolated in a separate file.
* The major functions provided here are:
*   * pool-based allocation and freeing of memory;

```
*   * policy decisions about how to divide available memory among the
*     virtual arrays;
*   * control logic for swapping virtual arrays between main memory and
*     backing storage.
* The separate system-dependent file provides the actual backing-storage
* access code, and it contains the policy decision about how much total
* main memory to use.
* This file is system-dependent in the sense that some of its functions
* are unnecessary in some systems.  For example, if there is enough virtual
* memory so that backing storage will never be used, much of the virtual
* array control logic could be removed.  (Of course, if you have that much
* memory then you shouldn't care about a little bit of unused code...)
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jmemmgr.c
No license file was found, but licenses were detected in source scan.

```
/*
* jsimd_x86_64.c
*
* Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
* Copyright 2009-2011 D. R. Commander
*
* Based on the x86 SIMD extension for IJG JPEG library,
* Copyright (C) 1999-2006, MIYASAKA Masaru.
* For conditions of distribution and use, see copyright notice in jsimdext.inc
*
* This file contains the interface between the "normal" portions
* of the library and the SIMD implementations when running on a
* x86_64 architecture.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jsimd_x86_64.c
No license file was found, but licenses were detected in source scan.

```
/*
* jfdctflt.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a floating-point implementation of the
* forward DCT (Discrete Cosine Transform).
```

*
* This implementation should be more accurate than either of the integer
* DCT implementations. However, it may not give the same results on all
* machines because of differences in roundoff behavior. Speed will depend
* on the hardware's floating point capacity.
*
* A 2-D DCT can be done by 1-D DCT on each row followed by 1-D DCT
* on each column. Direct algorithms are also available, but they are
* much more complex and seem not to be any faster when reduced to code.
*
* This implementation is based on Arai, Agui, and Nakajima's algorithm for
* scaled DCT. Their original paper (Trans. IEICE E-71(11):1095) is in
* Japanese, but the algorithm is described in the Pennebaker & Mitchell
* JPEG textbook (see REFERENCES section in file README). The following code
* is based directly on figure 4-8 in P&M.
* While an 8-point DCT cannot be done in less than 11 multiplies, it is
* possible to arrange the computation so that many of the multiplies are
* simple scalings of the final outputs. These multiplies can then be
* folded into the multiplications or divisions by the JPEG quantization
* table entries. The AA&N method leaves only 5 multiplies and 29 adds
* to be done in the DCT itself.
* The primary disadvantage of this method is that with a fixed-point
* implementation, accuracy is lost due to imprecise representation of the
* scaled quantization values. However, that problem does not arise if
* we use floating point arithmetic.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jfdctflt.c
No license file was found, but licenses were detected in source scan.

/*
* rdppm.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modified 2009 by Bill Allombert, Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to read input images in PPM/PGM format.
* The extended 2-byte-per-sample raw PPM/PGM formats are supported.
* The PBMPLUS library is NOT required to compile this software
* (but it is highly useful as a set of PPM image manipulation programs).
*
* These routines may need modification for non-Unix environments or
* specialized applications. As they stand, they assume input from
* an ordinary stdio stream. They further assume that reading begins

* at the start of the file; start_input may need work if the
* user interface has already read some data (e.g., to determine that
* the file is indeed PPM format).
*/
/* Portions of this code are based on the PBMPLUS library, which is:
**
** Copyright (C) 1988 by Jef Poskanzer.
**
** Permission to use, copy, modify, and distribute this software and its
** documentation for any purpose and without fee is hereby granted, provided
** that the above copyright notice appear in all copies and that both that
** copyright notice and this permission notice appear in supporting
** documentation. This software is provided "as is" without express or
** implied warranty.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/rdppm.c
No license file was found, but licenses were detected in source scan.

/*
* jpegtran.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1995-2010, Thomas G. Lane, Guido Vollbeding.
* Modifications:
* Copyright (C) 2010, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a command-line user interface for JPEG transcoding.
* It is very similar to cjpeg.c, and partly to djpeg.c, but provides
* lossless transcoding between different JPEG file formats. It also
* provides some lossless and sort-of-lossless transformations of JPEG data.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jpegtran.c
No license file was found, but licenses were detected in source scan.

TurboJPEG Java Wrapper
======================

The TurboJPEG shared library can optionally be built with a Java Native
Interface wrapper, which allows the library to be loaded and used directly from
Java applications. The Java front end for this is defined in several classes
located under org/libjpegturbo/turbojpeg. The source code for these Java

classes is licensed under a BSD-style license, so the files can be incorporated directly into both open source and proprietary projects without restriction. A Java archive (JAR) file containing these classes is also shipped with the "official" distribution packages of libjpeg-turbo.

TJExample.java, which should also be located in the same directory as this README file, demonstrates how to use the TurboJPEG Java API to compress and decompress JPEG images in memory.

Performance Pitfalls

The TurboJPEG Java API defines several convenience methods that can allocate image buffers or instantiate classes to hold the result of compress, decompress, or transform operations. However, if you use these methods, then be mindful of the amount of new data you are creating on the heap. It may be necessary to manually invoke the garbage collector to prevent heap exhaustion or to prevent performance degradation. Background garbage collection can kill performance, particularly in a multi-threaded environment (Java pauses all threads when the GC runs.)

The TurboJPEG Java API always gives you the option of pre-allocating your own source and destination buffers, which allows you to re-use those buffers for compressing/decompressing multiple images. If the image sequence you are compressing or decompressing consists of images of the same size, then pre-allocating the buffers is recommended.

Installation Directory

If the TurboJPEG JNI library (libturbojpeg.so, libturbojpeg.jnilib, or turbojpeg.dll) is not installed under a system library directory or under a directory specified in LD_LIBRARY_PATH (Unix) or PATH (Windows), then you will need to pass an argument of -Djava.library.path={path_to_JNI_library} to java.

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/java/README
No license file was found, but licenses were detected in source scan.

/*
* jmemsys.h
*
* Copyright (C) 1992-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.

```
*
* This include file defines the interface between the system-independent
* and system-dependent portions of the JPEG memory manager.  No other
* modules need include it.  (The system-independent portion is jmemmgr.c;
* there are several different versions of the system-dependent portion.)
*
* This file works as-is for the system-dependent memory managers supplied
* in the IJG distribution.  You may need to modify it if you write a
* custom memory manager.  If system-dependent changes are needed in
* this file, the best method is to #ifdef them based on a configuration
* symbol supplied in jconfig.h, as we have done with USE_MSDOS_MEMMGR
* and USE_MAC_MEMMGR.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jmemsys.h
No license file was found, but licenses were detected in source scan.

```
/*
* rdjpgcom.c
*
* Copyright (C) 1994-1997, Thomas G. Lane.
* Modified 2009 by Bill Allombert, Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a very simple stand-alone application that displays
* the text in COM (comment) markers in a JFIF file.
* This may be useful as an example of the minimum logic needed to parse
* JPEG markers.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/rdjpgcom.c
No license file was found, but licenses were detected in source scan.

```
/*
* jcdctmgr.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modifications:
* Copyright (C) 1999-2006, MIYASAKA Masaru.
* Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
* Copyright (C) 2011 D. R. Commander
* For conditions of distribution and use, see the accompanying README file.
```

*
* This file contains the forward-DCT management logic.
* This code selects a particular DCT implementation to be used,
* and it performs related housekeeping chores including coefficient
* quantization.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jcdctmgr.c
No license file was found, but licenses were detected in source scan.

/*
* jidctred.c
*
* Copyright (C) 1994-1998, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains inverse-DCT routines that produce reduced-size output:
* either 4x4, 2x2, or 1x1 pixels from an 8x8 DCT block.
*
* The implementation is based on the Loeffler, Ligtenberg and Moschytz (LL&M)
* algorithm used in jidctint.c. We simply replace each 8-to-8 1-D IDCT step
* with an 8-to-4 step that produces the four averages of two adjacent outputs
* (or an 8-to-2 step producing two averages of four outputs, for 2x2 output).
* These steps were derived by computing the corresponding values at the end
* of the normal LL&M code, then simplifying as much as possible.
*
* 1x1 is trivial: just take the DC coefficient divided by 8.
*
* See jidctint.c for additional comments.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jidctred.c
No license file was found, but licenses were detected in source scan.

/*
* cderror.h
*
* Copyright (C) 1994-1997, Thomas G. Lane.
* Modified 2009 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file defines the error and message codes for the cjpeg/djpeg

* applications. These strings are not needed as part of the JPEG library
* proper.
* Edit this file to add new codes, or to translate the message strings to
* some other language.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/cderror.h
No license file was found, but licenses were detected in source scan.

/*
* jcarith.c
*
* Developed 1997-2009 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains portable arithmetic entropy encoding routines for JPEG
* (implementing the ISO/IEC IS 10918-1 and CCITT Recommendation ITU-T T.81).
*
* Both sequential and progressive modes are supported in this single module.
*
* Suspension is not currently supported in this module.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jcarith.c
No license file was found, but licenses were detected in source scan.

/*
* jcmainct.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the main buffer controller for compression.
* The main buffer lies between the pre-processor and the JPEG
* compressor proper; it holds downsampled data in the JPEG colorspace.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jcmainct.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdatadst.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2009-2012 by Guido Vollbeding.
* Modifications:
* Copyright (C) 2013, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains compression data destination routines for the case of
* emitting JPEG data to memory or to a file (or any stdio stream).
* While these routines are sufficient for most applications,
* some will want to use a different destination manager.
* IMPORTANT: we assume that fwrite() will correctly transcribe an array of
* JOCTETs into 8-bit-wide elements on external storage.  If char is wider
* than 8 bits on your machine, you may need to do some tweaking.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdatadst.c
No license file was found, but licenses were detected in source scan.

```
/*
* jcmarker.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1998, Thomas G. Lane.
* Modifications:
* Copyright (C) 2010, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to write JPEG datastream markers.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jcmarker.c
No license file was found, but licenses were detected in source scan.

```
;
; jsimdext.inc - common declarations
;
; Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
; Copyright 2010 D. R. Commander
;
; Based on
```

```
; x86 SIMD extension for IJG JPEG library - version 1.02
;
; Copyright (C) 1999-2006, MIYASAKA Masaru.
;
; This software is provided 'as-is', without any express or implied
; warranty.  In no event will the authors be held liable for any damages
; arising from the use of this software.
;
; Permission is granted to anyone to use this software for any purpose,
; including commercial applications, and to alter it and redistribute it
; freely, subject to the following restrictions:
;
; 1. The origin of this software must not be misrepresented; you must not
;    claim that you wrote the original software. If you use this software
;    in a product, an acknowledgment in the product documentation would be
;    appreciated but is not required.
; 2. Altered source versions must be plainly marked as such, and must not be
;    misrepresented as being the original software.
; 3. This notice may not be removed or altered from any source distribution.
;
; [TAB8]

; ==========================================================================
;  System-dependent configurations

%ifdef WIN32 ; ----(nasm -fwin32 -DWIN32 ...)--------
; * Microsoft Visual C++
; * MinGW (Minimalist GNU for Windows)
; * CygWin
; * LCC-Win32

; -- segment definition --
;
%ifdef __YASM_VER__
%define SEG_TEXT    .text  align=16
%define SEG_CONST   .rdata align=16
%else
%define SEG_TEXT    .text  align=16 public use32 class=CODE
%define SEG_CONST   .rdata align=16 public use32 class=CONST
%endif

%elifdef WIN64 ; ----(nasm -fwin64 -DWIN64 ...)--------
; * Microsoft Visual C++

; -- segment definition --
;
%ifdef __YASM_VER__
%define SEG_TEXT    .text  align=16
```

```
%define SEG_CONST   .rdata align=16
%else
%define SEG_TEXT    .text  align=16 public use64 class=CODE
%define SEG_CONST   .rdata align=16 public use64 class=CONST
%endif
%define EXTN(name)  name   ; foo() -> foo

%elifdef OBJ32 ; ----(nasm -fobj -DOBJ32 ...)----------
; * Borland C++ (Win32)

; -- segment definition --
;
%define SEG_TEXT    .text  align=16 public use32 class=CODE
%define SEG_CONST   .data  align=16 public use32 class=DATA

%elifdef ELF ; ----(nasm -felf[64] -DELF ...)------------
; * Linux
; * *BSD family Unix using elf format
; * Unix System V, including Solaris x86, UnixWare and SCO Unix

; mark stack as non-executable
section .note.GNU-stack noalloc noexec nowrite progbits

; -- segment definition --
;
%ifdef __x86_64__
%define SEG_TEXT    .text   progbits align=16
%define SEG_CONST   .rodata progbits align=16
%else
%define SEG_TEXT    .text   progbits alloc exec   nowrite align=16
%define SEG_CONST   .rodata progbits alloc noexec nowrite align=16
%endif

; To make the code position-independent, append -DPIC to the commandline
;
%define GOT_SYMBOL  _GLOBAL_OFFSET_TABLE_ ; ELF supports PIC
%define EXTN(name)  name   ; foo() -> foo

%elifdef AOUT ; ----(nasm -faoutb/aout -DAOUT ...)----
; * Older Linux using a.out format  (nasm -f aout -DAOUT ...)
; * *BSD family Unix using a.out format  (nasm -f aoutb -DAOUT ...)

; -- segment definition --
;
%define SEG_TEXT    .text
%define SEG_CONST   .data

; To make the code position-independent, append -DPIC to the commandline
```

```
;
%define GOT_SYMBOL  __GLOBAL_OFFSET_TABLE_ ; BSD-style a.out supports PIC

%elifdef MACHO ; ----(nasm -fmacho -DMACHO ...)--------
; * NeXTstep/OpenStep/Rhapsody/Darwin/MacOS X (Mach-O format)

; -- segment definition --
;
%define SEG_TEXT    .text  ;align=16 ; nasm doesn't accept align=16. why?
%define SEG_CONST   .rodata align=16

; The generation of position-independent code (PIC) is the default on Darwin.
;
%define PIC
%define GOT_SYMBOL  _MACHO_PIC_  ; Mach-O style code-relative addressing

%else  ; ----(Other case)----------------------

; -- segment definition --
;
%define SEG_TEXT    .text
%define SEG_CONST   .data

%endif ; ------------------------------------------------

; ===========================================================================

; ---------------------------------------------------------------------
;  Common types
;
%ifdef __x86_64__
%define POINTER             qword          ; general pointer type
%define SIZEOF_POINTER          SIZEOF_QWORD    ; sizeof(POINTER)
%define POINTER_BIT             QWORD_BIT       ; sizeof(POINTER)*BYTE_BIT
%else
%define POINTER             dword          ; general pointer type
%define SIZEOF_POINTER          SIZEOF_DWORD    ; sizeof(POINTER)
%define POINTER_BIT             DWORD_BIT       ; sizeof(POINTER)*BYTE_BIT
%endif

%define INT                 dword          ; signed integer type
%define SIZEOF_INT              SIZEOF_DWORD    ; sizeof(INT)
%define INT_BIT             DWORD_BIT       ; sizeof(INT)*BYTE_BIT

%define FP32                dword          ; IEEE754 single
%define SIZEOF_FP32             SIZEOF_DWORD    ; sizeof(FP32)
%define FP32_BIT            DWORD_BIT       ; sizeof(FP32)*BYTE_BIT
```

```
%define MMWORD                  qword          ; int64  (MMX register)
%define SIZEOF_MMWORD           SIZEOF_QWORD    ; sizeof(MMWORD)
%define MMWORD_BIT              QWORD_BIT       ; sizeof(MMWORD)*BYTE_BIT

; NASM is buggy and doesn't properly handle operand sizes for SSE
; instructions, so for now we have to define XMMWORD as blank.
%define XMMWORD                         ; int128 (SSE register)
%define SIZEOF_XMMWORD          SIZEOF_OWORD    ; sizeof(XMMWORD)
%define XMMWORD_BIT             OWORD_BIT       ; sizeof(XMMWORD)*BYTE_BIT

; Similar hacks for when we load a dword or MMWORD into an xmm# register
%define XMM_DWORD
%define XMM_MMWORD

%define SIZEOF_BYTE             1               ; sizeof(BYTE)
%define SIZEOF_WORD             2               ; sizeof(WORD)
%define SIZEOF_DWORD            4               ; sizeof(DWORD)
%define SIZEOF_QWORD            8               ; sizeof(QWORD)
%define SIZEOF_OWORD            16              ; sizeof(OWORD)

%define BYTE_BIT                8               ; CHAR_BIT in C
%define WORD_BIT                16              ; sizeof(WORD)*BYTE_BIT
%define DWORD_BIT               32              ; sizeof(DWORD)*BYTE_BIT
%define QWORD_BIT               64              ; sizeof(QWORD)*BYTE_BIT
%define OWORD_BIT               128             ; sizeof(OWORD)*BYTE_BIT

; ---------------------------------------------------------------------------
;  External Symbol Name
;
%ifndef EXTN
%define EXTN(name)   _ %+ name  ; foo() -> _foo
%endif

; ---------------------------------------------------------------------------
;  Macros for position-independent code (PIC) support
;
%ifndef GOT_SYMBOL
%undef PIC
%endif

%ifdef PIC ; -----------------------------------------

%ifidn GOT_SYMBOL,_MACHO_PIC_ ; --------------------

; At present, nasm doesn't seem to support PIC generation for Mach-O.
; The PIC support code below is a little tricky.

 SECTION SEG_CONST
```

```
const_base:

%define GOTOFF(got,sym) (got) + (sym) - const_base

%imacro get_GOT 1
 ; NOTE: this macro destroys ecx resister.
 call %%geteip
 add ecx, byte (%%ref - $)
 jmp short %%adjust
%%geteip:
 mov ecx, POINTER [esp]
 ret
%%adjust:
 push ebp
 xor ebp,ebp  ; ebp = 0
%ifidni %1,ebx ; (%1 == ebx)
 ; db 0x8D,0x9C + jmp near const_base =
 ;   lea ebx, [ecx+ebp*8+(const_base-%%ref)] ; 8D,9C,E9,(offset32)
 db 0x8D,0x9C  ; 8D,9C
 jmp near const_base  ; E9,(const_base-%%ref)
%%ref:
%else  ; (%1 != ebx)
 ; db 0x8D,0x8C + jmp near const_base =
 ;   lea ecx, [ecx+ebp*8+(const_base-%%ref)] ; 8D,8C,E9,(offset32)
 db 0x8D,0x8C  ; 8D,8C
 jmp near const_base  ; E9,(const_base-%%ref)
%%ref: mov %1, ecx
%endif ; (%1 == ebx)
 pop ebp
%endmacro

%else ; GOT_SYMBOL != _MACHO_PIC_ ----------------

%define GOTOFF(got,sym) (got) + (sym) wrt ..gotoff

%imacro get_GOT 1
 extern GOT_SYMBOL
 call %%geteip
 add %1, GOT_SYMBOL + $$ - $ wrt ..gotpc
 jmp short %%done
%%geteip:
 mov %1, POINTER [esp]
 ret
%%done:
%endmacro

%endif ; GOT_SYMBOL == _MACHO_PIC_ ----------------
```

```
%imacro pushpic 1.nolist
 push %1
%endmacro
%imacro poppic 1.nolist
 pop %1
%endmacro
%imacro movpic 2.nolist
 mov %1,%2
%endmacro

%else ; !PIC -----------------------------------------

%define GOTOFF(got,sym) (sym)

%imacro get_GOT 1.nolist
%endmacro
%imacro pushpic 1.nolist
%endmacro
%imacro poppic 1.nolist
%endmacro
%imacro movpic 2.nolist
%endmacro

%endif ;  PIC -----------------------------------------

; ---------------------------------------------------------------------------
;  Align the next instruction on {2,4,8,16,..}-byte boundary.
;  ".balign n,,m" in GNU as
;
%define MSKLE(x,y)  (~(((y) & 0xFFFF) - ((x) & 0xFFFF)) >> 16)
%define FILLB(b,n)  (($$-(b)) & ((n)-1))

%imacro alignx 1-2.nolist 0xFFFF
%%bs: times MSKLE(FILLB(%%bs,%1),%2) & MSKLE(16,FILLB($,%1)) & FILLB($,%1) \
      db 0x90                         ; nop
 times MSKLE(FILLB(%%bs,%1),%2) & FILLB($,%1)/9 \
      db 0x8D,0x9C,0x23,0x00,0x00,0x00,0x00 ; lea ebx,[ebx+0x00000000]
 times MSKLE(FILLB(%%bs,%1),%2) & FILLB($,%1)/7 \
      db 0x8D,0xAC,0x25,0x00,0x00,0x00,0x00 ; lea ebp,[ebp+0x00000000]
 times MSKLE(FILLB(%%bs,%1),%2) & FILLB($,%1)/6 \
      db 0x8D,0xAD,0x00,0x00,0x00,0x00      ; lea ebp,[ebp+0x00000000]
 times MSKLE(FILLB(%%bs,%1),%2) & FILLB($,%1)/4 \
      db 0x8D,0x6C,0x25,0x00                ; lea ebp,[ebp+0x00]
 times MSKLE(FILLB(%%bs,%1),%2) & FILLB($,%1)/3 \
      db 0x8D,0x6D,0x00                     ; lea ebp,[ebp+0x00]
 times MSKLE(FILLB(%%bs,%1),%2) & FILLB($,%1)/2 \
      db 0x8B,0xED                          ; mov ebp,ebp
 times MSKLE(FILLB(%%bs,%1),%2) & FILLB($,%1)/1 \
```

```
        db 0x90                         ; nop
%endmacro

; Align the next data on {2,4,8,16,..}-byte boundary.
;
%imacro alignz 1.nolist
 align %1, db 0  ; filling zeros
%endmacro

%ifdef __x86_64__

%ifdef WIN64

%imacro collect_args 0
 push r12
 push r13
 push r14
 push r15
 mov r10, rcx
 mov r11, rdx
 mov r12, r8
 mov r13, r9
 mov r14, [rax+48]
 mov r15, [rax+56]
 push rsi
 push rdi
 sub     rsp, SIZEOF_XMMWORD
 movaps  XMMWORD [rsp], xmm6
 sub     rsp, SIZEOF_XMMWORD
 movaps  XMMWORD [rsp], xmm7
%endmacro

%imacro uncollect_args 0
 movaps  xmm7, XMMWORD [rsp]
 add     rsp, SIZEOF_XMMWORD
 movaps  xmm6, XMMWORD [rsp]
 add     rsp, SIZEOF_XMMWORD
 pop rdi
 pop rsi
 pop r15
 pop r14
 pop r13
 pop r12
%endmacro

%else

%imacro collect_args 0
```

```
 push r10
 push r11
 push r12
 push r13
 push r14
 push r15
 mov r10, rdi
 mov r11, rsi
 mov r12, rdx
 mov r13, rcx
 mov r14, r8
 mov r15, r9
%endmacro

%imacro uncollect_args 0
 pop r15
 pop r14
 pop r13
 pop r12
 pop r11
 pop r10
%endmacro

%endif

%endif

; ------------------------------------------------------------------------
;  Defines picked up from the C headers
;
%include "jsimdcfg.inc"

; ------------------------------------------------------------------------
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jsimdext.inc
No license file was found, but licenses were detected in source scan.

```
/*
* jdmerge.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1994-1996, Thomas G. Lane.
* Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
* Modifications:
* Copyright (C) 2009, 2011, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
```

```
*
* This file contains code for merged upsampling/color conversion.
*
* This file combines functions from jdsample.c and jdcolor.c;
* read those files first to understand what's going on.
*
* When the chroma components are to be upsampled by simple replication
* (ie, box filtering), we can save some work in color conversion by
* calculating all the output pixels corresponding to a pair of chroma
* samples at one time.  In the conversion equations
* R = Y           + K1 * Cr
* G = Y + K2 * Cb + K3 * Cr
* B = Y + K4 * Cb
* only the Y term varies among the group of pixels corresponding to a pair
* of chroma samples, so the rest of the terms can be calculated just once.
* At typical sampling ratios, this eliminates half or three-quarters of the
* multiplications needed for color conversion.
*
* This file currently provides implementations for the following cases:
* YCbCr => RGB color conversion only.
* Sampling ratios of 2h1v or 2h2v.
* No scaling needed at upsample time.
* Corner-aligned (non-CCIR601) sampling alignment.
* Other special cases could be added, but in most applications these are
* the only common cases.  (For uncommon cases we fall back on the more
* general code in jdsample.c and jdcolor.c.)
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdmerge.c
No license file was found, but licenses were detected in source scan.

```
/*
* jerror.h
*
* Copyright (C) 1994-1997, Thomas G. Lane.
* Modified 1997-2009 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file defines the error and message codes for the JPEG library.
* Edit this file to add new codes, or to translate the message strings to
* some other language.
* A set of error-reporting macros are defined too.  Some applications using
* the JPEG library may wish to include this file to get the error codes
* and/or the macros.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jerror.h
No license file was found, but licenses were detected in source scan.

```
/*
* cjpeg.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1998, Thomas G. Lane.
* Modified 2003-2011 by Guido Vollbeding.
* Modifications:
* Copyright (C) 2010, 2013, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a command-line user interface for the JPEG compressor.
* It should work on any system with Unix- or MS-DOS-style command lines.
*
* Two different command line styles are permitted, depending on the
* compile-time switch TWO_FILE_COMMANDLINE:
* cjpeg [options]  inputfile outputfile
* cjpeg [options]  [inputfile]
* In the second style, output is always to standard output, which you'd
* normally redirect to a file or pipe to some other program.  Input is
* either from a named file or from standard input (typically redirected).
* The second style is convenient on Unix but is unhelpful on systems that
* don't support pipes.  Also, you MUST use the first style if your system
* doesn't do binary I/O to stdin/stdout.
* To simplify script writing, the "-outfile" switch is provided.  The syntax
* cjpeg [options]  -outfile outputfile  inputfile
* works regardless of which command line style is used.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/cjpeg.c
No license file was found, but licenses were detected in source scan.

```
/*
* Copyright (C)2009-2012 D. R. Commander.  All Rights Reserved.
*
* Redistribution and use in source and binary forms, with or without
* modification, are permitted provided that the following conditions are met:
*
* - Redistributions of source code must retain the above copyright notice,
*   this list of conditions and the following disclaimer.
* - Redistributions in binary form must reproduce the above copyright notice,
```

*   this list of conditions and the following disclaimer in the documentation
*   and/or other materials provided with the distribution.
* - Neither the name of the libjpeg-turbo Project nor the names of its
*   contributors may be used to endorse or promote products derived from this
*   software without specific prior written permission.
*
* THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS",
* AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE
* IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE
* ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE
* LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR
* CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF
* SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS
* INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN
* CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE)
* ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE
* POSSIBILITY OF SUCH DAMAGE.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/turbojpeg.h
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/turbojpeg.c
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/java/TJBench.java
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/tjunittest.c
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/tjbench.c
No license file was found, but licenses were detected in source scan.

/*
* transupp.h
*
* Copyright (C) 1997-2011, Thomas G. Lane, Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains declarations for image transformation routines and
* other utility code used by the jpegtran sample application. These are
* NOT part of the core JPEG library. But we keep these routines separate
* from jpegtran.c to ease the task of maintaining jpegtran-like programs
* that have other user interfaces.
*
* NOTE: all the routines declared here have very specific requirements
* about when they are to be executed during the reading and writing of the
* source and destination files. See the comments in transupp.c, or see

* jpegtran.c for an example of correct usage.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/transupp.h
No license file was found, but licenses were detected in source scan.

%ifarch x86_64
%define __lib lib64
%else
%define __lib lib
%endif

Summary: A SIMD-accelerated JPEG codec that provides both the libjpeg and TurboJPEG APIs
Name: @PACKAGE_NAME@
Version: @VERSION@
Vendor: The libjpeg-turbo Project
URL: http://www.libjpeg-turbo.org
Group: System Environment/Libraries
#-->Source0: http://prdownloads.sourceforge.net/libjpeg-turbo/libjpeg-turbo-%{version}.tar.gz
Release: @BUILD@
License: BSD-style
BuildRoot: %{_blddir}/%{name}-buildroot-%{version}-%{release}
Prereq: /sbin/ldconfig
%ifarch x86_64
Provides: %{name} = %{version}-%{release}, turbojpeg = 2.00, libturbojpeg.so()(64bit)
%else
Provides: %{name} = %{version}-%{release}, turbojpeg = 2.00, libturbojpeg.so
%endif
Obsoletes: turbojpeg

%description
libjpeg-turbo is a JPEG image codec that uses SIMD instructions (MMX, SSE2,
NEON) to accelerate baseline JPEG compression and decompression on x86, x86-64,
and ARM systems. On such systems, libjpeg-turbo is generally 2-4x as fast as
libjpeg, all else being equal. On other types of systems, libjpeg-turbo can
still outperform libjpeg by a significant amount, by virtue of its
highly-optimized Huffman coding routines. In many cases, the performance of
libjpeg-turbo rivals that of proprietary high-speed JPEG codecs.

libjpeg-turbo implements both the traditional libjpeg API as well as the less
powerful but more straightforward TurboJPEG API. libjpeg-turbo also features
colorspace extensions that allow it to compress from/decompress to 32-bit and
big-endian pixel buffers (RGBX, XBGR, etc.), as well as a full-featured Java
interface.

libjpeg-turbo was originally based on libjpeg/SIMD, an MMX-accelerated

derivative of libjpeg v6b developed by Miyasaka Masaru. The TigerVNC and VirtualGL projects made numerous enhancements to the codec in 2009, and in early 2010, libjpeg-turbo spun off into an independent project, with the goal of making high-speed JPEG compression/decompression technology available to a broader range of users and developers.

```
#-->%prep
#-->%setup -q

#-->%build
#-->./configure libdir=/opt/%{name}/%{__lib} mandir=/opt/%{name}/man
JPEG_LIB_VERSION=@JPEG_LIB_VERSION@ SO_MAJOR_VERSION=@SO_MAJOR_VERSION@
SO_MINOR_VERSION=@SO_MINOR_VERSION@ --with-pic @RPM_CONFIG_ARGS@
#-->make DESTDIR=$RPM_BUILD_ROOT libdir=/opt/%{name}/%{__lib} mandir=/opt/%{name}/man

%install

rm -rf $RPM_BUILD_ROOT
make install DESTDIR=$RPM_BUILD_ROOT libdir=/opt/%{name}/%{__lib} mandir=/opt/%{name}/man
docdir=/opt/%{name}/doc exampledir=/opt/%{name}/doc
rm -f $RPM_BUILD_ROOT/opt/%{name}/%{__lib}/*.la
mkdir -p $RPM_BUILD_ROOT/usr/%{__lib}
mv $RPM_BUILD_ROOT/opt/%{name}/%{__lib}/libturbojpeg.* $RPM_BUILD_ROOT/usr/%{__lib}
/sbin/ldconfig -n $RPM_BUILD_ROOT/opt/%{name}/%{__lib}
/sbin/ldconfig -n $RPM_BUILD_ROOT/usr/%{__lib}
mkdir -p $RPM_BUILD_ROOT/usr/include
mv $RPM_BUILD_ROOT/opt/%{name}/include/turbojpeg.h $RPM_BUILD_ROOT/usr/include
ln -fs /usr/include/turbojpeg.h $RPM_BUILD_ROOT/opt/%{name}/include/
ln -fs /usr/%{__lib}/libturbojpeg.a $RPM_BUILD_ROOT/opt/%{name}/%{__lib}/
mkdir -p $RPM_BUILD_ROOT%{_defaultdocdir}
mv $RPM_BUILD_ROOT/opt/%{name}/doc $RPM_BUILD_ROOT%{_defaultdocdir}/%{name}-%{version}

%post -p /sbin/ldconfig

%postun -p /sbin/ldconfig

%clean
rm -rf $RPM_BUILD_ROOT

%files
%defattr(-,root,root)
%dir %{_defaultdocdir}/%{name}-%{version}
%doc %{_defaultdocdir}/%{name}-%{version}/*
%dir /opt/%{name}
%dir /opt/%{name}/bin
/opt/%{name}/bin/cjpeg
/opt/%{name}/bin/djpeg
/opt/%{name}/bin/jpegtran
```

/opt/%{name}/bin/tjbench
/opt/%{name}/bin/rdjpgcom
/opt/%{name}/bin/wrjpgcom
%dir /opt/%{name}/%{__lib}
%ifarch x86_64
%else
/opt/%{name}/lib32
%endif
/opt/%{name}/%{__lib}/libjpeg.so.@SO_MAJOR_VERSION@.@SO_AGE@.@SO_MINOR_VERSION@
/opt/%{name}/%{__lib}/libjpeg.so.@SO_MAJOR_VERSION@
/opt/%{name}/%{__lib}/libjpeg.so
/opt/%{name}/%{__lib}/libjpeg.a
/opt/%{name}/%{__lib}/libturbojpeg.a
/usr/%{__lib}/libturbojpeg.so.0.0.0
/usr/%{__lib}/libturbojpeg.so.0
/usr/%{__lib}/libturbojpeg.so
/usr/%{__lib}/libturbojpeg.a
/usr/include/turbojpeg.h
%dir /opt/%{name}/include
/opt/%{name}/include/jconfig.h
/opt/%{name}/include/jerror.h
/opt/%{name}/include/jmorecfg.h
/opt/%{name}/include/jpeglib.h
/opt/%{name}/include/turbojpeg.h
%dir /opt/%{name}/man
%dir /opt/%{name}/man/man1
/opt/%{name}/man/man1/cjpeg.1*
/opt/%{name}/man/man1/djpeg.1*
/opt/%{name}/man/man1/jpegtran.1*
/opt/%{name}/man/man1/rdjpgcom.1*
/opt/%{name}/man/man1/wrjpgcom.1*
@JAVA_RPM_CONTENTS_1@
@JAVA_RPM_CONTENTS_2@

%changelog

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/release/libjpeg-turbo.spec.in
No license file was found, but licenses were detected in source scan.

; For conditions of distribution and use, see copyright notice in jsimdext.inc

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jimmxred.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-

UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jdclrss2-64.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jcqntmmx.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jdmermmx.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jiss2flt-64.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jcsamss2.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jcqntsse.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jiss2red-64.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jf3dnflt.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jcgryss2.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jcsamss2-64.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jdmrgss2.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jdclrss2.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jccolss2.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jdsamss2.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jcqnts2i.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jisseflt.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jdsamss2-64.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jcclrss2.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jcsammmx.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-

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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jdmrgmmx.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jdmerss2-64.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jdcolss2.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jsimdcpu.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
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* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jcqnts2i-64.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jcclrmmx.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jdclrmmx.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/ji3dnflt.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jdcolss2-64.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jcgrass2-64.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-
UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jdcolmmx.asm
No license file was found, but licenses were detected in source scan.

/*

* jdarith.c
*
* Developed 1997-2009 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains portable arithmetic entropy decoding routines for JPEG
* (implementing the ISO/IEC IS 10918-1 and CCITT Recommendation ITU-T T.81).
*
* Both sequential and progressive modes are supported in this single module.
*
* Suspension is not currently supported in this module.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdarith.c
No license file was found, but licenses were detected in source scan.

/*
* Copyright (C)2011 D. R. Commander. All Rights Reserved.
*
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* modification, are permitted provided that the following conditions are met:
*
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*   and/or other materials provided with the distribution.
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*
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* INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN
* CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE)
* ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE
* POSSIBILITY OF SUCH DAMAGE.
*/

package org.libjpegturbo.turbojpeg;

```
final class TJLoader {
 static void load() {
   System.loadLibrary("@TURBOJPEG_DLL_NAME@");
 }
};
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/java/org/libjpegturbo/turbojpeg/TJLoader.java.in
No license file was found, but licenses were detected in source scan.

```
/*
* cdjpeg.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains common support routines used by the IJG application
* programs (cjpeg, djpeg, jpegtran).
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/cdjpeg.c
No license file was found, but licenses were detected in source scan.

```
/*
* jpeglib.h
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1998, Thomas G. Lane.
* Modified 2002-2009 by Guido Vollbeding.
* Modifications:
* Copyright (C) 2009-2011, 2013, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file defines the application interface for the JPEG library.
* Most applications using the library need only include this file,
* and perhaps jerror.h if they want to know the exact error codes.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jpeglib.h

No license file was found, but licenses were detected in source scan.

```
/*
* transupp.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1997-2011, Thomas G. Lane, Guido Vollbeding.
* Modifications:
* Copyright (C) 2010, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains image transformation routines and other utility code
* used by the jpegtran sample application.  These are NOT part of the core
* JPEG library.  But we keep these routines separate from jpegtran.c to
* ease the task of maintaining jpegtran-like programs that have other user
* interfaces.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/transupp.c
No license file was found, but licenses were detected in source scan.

```
/*
* jfdctfst.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a fast, not so accurate integer implementation of the
* forward DCT (Discrete Cosine Transform).
*
* A 2-D DCT can be done by 1-D DCT on each row followed by 1-D DCT
* on each column.  Direct algorithms are also available, but they are
* much more complex and seem not to be any faster when reduced to code.
*
* This implementation is based on Arai, Agui, and Nakajima's algorithm for
* scaled DCT.  Their original paper (Trans. IEICE E-71(11):1095) is in
* Japanese, but the algorithm is described in the Pennebaker & Mitchell
* JPEG textbook (see REFERENCES section in file README).  The following code
* is based directly on figure 4-8 in P&M.
* While an 8-point DCT cannot be done in less than 11 multiplies, it is
* possible to arrange the computation so that many of the multiplies are
* simple scalings of the final outputs.  These multiplies can then be
* folded into the multiplications or divisions by the JPEG quantization
* table entries.  The AA&N method leaves only 5 multiplies and 29 adds
* to be done in the DCT itself.
```

```
* The primary disadvantage of this method is that with fixed-point math,
* accuracy is lost due to imprecise representation of the scaled
* quantization values.  The smaller the quantization table entry, the less
* precise the scaled value, so this implementation does worse with high-
* quality-setting files than with low-quality ones.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jfdctfst.c
No license file was found, but licenses were detected in source scan.

```
;
; jdct.inc - private declarations for forward & reverse DCT subsystems
;
; Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
;
; Based on
; x86 SIMD extension for IJG JPEG library
; Copyright (C) 1999-2006, MIYASAKA Masaru.
; For conditions of distribution and use, see copyright notice in jsimdext.inc
;
; [TAB8]

; Each IDCT routine is responsible for range-limiting its results and
; converting them to unsigned form (0..MAXJSAMPLE).  The raw outputs could
; be quite far out of range if the input data is corrupt, so a bulletproof
; range-limiting step is required.  We use a mask-and-table-lookup method
; to do the combined operations quickly.
;
%define RANGE_MASK  (MAXJSAMPLE * 4 + 3)  ; 2 bits wider than legal samples

%define ROW(n,b,s)  ((b)+(n)*(s))
%define COL(n,b,s)  ((b)+(n)*(s)*DCTSIZE)

%define DWBLOCK(m,n,b,s) ((b)+(m)*DCTSIZE*(s)+(n)*SIZEOF_DWORD)
%define MMBLOCK(m,n,b,s) ((b)+(m)*DCTSIZE*(s)+(n)*SIZEOF_MMWORD)
%define XMMBLOCK(m,n,b,s) ((b)+(m)*DCTSIZE*(s)+(n)*SIZEOF_XMMWORD)

; --------------------------------------------------------------------------
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jdct.inc
No license file was found, but licenses were detected in source scan.

```
/*
* rdswitch.c
```

```
*
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* Copyright (C) 1991-1996, Thomas G. Lane.
* Modifications:
* Copyright (C) 2010, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to process some of cjpeg's more complicated
* command-line switches.  Switches processed here are:
* -qtables file  Read quantization tables from text file
* -scans file  Read scan script from text file
* -quality N[,N,...] Set quality ratings
* -qslots N[,N,...] Set component quantization table selectors
* -sample HxV[,HxV,...] Set component sampling factors
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/rdswitch.c
No license file was found, but licenses were detected in source scan.

```
/*
* jcapistd.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains application interface code for the compression half
* of the JPEG library.  These are the "standard" API routines that are
* used in the normal full-compression case.  They are not used by a
* transcoding-only application.  Note that if an application links in
* jpeg_start_compress, it will end up linking in the entire compressor.
* We thus must separate this file from jcapimin.c to avoid linking the
* whole compression library into a transcoder.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jcapistd.c
No license file was found, but licenses were detected in source scan.

```
/*
* rdbmp.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2009-2010 by Guido Vollbeding.
```

* Modifications:
* Modified 2011 by Siarhei Siamashka.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to read input images in Microsoft "BMP"
* format (MS Windows 3.x, OS/2 1.x, and OS/2 2.x flavors).
* Currently, only 8-bit and 24-bit images are supported, not 1-bit or
* 4-bit (feeding such low-depth images into JPEG would be silly anyway).
* Also, we don't support RLE-compressed files.
*
* These routines may need modification for non-Unix environments or
* specialized applications. As they stand, they assume input from
* an ordinary stdio stream. They further assume that reading begins
* at the start of the file; start_input may need work if the
* user interface has already read some data (e.g., to determine that
* the file is indeed BMP format).
*
* This code contributed by James Arthur Boucher.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/rdbmp.c
No license file was found, but licenses were detected in source scan.

/*
* jidctfst.c
*
* Copyright (C) 1994-1998, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a fast, not so accurate integer implementation of the
* inverse DCT (Discrete Cosine Transform). In the IJG code, this routine
* must also perform dequantization of the input coefficients.
*
* A 2-D IDCT can be done by 1-D IDCT on each column followed by 1-D IDCT
* on each row (or vice versa, but it's more convenient to emit a row at
* a time). Direct algorithms are also available, but they are much more
* complex and seem not to be any faster when reduced to code.
*
* This implementation is based on Arai, Agui, and Nakajima's algorithm for
* scaled DCT. Their original paper (Trans. IEICE E-71(11):1095) is in
* Japanese, but the algorithm is described in the Pennebaker & Mitchell
* JPEG textbook (see REFERENCES section in file README). The following code
* is based directly on figure 4-8 in P&M.
* While an 8-point DCT cannot be done in less than 11 multiplies, it is
* possible to arrange the computation so that many of the multiplies are

* simple scalings of the final outputs. These multiplies can then be
* folded into the multiplications or divisions by the JPEG quantization
* table entries. The AA&N method leaves only 5 multiplies and 29 adds
* to be done in the DCT itself.
* The primary disadvantage of this method is that with fixed-point math,
* accuracy is lost due to imprecise representation of the scaled
* quantization values. The smaller the quantization table entry, the less
* precise the scaled value, so this implementation does worse with high-
* quality-setting files than with low-quality ones.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jidctfst.c
No license file was found, but licenses were detected in source scan.

/*
* jdapistd.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modifications:
* Copyright (C) 2010, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains application interface code for the decompression half
* of the JPEG library. These are the "standard" API routines that are
* used in the normal full-decompression case. They are not used by a
* transcoding-only application. Note that if an application links in
* jpeg_start_decompress, it will end up linking in the entire decompressor.
* We thus must separate this file from jdapimin.c to avoid linking the
* whole decompression library into a transcoder.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdapistd.c
No license file was found, but licenses were detected in source scan.

;
; jcolsamp.inc - private declarations for color conversion & up/downsampling
;
; Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
;
; Based on
; x86 SIMD extension for IJG JPEG library
; Copyright (C) 1999-2006, MIYASAKA Masaru.
; For conditions of distribution and use, see copyright notice in jsimdext.inc

```
;
; [TAB8]

; ----------------------------------------------------------------------

; pseudo-resisters to make ordering of RGB configurable
;
%if RGB_RED == 0
%define  mmA  mm0
%define  mmB  mm1
%define xmmA xmm0
%define xmmB xmm1
%elif RGB_GREEN == 0
%define  mmA  mm2
%define  mmB  mm3
%define xmmA xmm2
%define xmmB xmm3
%elif RGB_BLUE == 0
%define  mmA  mm4
%define  mmB  mm5
%define xmmA xmm4
%define xmmB xmm5
%else
%define  mmA  mm6
%define  mmB  mm7
%define xmmA xmm6
%define xmmB xmm7
%endif

%if RGB_RED == 1
%define  mmC  mm0
%define  mmD  mm1
%define xmmC xmm0
%define xmmD xmm1
%elif RGB_GREEN == 1
%define  mmC  mm2
%define  mmD  mm3
%define xmmC xmm2
%define xmmD xmm3
%elif RGB_BLUE == 1
%define  mmC  mm4
%define  mmD  mm5
%define xmmC xmm4
%define xmmD xmm5
%else
%define  mmC  mm6
%define  mmD  mm7
%define xmmC xmm6
```

```
%define xmmD xmm7
%endif

%if RGB_RED == 2
%define  mmE  mm0
%define  mmF  mm1
%define xmmE xmm0
%define xmmF xmm1
%elif RGB_GREEN == 2
%define  mmE  mm2
%define  mmF  mm3
%define xmmE xmm2
%define xmmF xmm3
%elif RGB_BLUE == 2
%define  mmE  mm4
%define  mmF  mm5
%define xmmE xmm4
%define xmmF xmm5
%else
%define  mmE  mm6
%define  mmF  mm7
%define xmmE xmm6
%define xmmF xmm7
%endif

%if RGB_RED == 3
%define  mmG  mm0
%define  mmH  mm1
%define xmmG xmm0
%define xmmH xmm1
%elif RGB_GREEN == 3
%define  mmG  mm2
%define  mmH  mm3
%define xmmG xmm2
%define xmmH xmm3
%elif RGB_BLUE == 3
%define  mmG  mm4
%define  mmH  mm5
%define xmmG xmm4
%define xmmH xmm5
%else
%define  mmG  mm6
%define  mmH  mm7
%define xmmG xmm6
%define xmmH xmm7
%endif

; ---------------------------------------------------------------------------
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jcolsamp.inc
No license file was found, but licenses were detected in source scan.

; For conditions of distribution and use, see copyright notice in jsimdext.inc
; for more details.

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jfss2fst-64.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jimmxfst.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jfmmxfst.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jfss2fst.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jiss2fst.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jiss2fst-64.asm
No license file was found, but licenses were detected in source scan.

/*
* jmorecfg.h
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modifications:
* Copyright (C) 2009, 2011, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains additional configuration options that customize the
* JPEG software for special applications or support machine-dependent
* optimizations. Most users will not need to touch this file.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jmorecfg.h
No license file was found, but licenses were detected in source scan.

/*
* rdgif.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.

* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to read input images in GIF format.
*
****
* NOTE: to avoid entanglements with Unisys' patent on LZW compression, *
* the ability to read GIF files has been removed from the IJG distribution. *
* Sorry about that.   *
****
*
* We are required to state that
*   "The Graphics Interchange Format(c) is the Copyright property of
*   CompuServe Incorporated. GIF(sm) is a Service Mark property of
*   CompuServe Incorporated."
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/rdgif.c
No license file was found, but licenses were detected in source scan.

/*
* wrrle.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to write output images in RLE format.
* The Utah Raster Toolkit library is required (version 3.1 or later).
*
* These routines may need modification for non-Unix environments or
* specialized applications. As they stand, they assume output to
* an ordinary stdio stream.
*
* Based on code contributed by Mike Lijewski,
* with updates from Robert Hutchinson.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/wrrle.c
No license file was found, but licenses were detected in source scan.

/*
* jQuery JavaScript Library v1.3.2
* http://jquery.com/
*

* Copyright (c) 2009 John Resig
* Dual licensed under the MIT and GPL licenses.
* http://docs.jquery.com/License
*
* Date: 2009-02-19 17:34:21 -0500 (Thu, 19 Feb 2009)
* Revision: 6246
*/
/*
* Sizzle CSS Selector Engine - v0.9.3
* Copyright 2009, The Dojo Foundation
* Released under the MIT, BSD, and GPL Licenses.
* More information: http://sizzlejs.com/
*/
/*
* jQuery UI 1.7.2
*
* Copyright (c) 2009 AUTHORS.txt (http://jqueryui.com/about)
* Dual licensed under the MIT (MIT-LICENSE.txt)
* and GPL (GPL-LICENSE.txt) licenses.
*
* http://docs.jquery.com/UI
*/
/**
* jQuery.ScrollTo - Easy element scrolling using jQuery.
* Copyright (c) 2008 Ariel Flesler - aflesler(at)gmail(dot)com
* Licensed under GPL license (http://www.opensource.org/licenses/gpl-license.php).
* Date: 2/8/2008
* @author Ariel Flesler
* @version 1.3.2
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/doc/html/jquery.js
No license file was found, but licenses were detected in source scan.

/*
* jdatasrc.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2009-2011 by Guido Vollbeding.
* Modifications:
* Copyright (C) 2013, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains decompression data source routines for the case of
* reading JPEG data from memory or from a file (or any stdio stream).

```
* While these routines are sufficient for most applications,
* some will want to use a different source manager.
* IMPORTANT: we assume that fread() will correctly transcribe an array of
* JOCTETs from 8-bit-wide elements on external storage.  If char is wider
* than 8 bits on your machine, you may need to do some tweaking.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdatasrc.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdcolor.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modified 2011 by Guido Vollbeding.
* Modifications:
* Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
* Copyright (C) 2009, 2011-2012, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains output colorspace conversion routines.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdcolor.c
No license file was found, but licenses were detected in source scan.

```
/*
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*
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* modification, are permitted provided that the following conditions are met:
*
* - Redistributions of source code must retain the above copyright notice,
*   this list of conditions and the following disclaimer.
* - Redistributions in binary form must reproduce the above copyright notice,
*   this list of conditions and the following disclaimer in the documentation
*   and/or other materials provided with the distribution.
* - Neither the name of the libjpeg-turbo Project nor the names of its
*   contributors may be used to endorse or promote products derived from this
*   software without specific prior written permission.
*
* THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS",
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```

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* ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR CONTRIBUTORS BE
* LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR
* CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF
* SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS
* INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN
* CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE)
* ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE
* POSSIBILITY OF SUCH DAMAGE.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/java/org/libjpegturbo/turbojpeg/TJLoader.java
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/java/TJUnitTest.java
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/java/org/libjpegturbo/turbojpeg/TJCompressor.java
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/java/org/libjpegturbo/turbojpeg/TJ.java
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/turbojpeg-jni.c
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/java/TJExample.java
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/java/org/libjpegturbo/turbojpeg/TJDecompressor.java
No license file was found, but licenses were detected in source scan.

/*
* wrbmp.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to write output images in Microsoft "BMP"
* format (MS Windows 3.x and OS/2 1.x flavors).
* Either 8-bit colormapped or 24-bit full-color format can be written.
* No compression is supported.
*
* These routines may need modification for non-Unix environments or
* specialized applications. As they stand, they assume output to
* an ordinary stdio stream.
*

```
* This code contributed by James Arthur Boucher.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/wrbmp.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdatasrc-tj.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2009-2011 by Guido Vollbeding.
* Modifications:
* Copyright (C) 2011, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains decompression data source routines for the case of
* reading JPEG data from memory or from a file (or any stdio stream).
* While these routines are sufficient for most applications,
* some will want to use a different source manager.
* IMPORTANT: we assume that fread() will correctly transcribe an array of
* JOCTETs from 8-bit-wide elements on external storage.  If char is wider
* than 8 bits on your machine, you may need to do some tweaking.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdatasrc-tj.c
No license file was found, but licenses were detected in source scan.

```
/*
* djpeg.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modifications:
* Copyright (C) 2010-2011, 2013, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a command-line user interface for the JPEG decompressor.
* It should work on any system with Unix- or MS-DOS-style command lines.
*
* Two different command line styles are permitted, depending on the
* compile-time switch TWO_FILE_COMMANDLINE:
* djpeg [options]  inputfile outputfile
* djpeg [options]  [inputfile]
```

* In the second style, output is always to standard output, which you'd
* normally redirect to a file or pipe to some other program. Input is
* either from a named file or from standard input (typically redirected).
* The second style is convenient on Unix but is unhelpful on systems that
* don't support pipes. Also, you MUST use the first style if your system
* doesn't do binary I/O to stdin/stdout.
* To simplify script writing, the "-outfile" switch is provided. The syntax
* djpeg [options] -outfile outputfile inputfile
* works regardless of which command line style is used.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/djpeg.c
No license file was found, but licenses were detected in source scan.

/*
* jdcoefct.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1994-1997, Thomas G. Lane.
* Modifications:
* Copyright (C) 2010, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the coefficient buffer controller for decompression.
* This controller is the top level of the JPEG decompressor proper.
* The coefficient buffer lies between entropy decoding and inverse-DCT steps.
*
* In buffered-image mode, this controller is the interface between
* input-oriented processing and output-oriented processing.
* Also, the input side (only) is used when reading a file for transcoding.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdcoefct.c
No license file was found, but licenses were detected in source scan.

/*
* jdsample.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modifications:
* Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
* Copyright (C) 2010, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.

```
*
* This file contains upsampling routines.
*
* Upsampling input data is counted in "row groups".  A row group
* is defined to be (v_samp_factor * DCT_scaled_size / min_DCT_scaled_size)
* sample rows of each component.  Upsampling will normally produce
* max_v_samp_factor pixel rows from each row group (but this could vary
* if the upsampler is applying a scale factor of its own).
*
* An excellent reference for image resampling is
*   Digital Image Warping, George Wolberg, 1990.
*   Pub. by IEEE Computer Society Press, Los Alamitos, CA. ISBN 0-8186-8944-7.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdsample.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdhuff.h
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modifications:
* Copyright (C) 2010-2011, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains declarations for Huffman entropy decoding routines
* that are shared between the sequential decoder (jdhuff.c) and the
* progressive decoder (jdphuff.c).  No other modules need to see these.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdhuff.h
No license file was found, but licenses were detected in source scan.

```
{\rtf1\ansi\ansicpg1252\cocoartf1038\cocoasubrtf350
{\fonttbl\f0\fswiss\fcharset0 Helvetica;}
{\colortbl;\red255\green255\blue255;}
{\*\listtable{\list\listtemplateid1\listhybrid{\listlevel\levelnfc23\levelnfcn23\leveljc0\leveljcn0\levelfollow0\levelsta
rtat1\levelspace360\levelindent0{\*\levelmarker \{disc\}}{\leveltext\leveltemplateid1\'01\uc0\u8226
;}{\levelnumbers;}\fi-360\li720\lin720 }{\listname ;}\listid1}}
{\*\listoverridetable{\listoverride\listid1\listoverridecount0\ls1}}
\margl1440\margr1440\vieww9820\viewh8480\viewkind0
\deftab720
\pard\pardeftab720
```

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}

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/release/License.rtf
No license file was found, but licenses were detected in source scan.

```
/*
* cdjpeg.h
*
* Copyright (C) 1994-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains common declarations for the sample applications
* cjpeg and djpeg.  It is NOT used by the core JPEG library.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/cdjpeg.h
No license file was found, but licenses were detected in source scan.

```
/*
```

```
* jpegint.h
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modified 1997-2009 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file provides common declarations for the various JPEG modules.
* These declarations are considered internal to the JPEG library; most
* applications using the library shouldn't need to include this file.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jpegint.h
No license file was found, but licenses were detected in source scan.

```
# Copyright (C)2009-2011 D. R. Commander.  All Rights Reserved.
#
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#   contributors may be used to endorse or promote products derived from this
#   software without specific prior written permission.
#
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# CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE)
# ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE
# POSSIBILITY OF SUCH DAMAGE.

#!/bin/sh

if [ ! "`id -u`" = "0" ]; then
 echo "ERROR: This script must be executed as root"
 exit -1
```

```
fi

PACKAGE=@PACKAGE_NAME@
MACPACKAGE=com.$PACKAGE.$PACKAGE
RECEIPT=/Library/Receipts/$PACKAGE.pkg

LSBOM=
if [ -d $RECEIPT ]; then
 LSBOM='lsbom -s -f -l '$RECEIPT'/Contents/Archive.bom'
else
 LSBOM='pkgutil --files '$MACPACKAGE
fi

mylsbom()
{
 $LSBOM || (echo "ERROR: Could not list package contents"; exit -1)
}

echo Removing package files ...
EXITSTATUS=0
pushd /
mylsbom | while read file; do
 if [ ! -d "$file" ]; then rm "$file" 2>&1 || EXITSTATUS=-1; fi
done
popd

echo Removing package directories ...
if [ -d /opt/$PACKAGE/bin ]; then
 rmdir /opt/$PACKAGE/bin 2>&1 || EXITSTATUS=-1
fi
if [ -d /opt/$PACKAGE/lib ]; then
 rmdir /opt/$PACKAGE/lib 2>&1 || EXITSTATUS=-1
fi
if [ -d /opt/$PACKAGE/include ]; then
 rmdir /opt/$PACKAGE/include 2>&1 || EXITSTATUS=-1
fi
rm /opt/$PACKAGE/lib32 2>&1 || EXITSTATUS=-1
rm /opt/$PACKAGE/lib64 2>&1 || EXITSTATUS=-1
if [ -d /opt/$PACKAGE/man/man1 ]; then
 rmdir /opt/$PACKAGE/man/man1 2>&1 || EXITSTATUS=-1
fi
if [ -d /opt/$PACKAGE/man ]; then
 rmdir /opt/$PACKAGE/man 2>&1 || EXITSTATUS=-1
fi
if [ -d /opt/$PACKAGE/classes ]; then
 rmdir /opt/$PACKAGE/classes 2>&1 || EXITSTATUS=-1
fi
rmdir /opt/$PACKAGE 2>&1 || EXITSTATUS=-1
```

```
rmdir /Library/Documentation/$PACKAGE 2>&1 || EXITSTATUS=-1

if [ -d $RECEIPT ]; then
 echo Removing package receipt ...
 rm -r $RECEIPT 2>&1 || EXITSTATUS=-1
else
 echo Forgetting package $MACPACKAGE ...
 pkgutil --forget $MACPACKAGE
fi

exit $EXITSTATUS
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/release/uninstall.in
No license file was found, but licenses were detected in source scan.

```
/*
* jquant1.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modifications:
* Copyright (C) 2009, D. R. Commander
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains 1-pass color quantization (color mapping) routines.
* These routines provide mapping to a fixed color map using equally spaced
* color values.  Optional Floyd-Steinberg or ordered dithering is available.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jquant1.c
No license file was found, but licenses were detected in source scan.

```
/*
* jcinit.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains initialization logic for the JPEG compressor.
* This routine is in charge of selecting the modules to be executed and
* making an initialization call to each one.
*
* Logically, this code belongs in jcmaster.c.  It's split out because
```

* linking this routine implies linking the entire compression library.
* For a transcoding-only application, we want to be able to use jcmaster.c
* without linking in the whole library.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jcinit.c
No license file was found, but licenses were detected in source scan.

IJG JPEG LIBRARY: SYSTEM ARCHITECTURE

Copyright (C) 1991-2012, Thomas G. Lane, Guido Vollbeding.
This file was part of the Independent JPEG Group's software.
It was modified by The libjpeg-turbo Project to include only information
relevant to libjpeg-turbo.
For conditions of distribution and use, see the accompanying README file.

This file provides an overview of the architecture of the IJG JPEG software;
that is, the functions of the various modules in the system and the interfaces
between modules. For more precise details about any data structure or calling
convention, see the include files and comments in the source code.

We assume that the reader is already somewhat familiar with the JPEG standard.
The README file includes references for learning about JPEG. The file
libjpeg.txt describes the library from the viewpoint of an application
programmer using the library; it's best to read that file before this one.
Also, the file coderules.txt describes the coding style conventions we use.

In this document, JPEG-specific terminology follows the JPEG standard:
 A "component" means a color channel, e.g., Red or Luminance.
 A "sample" is a single component value (i.e., one number in the image data).
 A "coefficient" is a frequency coefficient (a DCT transform output number).
 A "block" is an 8x8 group of samples or coefficients.
 An "MCU" (minimum coded unit) is an interleaved set of blocks of size
 determined by the sampling factors, or a single block in a
 noninterleaved scan.
We do not use the terms "pixel" and "sample" interchangeably. When we say
pixel, we mean an element of the full-size image, while a sample is an element
of the downsampled image. Thus the number of samples may vary across
components while the number of pixels does not. (This terminology is not used
rigorously throughout the code, but it is used in places where confusion would
otherwise result.)

*** System features ***

The IJG distribution contains two parts:
 * A subroutine library for JPEG compression and decompression.
 * cjpeg/djpeg, two sample applications that use the library to transform
   JFIF JPEG files to and from several other image formats.
cjpeg/djpeg are of no great intellectual complexity: they merely add a simple command-line user interface and I/O routines for several uncompressed image formats. This document concentrates on the library itself.

We desire the library to be capable of supporting all JPEG baseline, extended sequential, and progressive DCT processes. Hierarchical processes are not supported.

The library does not support the lossless (spatial) JPEG process. Lossless JPEG shares little or no code with lossy JPEG, and would normally be used without the extensive pre- and post-processing provided by this library. We feel that lossless JPEG is better handled by a separate library.

Within these limits, any set of compression parameters allowed by the JPEG spec should be readable for decompression. (We can be more restrictive about what formats we can generate.) Although the system design allows for all parameter values, some uncommon settings are not yet implemented and may never be; nonintegral sampling ratios are the prime example. Furthermore, we treat 8-bit vs. 12-bit data precision as a compile-time switch, not a run-time option, because most machines can store 8-bit pixels much more compactly than 12-bit.

By itself, the library handles only interchange JPEG datastreams --- in particular the widely used JFIF file format. The library can be used by surrounding code to process interchange or abbreviated JPEG datastreams that are embedded in more complex file formats. (For example, libtiff uses this library to implement JPEG compression within the TIFF file format.)

The library includes a substantial amount of code that is not covered by the JPEG standard but is necessary for typical applications of JPEG. These functions preprocess the image before JPEG compression or postprocess it after decompression. They include colorspace conversion, downsampling/upsampling, and color quantization. This code can be omitted if not needed.

A wide range of quality vs. speed tradeoffs are possible in JPEG processing, and even more so in decompression postprocessing. The decompression library provides multiple implementations that cover most of the useful tradeoffs, ranging from very-high-quality down to fast-preview operation. On the compression side we have generally not provided low-quality choices, since compression is normally less time-critical. It should be understood that the low-quality modes may not meet the JPEG standard's accuracy requirements; nonetheless, they are useful for viewers.

*** Portability issues ***

Portability is an essential requirement for the library. The key portability issues that show up at the level of system architecture are:

1. Memory usage. We want the code to be able to run on PC-class machines with limited memory. Images should therefore be processed sequentially (in strips), to avoid holding the whole image in memory at once. Where a full-image buffer is necessary, we should be able to use either virtual memory or temporary files.

2. Near/far pointer distinction. To run efficiently on 80x86 machines, the code should distinguish "small" objects (kept in near data space) from "large" ones (kept in far data space). This is an annoying restriction, but fortunately it does not impact code quality for less brain-damaged machines, and the source code clutter turns out to be minimal with sufficient use of pointer typedefs.

3. Data precision. We assume that "char" is at least 8 bits, "short" and "int" at least 16, "long" at least 32. The code will work fine with larger data sizes, although memory may be used inefficiently in some cases. However, the JPEG compressed datastream must ultimately appear on external storage as a sequence of 8-bit bytes if it is to conform to the standard. This may pose a problem on machines where char is wider than 8 bits. The library represents compressed data as an array of values of typedef JOCTET. If no data type exactly 8 bits wide is available, custom data source and data destination modules must be written to unpack and pack the chosen JOCTET datatype into 8-bit external representation.

*** System overview ***

The compressor and decompressor are each divided into two main sections: the JPEG compressor or decompressor proper, and the preprocessing or postprocessing functions. The interface between these two sections is the image data that the official JPEG spec regards as its input or output: this data is in the colorspace to be used for compression, and it is downsampled to the sampling factors to be used. The preprocessing and postprocessing steps are responsible for converting a normal image representation to or from this form. (Those few applications that want to deal with YCbCr downsampled data can skip the preprocessing or postprocessing step.)

Looking more closely, the compressor library contains the following main elements:

Preprocessing:
* Color space conversion (e.g., RGB to YCbCr).
* Edge expansion and downsampling. Optionally, this step can do simple

smoothing --- this is often helpful for low-quality source data.
JPEG proper:
* MCU assembly, DCT, quantization.
* Entropy coding (sequential or progressive, Huffman or arithmetic).

In addition to these modules we need overall control, marker generation,
and support code (memory management & error handling). There is also a
module responsible for physically writing the output data --- typically
this is just an interface to fwrite(), but some applications may need to
do something else with the data.

The decompressor library contains the following main elements:

JPEG proper:
* Entropy decoding (sequential or progressive, Huffman or arithmetic).
* Dequantization, inverse DCT, MCU disassembly.
Postprocessing:
* Upsampling. Optionally, this step may be able to do more general
rescaling of the image.
* Color space conversion (e.g., YCbCr to RGB). This step may also
provide gamma adjustment [currently it does not].
* Optional color quantization (e.g., reduction to 256 colors).
* Optional color precision reduction (e.g., 24-bit to 15-bit color).
[This feature is not currently implemented.]

We also need overall control, marker parsing, and a data source module.
The support code (memory management & error handling) can be shared with
the compression half of the library.

There may be several implementations of each of these elements, particularly
in the decompressor, where a wide range of speed/quality tradeoffs is very
useful. It must be understood that some of the best speedups involve
merging adjacent steps in the pipeline. For example, upsampling, color space
conversion, and color quantization might all be done at once when using a
low-quality ordered-dither technique. The system architecture is designed to
allow such merging where appropriate.

Note: it is convenient to regard edge expansion (padding to block boundaries)
as a preprocessing/postprocessing function, even though the JPEG spec includes
it in compression/decompression. We do this because downsampling/upsampling
can be simplified a little if they work on padded data: it's not necessary to
have special cases at the right and bottom edges. Therefore the interface
buffer is always an integral number of blocks wide and high, and we expect
compression preprocessing to pad the source data properly. Padding will occur
only to the next block (8-sample) boundary. In an interleaved-scan situation,
additional dummy blocks may be used to fill out MCUs, but the MCU assembly and
disassembly logic will create or discard these blocks internally. (This is

advantageous for speed reasons, since we avoid DCTing the dummy blocks.
It also permits a small reduction in file size, because the compressor can
choose dummy block contents so as to minimize their size in compressed form.
Finally, it makes the interface buffer specification independent of whether
the file is actually interleaved or not.) Applications that wish to deal
directly with the downsampled data must provide similar buffering and padding
for odd-sized images.

*** Poor man's object-oriented programming ***

It should be clear by now that we have a lot of quasi-independent processing
steps, many of which have several possible behaviors. To avoid cluttering the
code with lots of switch statements, we use a simple form of object-style
programming to separate out the different possibilities.

For example, two different color quantization algorithms could be implemented
as two separate modules that present the same external interface; at runtime,
the calling code will access the proper module indirectly through an "object".

We can get the limited features we need while staying within portable C.
The basic tool is a function pointer. An "object" is just a struct
containing one or more function pointer fields, each of which corresponds to
a method name in real object-oriented languages. During initialization we
fill in the function pointers with references to whichever module we have
determined we need to use in this run. Then invocation of the module is done
by indirecting through a function pointer; on most machines this is no more
expensive than a switch statement, which would be the only other way of
making the required run-time choice. The really significant benefit, of
course, is keeping the source code clean and well structured.

We can also arrange to have private storage that varies between different
implementations of the same kind of object. We do this by making all the
module-specific object structs be separately allocated entities, which will
be accessed via pointers in the master compression or decompression struct.
The "public" fields or methods for a given kind of object are specified by
a commonly known struct. But a module's initialization code can allocate
a larger struct that contains the common struct as its first member, plus
additional private fields. With appropriate pointer casting, the module's
internal functions can access these private fields. (For a simple example,
see jdatadst.c, which implements the external interface specified by struct
jpeg_destination_mgr, but adds extra fields.)

(Of course this would all be a lot easier if we were using C++, but we are
not yet prepared to assume that everyone has a C++ compiler.)

An important benefit of this scheme is that it is easy to provide multiple
versions of any method, each tuned to a particular case. While a lot of

precalculation might be done to select an optimal implementation of a method, the cost per invocation is constant. For example, the upsampling step might have a "generic" method, plus one or more "hardwired" methods for the most popular sampling factors; the hardwired methods would be faster because they'd use straight-line code instead of for-loops. The cost to determine which method to use is paid only once, at startup, and the selection criteria are hidden from the callers of the method.

This plan differs a little bit from usual object-oriented structures, in that only one instance of each object class will exist during execution. The reason for having the class structure is that on different runs we may create different instances (choose to execute different modules). You can think of the term "method" as denoting the common interface presented by a particular set of interchangeable functions, and "object" as denoting a group of related methods, or the total shared interface behavior of a group of modules.

*** Overall control structure ***

We previously mentioned the need for overall control logic in the compression and decompression libraries. In IJG implementations prior to v5, overall control was mostly provided by "pipeline control" modules, which proved to be large, unwieldy, and hard to understand. To improve the situation, the control logic has been subdivided into multiple modules. The control modules consist of:

1. Master control for module selection and initialization. This has two responsibilities:

1A. Startup initialization at the beginning of image processing.
The individual processing modules to be used in this run are selected and given initialization calls.

1B. Per-pass control. This determines how many passes will be performed and calls each active processing module to configure itself appropriately at the beginning of each pass. End-of-pass processing, where necessary, is also invoked from the master control module.

Method selection is partially distributed, in that a particular processing module may contain several possible implementations of a particular method, which it will select among when given its initialization call. The master control code need only be concerned with decisions that affect more than one module.

2. Data buffering control. A separate control module exists for each inter-processing-step data buffer. This module is responsible for invoking the processing steps that write or read that data buffer.

Each buffer controller sees the world as follows:

```
input data => processing step A => buffer => processing step B => output data
                |           |           |
          ------------------ controller ------------------
```

The controller knows the dataflow requirements of steps A and B: how much data they want to accept in one chunk and how much they output in one chunk. Its function is to manage its buffer and call A and B at the proper times.

A data buffer control module may itself be viewed as a processing step by a higher-level control module; thus the control modules form a binary tree with elementary processing steps at the leaves of the tree.

The control modules are objects. A considerable amount of flexibility can be had by replacing implementations of a control module. For example:
* Merging of adjacent steps in the pipeline is done by replacing a control module and its pair of processing-step modules with a single processing-step module. (Hence the possible merges are determined by the tree of control modules.)
* In some processing modes, a given interstep buffer need only be a "strip" buffer large enough to accommodate the desired data chunk sizes. In other modes, a full-image buffer is needed and several passes are required. The control module determines which kind of buffer is used and manipulates virtual array buffers as needed. One or both processing steps may be unaware of the multi-pass behavior.

In theory, we might be able to make all of the data buffer controllers interchangeable and provide just one set of implementations for all. In practice, each one contains considerable special-case processing for its particular job. The buffer controller concept should be regarded as an overall system structuring principle, not as a complete description of the task performed by any one controller.

*** Compression object structure ***

Here is a sketch of the logical structure of the JPEG compression library:

```
                                |-- Colorspace conversion
            |-- Preprocessing controller --|
            |                   |-- Downsampling
Main controller --|
            |                   |-- Forward DCT, quantize
            |-- Coefficient controller --|
                                |-- Entropy encoding
```

This sketch also describes the flow of control (subroutine calls) during

typical image data processing. Each of the components shown in the diagram is an "object" which may have several different implementations available. One or more source code files contain the actual implementation(s) of each object.

The objects shown above are:

* Main controller: buffer controller for the subsampled-data buffer, which holds the preprocessed input data. This controller invokes preprocessing to fill the subsampled-data buffer, and JPEG compression to empty it. There is usually no need for a full-image buffer here; a strip buffer is adequate.

* Preprocessing controller: buffer controller for the downsampling input data buffer, which lies between colorspace conversion and downsampling. Note that a unified conversion/downsampling module would probably replace this controller entirely.

* Colorspace conversion: converts application image data into the desired JPEG color space; also changes the data from pixel-interleaved layout to separate component planes. Processes one pixel row at a time.

* Downsampling: performs reduction of chroma components as required. Optionally may perform pixel-level smoothing as well. Processes a "row group" at a time, where a row group is defined as Vmax pixel rows of each component before downsampling, and Vk sample rows afterwards (remember Vk differs across components). Some downsampling or smoothing algorithms may require context rows above and below the current row group; the preprocessing controller is responsible for supplying these rows via proper buffering. The downsampler is responsible for edge expansion at the right edge (i.e., extending each sample row to a multiple of 8 samples); but the preprocessing controller is responsible for vertical edge expansion (i.e., duplicating the bottom sample row as needed to make a multiple of 8 rows).

* Coefficient controller: buffer controller for the DCT-coefficient data. This controller handles MCU assembly, including insertion of dummy DCT blocks when needed at the right or bottom edge. When performing Huffman-code optimization or emitting a multiscan JPEG file, this controller is responsible for buffering the full image. The equivalent of one fully interleaved MCU row of subsampled data is processed per call, even when the JPEG file is noninterleaved.

* Forward DCT and quantization: Perform DCT, quantize, and emit coefficients. Works on one or more DCT blocks at a time. (Note: the coefficients are now emitted in normal array order, which the entropy encoder is expected to convert to zigzag order as necessary. Prior versions of the IJG code did the conversion to zigzag order within the quantization step.)

* Entropy encoding: Perform Huffman or arithmetic entropy coding and emit the coded data to the data destination module. Works on one MCU per call.

For progressive JPEG, the same DCT blocks are fed to the entropy coder during each pass, and the coder must emit the appropriate subset of coefficients.

In addition to the above objects, the compression library includes these objects:

* Master control: determines the number of passes required, controls overall and per-pass initialization of the other modules.

* Marker writing: generates JPEG markers (except for RSTn, which is emitted by the entropy encoder when needed).

* Data destination manager: writes the output JPEG datastream to its final destination (e.g., a file). The destination manager supplied with the library knows how to write to a stdio stream or to a memory buffer; for other behaviors, the surrounding application may provide its own destination manager.

* Memory manager: allocates and releases memory, controls virtual arrays (with backing store management, where required).

* Error handler: performs formatting and output of error and trace messages; determines handling of nonfatal errors. The surrounding application may override some or all of this object's methods to change error handling.

* Progress monitor: supports output of "percent-done" progress reports. This object represents an optional callback to the surrounding application: if wanted, it must be supplied by the application.

The error handler, destination manager, and progress monitor objects are defined as separate objects in order to simplify application-specific customization of the JPEG library. A surrounding application may override individual methods or supply its own all-new implementation of one of these objects. The object interfaces for these objects are therefore treated as part of the application interface of the library, whereas the other objects are internal to the library.

The error handler and memory manager are shared by JPEG compression and decompression; the progress monitor, if used, may be shared as well.

*** Decompression object structure ***

Here is a sketch of the logical structure of the JPEG decompression library:

```
                                |-- Entropy decoding
            |-- Coefficient controller --|
```

```
            |                   |-- Dequantize, Inverse DCT
Main controller --|
            |                   |-- Upsampling
            |-- Postprocessing controller --|   |-- Colorspace conversion
                                |-- Color quantization
                                |-- Color precision reduction
```

As before, this diagram also represents typical control flow. The objects shown are:

* Main controller: buffer controller for the subsampled-data buffer, which holds the output of JPEG decompression proper. This controller's primary task is to feed the postprocessing procedure. Some upsampling algorithms may require context rows above and below the current row group; when this is true, the main controller is responsible for managing its buffer so as to make context rows available. In the current design, the main buffer is always a strip buffer; a full-image buffer is never required.

* Coefficient controller: buffer controller for the DCT-coefficient data. This controller handles MCU disassembly, including deletion of any dummy DCT blocks at the right or bottom edge. When reading a multiscan JPEG file, this controller is responsible for buffering the full image. (Buffering DCT coefficients, rather than samples, is necessary to support progressive JPEG.) The equivalent of one fully interleaved MCU row of subsampled data is processed per call, even when the source JPEG file is noninterleaved.

* Entropy decoding: Read coded data from the data source module and perform Huffman or arithmetic entropy decoding. Works on one MCU per call. For progressive JPEG decoding, the coefficient controller supplies the prior coefficients of each MCU (initially all zeroes), which the entropy decoder modifies in each scan.

* Dequantization and inverse DCT: like it says. Note that the coefficients buffered by the coefficient controller have NOT been dequantized; we merge dequantization and inverse DCT into a single step for speed reasons. When scaled-down output is asked for, simplified DCT algorithms may be used that emit fewer samples per DCT block, not the full 8x8. Works on one DCT block at a time.

* Postprocessing controller: buffer controller for the color quantization input buffer, when quantization is in use. (Without quantization, this controller just calls the upsampler.) For two-pass quantization, this controller is responsible for buffering the full-image data.

* Upsampling: restores chroma components to full size. (May support more general output rescaling, too. Note that if undersized DCT outputs have been emitted by the DCT module, this module must adjust so that properly

sized outputs are created.) Works on one row group at a time. This module
also calls the color conversion module, so its top level is effectively a
buffer controller for the upsampling->color conversion buffer. However, in
all but the highest-quality operating modes, upsampling and color
conversion are likely to be merged into a single step.

* Colorspace conversion: convert from JPEG color space to output color space,
and change data layout from separate component planes to pixel-interleaved.
Works on one pixel row at a time.

* Color quantization: reduce the data to colormapped form, using either an
externally specified colormap or an internally generated one. This module
is not used for full-color output. Works on one pixel row at a time; may
require two passes to generate a color map. Note that the output will
always be a single component representing colormap indexes. In the current
design, the output values are JSAMPLEs, so an 8-bit compilation cannot
quantize to more than 256 colors. This is unlikely to be a problem in
practice.

* Color reduction: this module handles color precision reduction, e.g.,
generating 15-bit color (5 bits/primary) from JPEG's 24-bit output.
Not quite clear yet how this should be handled... should we merge it with
colorspace conversion???

Note that some high-speed operating modes might condense the entire
postprocessing sequence to a single module (upsample, color convert, and
quantize in one step).

In addition to the above objects, the decompression library includes these
objects:

* Master control: determines the number of passes required, controls overall
and per-pass initialization of the other modules. This is subdivided into
input and output control: jdinput.c controls only input-side processing,
while jdmaster.c handles overall initialization and output-side control.

* Marker reading: decodes JPEG markers (except for RSTn).

* Data source manager: supplies the input JPEG datastream. The source
manager supplied with the library knows how to read from a stdio stream
or from a memory buffer; for other behaviors, the surrounding application
may provide its own source manager.

* Memory manager: same as for compression library.

* Error handler: same as for compression library.

* Progress monitor: same as for compression library.

As with compression, the data source manager, error handler, and progress monitor are candidates for replacement by a surrounding application.

*** Decompression input and output separation ***

To support efficient incremental display of progressive JPEG files, the decompressor is divided into two sections that can run independently:

1. Data input includes marker parsing, entropy decoding, and input into the coefficient controller's DCT coefficient buffer. Note that this processing is relatively cheap and fast.

2. Data output reads from the DCT coefficient buffer and performs the IDCT and all postprocessing steps.

For a progressive JPEG file, the data input processing is allowed to get arbitrarily far ahead of the data output processing. (This occurs only if the application calls jpeg_consume_input(); otherwise input and output run in lockstep, since the input section is called only when the output section needs more data.) In this way the application can avoid making extra display passes when data is arriving faster than the display pass can run. Furthermore, it is possible to abort an output pass without losing anything, since the coefficient buffer is read-only as far as the output section is concerned. See libjpeg.txt for more detail.

A full-image coefficient array is only created if the JPEG file has multiple scans (or if the application specifies buffered-image mode anyway). When reading a single-scan file, the coefficient controller normally creates only a one-MCU buffer, so input and output processing must run in lockstep in this case. jpeg_consume_input() is effectively a no-op in this situation.

The main impact of dividing the decompressor in this fashion is that we must be very careful with shared variables in the cinfo data structure. Each variable that can change during the course of decompression must be classified as belonging to data input or data output, and each section must look only at its own variables. For example, the data output section may not depend on any of the variables that describe the current scan in the JPEG file, because these may change as the data input section advances into a new scan.

The progress monitor is (somewhat arbitrarily) defined to treat input of the file as one pass when buffered-image mode is not used, and to ignore data input work completely when buffered-image mode is used. Note that the library has no reliable way to predict the number of passes when dealing with a progressive JPEG file, nor can it predict the number of output passes in buffered-image mode. So the work estimate is inherently bogus anyway.

No comparable division is currently made in the compression library, because
there isn't any real need for it.

*** Data formats ***

Arrays of pixel sample values use the following data structure:

```
  typedef something JSAMPLE;  a pixel component value, 0..MAXJSAMPLE
  typedef JSAMPLE *JSAMPROW;  ptr to a row of samples
  typedef JSAMPROW *JSAMPARRAY; ptr to a list of rows
  typedef JSAMPARRAY *JSAMPIMAGE; ptr to a list of color-component arrays
```

The basic element type JSAMPLE will typically be one of unsigned char,
(signed) char, or short. Short will be used if samples wider than 8 bits are
to be supported (this is a compile-time option). Otherwise, unsigned char is
used if possible. If the compiler only supports signed chars, then it is
necessary to mask off the value when reading. Thus, all reads of JSAMPLE
values must be coded as "GETJSAMPLE(value)", where the macro will be defined
as "((value) & 0xFF)" on signed-char machines and "((int) (value))" elsewhere.

With these conventions, JSAMPLE values can be assumed to be >= 0. This helps
simplify correct rounding during downsampling, etc. The JPEG standard's
specification that sample values run from -128..127 is accommodated by
subtracting 128 from the sample value in the DCT step. Similarly, during
decompression the output of the IDCT step will be immediately shifted back to
0..255. (NB: different values are required when 12-bit samples are in use.
The code is written in terms of MAXJSAMPLE and CENTERJSAMPLE, which will be
defined as 255 and 128 respectively in an 8-bit implementation, and as 4095
and 2048 in a 12-bit implementation.)

We use a pointer per row, rather than a two-dimensional JSAMPLE array. This
choice costs only a small amount of memory and has several benefits:
* Code using the data structure doesn't need to know the allocated width of
 the rows. This simplifies edge expansion/compression, since we can work
 in an array that's wider than the logical picture width.
* Indexing doesn't require multiplication; this is a performance win on many
 machines.
* Arrays with more than 64K total elements can be supported even on machines
 where malloc() cannot allocate chunks larger than 64K.
* The rows forming a component array may be allocated at different times
 without extra copying. This trick allows some speedups in smoothing steps
 that need access to the previous and next rows.

Note that each color component is stored in a separate array; we don't use the
traditional layout in which the components of a pixel are stored together.
This simplifies coding of modules that work on each component independently,

because they don't need to know how many components there are. Furthermore, we can read or write each component to a temporary file independently, which is helpful when dealing with noninterleaved JPEG files.

In general, a specific sample value is accessed by code such as
GETJSAMPLE(image[colorcomponent][row][col])
where col is measured from the image left edge, but row is measured from the first sample row currently in memory. Either of the first two indexings can be precomputed by copying the relevant pointer.

Since most image-processing applications prefer to work on images in which the components of a pixel are stored together, the data passed to or from the surrounding application uses the traditional convention: a single pixel is represented by N consecutive JSAMPLE values, and an image row is an array of (# of color components)*(image width) JSAMPLEs. One or more rows of data can be represented by a pointer of type JSAMPARRAY in this scheme. This scheme is converted to component-wise storage inside the JPEG library. (Applications that want to skip JPEG preprocessing or postprocessing will have to contend with component-wise storage.)

Arrays of DCT-coefficient values use the following data structure:

```
typedef short JCOEF;  a 16-bit signed integer
typedef JCOEF JBLOCK[DCTSIZE2]; an 8x8 block of coefficients
typedef JBLOCK *JBLOCKROW;  ptr to one horizontal row of 8x8 blocks
typedef JBLOCKROW *JBLOCKARRAY; ptr to a list of such rows
typedef JBLOCKARRAY *JBLOCKIMAGE; ptr to a list of color component arrays
```

The underlying type is at least a 16-bit signed integer; while "short" is big enough on all machines of interest, on some machines it is preferable to use "int" for speed reasons, despite the storage cost. Coefficients are grouped into 8x8 blocks (but we always use #defines DCTSIZE and DCTSIZE2 rather than "8" and "64").

The contents of a coefficient block may be in either "natural" or zigzagged order, and may be true values or divided by the quantization coefficients, depending on where the block is in the processing pipeline. In the current library, coefficient blocks are kept in natural order everywhere; the entropy codecs zigzag or dezigzag the data as it is written or read. The blocks contain quantized coefficients everywhere outside the DCT/IDCT subsystems. (This latter decision may need to be revisited to support variable quantization a la JPEG Part 3.)

Notice that the allocation unit is now a row of 8x8 blocks, corresponding to eight rows of samples. Otherwise the structure is much the same as for samples, and for the same reasons.

On machines where malloc() can't handle a request bigger than 64Kb, this data structure limits us to rows of less than 512 JBLOCKs, or a picture width of 4000+ pixels. This seems an acceptable restriction.

On 80x86 machines, the bottom-level pointer types (JSAMPROW and JBLOCKROW) must be declared as "far" pointers, but the upper levels can be "near" (implying that the pointer lists are allocated in the DS segment).
We use a #define symbol FAR, which expands to the "far" keyword when compiling on 80x86 machines and to nothing elsewhere.

*** Suspendable processing ***

In some applications it is desirable to use the JPEG library as an incremental, memory-to-memory filter. In this situation the data source or destination may be a limited-size buffer, and we can't rely on being able to empty or refill the buffer at arbitrary times. Instead the application would like to have control return from the library at buffer overflow/underrun, and then resume compression or decompression at a later time.

This scenario is supported for simple cases. (For anything more complex, we recommend that the application "bite the bullet" and develop real multitasking capability.) The libjpeg.txt file goes into more detail about the usage and limitations of this capability; here we address the implications for library structure.

The essence of the problem is that the entropy codec (coder or decoder) must be prepared to stop at arbitrary times. In turn, the controllers that call the entropy codec must be able to stop before having produced or consumed all the data that they normally would handle in one call. That part is reasonably straightforward: we make the controller call interfaces include "progress counters" which indicate the number of data chunks successfully processed, and we require callers to test the counter rather than just assume all of the data was processed.

Rather than trying to restart at an arbitrary point, the current Huffman codecs are designed to restart at the beginning of the current MCU after a suspension due to buffer overflow/underrun. At the start of each call, the codec's internal state is loaded from permanent storage (in the JPEG object structures) into local variables. On successful completion of the MCU, the permanent state is updated. (This copying is not very expensive, and may even lead to *improved* performance if the local variables can be registerized.)
If a suspension occurs, the codec simply returns without updating the state, thus effectively reverting to the start of the MCU. Note that this implies leaving some data unprocessed in the source/destination buffer (ie, the compressed partial MCU). The data source/destination module interfaces are

specified so as to make this possible. This also implies that the data buffer must be large enough to hold a worst-case compressed MCU; a couple thousand bytes should be enough.

In a successive-approximation AC refinement scan, the progressive Huffman decoder has to be able to undo assignments of newly nonzero coefficients if it suspends before the MCU is complete, since decoding requires distinguishing previously-zero and previously-nonzero coefficients. This is a bit tedious but probably won't have much effect on performance. Other variants of Huffman decoding need not worry about this, since they will just store the same values again if forced to repeat the MCU.

This approach would probably not work for an arithmetic codec, since its modifiable state is quite large and couldn't be copied cheaply. Instead it would have to suspend and resume exactly at the point of the buffer end.

The JPEG marker reader is designed to cope with suspension at an arbitrary point. It does so by backing up to the start of the marker parameter segment, so the data buffer must be big enough to hold the largest marker of interest. Again, a couple KB should be adequate. (A special "skip" convention is used to bypass COM and APPn markers, so these can be larger than the buffer size without causing problems; otherwise a 64K buffer would be needed in the worst case.)

The JPEG marker writer currently does *not* cope with suspension.
We feel that this is not necessary; it is much easier simply to require the application to ensure there is enough buffer space before starting. (An empty 2K buffer is more than sufficient for the header markers; and ensuring there are a dozen or two bytes available before calling jpeg_finish_compress() will suffice for the trailer.) This would not work for writing multi-scan JPEG files, but we simply do not intend to support that capability with suspension.

*** Memory manager services ***

The JPEG library's memory manager controls allocation and deallocation of memory, and it manages large "virtual" data arrays on machines where the operating system does not provide virtual memory. Note that the same memory manager serves both compression and decompression operations.

In all cases, allocated objects are tied to a particular compression or decompression master record, and they will be released when that master record is destroyed.

The memory manager does not provide explicit deallocation of objects. Instead, objects are created in "pools" of free storage, and a whole pool can be freed at once. This approach helps prevent storage-leak bugs, and

it speeds up operations whenever malloc/free are slow (as they often are).
The pools can be regarded as lifetime identifiers for objects. Two
pools/lifetimes are defined:
 * JPOOL_PERMANENT lasts until master record is destroyed
 * JPOOL_IMAGE lasts until done with image (JPEG datastream)
Permanent lifetime is used for parameters and tables that should be carried
across from one datastream to another; this includes all application-visible
parameters. Image lifetime is used for everything else. (A third lifetime,
JPOOL_PASS = one processing pass, was originally planned. However it was
dropped as not being worthwhile. The actual usage patterns are such that the
peak memory usage would be about the same anyway; and having per-pass storage
substantially complicates the virtual memory allocation rules --- see below.)

The memory manager deals with three kinds of object:
1. "Small" objects. Typically these require no more than 10K-20K total.
2. "Large" objects. These may require tens to hundreds of K depending on
  image size. Semantically they behave the same as small objects, but we
  distinguish them for two reasons:
    * On MS-DOS machines, large objects are referenced by FAR pointers,
      small objects by NEAR pointers.
    * Pool allocation heuristics may differ for large and small objects.
  Note that individual "large" objects cannot exceed the size allowed by
  type size_t, which may be 64K or less on some machines.
3. "Virtual" objects. These are large 2-D arrays of JSAMPLEs or JBLOCKs
  (typically large enough for the entire image being processed). The
  memory manager provides stripwise access to these arrays. On machines
  without virtual memory, the rest of the array may be swapped out to a
  temporary file.

(Note: JSAMPARRAY and JBLOCKARRAY data structures are a combination of large
objects for the data proper and small objects for the row pointers. For
convenience and speed, the memory manager provides single routines to create
these structures. Similarly, virtual arrays include a small control block
and a JSAMPARRAY or JBLOCKARRAY working buffer, all created with one call.)

In the present implementation, virtual arrays are only permitted to have image
lifespan. (Permanent lifespan would not be reasonable, and pass lifespan is
not very useful since a virtual array's raison d'etre is to store data for
multiple passes through the image.) We also expect that only "small" objects
will be given permanent lifespan, though this restriction is not required by
the memory manager.

In a non-virtual-memory machine, some performance benefit can be gained by
making the in-memory buffers for virtual arrays be as large as possible.
(For small images, the buffers might fit entirely in memory, so blind
swapping would be very wasteful.) The memory manager will adjust the height
of the buffers to fit within a prespecified maximum memory usage. In order
to do this in a reasonably optimal fashion, the manager needs to allocate all

of the virtual arrays at once. Therefore, there isn't a one-step allocation
routine for virtual arrays; instead, there is a "request" routine that simply
allocates the control block, and a "realize" routine (called just once) that
determines space allocation and creates all of the actual buffers. The
realize routine must allow for space occupied by non-virtual large objects.
(We don't bother to factor in the space needed for small objects, on the
grounds that it isn't worth the trouble.)

To support all this, we establish the following protocol for doing business
with the memory manager:

1. Modules must request virtual arrays (which may have only image lifespan)
   during the initial setup phase, i.e., in their jinit_xxx routines.
2. All "large" objects (including JSAMPARRAYs and JBLOCKARRAYs) must also be
   allocated during initial setup.
3. realize_virt_arrays will be called at the completion of initial setup.
   The above conventions ensure that sufficient information is available
   for it to choose a good size for virtual array buffers.

Small objects of any lifespan may be allocated at any time. We expect that
the total space used for small objects will be small enough to be negligible
in the realize_virt_arrays computation.

In a virtual-memory machine, we simply pretend that the available space is
infinite, thus causing realize_virt_arrays to decide that it can allocate all
the virtual arrays as full-size in-memory buffers. The overhead of the
virtual-array access protocol is very small when no swapping occurs.

A virtual array can be specified to be "pre-zeroed"; when this flag is set,
never-yet-written sections of the array are set to zero before being made
available to the caller. If this flag is not set, never-written sections
of the array contain garbage. (This feature exists primarily because the
equivalent logic would otherwise be needed in jdcoefct.c for progressive
JPEG mode; we may as well make it available for possible other uses.)

The first write pass on a virtual array is required to occur in top-to-bottom
order; read passes, as well as any write passes after the first one, may
access the array in any order. This restriction exists partly to simplify
the virtual array control logic, and partly because some file systems may not
support seeking beyond the current end-of-file in a temporary file. The main
implication of this restriction is that rearrangement of rows (such as
converting top-to-bottom data order to bottom-to-top) must be handled while
reading data out of the virtual array, not while putting it in.

*** Memory manager internal structure ***

To isolate system dependencies as much as possible, we have broken the
memory manager into two parts. There is a reasonably system-independent
"front end" (jmemmgr.c) and a "back end" that contains only the code

likely to change across systems. All of the memory management methods
outlined above are implemented by the front end. The back end provides
the following routines for use by the front end (none of these routines
are known to the rest of the JPEG code):

jpeg_mem_init, jpeg_mem_term system-dependent initialization/shutdown

jpeg_get_small, jpeg_free_small interface to malloc and free library routines
   (or their equivalents)

jpeg_get_large, jpeg_free_large interface to FAR malloc/free in MSDOS machines;
   else usually the same as
   jpeg_get_small/jpeg_free_small

jpeg_mem_available estimate available memory

jpeg_open_backing_store create a backing-store object

read_backing_store, manipulate a backing-store object
write_backing_store,
close_backing_store

On some systems there will be more than one type of backing-store object
(specifically, in MS-DOS a backing store file might be an area of extended
memory as well as a disk file). jpeg_open_backing_store is responsible for
choosing how to implement a given object. The read/write/close routines
are method pointers in the structure that describes a given object; this
lets them be different for different object types.

It may be necessary to ensure that backing store objects are explicitly
released upon abnormal program termination. For example, MS-DOS won't free
extended memory by itself. To support this, we will expect the main program
or surrounding application to arrange to call self_destruct (typically via
jpeg_destroy) upon abnormal termination. This may require a SIGINT signal
handler or equivalent. We don't want to have the back end module install its
own signal handler, because that would pre-empt the surrounding application's
ability to control signal handling.

The IJG distribution includes several memory manager back end implementations.
Usually the same back end should be suitable for all applications on a given
system, but it is possible for an application to supply its own back end at
need.

*** Implications of DNL marker ***

Some JPEG files may use a DNL marker to postpone definition of the image
height (this would be useful for a fax-like scanner's output, for instance).

In these files the SOF marker claims the image height is 0, and you only
find out the true image height at the end of the first scan.

We could read these files as follows:
1. Upon seeing zero image height, replace it by 65535 (the maximum allowed).
2. When the DNL is found, update the image height in the global image
descriptor.
This implies that control modules must avoid making copies of the image
height, and must re-test for termination after each MCU row. This would
be easy enough to do.

In cases where image-size data structures are allocated, this approach will
result in very inefficient use of virtual memory or much-larger-than-necessary
temporary files. This seems acceptable for something that probably won't be a
mainstream usage. People might have to forgo use of memory-hogging options
(such as two-pass color quantization or noninterleaved JPEG files) if they
want efficient conversion of such files. (One could improve efficiency by
demanding a user-supplied upper bound for the height, less than 65536; in most
cases it could be much less.)

The standard also permits the SOF marker to overestimate the image height,
with a DNL to give the true, smaller height at the end of the first scan.
This would solve the space problems if the overestimate wasn't too great.
However, it implies that you don't even know whether DNL will be used.

This leads to a couple of very serious objections:
1. Testing for a DNL marker must occur in the inner loop of the decompressor's
Huffman decoder; this implies a speed penalty whether the feature is used
or not.
2. There is no way to hide the last-minute change in image height from an
application using the decoder. Thus *every* application using the IJG
library would suffer a complexity penalty whether it cared about DNL or
not.
We currently do not support DNL because of these problems.

A different approach is to insist that DNL-using files be preprocessed by a
separate program that reads ahead to the DNL, then goes back and fixes the SOF
marker. This is a much simpler solution and is probably far more efficient.
Even if one wants piped input, buffering the first scan of the JPEG file needs
a lot smaller temp file than is implied by the maximum-height method. For
this approach we'd simply treat DNL as a no-op in the decompressor (at most,
check that it matches the SOF image height).

We will not worry about making the compressor capable of outputting DNL.
Something similar to the first scheme above could be applied if anyone ever
wants to make that work.

Found in path(s):

* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/structure.txt
No license file was found, but licenses were detected in source scan.

```
/*
* jutils.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains tables and miscellaneous utility routines needed
* for both compression and decompression.
* Note we prefix all global names with "j" to minimize conflicts with
* a surrounding application.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jutils.c
No license file was found, but licenses were detected in source scan.

libjpeg-turbo note: This file has been modified by The libjpeg-turbo Project to include only information relevant to libjpeg-turbo, to wordsmith certain sections, and to remove impolitic language that existed in the libjpeg v8 README. It is included only for reference. Please see README-turbo.txt for information specific to libjpeg-turbo.

```
The Independent JPEG Group's JPEG software
==========================================

This distribution contains a release of the Independent JPEG Group's free JPEG
software.  You are welcome to redistribute this software and to use it for any
purpose, subject to the conditions under LEGAL ISSUES, below.

This software is the work of Tom Lane, Guido Vollbeding, Philip Gladstone,
Bill Allombert, Jim Boucher, Lee Crocker, Bob Friesenhahn, Ben Jackson,
Julian Minguillon, Luis Ortiz, George Phillips, Davide Rossi, Ge' Weijers,
and other members of the Independent JPEG Group.

IJG is not affiliated with the ISO/IEC JTC1/SC29/WG1 standards committee
(also known as JPEG, together with ITU-T SG16).


DOCUMENTATION ROADMAP
=====================
```

This file contains the following sections:

OVERVIEW General description of JPEG and the IJG software.
LEGAL ISSUES Copyright, lack of warranty, terms of distribution.
REFERENCES Where to learn more about JPEG.
ARCHIVE LOCATIONS Where to find newer versions of this software.
FILE FORMAT WARS Software *not* to get.
TO DO Plans for future IJG releases.

Other documentation files in the distribution are:

User documentation:
install.txt How to configure and install the IJG software.
usage.txt Usage instructions for cjpeg, djpeg, jpegtran,
rdjpgcom, and wrjpgcom.
*.1 Unix-style man pages for programs (same info as usage.txt).
wizard.txt Advanced usage instructions for JPEG wizards only.
change.log Version-to-version change highlights.
Programmer and internal documentation:
libjpeg.txt How to use the JPEG library in your own programs.
example.c Sample code for calling the JPEG library.
structure.txt Overview of the JPEG library's internal structure.
coderules.txt Coding style rules --- please read if you contribute code.

Please read at least the files install.txt and usage.txt. Some information can also be found in the JPEG FAQ (Frequently Asked Questions) article. See ARCHIVE LOCATIONS below to find out where to obtain the FAQ article.

If you want to understand how the JPEG code works, we suggest reading one or more of the REFERENCES, then looking at the documentation files (in roughly the order listed) before diving into the code.

OVERVIEW
========

This package contains C software to implement JPEG image encoding, decoding, and transcoding. JPEG (pronounced "jay-peg") is a standardized compression method for full-color and gray-scale images. JPEG's strong suit is compressing photographic images or other types of images that have smooth color and brightness transitions between neighboring pixels. Images with sharp lines or other abrupt features may not compress well with JPEG, and a higher JPEG quality may have to be used to avoid visible compression artifacts with such images.

JPEG is lossy, meaning that the output pixels are not necessarily identical to the input pixels. However, on photographic content and other "smooth" images, very good compression ratios can be obtained with no visible compression

artifacts, and extremely high compression ratios are possible if you are
willing to sacrifice image quality (by reducing the "quality" setting in the
compressor.)

This software implements JPEG baseline, extended-sequential, and progressive
compression processes. Provision is made for supporting all variants of these
processes, although some uncommon parameter settings aren't implemented yet.
We have made no provision for supporting the hierarchical or lossless
processes defined in the standard.

We provide a set of library routines for reading and writing JPEG image files,
plus two sample applications "cjpeg" and "djpeg", which use the library to
perform conversion between JPEG and some other popular image file formats.
The library is intended to be reused in other applications.

In order to support file conversion and viewing software, we have included
considerable functionality beyond the bare JPEG coding/decoding capability;
for example, the color quantization modules are not strictly part of JPEG
decoding, but they are essential for output to colormapped file formats or
colormapped displays. These extra functions can be compiled out of the
library if not required for a particular application.

We have also included "jpegtran", a utility for lossless transcoding between
different JPEG processes, and "rdjpgcom" and "wrjpgcom", two simple
applications for inserting and extracting textual comments in JFIF files.

The emphasis in designing this software has been on achieving portability and
flexibility, while also making it fast enough to be useful. In particular,
the software is not intended to be read as a tutorial on JPEG. (See the
REFERENCES section for introductory material.) Rather, it is intended to
be reliable, portable, industrial-strength code. We do not claim to have
achieved that goal in every aspect of the software, but we strive for it.

We welcome the use of this software as a component of commercial products.
No royalty is required, but we do ask for an acknowledgement in product
documentation, as described under LEGAL ISSUES.

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============

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you've used the IJG code.

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software".

We specifically permit and encourage the use of this software as the basis of
commercial products, provided that all warranty or liability claims are
assumed by the product vendor.

The Unix configuration script "configure" was produced with GNU Autoconf.
It is copyright by the Free Software Foundation but is freely distributable.
The same holds for its supporting scripts (config.guess, config.sub,
ltmain.sh). Another support script, install-sh, is copyright by X Consortium
but is also freely distributable.

The IJG distribution formerly included code to read and write GIF files.
To avoid entanglement with the Unisys LZW patent, GIF reading support has

been removed altogether, and the GIF writer has been simplified to produce "uncompressed GIFs". This technique does not use the LZW algorithm; the resulting GIF files are larger than usual, but are readable by all standard GIF decoders.

We are required to state that

"The Graphics Interchange Format(c) is the Copyright property of CompuServe Incorporated. GIF(sm) is a Service Mark property of CompuServe Incorporated."

REFERENCES
==========

We recommend reading one or more of these references before trying to understand the innards of the JPEG software.

The best short technical introduction to the JPEG compression algorithm is Wallace, Gregory K. "The JPEG Still Picture Compression Standard", Communications of the ACM, April 1991 (vol. 34 no. 4), pp. 30-44. (Adjacent articles in that issue discuss MPEG motion picture compression, applications of JPEG, and related topics.) If you don't have the CACM issue handy, a PostScript file containing a revised version of Wallace's article is available at http://www.ijg.org/files/wallace.ps.gz. The file (actually a preprint for an article that appeared in IEEE Trans. Consumer Electronics) omits the sample images that appeared in CACM, but it includes corrections and some added material. Note: the Wallace article is copyright ACM and IEEE, and it may not be used for commercial purposes.

A somewhat less technical, more leisurely introduction to JPEG can be found in "The Data Compression Book" by Mark Nelson and Jean-loup Gailly, published by M&T Books (New York), 2nd ed. 1996, ISBN 1-55851-434-1. This book provides good explanations and example C code for a multitude of compression methods including JPEG. It is an excellent source if you are comfortable reading C code but don't know much about data compression in general. The book's JPEG sample code is far from industrial-strength, but when you are ready to look at a full implementation, you've got one here...

The best currently available description of JPEG is the textbook "JPEG Still Image Data Compression Standard" by William B. Pennebaker and Joan L. Mitchell, published by Van Nostrand Reinhold, 1993, ISBN 0-442-01272-1. Price US$59.95, 638 pp. The book includes the complete text of the ISO JPEG standards (DIS 10918-1 and draft DIS 10918-2).

The original JPEG standard is divided into two parts, Part 1 being the actual specification, while Part 2 covers compliance testing methods. Part 1 is titled "Digital Compression and Coding of Continuous-tone Still Images, Part 1: Requirements and guidelines" and has document numbers ISO/IEC IS

10918-1, ITU-T T.81. Part 2 is titled "Digital Compression and Coding of Continuous-tone Still Images, Part 2: Compliance testing" and has document numbers ISO/IEC IS 10918-2, ITU-T T.83.

The JPEG standard does not specify all details of an interchangeable file format. For the omitted details we follow the "JFIF" conventions, revision 1.02. JFIF 1.02 has been adopted as an Ecma International Technical Report and thus received a formal publication status. It is available as a free download in PDF format from http://www.ecma-international.org/publications/techreports/E-TR-098.htm. A PostScript version of the JFIF document is available at http://www.ijg.org/files/jfif.ps.gz. There is also a plain text version at http://www.ijg.org/files/jfif.txt.gz, but it is missing the figures.

The TIFF 6.0 file format specification can be obtained by FTP from ftp://ftp.sgi.com/graphics/tiff/TIFF6.ps.gz. The JPEG incorporation scheme found in the TIFF 6.0 spec of 3-June-92 has a number of serious problems. IJG does not recommend use of the TIFF 6.0 design (TIFF Compression tag 6). Instead, we recommend the JPEG design proposed by TIFF Technical Note #2 (Compression tag 7). Copies of this Note can be obtained from http://www.ijg.org/files/. It is expected that the next revision of the TIFF spec will replace the 6.0 JPEG design with the Note's design. Although IJG's own code does not support TIFF/JPEG, the free libtiff library uses our library to implement TIFF/JPEG per the Note.

ARCHIVE LOCATIONS
==========

The "official" archive site for this software is www.ijg.org. The most recent released version can always be found there in directory "files". This particular version will be archived as http://www.ijg.org/files/jpegsrc.v8d.tar.gz, and in Windows-compatible "zip" archive format as http://www.ijg.org/files/jpegsr8d.zip.

The JPEG FAQ (Frequently Asked Questions) article is a source of some general information about JPEG.
It is available on the World Wide Web at http://www.faqs.org/faqs/jpeg-faq/ and other news.answers archive sites, including the official news.answers archive at rtfm.mit.edu: ftp://rtfm.mit.edu/pub/usenet/news.answers/jpeg-faq/.
If you don't have Web or FTP access, send e-mail to mail-server@rtfm.mit.edu with body
 send usenet/news.answers/jpeg-faq/part1
 send usenet/news.answers/jpeg-faq/part2

FILE FORMAT WARS
==========

The ISO/IEC JTC1/SC29/WG1 standards committee (also known as JPEG, together
with ITU-T SG16) currently promotes different formats containing the name
"JPEG" which are incompatible with original DCT-based JPEG. IJG therefore does
not support these formats (see REFERENCES). Indeed, one of the original
reasons for developing this free software was to help force convergence on
common, interoperable format standards for JPEG files.
Don't use an incompatible file format!
(In any case, our decoder will remain capable of reading existing JPEG
image files indefinitely.)

TO DO
=====

Please send bug reports, offers of help, etc. to jpeg-info@jpegclub.org.

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/README
No license file was found, but licenses were detected in source scan.

1.2.90 (1.3 beta1)
==================

[1] Added support for additional scaling factors (3/8, 5/8, 3/4, 7/8, 9/8, 5/4,
11/8, 3/2, 13/8, 7/4, 15/8, and 2) when decompressing. Note that the IDCT will
not be SIMD-accelerated when using any of these new scaling factors.

[2] The TurboJPEG dynamic library is now versioned. It was not strictly
necessary to do so, because TurboJPEG uses versioned symbols, and if a function
changes in an ABI-incompatible way, that function is renamed and a legacy
function is provided to maintain backward compatibility. However, certain
Linux distro maintainers will blindly reject any library that is not versioned,
so this was an attempt to make them happy.

[3] Extended the TurboJPEG Java API so that it can be used to compress a JPEG
image from and decompress a JPEG image to an arbitrary position in a large
image buffer.

[4] The tjDecompressToYUV() function now supports the TJFLAG_FASTDCT flag.

[5] The 32-bit supplementary package for amd64 Debian systems now provides
symlinks in /usr/lib/i386-linux-gnu for the TurboJPEG libraries in /usr/lib32.
This allows those libraries to be used on MultiArch-compatible systems (such as
Ubuntu 11 and later) without setting the linker path.

[6] The TurboJPEG Java wrapper should now find the JNI library on Mac systems

without having to pass -Djava.library.path=/usr/lib to java.

[7] TJBench has been ported to Java to provide a convenient way of validating the performance of the TurboJPEG Java API. It can be run with 'java -cp turbojpeg.jar TJBench'.

[8] cjpeg can now be used to generate JPEG files with the RGB colorspace (feature ported from jpeg-8d.)

[9] The width and height in the -crop argument passed to jpegtran can now be suffixed with "f" to indicate that, when the upper left corner of the cropping region is automatically moved to the nearest iMCU boundary, the bottom right corner should be moved by the same amount. In other words, this feature causes jpegtran to strictly honor the specified width/height rather than the specified bottom right corner (feature ported from jpeg-8d.)

[10] JPEG files using the RGB colorspace can now be decompressed into grayscale images (feature ported from jpeg-8d.)

[11] Fixed a regression caused by 1.2.1[7] whereby the build would fail with multiple "Mismatch in operand sizes" errors when attempting to build the x86 SIMD code with NASM 0.98.

[12] The in-memory source/destination managers (jpeg_mem_src() and jpeg_mem_dest()) are now included by default when building libjpeg-turbo with libjpeg v6b or v7 emulation, so that programs can take advantage of these functions without requiring the use of the backward-incompatible libjpeg v8 ABI. The "age number" of the libjpeg-turbo library on Un*x systems has been incremented by 1 to reflect this. You can disable this feature with a configure/CMake switch in order to retain strict API/ABI compatibility with the libjpeg v6b or v7 API/ABI (or with previous versions of libjpeg-turbo.) See README-turbo.txt for more details.

[13] Added ARM v7s architecture to libjpeg.a and libturbojpeg.a in the official libjpeg-turbo binary package for OS X, so that those libraries can be used to build applications that leverage the faster CPUs in the iPhone 5 and iPad 4.

1.2.1
=====

[1] Creating or decoding a JPEG file that uses the RGB colorspace should now properly work when the input or output colorspace is one of the libjpeg-turbo colorspace extensions.

[2] When libjpeg-turbo was built without SIMD support and merged (non-fancy) upsampling was used along with an alpha-enabled colorspace during decompression, the unused byte of the decompressed pixels was not being set to

0xFF. This has been fixed. TJUnitTest has also been extended to test for the correct behavior of the colorspace extensions when merged upsampling is used.

[3] Fixed a bug whereby the libjpeg-turbo SSE2 SIMD code would not preserve the upper 64 bits of xmm6 and xmm7 on Win64 platforms, which violated the Win64 calling conventions.

[4] Fixed a regression caused by 1.2.0[6] whereby decompressing corrupt JPEG images (specifically, images in which the component count was erroneously set to a large value) would cause libjpeg-turbo to segfault.

[5] Worked around a severe performance issue with "Bobcat" (AMD Embedded APU) processors. The MASKMOVDQU instruction, which was used by the libjpeg-turbo SSE2 SIMD code, is apparently implemented in microcode on AMD processors, and it is painfully slow on Bobcat processors in particular. Eliminating the use of this instruction improved performance by an order of magnitude on Bobcat processors and by a small amount (typically 5%) on AMD desktop processors.

[6] Added SIMD acceleration for performing 4:2:2 upsampling on NEON-capable ARM platforms. This speeds up the decompression of 4:2:2 JPEGs by 20-25% on such platforms.

[7] Fixed a regression caused by 1.2.0[2] whereby, on Linux/x86 platforms running the 32-bit SSE2 SIMD code in libjpeg-turbo, decompressing a 4:2:0 or 4:2:2 JPEG image into a 32-bit (RGBX, BGRX, etc.) buffer without using fancy upsampling would produce several incorrect columns of pixels at the right-hand side of the output image if each row in the output image was not evenly divisible by 16 bytes.

[8] Fixed an issue whereby attempting to build the SIMD extensions with Xcode 4.3 on OS X platforms would cause NASM to return numerous errors of the form "'%define' expects a macro identifier".

[9] Added flags to the TurboJPEG API that allow the caller to force the use of either the fast or the accurate DCT/IDCT algorithms in the underlying codec.

1.2.0
=====

[1] Fixed build issue with YASM on Unix systems (the libjpeg-turbo build system was not adding the current directory to the assembler include path, so YASM was not able to find jsimdcfg.inc.)

[2] Fixed out-of-bounds read in SSE2 SIMD code that occurred when decompressing a JPEG image to a bitmap buffer whose size was not a multiple of 16 bytes. This was more of an annoyance than an actual bug, since it did not cause any actual run-time problems, but the issue showed up when running libjpeg-turbo in

valgrind. See http://crbug.com/72399 for more information.

[3] Added a compile-time macro (LIBJPEG_TURBO_VERSION) that can be used to
check the version of libjpeg-turbo against which an application was compiled.

[4] Added new RGBA/BGRA/ABGR/ARGB colorspace extension constants (libjpeg API)
and pixel formats (TurboJPEG API), which allow applications to specify that,
when decompressing to a 4-component RGB buffer, the unused byte should be set
to 0xFF so that it can be interpreted as an opaque alpha channel.

[5] Fixed regression issue whereby DevIL failed to build against libjpeg-turbo
because libjpeg-turbo's distributed version of jconfig.h contained an INLINE
macro, which conflicted with a similar macro in DevIL. This macro is used only
internally when building libjpeg-turbo, so it was moved into config.h.

[6] libjpeg-turbo will now correctly decompress erroneous CMYK/YCCK JPEGs whose
K component is assigned a component ID of 1 instead of 4. Although these files
are in violation of the spec, other JPEG implementations handle them
correctly.

[7] Added ARM v6 and ARM v7 architectures to libjpeg.a and libturbojpeg.a in
the official libjpeg-turbo binary package for OS X, so that those libraries can
be used to build both OS X and iOS applications.

1.1.90 (1.2 beta1)
==========

[1] Added a Java wrapper for the TurboJPEG API. See java/README for more
details.

[2] The TurboJPEG API can now be used to scale down images during
decompression.

[3] Added SIMD routines for RGB-to-grayscale color conversion, which
significantly improves the performance of grayscale JPEG compression from an
RGB source image.

[4] Improved the performance of the C color conversion routines, which are used
on platforms for which SIMD acceleration is not available.

[5] Added a function to the TurboJPEG API that performs lossless transforms.
This function is implemented using the same back end as jpegtran, but it
performs transcoding entirely in memory and allows multiple transforms and/or
crop operations to be batched together, so the source coefficients only need to
be read once. This is useful when generating image tiles from a single source
JPEG.

[6] Added tests for the new TurboJPEG scaled decompression and lossless transform features to tjbench (the TurboJPEG benchmark, formerly called "jpgtest".)

[7] Added support for 4:4:0 (transposed 4:2:2) subsampling in TurboJPEG, which was necessary in order for it to read 4:2:2 JPEG files that had been losslessly transposed or rotated 90 degrees.

[8] All legacy VirtualGL code has been re-factored, and this has allowed libjpeg-turbo, in its entirety, to be re-licensed under a BSD-style license.

[9] libjpeg-turbo can now be built with YASM.

[10] Added SIMD acceleration for ARM Linux and iOS platforms that support NEON instructions.

[11] Refactored the TurboJPEG C API and documented it using Doxygen. The TurboJPEG 1.2 API uses pixel formats to define the size and component order of the uncompressed source/destination images, and it includes a more efficient version of TJBUFSIZE() that computes a worst-case JPEG size based on the level of chrominance subsampling. The refactored implementation of the TurboJPEG API now uses the libjpeg memory source and destination managers, which allows the TurboJPEG compressor to grow the JPEG buffer as necessary.

[12] Eliminated errors in the output of jpegtran on Windows that occurred when the application was invoked using I/O redirection (jpegtran <input.jpg >output.jpg).

[13] The inclusion of libjpeg v7 and v8 emulation as well as arithmetic coding support in libjpeg-turbo v1.1.0 introduced several new error constants in jerror.h, and these were mistakenly enabled for all emulation modes, causing the error enum in libjpeg-turbo to sometimes have different values than the same enum in libjpeg. This represents an ABI incompatibility, and it caused problems with rare applications that took specific action based on a particular error value. The fix was to include the new error constants conditionally based on whether libjpeg v7 or v8 emulation was enabled.

[14] Fixed an issue whereby Windows applications that used libjpeg-turbo would fail to compile if the Windows system headers were included before jpeglib.h. This issue was caused by a conflict in the definition of the INT32 type.

[15] Fixed 32-bit supplementary package for amd64 Debian systems, which was broken by enhancements to the packaging system in 1.1.

[16] When decompressing a JPEG image using an output colorspace of JCS_EXT_RGBX, JCS_EXT_BGRX, JCS_EXT_XBGR, or JCS_EXT_XRGB, libjpeg-turbo will now set the unused byte to 0xFF, which allows applications to interpret that byte as an alpha channel (0xFF = opaque).

1.1.1
=====

[1] Fixed a 1-pixel error in row 0, column 21 of the luminance plane generated by tjEncodeYUV().

[2] libjpeg-turbo's accelerated Huffman decoder previously ignored unexpected markers found in the middle of the JPEG data stream during decompression. It will now hand off decoding of a particular block to the unaccelerated Huffman decoder if an unexpected marker is found, so that the unaccelerated Huffman decoder can generate an appropriate warning.

[3] Older versions of MinGW64 prefixed symbol names with underscores by default, which differed from the behavior of 64-bit Visual C++. MinGW64 1.0 has adopted the behavior of 64-bit Visual C++ as the default, so to accommodate this, the libjpeg-turbo SIMD function names are no longer prefixed with an underscore when building with MinGW64. This means that, when building libjpeg-turbo with older versions of MinGW64, you will now have to add -fno-leading-underscore to the CFLAGS.

[4] Fixed a regression bug in the NSIS script that caused the Windows installer build to fail when using the Visual Studio IDE.

[5] Fixed a bug in jpeg_read_coefficients() whereby it would not initialize cinfo->image_width and cinfo->image_height if libjpeg v7 or v8 emulation was enabled. This specifically caused the jpegoptim program to fail if it was linked against a version of libjpeg-turbo that was built with libjpeg v7 or v8 emulation.

[6] Eliminated excessive I/O overhead that occurred when reading BMP files in cjpeg.

[7] Eliminated errors in the output of cjpeg on Windows that occurred when the application was invoked using I/O redirection (cjpeg <inputfile >output.jpg).

1.1.0
=====

[1] The algorithm used by the SIMD quantization function cannot produce correct results when the JPEG quality is >= 98 and the fast integer forward DCT is used. Thus, the non-SIMD quantization function is now used for those cases, and libjpeg-turbo should now produce identical output to libjpeg v6b in all cases.

[2] Despite the above, the fast integer forward DCT still degrades somewhat for

JPEG qualities greater than 95, so the TurboJPEG wrapper will now automatically use the slow integer forward DCT when generating JPEG images of quality 96 or greater. This reduces compression performance by as much as 15% for these high-quality images but is necessary to ensure that the images are perceptually lossless. It also ensures that the library can avoid the performance pitfall created by [1].

[3] Ported jpgtest.cxx to pure C to avoid the need for a C++ compiler.

[4] Fixed visual artifacts in grayscale JPEG compression caused by a typo in the RGB-to-luminance lookup tables.

[5] The Windows distribution packages now include the libjpeg run-time programs (cjpeg, etc.)

[6] All packages now include jpgtest.

[7] The TurboJPEG dynamic library now uses versioned symbols.

[8] Added two new TurboJPEG API functions, tjEncodeYUV() and tjDecompressToYUV(), to replace the somewhat hackish TJ_YUV flag.

1.0.90 (1.1 beta1)
==========

[1] Added emulation of the libjpeg v7 and v8 APIs and ABIs. See README-turbo.txt for more details. This feature was sponsored by CamTrace SAS.

[2] Created a new CMake-based build system for the Visual C++ and MinGW builds.

[3] Grayscale bitmaps can now be compressed from/decompressed to using the TurboJPEG API.

[4] jpgtest can now be used to test decompression performance with existing JPEG images.

[5] If the default install prefix (/opt/libjpeg-turbo) is used, then 'make install' now creates /opt/libjpeg-turbo/lib32 and /opt/libjpeg-turbo/lib64 sym links to duplicate the behavior of the binary packages.

[6] All symbols in the libjpeg-turbo dynamic library are now versioned, even when the library is built with libjpeg v6b emulation.

[7] Added arithmetic encoding and decoding support (can be disabled with configure or CMake options)

[8] Added a TJ_YUV flag to the TurboJPEG API, which causes both the compressor and decompressor to output planar YUV images.

[9] Added an extended version of tjDecompressHeader() to the TurboJPEG API, which allows the caller to determine the type of subsampling used in a JPEG image.

[10] Added further protections against invalid Huffman codes.

1.0.1
=====

[1] The Huffman decoder will now handle erroneous Huffman codes (for instance, from a corrupt JPEG image.) Previously, these would cause libjpeg-turbo to crash under certain circumstances.

[2] Fixed typo in SIMD dispatch routines that was causing 4:2:2 upsampling to be used instead of 4:2:0 when decompressing JPEG images using SSE2 code.

[3] configure script will now automatically determine whether the INCOMPLETE_TYPES_BROKEN macro should be defined.

1.0.0
=====

[1] 2983700: Further FreeBSD build tweaks (no longer necessary to specify --host when configuring on a 64-bit system)

[2] Created symlinks in the Unix/Linux packages so that the TurboJPEG include file can always be found in /opt/libjpeg-turbo/include, the 32-bit static libraries can always be found in /opt/libjpeg-turbo/lib32, and the 64-bit static libraries can always be found in /opt/libjpeg-turbo/lib64.

[3] The Unix/Linux distribution packages now include the libjpeg run-time programs (cjpeg, etc.) and man pages.

[4] Created a 32-bit supplementary package for amd64 Debian systems, which contains just the 32-bit libjpeg-turbo libraries.

[5] Moved the libraries from */lib32 to */lib in the i386 Debian package.

[6] Include distribution package for Cygwin

[7] No longer necessary to specify --without-simd on non-x86 architectures, and unit tests now work on those architectures.

0.0.93
======

[1] 2982659, Fixed x86-64 build on FreeBSD systems

[2] 2988188: Added support for Windows 64-bit systems

0.0.91
======

[1] Added documentation to .deb packages

[2] 2968313: Fixed data corruption issues when decompressing large JPEG images
and/or using buffered I/O with the libjpeg-turbo decompressor

0.0.90
======

Initial release

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/ChangeLog.txt
No license file was found, but licenses were detected in source scan.

```
/*
* rdrle.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to read input images in Utah RLE format.
* The Utah Raster Toolkit library is required (version 3.1 or later).
*
* These routines may need modification for non-Unix environments or
* specialized applications.  As they stand, they assume input from
* an ordinary stdio stream.  They further assume that reading begins
* at the start of the file; start_input may need work if the
* user interface has already read some data (e.g., to determine that
* the file is indeed RLE format).
*
* Based on code contributed by Mike Lijewski,
* with updates from Robert Hutchinson.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/rdrle.c
No license file was found, but licenses were detected in source scan.

```
/*
* jerror.c
*
* Copyright (C) 1991-1998, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains simple error-reporting and trace-message routines.
* These are suitable for Unix-like systems and others where writing to
* stderr is the right thing to do.  Many applications will want to replace
* some or all of these routines.
*
* If you define USE_WINDOWS_MESSAGEBOX in jconfig.h or in the makefile,
* you get a Windows-specific hack to display error messages in a dialog box.
* It ain't much, but it beats dropping error messages into the bit bucket,
* which is what happens to output to stderr under most Windows C compilers.
*
* These routines are used by both the compression and decompression code.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jerror.c
No license file was found, but licenses were detected in source scan.

```
/*
* jidctflt.c
*
* Copyright (C) 1994-1998, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a floating-point implementation of the
* inverse DCT (Discrete Cosine Transform).  In the IJG code, this routine
* must also perform dequantization of the input coefficients.
*
* This implementation should be more accurate than either of the integer
* IDCT implementations.  However, it may not give the same results on all
* machines because of differences in roundoff behavior.  Speed will depend
* on the hardware's floating point capacity.
*
* A 2-D IDCT can be done by 1-D IDCT on each column followed by 1-D IDCT
```

```
* on each row (or vice versa, but it's more convenient to emit a row at
* a time).  Direct algorithms are also available, but they are much more
* complex and seem not to be any faster when reduced to code.
*
* This implementation is based on Arai, Agui, and Nakajima's algorithm for
* scaled DCT.  Their original paper (Trans. IEICE E-71(11):1095) is in
* Japanese, but the algorithm is described in the Pennebaker & Mitchell
* JPEG textbook (see REFERENCES section in file README).  The following code
* is based directly on figure 4-8 in P&M.
* While an 8-point DCT cannot be done in less than 11 multiplies, it is
* possible to arrange the computation so that many of the multiplies are
* simple scalings of the final outputs.  These multiplies can then be
* folded into the multiplications or divisions by the JPEG quantization
* table entries.  The AA&N method leaves only 5 multiplies and 29 adds
* to be done in the DCT itself.
* The primary disadvantage of this method is that with a fixed-point
* implementation, accuracy is lost due to imprecise representation of the
* scaled quantization values.  However, that problem does not arise if
* we use floating point arithmetic.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jidctflt.c
No license file was found, but licenses were detected in source scan.

```
/*
* jconfig.txt
*
* Copyright (C) 1991-1994, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file documents the configuration options that are required to
* customize the JPEG software for a particular system.
*
* The actual configuration options for a particular installation are stored
* in jconfig.h.  On many machines, jconfig.h can be generated automatically
* or copied from one of the "canned" jconfig files that we supply.  But if
* you need to generate a jconfig.h file by hand, this file tells you how.
*
* DO NOT EDIT THIS FILE --- IT WON'T ACCOMPLISH ANYTHING.
* EDIT A COPY NAMED JCONFIG.H.
*/



/*
* These symbols indicate the properties of your machine or compiler.
```

```
* #define the symbol if yes, #undef it if no.
*/

/* Does your compiler support function prototypes?
* (If not, you also need to use ansi2knr, see install.txt)
*/
#define HAVE_PROTOTYPES

/* Does your compiler support the declaration "unsigned char" ?
* How about "unsigned short" ?
*/
#define HAVE_UNSIGNED_CHAR
#define HAVE_UNSIGNED_SHORT

/* Define "void" as "char" if your compiler doesn't know about type void.
* NOTE: be sure to define void such that "void *" represents the most general
* pointer type, e.g., that returned by malloc().
*/
/* #define void char */

/* Define "const" as empty if your compiler doesn't know the "const" keyword.
*/
/* #define const */

/* Define this if an ordinary "char" type is unsigned.
* If you're not sure, leaving it undefined will work at some cost in speed.
* If you defined HAVE_UNSIGNED_CHAR then the speed difference is minimal.
*/
#undef CHAR_IS_UNSIGNED

/* Define this if your system has an ANSI-conforming <stddef.h> file.
*/
#define HAVE_STDDEF_H

/* Define this if your system has an ANSI-conforming <stdlib.h> file.
*/
#define HAVE_STDLIB_H

/* Define this if your system does not have an ANSI/SysV <string.h>,
* but does have a BSD-style <strings.h>.
*/
#undef NEED_BSD_STRINGS

/* Define this if your system does not provide typedef size_t in any of the
* ANSI-standard places (stddef.h, stdlib.h, or stdio.h), but places it in
* <sys/types.h> instead.
*/
#undef NEED_SYS_TYPES_H
```

```
/* For 80x86 machines, you need to define NEED_FAR_POINTERS,
* unless you are using a large-data memory model or 80386 flat-memory mode.
* On less brain-damaged CPUs this symbol must not be defined.
* (Defining this symbol causes large data structures to be referenced through
* "far" pointers and to be allocated with a special version of malloc.)
*/
#undef NEED_FAR_POINTERS

/* Define this if your linker needs global names to be unique in less
* than the first 15 characters.
*/
#undef NEED_SHORT_EXTERNAL_NAMES

/* Although a real ANSI C compiler can deal perfectly well with pointers to
* unspecified structures (see "incomplete types" in the spec), a few pre-ANSI
* and pseudo-ANSI compilers get confused.  To keep one of these bozos happy,
* define INCOMPLETE_TYPES_BROKEN.  This is not recommended unless you
* actually get "missing structure definition" warnings or errors while
* compiling the JPEG code.
*/
#undef INCOMPLETE_TYPES_BROKEN

/* Define "boolean" as unsigned char, not int, on Windows systems.
*/
#ifdef _WIN32
#ifndef __RPCNDR_H__  /* don't conflict if rpcndr.h already read */
typedef unsigned char boolean;
#endif
#define HAVE_BOOLEAN  /* prevent jmorecfg.h from redefining it */
#endif


/*
* The following options affect code selection within the JPEG library,
* but they don't need to be visible to applications using the library.
* To minimize application namespace pollution, the symbols won't be
* defined unless JPEG_INTERNALS has been defined.
*/

#ifdef JPEG_INTERNALS

/* Define this if your compiler implements ">>" on signed values as a logical
* (unsigned) shift; leave it undefined if ">>" is a signed (arithmetic) shift,
* which is the normal and rational definition.
*/
#undef RIGHT_SHIFT_IS_UNSIGNED
```

```
#endif /* JPEG_INTERNALS */


/*
* The remaining options do not affect the JPEG library proper,
* but only the sample applications cjpeg/djpeg (see cjpeg.c, djpeg.c).
* Other applications can ignore these.
*/

#ifdef JPEG_CJPEG_DJPEG

/* These defines indicate which image (non-JPEG) file formats are allowed. */

#define BMP_SUPPORTED  /* BMP image file format */
#define GIF_SUPPORTED  /* GIF image file format */
#define PPM_SUPPORTED  /* PBMPLUS PPM/PGM image file format */
#undef RLE_SUPPORTED  /* Utah RLE image file format */
#define TARGA_SUPPORTED  /* Targa image file format */

/* Define this if you want to name both input and output files on the command
* line, rather than using stdout and optionally stdin.  You MUST do this if
* your system can't cope with binary I/O to stdin/stdout.  See comments at
* head of cjpeg.c or djpeg.c.
*/
#undef TWO_FILE_COMMANDLINE

/* Define this if your system needs explicit cleanup of temporary files.
* This is crucial under MS-DOS, where the temporary "files" may be areas
* of extended memory; on most other systems it's not as important.
*/
#undef NEED_SIGNAL_CATCHER

/* By default, we open image files with fopen(...,"rb") or fopen(...,"wb").
* This is necessary on systems that distinguish text files from binary files,
* and is harmless on most systems that don't.  If you have one of the rare
* systems that complains about the "b" spec, define this symbol.
*/
#undef DONT_USE_B_MODE

/* Define this if you want percent-done progress reports from cjpeg/djpeg.
*/
#undef PROGRESS_REPORT


#endif /* JPEG_CJPEG_DJPEG */
```

Found in path(s):

* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jconfig.txt
No license file was found, but licenses were detected in source scan.

```
/*
* simd/jsimd.h
*
* Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
* Copyright 2011 D. R. Commander
*
* Based on the x86 SIMD extension for IJG JPEG library,
* Copyright (C) 1999-2006, MIYASAKA Masaru.
* For conditions of distribution and use, see copyright notice in jsimdext.inc
*
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jsimd.h
No license file was found, but licenses were detected in source scan.

```
/*
* rdtarga.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to read input images in Targa format.
*
* These routines may need modification for non-Unix environments or
* specialized applications.  As they stand, they assume input from
* an ordinary stdio stream.  They further assume that reading begins
* at the start of the file; start_input may need work if the
* user interface has already read some data (e.g., to determine that
* the file is indeed Targa format).
*
* Based on code contributed by Lee Daniel Crocker.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/rdtarga.c
No license file was found, but licenses were detected in source scan.

License: IJG

Found in path(s):

* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo.spec
No license file was found, but licenses were detected in source scan.

```
/*
* wrppm.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modified 2009 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to write output images in PPM/PGM format.
* The extended 2-byte-per-sample raw PPM/PGM formats are supported.
* The PBMPLUS library is NOT required to compile this software
* (but it is highly useful as a set of PPM image manipulation programs).
*
* These routines may need modification for non-Unix environments or
* specialized applications.  As they stand, they assume output to
* an ordinary stdio stream.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/wrppm.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdinput.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modifications:
* Copyright (C) 2010, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains input control logic for the JPEG decompressor.
* These routines are concerned with controlling the decompressor's input
* processing (marker reading and coefficient decoding).  The actual input
* reading is done in jdmarker.c, jdhuff.c, and jdphuff.c.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdinput.c
No license file was found, but licenses were detected in source scan.

```
/*
```

```
* wrgif.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to write output images in GIF format.
*
*************************************************************************
* NOTE: to avoid entanglements with Unisys' patent on LZW compression,  *
* this code has been modified to output "uncompressed GIF" files.       *
* There is no trace of the LZW algorithm in this file.                  *
*************************************************************************
*
* These routines may need modification for non-Unix environments or
* specialized applications.  As they stand, they assume output to
* an ordinary stdio stream.
*/
/*
* This code is loosely based on ppmtogif from the PBMPLUS distribution
* of Feb. 1991.  That file contains the following copyright notice:
*    Based on GIFENCODE by David Rowley <mgardi@watdscu.waterloo.edu>.
*    Lempel-Ziv compression based on "compress" by Spencer W. Thomas et al.
*    Copyright (C) 1989 by Jef Poskanzer.
*    Permission to use, copy, modify, and distribute this software and its
*    documentation for any purpose and without fee is hereby granted, provided
*    that the above copyright notice appear in all copies and that both that
*    copyright notice and this permission notice appear in supporting
*    documentation.  This software is provided "as is" without express or
*    implied warranty.
*
* We are also required to state that
*    "The Graphics Interchange Format(c) is the Copyright property of
*    CompuServe Incorporated. GIF(sm) is a Service Mark property of
*    CompuServe Incorporated."
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/wrgif.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdcolext.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modifications:
```

* Copyright (C) 2009, 2011, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains output colorspace conversion routines.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdcolext.c
No license file was found, but licenses were detected in source scan.

/*
* jchuff.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modifications:
* Copyright (C) 2009-2011, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains Huffman entropy encoding routines.
*
* Much of the complexity here has to do with supporting output suspension.
* If the data destination module demands suspension, we want to be able to
* back up to the start of the current MCU. To do this, we copy state
* variables into local working storage, and update them back to the
* permanent JPEG objects only upon successful completion of an MCU.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jchuff.c
No license file was found, but licenses were detected in source scan.

/*
* jdmarker.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1998, Thomas G. Lane.
* Modifications:
* Copyright (C) 2012, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to decode JPEG datastream markers.
* Most of the complexity arises from our desire to support input
* suspension: if not all of the data for a marker is available,
* we must exit back to the application. On resumption, we reprocess
* the marker.

```
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdmarker.c
No license file was found, but licenses were detected in source scan.

```
/*
* jversion.h
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-2012, Thomas G. Lane, Guido Vollbeding.
* Modifications:
* Copyright (C) 2010, 2012-2013, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains software version identification.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jversion.h
No license file was found, but licenses were detected in source scan.

```
/*
* jpegcomp.h
*
* Copyright (C) 2010, D. R. Commander
* For conditions of distribution and use, see the accompanying README file.
*
* JPEG compatibility macros
* These declarations are considered internal to the JPEG library; most
* applications using the library shouldn't need to include this file.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jpegcomp.h
No license file was found, but licenses were detected in source scan.

```
/*
* jinclude.h
*
* Copyright (C) 1991-1994, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file exists to provide a single place to fix any problems with
```

```
* including the wrong system include files.  (Common problems are taken
* care of by the standard jconfig symbols, but on really weird systems
* you may have to edit this file.)
*
* NOTE: this file is NOT intended to be included by applications using the
* JPEG library.  Most applications need only include jpeglib.h.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jinclude.h
No license file was found, but licenses were detected in source scan.

```
/*
* jdct.h
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This include file contains common declarations for the forward and
* inverse DCT modules.  These declarations are private to the DCT managers
* (jcdctmgr.c, jddctmgr.c) and the individual DCT algorithms.
* The individual DCT algorithms are kept in separate files to ease
* machine-dependent tuning (e.g., assembly coding).
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdct.h
No license file was found, but licenses were detected in source scan.

```
/*
* jcprepct.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the compression preprocessing controller.
* This controller manages the color conversion, downsampling,
* and edge expansion steps.
*
* Most of the complexity here is associated with buffering input rows
* as required by the downsampler.  See the comments at the head of
* jcsample.c for the downsampler's needs.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jcprepct.c
No license file was found, but licenses were detected in source scan.

```
/*
* wrjpgcom.c
*
* Copyright (C) 1994-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a very simple stand-alone application that inserts
* user-supplied text as a COM (comment) marker in a JFIF file.
* This may be useful as an example of the minimum logic needed to parse
* JPEG markers.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/wrjpgcom.c
No license file was found, but licenses were detected in source scan.

```
/*
* jccolor.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modifications:
* Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
* Copyright (C) 2009-2012, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains input colorspace conversion routines.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jccolor.c
No license file was found, but licenses were detected in source scan.

```
{\rtf1\ansi\ansicpg1252\cocoartf1038\cocoasubrtf360
{\fonttbl\f0\fswiss\fcharset0 Helvetica;}
{\colortbl;\red255\green255\blue255;}
\margl1440\margr1440\vieww26380\viewh15840\viewkind0
\deftab720
\pard\pardeftab720\ql\qnatural
```

\f0\fs24 \cf0 libjpeg-turbo is a JPEG image codec that uses SIMD instructions (MMX, SSE2, NEON) to accelerate baseline JPEG compression and decompression on x86, x86-64, and ARM systems. On such systems, libjpeg-turbo is generally 2-4x as fast as libjpeg, all else being equal. On other types of systems, libjpeg-turbo can still outperform libjpeg by a significant amount, by virtue of its highly-optimized Huffman coding routines. In many cases, the performance of libjpeg-turbo rivals that of proprietary high-speed JPEG codecs.\
\
libjpeg-turbo implements both the traditional libjpeg API as well as the less powerful but more straightforward TurboJPEG API. libjpeg-turbo also features colorspace extensions that allow it to compress from/decompress to 32-bit and\
big-endian pixel buffers (RGBX, XBGR, etc.), as well as a full-featured Java interface.\
\
libjpeg-turbo was originally based on libjpeg/SIMD, an MMX-accelerated derivative of libjpeg v6b developed by Miyasaka Masaru. The TigerVNC and VirtualGL projects made numerous enhancements to the codec in 2009, and in early 2010, libjpeg-turbo spun off into an independent project, with the goal of making high-speed JPEG compression/decompression technology available to a broader range of users and developers.\
}

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/release/ReadMe.rtf
No license file was found, but licenses were detected in source scan.

```
/*
* jccoefct.c
*
* Copyright (C) 1994-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the coefficient buffer controller for compression.
* This controller is the top level of the JPEG compressor proper.
* The coefficient buffer lies between forward-DCT and entropy encoding steps.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jccoefct.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdphuff.c
*
* Copyright (C) 1995-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains Huffman entropy decoding routines for progressive JPEG.
*
```

* Much of the complexity here has to do with supporting input suspension.
* If the data source module demands suspension, we want to be able to back
* up to the start of the current MCU. To do this, we copy state variables
* into local working storage, and update them back to the permanent
* storage only upon successful completion of an MCU.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdphuff.c
No license file was found, but licenses were detected in source scan.

/*
* wrtarga.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to write output images in Targa format.
*
* These routines may need modification for non-Unix environments or
* specialized applications. As they stand, they assume output to
* an ordinary stdio stream.
*
* Based on code contributed by Lee Daniel Crocker.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/wrtarga.c
No license file was found, but licenses were detected in source scan.

USING THE IJG JPEG LIBRARY

This file was part of the Independent JPEG Group's software:
Copyright (C) 1994-2011, Thomas G. Lane, Guido Vollbeding.
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For conditions of distribution and use, see the accompanying README file.

This file describes how to use the IJG JPEG library within an application
program. Read it if you want to write a program that uses the library.

The file example.c provides heavily commented skeleton code for calling the
JPEG library. Also see jpeglib.h (the include file to be used by application
programs) for full details about data structures and function parameter lists.

The library source code, of course, is the ultimate reference.

Note that there have been *major* changes from the application interface presented by IJG version 4 and earlier versions. The old design had several inherent limitations, and it had accumulated a lot of cruft as we added features while trying to minimize application-interface changes. We have sacrificed backward compatibility in the version 5 rewrite, but we think the improvements justify this.

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You should read at least the overview and basic usage sections before trying to program with the library. The sections on advanced features can be read if and when you need them.

OVERVIEW
========

Functions provided by the library

The IJG JPEG library provides C code to read and write JPEG-compressed image files. The surrounding application program receives or supplies image data a scanline at a time, using a straightforward uncompressed image format. All details of color conversion and other preprocessing/postprocessing can be handled by the library.

The library includes a substantial amount of code that is not covered by the JPEG standard but is necessary for typical applications of JPEG. These functions preprocess the image before JPEG compression or postprocess it after decompression. They include colorspace conversion, downsampling/upsampling, and color quantization. The application indirectly selects use of this code by specifying the format in which it wishes to supply or receive image data. For example, if colormapped output is requested, then the decompression library automatically invokes color quantization.

A wide range of quality vs. speed tradeoffs are possible in JPEG processing, and even more so in decompression postprocessing. The decompression library provides multiple implementations that cover most of the useful tradeoffs, ranging from very-high-quality down to fast-preview operation. On the compression side we have generally not provided low-quality choices, since compression is normally less time-critical. It should be understood that the low-quality modes may not meet the JPEG standard's accuracy requirements; nonetheless, they are useful for viewers.

A word about functions *not* provided by the library. We handle a subset of the ISO JPEG standard; most baseline, extended-sequential, and progressive JPEG processes are supported. (Our subset includes all features now in common use.) Unsupported ISO options include:
 * Hierarchical storage
 * Lossless JPEG
 * DNL marker
 * Nonintegral subsampling ratios
We support both 8- and 12-bit data precision, but this is a compile-time choice rather than a run-time choice; hence it is difficult to use both precisions in a single application.

By itself, the library handles only interchange JPEG datastreams --- in particular the widely used JFIF file format. The library can be used by surrounding code to process interchange or abbreviated JPEG datastreams that are embedded in more complex file formats. (For example, this library is used by the free LIBTIFF library to support JPEG compression in TIFF.)

Outline of typical usage

The rough outline of a JPEG compression operation is:

```
 Allocate and initialize a JPEG compression object
 Specify the destination for the compressed data (eg, a file)
 Set parameters for compression, including image size & colorspace
 jpeg_start_compress(...);
 while (scan lines remain to be written)
  jpeg_write_scanlines(...);
 jpeg_finish_compress(...);
 Release the JPEG compression object
```

A JPEG compression object holds parameters and working state for the JPEG library. We make creation/destruction of the object separate from starting or finishing compression of an image; the same object can be re-used for a series of image compression operations. This makes it easy to re-use the same parameter settings for a sequence of images. Re-use of a JPEG object also has important implications for processing abbreviated JPEG datastreams, as discussed later.

The image data to be compressed is supplied to jpeg_write_scanlines() from in-memory buffers. If the application is doing file-to-file compression, reading image data from the source file is the application's responsibility. The library emits compressed data by calling a "data destination manager", which typically will write the data into a file; but the application can provide its own destination manager to do something else.

Similarly, the rough outline of a JPEG decompression operation is:

```
 Allocate and initialize a JPEG decompression object
 Specify the source of the compressed data (eg, a file)
 Call jpeg_read_header() to obtain image info
 Set parameters for decompression
 jpeg_start_decompress(...);
 while (scan lines remain to be read)
  jpeg_read_scanlines(...);
 jpeg_finish_decompress(...);
 Release the JPEG decompression object
```

This is comparable to the compression outline except that reading the datastream header is a separate step. This is helpful because information about the image's size, colorspace, etc is available when the application selects decompression parameters. For example, the application can choose an output scaling ratio that will fit the image into the available screen size.

The decompression library obtains compressed data by calling a data source manager, which typically will read the data from a file; but other behaviors

can be obtained with a custom source manager. Decompressed data is delivered
into in-memory buffers passed to jpeg_read_scanlines().

It is possible to abort an incomplete compression or decompression operation
by calling jpeg_abort(); or, if you do not need to retain the JPEG object,
simply release it by calling jpeg_destroy().

JPEG compression and decompression objects are two separate struct types.
However, they share some common fields, and certain routines such as
jpeg_destroy() can work on either type of object.

The JPEG library has no static variables: all state is in the compression
or decompression object. Therefore it is possible to process multiple
compression and decompression operations concurrently, using multiple JPEG
objects.

Both compression and decompression can be done in an incremental memory-to-
memory fashion, if suitable source/destination managers are used. See the
section on "I/O suspension" for more details.

BASIC LIBRARY USAGE
===================

Data formats

Before diving into procedural details, it is helpful to understand the
image data format that the JPEG library expects or returns.

The standard input image format is a rectangular array of pixels, with each
pixel having the same number of "component" or "sample" values (color
channels). You must specify how many components there are and the colorspace
interpretation of the components. Most applications will use RGB data
(three components per pixel) or grayscale data (one component per pixel).
PLEASE NOTE THAT RGB DATA IS THREE SAMPLES PER PIXEL, GRAYSCALE ONLY ONE.
A remarkable number of people manage to miss this, only to find that their
programs don't work with grayscale JPEG files.

There is no provision for colormapped input. JPEG files are always full-color
or full grayscale (or sometimes another colorspace such as CMYK). You can
feed in a colormapped image by expanding it to full-color format. However
JPEG often doesn't work very well with source data that has been colormapped,
because of dithering noise. This is discussed in more detail in the JPEG FAQ
and the other references mentioned in the README file.

Pixels are stored by scanlines, with each scanline running from left to
right. The component values for each pixel are adjacent in the row; for

example, R,G,B,R,G,B,R,G,B,... for 24-bit RGB color. Each scanline is an
array of data type JSAMPLE --- which is typically "unsigned char", unless
you've changed jmorecfg.h. (You can also change the RGB pixel layout, say
to B,G,R order, by modifying jmorecfg.h. But see the restrictions listed in
that file before doing so.)

A 2-D array of pixels is formed by making a list of pointers to the starts of
scanlines; so the scanlines need not be physically adjacent in memory. Even
if you process just one scanline at a time, you must make a one-element
pointer array to conform to this structure. Pointers to JSAMPLE rows are of
type JSAMPROW, and the pointer to the pointer array is of type JSAMPARRAY.

The library accepts or supplies one or more complete scanlines per call.
It is not possible to process part of a row at a time. Scanlines are always
processed top-to-bottom. You can process an entire image in one call if you
have it all in memory, but usually it's simplest to process one scanline at
a time.

For best results, source data values should have the precision specified by
BITS_IN_JSAMPLE (normally 8 bits). For instance, if you choose to compress
data that's only 6 bits/channel, you should left-justify each value in a
byte before passing it to the compressor. If you need to compress data
that has more than 8 bits/channel, compile with BITS_IN_JSAMPLE = 12.
(See "Library compile-time options", later.)

The data format returned by the decompressor is the same in all details,
except that colormapped output is supported. (Again, a JPEG file is never
colormapped. But you can ask the decompressor to perform on-the-fly color
quantization to deliver colormapped output.) If you request colormapped
output then the returned data array contains a single JSAMPLE per pixel;
its value is an index into a color map. The color map is represented as
a 2-D JSAMPARRAY in which each row holds the values of one color component,
that is, colormap[i][j] is the value of the i'th color component for pixel
value (map index) j. Note that since the colormap indexes are stored in
JSAMPLEs, the maximum number of colors is limited by the size of JSAMPLE
(ie, at most 256 colors for an 8-bit JPEG library).

Compression details

Here we revisit the JPEG compression outline given in the overview.

1. Allocate and initialize a JPEG compression object.

A JPEG compression object is a "struct jpeg_compress_struct". (It also has
a bunch of subsidiary structures which are allocated via malloc(), but the

application doesn't control those directly.) This struct can be just a local variable in the calling routine, if a single routine is going to execute the whole JPEG compression sequence. Otherwise it can be static or allocated from malloc().

You will also need a structure representing a JPEG error handler. The part of this that the library cares about is a "struct jpeg_error_mgr". If you are providing your own error handler, you'll typically want to embed the jpeg_error_mgr struct in a larger structure; this is discussed later under "Error handling". For now we'll assume you are just using the default error handler. The default error handler will print JPEG error/warning messages on stderr, and it will call exit() if a fatal error occurs.

You must initialize the error handler structure, store a pointer to it into the JPEG object's "err" field, and then call jpeg_create_compress() to initialize the rest of the JPEG object.

Typical code for this step, if you are using the default error handler, is

```
 struct jpeg_compress_struct cinfo;
 struct jpeg_error_mgr jerr;
 ...
 cinfo.err = jpeg_std_error(&jerr);
 jpeg_create_compress(&cinfo);
```

jpeg_create_compress allocates a small amount of memory, so it could fail if you are out of memory. In that case it will exit via the error handler; that's why the error handler must be initialized first.

2. Specify the destination for the compressed data (eg, a file).

As previously mentioned, the JPEG library delivers compressed data to a "data destination" module. The library includes one data destination module which knows how to write to a stdio stream. You can use your own destination module if you want to do something else, as discussed later.

If you use the standard destination module, you must open the target stdio stream beforehand. Typical code for this step looks like:

```
 FILE * outfile;
 ...
 if ((outfile = fopen(filename, "wb")) == NULL) {
     fprintf(stderr, "can't open %s\n", filename);
     exit(1);
 }
 jpeg_stdio_dest(&cinfo, outfile);
```

where the last line invokes the standard destination module.

WARNING: it is critical that the binary compressed data be delivered to the output file unchanged. On non-Unix systems the stdio library may perform newline translation or otherwise corrupt binary data. To suppress this behavior, you may need to use a "b" option to fopen (as shown above), or use setmode() or another routine to put the stdio stream in binary mode. See cjpeg.c and djpeg.c for code that has been found to work on many systems.

You can select the data destination after setting other parameters (step 3), if that's more convenient. You may not change the destination between calling jpeg_start_compress() and jpeg_finish_compress().

3. Set parameters for compression, including image size & colorspace.

You must supply information about the source image by setting the following fields in the JPEG object (cinfo structure):

```
image_width  Width of image, in pixels
image_height  Height of image, in pixels
input_components Number of color channels (samples per pixel)
in_color_space  Color space of source image
```

The image dimensions are, hopefully, obvious. JPEG supports image dimensions of 1 to 64K pixels in either direction. The input color space is typically RGB or grayscale, and input_components is 3 or 1 accordingly. (See "Special color spaces", later, for more info.) The in_color_space field must be assigned one of the J_COLOR_SPACE enum constants, typically JCS_RGB or JCS_GRAYSCALE.

JPEG has a large number of compression parameters that determine how the image is encoded. Most applications don't need or want to know about all these parameters. You can set all the parameters to reasonable defaults by calling jpeg_set_defaults(); then, if there are particular values you want to change, you can do so after that. The "Compression parameter selection" section tells about all the parameters.

You must set in_color_space correctly before calling jpeg_set_defaults(), because the defaults depend on the source image colorspace. However the other three source image parameters need not be valid until you call jpeg_start_compress(). There's no harm in calling jpeg_set_defaults() more than once, if that happens to be convenient.

Typical code for a 24-bit RGB source image is

```
cinfo.image_width = Width;  /* image width and height, in pixels */
cinfo.image_height = Height;
```

```
 cinfo.input_components = 3; /* # of color components per pixel */
 cinfo.in_color_space = JCS_RGB; /* colorspace of input image */

 jpeg_set_defaults(&cinfo);
 /* Make optional parameter settings here */
```

4. jpeg_start_compress(...);

After you have established the data destination and set all the necessary
source image info and other parameters, call jpeg_start_compress() to begin
a compression cycle. This will initialize internal state, allocate working
storage, and emit the first few bytes of the JPEG datastream header.

Typical code:

```
 jpeg_start_compress(&cinfo, TRUE);
```

The "TRUE" parameter ensures that a complete JPEG interchange datastream
will be written. This is appropriate in most cases. If you think you might
want to use an abbreviated datastream, read the section on abbreviated
datastreams, below.

Once you have called jpeg_start_compress(), you may not alter any JPEG
parameters or other fields of the JPEG object until you have completed
the compression cycle.

5. while (scan lines remain to be written)
```
 jpeg_write_scanlines(...);
```

Now write all the required image data by calling jpeg_write_scanlines()
one or more times. You can pass one or more scanlines in each call, up
to the total image height. In most applications it is convenient to pass
just one or a few scanlines at a time. The expected format for the passed
data is discussed under "Data formats", above.

Image data should be written in top-to-bottom scanline order. The JPEG spec
contains some weasel wording about how top and bottom are application-defined
terms (a curious interpretation of the English language...) but if you want
your files to be compatible with everyone else's, you WILL use top-to-bottom
order. If the source data must be read in bottom-to-top order, you can use
the JPEG library's virtual array mechanism to invert the data efficiently.
Examples of this can be found in the sample application cjpeg.

The library maintains a count of the number of scanlines written so far
in the next_scanline field of the JPEG object. Usually you can just use
this variable as the loop counter, so that the loop test looks like

"while (cinfo.next_scanline < cinfo.image_height)".

Code for this step depends heavily on the way that you store the source data.
example.c shows the following code for the case of a full-size 2-D source
array containing 3-byte RGB pixels:

```
 JSAMPROW row_pointer[1]; /* pointer to a single row */
 int row_stride;   /* physical row width in buffer */

 row_stride = image_width * 3; /* JSAMPLEs per row in image_buffer */

 while (cinfo.next_scanline < cinfo.image_height) {
    row_pointer[0] = & image_buffer[cinfo.next_scanline * row_stride];
    jpeg_write_scanlines(&cinfo, row_pointer, 1);
 }
```

jpeg_write_scanlines() returns the number of scanlines actually written.
This will normally be equal to the number passed in, so you can usually
ignore the return value. It is different in just two cases:
 * If you try to write more scanlines than the declared image height,
   the additional scanlines are ignored.
 * If you use a suspending data destination manager, output buffer overrun
   will cause the compressor to return before accepting all the passed lines.
   This feature is discussed under "I/O suspension", below. The normal
   stdio destination manager will NOT cause this to happen.
In any case, the return value is the same as the change in the value of
next_scanline.

6. jpeg_finish_compress(...);

After all the image data has been written, call jpeg_finish_compress() to
complete the compression cycle. This step is ESSENTIAL to ensure that the
last bufferload of data is written to the data destination.
jpeg_finish_compress() also releases working memory associated with the JPEG
object.

Typical code:

```
 jpeg_finish_compress(&cinfo);
```

If using the stdio destination manager, don't forget to close the output
stdio stream (if necessary) afterwards.

If you have requested a multi-pass operating mode, such as Huffman code
optimization, jpeg_finish_compress() will perform the additional passes using
data buffered by the first pass. In this case jpeg_finish_compress() may take
quite a while to complete. With the default compression parameters, this will

not happen.

It is an error to call jpeg_finish_compress() before writing the necessary
total number of scanlines. If you wish to abort compression, call
jpeg_abort() as discussed below.

After completing a compression cycle, you may dispose of the JPEG object
as discussed next, or you may use it to compress another image. In that case
return to step 2, 3, or 4 as appropriate. If you do not change the
destination manager, the new datastream will be written to the same target.
If you do not change any JPEG parameters, the new datastream will be written
with the same parameters as before. Note that you can change the input image
dimensions freely between cycles, but if you change the input colorspace, you
should call jpeg_set_defaults() to adjust for the new colorspace; and then
you'll need to repeat all of step 3.

7. Release the JPEG compression object.

When you are done with a JPEG compression object, destroy it by calling
jpeg_destroy_compress(). This will free all subsidiary memory (regardless of
the previous state of the object). Or you can call jpeg_destroy(), which
works for either compression or decompression objects --- this may be more
convenient if you are sharing code between compression and decompression
cases. (Actually, these routines are equivalent except for the declared type
of the passed pointer. To avoid gripes from ANSI C compilers, jpeg_destroy()
should be passed a j_common_ptr.)

If you allocated the jpeg_compress_struct structure from malloc(), freeing
it is your responsibility --- jpeg_destroy() won't. Ditto for the error
handler structure.

Typical code:

```
jpeg_destroy_compress(&cinfo);
```

8. Aborting.

If you decide to abort a compression cycle before finishing, you can clean up
in either of two ways:

* If you don't need the JPEG object any more, just call
jpeg_destroy_compress() or jpeg_destroy() to release memory. This is
legitimate at any point after calling jpeg_create_compress() --- in fact,
it's safe even if jpeg_create_compress() fails.

* If you want to re-use the JPEG object, call jpeg_abort_compress(), or call

jpeg_abort() which works on both compression and decompression objects.
This will return the object to an idle state, releasing any working memory.
jpeg_abort() is allowed at any time after successful object creation.

Note that cleaning up the data destination, if required, is your
responsibility; neither of these routines will call term_destination().
(See "Compressed data handling", below, for more about that.)

jpeg_destroy() and jpeg_abort() are the only safe calls to make on a JPEG
object that has reported an error by calling error_exit (see "Error handling"
for more info). The internal state of such an object is likely to be out of
whack. Either of these two routines will return the object to a known state.

Decompression details

Here we revisit the JPEG decompression outline given in the overview.

1. Allocate and initialize a JPEG decompression object.

This is just like initialization for compression, as discussed above,
except that the object is a "struct jpeg_decompress_struct" and you
call jpeg_create_decompress(). Error handling is exactly the same.

Typical code:

```
struct jpeg_decompress_struct cinfo;
struct jpeg_error_mgr jerr;
...
cinfo.err = jpeg_std_error(&jerr);
jpeg_create_decompress(&cinfo);
```

(Both here and in the IJG code, we usually use variable name "cinfo" for
both compression and decompression objects.)

2. Specify the source of the compressed data (eg, a file).

As previously mentioned, the JPEG library reads compressed data from a "data
source" module. The library includes one data source module which knows how
to read from a stdio stream. You can use your own source module if you want
to do something else, as discussed later.

If you use the standard source module, you must open the source stdio stream
beforehand. Typical code for this step looks like:

```
FILE * infile;
```

```
...
if ((infile = fopen(filename, "rb")) == NULL) {
    fprintf(stderr, "can't open %s\n", filename);
    exit(1);
}
jpeg_stdio_src(&cinfo, infile);
```

where the last line invokes the standard source module.

WARNING: it is critical that the binary compressed data be read unchanged. On non-Unix systems the stdio library may perform newline translation or otherwise corrupt binary data. To suppress this behavior, you may need to use a "b" option to fopen (as shown above), or use setmode() or another routine to put the stdio stream in binary mode. See cjpeg.c and djpeg.c for code that has been found to work on many systems.

You may not change the data source between calling jpeg_read_header() and jpeg_finish_decompress(). If you wish to read a series of JPEG images from a single source file, you should repeat the jpeg_read_header() to jpeg_finish_decompress() sequence without reinitializing either the JPEG object or the data source module; this prevents buffered input data from being discarded.

3. Call jpeg_read_header() to obtain image info.

Typical code for this step is just

```
jpeg_read_header(&cinfo, TRUE);
```

This will read the source datastream header markers, up to the beginning of the compressed data proper. On return, the image dimensions and other info have been stored in the JPEG object. The application may wish to consult this information before selecting decompression parameters.

More complex code is necessary if

* A suspending data source is used --- in that case jpeg_read_header() may return before it has read all the header data. See "I/O suspension", below. The normal stdio source manager will NOT cause this to happen.
* Abbreviated JPEG files are to be processed --- see the section on abbreviated datastreams. Standard applications that deal only in interchange JPEG files need not be concerned with this case either.

It is permissible to stop at this point if you just wanted to find out the image dimensions and other header info for a JPEG file. In that case, call jpeg_destroy() when you are done with the JPEG object, or call jpeg_abort() to return it to an idle state before selecting a new data source and reading another header.

4. Set parameters for decompression.

jpeg_read_header() sets appropriate default decompression parameters based on
the properties of the image (in particular, its colorspace). However, you
may well want to alter these defaults before beginning the decompression.
For example, the default is to produce full color output from a color file.
If you want colormapped output you must ask for it. Other options allow the
returned image to be scaled and allow various speed/quality tradeoffs to be
selected. "Decompression parameter selection", below, gives details.

If the defaults are appropriate, nothing need be done at this step.

Note that all default values are set by each call to jpeg_read_header().
If you reuse a decompression object, you cannot expect your parameter
settings to be preserved across cycles, as you can for compression.
You must set desired parameter values each time.

5. jpeg_start_decompress(...);

Once the parameter values are satisfactory, call jpeg_start_decompress() to
begin decompression. This will initialize internal state, allocate working
memory, and prepare for returning data.

Typical code is just

jpeg_start_decompress(&cinfo);

If you have requested a multi-pass operating mode, such as 2-pass color
quantization, jpeg_start_decompress() will do everything needed before data
output can begin. In this case jpeg_start_decompress() may take quite a while
to complete. With a single-scan (non progressive) JPEG file and default
decompression parameters, this will not happen; jpeg_start_decompress() will
return quickly.

After this call, the final output image dimensions, including any requested
scaling, are available in the JPEG object; so is the selected colormap, if
colormapped output has been requested. Useful fields include

output_width image width and height, as scaled
output_height
out_color_components # of color components in out_color_space
output_components # of color components returned per pixel
colormap the selected colormap, if any
actual_number_of_colors number of entries in colormap

output_components is 1 (a colormap index) when quantizing colors; otherwise it equals out_color_components. It is the number of JSAMPLE values that will be emitted per pixel in the output arrays.

Typically you will need to allocate data buffers to hold the incoming image. You will need output_width * output_components JSAMPLEs per scanline in your output buffer, and a total of output_height scanlines will be returned.

Note: if you are using the JPEG library's internal memory manager to allocate data buffers (as djpeg does), then the manager's protocol requires that you request large buffers *before* calling jpeg_start_decompress(). This is a little tricky since the output_XXX fields are not normally valid then. You can make them valid by calling jpeg_calc_output_dimensions() after setting the relevant parameters (scaling, output color space, and quantization flag).

6. while (scan lines remain to be read)
jpeg_read_scanlines(...);

Now you can read the decompressed image data by calling jpeg_read_scanlines() one or more times. At each call, you pass in the maximum number of scanlines to be read (ie, the height of your working buffer); jpeg_read_scanlines() will return up to that many lines. The return value is the number of lines actually read. The format of the returned data is discussed under "Data formats", above. Don't forget that grayscale and color JPEGs will return different data formats!

Image data is returned in top-to-bottom scanline order. If you must write out the image in bottom-to-top order, you can use the JPEG library's virtual array mechanism to invert the data efficiently. Examples of this can be found in the sample application djpeg.

The library maintains a count of the number of scanlines returned so far in the output_scanline field of the JPEG object. Usually you can just use this variable as the loop counter, so that the loop test looks like "while (cinfo.output_scanline < cinfo.output_height)". (Note that the test should NOT be against image_height, unless you never use scaling. The image_height field is the height of the original unscaled image.)
The return value always equals the change in the value of output_scanline.

If you don't use a suspending data source, it is safe to assume that jpeg_read_scanlines() reads at least one scanline per call, until the bottom of the image has been reached.

If you use a buffer larger than one scanline, it is NOT safe to assume that jpeg_read_scanlines() fills it. (The current implementation returns only a few scanlines per call, no matter how large a buffer you pass.) So you must always provide a loop that calls jpeg_read_scanlines() repeatedly until the

whole image has been read.

7. jpeg_finish_decompress(...);

After all the image data has been read, call jpeg_finish_decompress() to
complete the decompression cycle. This causes working memory associated
with the JPEG object to be released.

Typical code:

```
jpeg_finish_decompress(&cinfo);
```

If using the stdio source manager, don't forget to close the source stdio
stream if necessary.

It is an error to call jpeg_finish_decompress() before reading the correct
total number of scanlines. If you wish to abort decompression, call
jpeg_abort() as discussed below.

After completing a decompression cycle, you may dispose of the JPEG object as
discussed next, or you may use it to decompress another image. In that case
return to step 2 or 3 as appropriate. If you do not change the source
manager, the next image will be read from the same source.

8. Release the JPEG decompression object.

When you are done with a JPEG decompression object, destroy it by calling
jpeg_destroy_decompress() or jpeg_destroy(). The previous discussion of
destroying compression objects applies here too.

Typical code:

```
jpeg_destroy_decompress(&cinfo);
```

9. Aborting.

You can abort a decompression cycle by calling jpeg_destroy_decompress() or
jpeg_destroy() if you don't need the JPEG object any more, or
jpeg_abort_decompress() or jpeg_abort() if you want to reuse the object.
The previous discussion of aborting compression cycles applies here too.

Mechanics of usage: include files, linking, etc

Applications using the JPEG library should include the header file jpeglib.h
to obtain declarations of data types and routines. Before including
jpeglib.h, include system headers that define at least the typedefs FILE and
size_t. On ANSI-conforming systems, including <stdio.h> is sufficient; on
older Unix systems, you may need <sys/types.h> to define size_t.

If the application needs to refer to individual JPEG library error codes, also
include jerror.h to define those symbols.

jpeglib.h indirectly includes the files jconfig.h and jmorecfg.h. If you are
installing the JPEG header files in a system directory, you will want to
install all four files: jpeglib.h, jerror.h, jconfig.h, jmorecfg.h.

The most convenient way to include the JPEG code into your executable program
is to prepare a library file ("libjpeg.a", or a corresponding name on non-Unix
machines) and reference it at your link step. If you use only half of the
library (only compression or only decompression), only that much code will be
included from the library, unless your linker is hopelessly brain-damaged.
The supplied makefiles build libjpeg.a automatically (see install.txt).

While you can build the JPEG library as a shared library if the whim strikes
you, we don't really recommend it. The trouble with shared libraries is that
at some point you'll probably try to substitute a new version of the library
without recompiling the calling applications. That generally doesn't work
because the parameter struct declarations usually change with each new
version. In other words, the library's API is *not* guaranteed binary
compatible across versions; we only try to ensure source-code compatibility.
(In hindsight, it might have been smarter to hide the parameter structs from
applications and introduce a ton of access functions instead. Too late now,
however.)

On some systems your application may need to set up a signal handler to ensure
that temporary files are deleted if the program is interrupted. This is most
critical if you are on MS-DOS and use the jmemdos.c memory manager back end;
it will try to grab extended memory for temp files, and that space will NOT be
freed automatically. See cjpeg.c or djpeg.c for an example signal handler.

It may be worth pointing out that the core JPEG library does not actually
require the stdio library: only the default source/destination managers and
error handler need it. You can use the library in a stdio-less environment
if you replace those modules and use jmemnobs.c (or another memory manager of
your own devising). More info about the minimum system library requirements
may be found in jinclude.h.

ADVANCED FEATURES
==========

Compression parameter selection

This section describes all the optional parameters you can set for JPEG
compression, as well as the "helper" routines provided to assist in this
task. Proper setting of some parameters requires detailed understanding
of the JPEG standard; if you don't know what a parameter is for, it's best
not to mess with it! See REFERENCES in the README file for pointers to
more info about JPEG.

It's a good idea to call jpeg_set_defaults() first, even if you plan to set
all the parameters; that way your code is more likely to work with future JPEG
libraries that have additional parameters. For the same reason, we recommend
you use a helper routine where one is provided, in preference to twiddling
cinfo fields directly.

The helper routines are:

jpeg_set_defaults (j_compress_ptr cinfo)
 This routine sets all JPEG parameters to reasonable defaults, using
 only the input image's color space (field in_color_space, which must
 already be set in cinfo). Many applications will only need to use
 this routine and perhaps jpeg_set_quality().

jpeg_set_colorspace (j_compress_ptr cinfo, J_COLOR_SPACE colorspace)
 Sets the JPEG file's colorspace (field jpeg_color_space) as specified,
 and sets other color-space-dependent parameters appropriately. See
 "Special color spaces", below, before using this. A large number of
 parameters, including all per-component parameters, are set by this
 routine; if you want to twiddle individual parameters you should call
 jpeg_set_colorspace() before rather than after.

jpeg_default_colorspace (j_compress_ptr cinfo)
 Selects an appropriate JPEG colorspace based on cinfo->in_color_space,
 and calls jpeg_set_colorspace(). This is actually a subroutine of
 jpeg_set_defaults(). It's broken out in case you want to change
 just the colorspace-dependent JPEG parameters.

jpeg_set_quality (j_compress_ptr cinfo, int quality, boolean force_baseline)
 Constructs JPEG quantization tables appropriate for the indicated
 quality setting. The quality value is expressed on the 0..100 scale
 recommended by IJG (cjpeg's "-quality" switch uses this routine).
 Note that the exact mapping from quality values to tables may change
 in future IJG releases as more is learned about DCT quantization.
 If the force_baseline parameter is TRUE, then the quantization table
 entries are constrained to the range 1..255 for full JPEG baseline
 compatibility. In the current implementation, this only makes a
 difference for quality settings below 25, and it effectively prevents

very small/low quality files from being generated. The IJG decoder
is capable of reading the non-baseline files generated at low quality
settings when force_baseline is FALSE, but other decoders may not be.

jpeg_set_linear_quality (j_compress_ptr cinfo, int scale_factor,
  boolean force_baseline)
Same as jpeg_set_quality() except that the generated tables are the
sample tables given in the JPEC spec section K.1, multiplied by the
specified scale factor (which is expressed as a percentage; thus
scale_factor = 100 reproduces the spec's tables). Note that larger
scale factors give lower quality. This entry point is useful for
conforming to the Adobe PostScript DCT conventions, but we do not
recommend linear scaling as a user-visible quality scale otherwise.
force_baseline again constrains the computed table entries to 1..255.

int jpeg_quality_scaling (int quality)
Converts a value on the IJG-recommended quality scale to a linear
scaling percentage. Note that this routine may change or go away
in future releases --- IJG may choose to adopt a scaling method that
can't be expressed as a simple scalar multiplier, in which case the
premise of this routine collapses. Caveat user.

jpeg_default_qtables (j_compress_ptr cinfo, boolean force_baseline)
[libjpeg v7+ API/ABI emulation only]
Set default quantization tables with linear q_scale_factor[] values
(see below).

jpeg_add_quant_table (j_compress_ptr cinfo, int which_tbl,
      const unsigned int *basic_table,
      int scale_factor, boolean force_baseline)
Allows an arbitrary quantization table to be created. which_tbl
indicates which table slot to fill. basic_table points to an array
of 64 unsigned ints given in normal array order. These values are
multiplied by scale_factor/100 and then clamped to the range 1..65535
(or to 1..255 if force_baseline is TRUE).
CAUTION: prior to library version 6a, jpeg_add_quant_table expected
the basic table to be given in JPEG zigzag order. If you need to
write code that works with either older or newer versions of this
routine, you must check the library version number. Something like
"#if JPEG_LIB_VERSION >= 61" is the right test.

jpeg_simple_progression (j_compress_ptr cinfo)
Generates a default scan script for writing a progressive-JPEG file.
This is the recommended method of creating a progressive file,
unless you want to make a custom scan sequence. You must ensure that
the JPEG color space is set correctly before calling this routine.

Compression parameters (cinfo fields) include:

J_DCT_METHOD dct_method
 Selects the algorithm used for the DCT step. Choices are:
  JDCT_ISLOW: slow but accurate integer algorithm
  JDCT_IFAST: faster, less accurate integer method
  JDCT_FLOAT: floating-point method
  JDCT_DEFAULT: default method (normally JDCT_ISLOW)
  JDCT_FASTEST: fastest method (normally JDCT_IFAST)
 The FLOAT method is very slightly more accurate than the ISLOW method,
 but may give different results on different machines due to varying
 roundoff behavior. The integer methods should give the same results
 on all machines. On machines with sufficiently fast FP hardware, the
 floating-point method may also be the fastest. The IFAST method is
 considerably less accurate than the other two; its use is not
 recommended if high quality is a concern. JDCT_DEFAULT and
 JDCT_FASTEST are macros configurable by each installation.

J_COLOR_SPACE jpeg_color_space
int num_components
 The JPEG color space and corresponding number of components; see
 "Special color spaces", below, for more info. We recommend using
 jpeg_set_color_space() if you want to change these.

boolean optimize_coding
 TRUE causes the compressor to compute optimal Huffman coding tables
 for the image. This requires an extra pass over the data and
 therefore costs a good deal of space and time. The default is
 FALSE, which tells the compressor to use the supplied or default
 Huffman tables. In most cases optimal tables save only a few percent
 of file size compared to the default tables. Note that when this is
 TRUE, you need not supply Huffman tables at all, and any you do
 supply will be overwritten.

unsigned int restart_interval
int restart_in_rows
 To emit restart markers in the JPEG file, set one of these nonzero.
 Set restart_interval to specify the exact interval in MCU blocks.
 Set restart_in_rows to specify the interval in MCU rows. (If
 restart_in_rows is not 0, then restart_interval is set after the
 image width in MCUs is computed.) Defaults are zero (no restarts).
 One restart marker per MCU row is often a good choice.
 NOTE: the overhead of restart markers is higher in grayscale JPEG
 files than in color files, and MUCH higher in progressive JPEGs.
 If you use restarts, you may want to use larger intervals in those
 cases.

const jpeg_scan_info * scan_info

int num_scans
By default, scan_info is NULL; this causes the compressor to write a single-scan sequential JPEG file. If not NULL, scan_info points to an array of scan definition records of length num_scans. The compressor will then write a JPEG file having one scan for each scan definition record. This is used to generate noninterleaved or progressive JPEG files. The library checks that the scan array defines a valid JPEG scan sequence. (jpeg_simple_progression creates a suitable scan definition array for progressive JPEG.) This is discussed further under "Progressive JPEG support".

int smoothing_factor
If non-zero, the input image is smoothed; the value should be 1 for minimal smoothing to 100 for maximum smoothing. Consult jcsample.c for details of the smoothing algorithm. The default is zero.

boolean write_JFIF_header
If TRUE, a JFIF APP0 marker is emitted. jpeg_set_defaults() and jpeg_set_colorspace() set this TRUE if a JFIF-legal JPEG color space (ie, YCbCr or grayscale) is selected, otherwise FALSE.

UINT8 JFIF_major_version
UINT8 JFIF_minor_version
The version number to be written into the JFIF marker. jpeg_set_defaults() initializes the version to 1.01 (major=minor=1). You should set it to 1.02 (major=1, minor=2) if you plan to write any JFIF 1.02 extension markers.

UINT8 density_unit
UINT16 X_density
UINT16 Y_density
The resolution information to be written into the JFIF marker; not used otherwise. density_unit may be 0 for unknown, 1 for dots/inch, or 2 for dots/cm. The default values are 0,1,1 indicating square pixels of unknown size.

boolean write_Adobe_marker
If TRUE, an Adobe APP14 marker is emitted. jpeg_set_defaults() and jpeg_set_colorspace() set this TRUE if JPEG color space RGB, CMYK, or YCCK is selected, otherwise FALSE. It is generally a bad idea to set both write_JFIF_header and write_Adobe_marker. In fact, you probably shouldn't change the default settings at all --- the default behavior ensures that the JPEG file's color space can be recognized by the decoder.

JQUANT_TBL * quant_tbl_ptrs[NUM_QUANT_TBLS]
Pointers to coefficient quantization tables, one per table slot, or NULL if no table is defined for a slot. Usually these should

be set via one of the above helper routines; jpeg_add_quant_table()
is general enough to define any quantization table. The other
routines will set up table slot 0 for luminance quality and table
slot 1 for chrominance.

int q_scale_factor[NUM_QUANT_TBLS]
[libjpeg v7+ API/ABI emulation only]
Linear quantization scaling factors (0-100, default 100)
for use with jpeg_default_qtables().
See rdswitch.c and cjpeg.c for an example of usage.
Note that the q_scale_factor[] values use "linear" scales, so JPEG
quality levels chosen by the user must be converted to these scales
using jpeg_quality_scaling(). Here is an example that corresponds to
cjpeg -quality 90,70:

```
jpeg_set_defaults(cinfo);

/* Set luminance quality 90. */
cinfo->q_scale_factor[0] = jpeg_quality_scaling(90);
/* Set chrominance quality 70. */
cinfo->q_scale_factor[1] = jpeg_quality_scaling(70);

jpeg_default_qtables(cinfo, force_baseline);
```

CAUTION: Setting separate quality levels for chrominance and luminance
is mainly only useful if chrominance subsampling is disabled. 2x2
chrominance subsampling (AKA "4:2:0") is the default, but you can
explicitly disable subsampling as follows:

```
cinfo->comp_info[0].v_samp_factor = 1;
cinfo->comp_info[0].h_samp_factor = 1;
```

JHUFF_TBL * dc_huff_tbl_ptrs[NUM_HUFF_TBLS]
JHUFF_TBL * ac_huff_tbl_ptrs[NUM_HUFF_TBLS]
Pointers to Huffman coding tables, one per table slot, or NULL if
no table is defined for a slot. Slots 0 and 1 are filled with the
JPEG sample tables by jpeg_set_defaults(). If you need to allocate
more table structures, jpeg_alloc_huff_table() may be used.
Note that optimal Huffman tables can be computed for an image
by setting optimize_coding, as discussed above; there's seldom
any need to mess with providing your own Huffman tables.

[libjpeg v7+ API/ABI emulation only]
The actual dimensions of the JPEG image that will be written to the file are
given by the following fields. These are computed from the input image
dimensions and the compression parameters by jpeg_start_compress(). You can
also call jpeg_calc_jpeg_dimensions() to obtain the values that will result

from the current parameter settings. This can be useful if you are trying
to pick a scaling ratio that will get close to a desired target size.

JDIMENSION jpeg_width Actual dimensions of output image.
JDIMENSION jpeg_height

Per-component parameters are stored in the struct cinfo.comp_info[i] for
component number i. Note that components here refer to components of the
JPEG color space, *not* the source image color space. A suitably large
comp_info[] array is allocated by jpeg_set_defaults(); if you choose not
to use that routine, it's up to you to allocate the array.

int component_id
 The one-byte identifier code to be recorded in the JPEG file for
 this component. For the standard color spaces, we recommend you
 leave the default values alone.

int h_samp_factor
int v_samp_factor
 Horizontal and vertical sampling factors for the component; must
 be 1..4 according to the JPEG standard. Note that larger sampling
 factors indicate a higher-resolution component; many people find
 this behavior quite unintuitive. The default values are 2,2 for
 luminance components and 1,1 for chrominance components, except
 for grayscale where 1,1 is used.

int quant_tbl_no
 Quantization table number for component. The default value is
 0 for luminance components and 1 for chrominance components.

int dc_tbl_no
int ac_tbl_no
 DC and AC entropy coding table numbers. The default values are
 0 for luminance components and 1 for chrominance components.

int component_index
 Must equal the component's index in comp_info[]. (Beginning in
 release v6, the compressor library will fill this in automatically;
 you don't have to.)

Decompression parameter selection

Decompression parameter selection is somewhat simpler than compression
parameter selection, since all of the JPEG internal parameters are
recorded in the source file and need not be supplied by the application.

(Unless you are working with abbreviated files, in which case see
"Abbreviated datastreams", below.) Decompression parameters control
the postprocessing done on the image to deliver it in a format suitable
for the application's use. Many of the parameters control speed/quality
tradeoffs, in which faster decompression may be obtained at the price of
a poorer-quality image. The defaults select the highest quality (slowest)
processing.

The following fields in the JPEG object are set by jpeg_read_header() and
may be useful to the application in choosing decompression parameters:

JDIMENSION image_width   Width and height of image
JDIMENSION image_height
int num_components   Number of color components
J_COLOR_SPACE jpeg_color_space Colorspace of image
boolean saw_JFIF_marker   TRUE if a JFIF APP0 marker was seen
 UINT8 JFIF_major_version Version information from JFIF marker
 UINT8 JFIF_minor_version
 UINT8 density_unit   Resolution data from JFIF marker
 UINT16 X_density
 UINT16 Y_density
boolean saw_Adobe_marker TRUE if an Adobe APP14 marker was seen
 UINT8 Adobe_transform   Color transform code from Adobe marker

The JPEG color space, unfortunately, is something of a guess since the JPEG
standard proper does not provide a way to record it. In practice most files
adhere to the JFIF or Adobe conventions, and the decoder will recognize these
correctly. See "Special color spaces", below, for more info.

The decompression parameters that determine the basic properties of the
returned image are:

J_COLOR_SPACE out_color_space
 Output color space. jpeg_read_header() sets an appropriate default
 based on jpeg_color_space; typically it will be RGB or grayscale.
 The application can change this field to request output in a different
 colorspace. For example, set it to JCS_GRAYSCALE to get grayscale
 output from a color file. (This is useful for previewing: grayscale
 output is faster than full color since the color components need not
 be processed.) Note that not all possible color space transforms are
 currently implemented; you may need to extend jdcolor.c if you want an
 unusual conversion.

unsigned int scale_num, scale_denom
 Scale the image by the fraction scale_num/scale_denom. Default is
 1/1, or no scaling. Currently, the only supported scaling ratios
 are M/8 with all M from 1 to 16, or any reduced fraction thereof (such

as 1/2, 3/4, etc.) (The library design allows for arbitrary
scaling ratios but this is not likely to be implemented any time soon.)
Smaller scaling ratios permit significantly faster decoding since
fewer pixels need be processed and a simpler IDCT method can be used.

boolean quantize_colors
If set TRUE, colormapped output will be delivered. Default is FALSE,
meaning that full-color output will be delivered.

The next three parameters are relevant only if quantize_colors is TRUE.

int desired_number_of_colors
Maximum number of colors to use in generating a library-supplied color
map (the actual number of colors is returned in a different field).
Default 256. Ignored when the application supplies its own color map.

boolean two_pass_quantize
If TRUE, an extra pass over the image is made to select a custom color
map for the image. This usually looks a lot better than the one-size-
fits-all colormap that is used otherwise. Default is TRUE. Ignored
when the application supplies its own color map.

J_DITHER_MODE dither_mode
Selects color dithering method. Supported values are:
 JDITHER_NONE no dithering: fast, very low quality
 JDITHER_ORDERED ordered dither: moderate speed and quality
 JDITHER_FS Floyd-Steinberg dither: slow, high quality
Default is JDITHER_FS. (At present, ordered dither is implemented
only in the single-pass, standard-colormap case. If you ask for
ordered dither when two_pass_quantize is TRUE or when you supply
an external color map, you'll get F-S dithering.)

When quantize_colors is TRUE, the target color map is described by the next
two fields. colormap is set to NULL by jpeg_read_header(). The application
can supply a color map by setting colormap non-NULL and setting
actual_number_of_colors to the map size. Otherwise, jpeg_start_decompress()
selects a suitable color map and sets these two fields itself.
[Implementation restriction: at present, an externally supplied colormap is
only accepted for 3-component output color spaces.]

JSAMPARRAY colormap
The color map, represented as a 2-D pixel array of out_color_components
rows and actual_number_of_colors columns. Ignored if not quantizing.
CAUTION: if the JPEG library creates its own colormap, the storage
pointed to by this field is released by jpeg_finish_decompress().
Copy the colormap somewhere else first, if you want to save it.

int actual_number_of_colors

The number of colors in the color map.

Additional decompression parameters that the application may set include:

J_DCT_METHOD dct_method
Selects the algorithm used for the DCT step. Choices are the same
as described above for compression.

boolean do_fancy_upsampling
If TRUE, do careful upsampling of chroma components. If FALSE,
a faster but sloppier method is used. Default is TRUE. The visual
impact of the sloppier method is often very small.

boolean do_block_smoothing
If TRUE, interblock smoothing is applied in early stages of decoding
progressive JPEG files; if FALSE, not. Default is TRUE. Early
progression stages look "fuzzy" with smoothing, "blocky" without.
In any case, block smoothing ceases to be applied after the first few
AC coefficients are known to full accuracy, so it is relevant only
when using buffered-image mode for progressive images.

boolean enable_1pass_quant
boolean enable_external_quant
boolean enable_2pass_quant
These are significant only in buffered-image mode, which is
described in its own section below.

The output image dimensions are given by the following fields. These are
computed from the source image dimensions and the decompression parameters
by jpeg_start_decompress(). You can also call jpeg_calc_output_dimensions()
to obtain the values that will result from the current parameter settings.
This can be useful if you are trying to pick a scaling ratio that will get
close to a desired target size. It's also important if you are using the
JPEG library's memory manager to allocate output buffer space, because you
are supposed to request such buffers *before* jpeg_start_decompress().

JDIMENSION output_width Actual dimensions of output image.
JDIMENSION output_height
int out_color_components Number of color components in out_color_space.
int output_components Number of color components returned.
int rec_outbuf_height Recommended height of scanline buffer.

When quantizing colors, output_components is 1, indicating a single color map
index per pixel. Otherwise it equals out_color_components. The output arrays
are required to be output_width * output_components JSAMPLEs wide.

rec_outbuf_height is the recommended minimum height (in scanlines) of the

buffer passed to jpeg_read_scanlines(). If the buffer is smaller, the
library will still work, but time will be wasted due to unnecessary data
copying. In high-quality modes, rec_outbuf_height is always 1, but some
faster, lower-quality modes set it to larger values (typically 2 to 4).
If you are going to ask for a high-speed processing mode, you may as well
go to the trouble of honoring rec_outbuf_height so as to avoid data copying.
(An output buffer larger than rec_outbuf_height lines is OK, but won't
provide any material speed improvement over that height.)

Special color spaces

The JPEG standard itself is "color blind" and doesn't specify any particular
color space. It is customary to convert color data to a luminance/chrominance
color space before compressing, since this permits greater compression. The
existing de-facto JPEG file format standards specify YCbCr or grayscale data
(JFIF), or grayscale, RGB, YCbCr, CMYK, or YCCK (Adobe). For special
applications such as multispectral images, other color spaces can be used,
but it must be understood that such files will be unportable.

The JPEG library can handle the most common colorspace conversions (namely
RGB <=> YCbCr and CMYK <=> YCCK). It can also deal with data of an unknown
color space, passing it through without conversion. If you deal extensively
with an unusual color space, you can easily extend the library to understand
additional color spaces and perform appropriate conversions.

For compression, the source data's color space is specified by field
in_color_space. This is transformed to the JPEG file's color space given
by jpeg_color_space. jpeg_set_defaults() chooses a reasonable JPEG color
space depending on in_color_space, but you can override this by calling
jpeg_set_colorspace(). Of course you must select a supported transformation.
jccolor.c currently supports the following transformations:
 RGB => YCbCr
 RGB => GRAYSCALE
 YCbCr => GRAYSCALE
 CMYK => YCCK
plus the null transforms: GRAYSCALE => GRAYSCALE, RGB => RGB,
YCbCr => YCbCr, CMYK => CMYK, YCCK => YCCK, and UNKNOWN => UNKNOWN.

The de-facto file format standards (JFIF and Adobe) specify APPn markers that
indicate the color space of the JPEG file. It is important to ensure that
these are written correctly, or omitted if the JPEG file's color space is not
one of the ones supported by the de-facto standards. jpeg_set_colorspace()
will set the compression parameters to include or omit the APPn markers
properly, so long as it is told the truth about the JPEG color space.
For example, if you are writing some random 3-component color space without
conversion, don't try to fake out the library by setting in_color_space and

jpeg_color_space to JCS_YCbCr; use JCS_UNKNOWN. You may want to write an APPn marker of your own devising to identify the colorspace --- see "Special markers", below.

When told that the color space is UNKNOWN, the library will default to using luminance-quality compression parameters for all color components. You may well want to change these parameters. See the source code for jpeg_set_colorspace(), in jcparam.c, for details.

For decompression, the JPEG file's color space is given in jpeg_color_space, and this is transformed to the output color space out_color_space. jpeg_read_header's setting of jpeg_color_space can be relied on if the file conforms to JFIF or Adobe conventions, but otherwise it is no better than a guess. If you know the JPEG file's color space for certain, you can override jpeg_read_header's guess by setting jpeg_color_space. jpeg_read_header also selects a default output color space based on (its guess of) jpeg_color_space; set out_color_space to override this. Again, you must select a supported transformation. jdcolor.c currently supports
 YCbCr => RGB
 YCbCr => GRAYSCALE
 RGB => GRAYSCALE
 GRAYSCALE => RGB
 YCCK => CMYK
as well as the null transforms. (Since GRAYSCALE=>RGB is provided, an application can force grayscale JPEGs to look like color JPEGs if it only wants to handle one case.)

The two-pass color quantizer, jquant2.c, is specialized to handle RGB data (it weights distances appropriately for RGB colors). You'll need to modify the code if you want to use it for non-RGB output color spaces. Note that jquant2.c is used to map to an application-supplied colormap as well as for the normal two-pass colormap selection process.

CAUTION: it appears that Adobe Photoshop writes inverted data in CMYK JPEG files: 0 represents 100% ink coverage, rather than 0% ink as you'd expect. This is arguably a bug in Photoshop, but if you need to work with Photoshop CMYK files, you will have to deal with it in your application. We cannot "fix" this in the library by inverting the data during the CMYK<=>YCCK transform, because that would break other applications, notably Ghostscript. Photoshop versions prior to 3.0 write EPS files containing JPEG-encoded CMYK data in the same inverted-YCCK representation used in bare JPEG files, but the surrounding PostScript code performs an inversion using the PS image operator. I am told that Photoshop 3.0 will write uninverted YCCK in EPS/JPEG files, and will omit the PS-level inversion. (But the data polarity used in bare JPEG files will not change in 3.0.) In either case, the JPEG library must not invert the data itself, or else Ghostscript would read these EPS files incorrectly.

Error handling

When the default error handler is used, any error detected inside the JPEG routines will cause a message to be printed on stderr, followed by exit(). You can supply your own error handling routines to override this behavior and to control the treatment of nonfatal warnings and trace/debug messages. The file example.c illustrates the most common case, which is to have the application regain control after an error rather than exiting.

The JPEG library never writes any message directly; it always goes through the error handling routines. Three classes of messages are recognized:
 * Fatal errors: the library cannot continue.
 * Warnings: the library can continue, but the data is corrupt, and a damaged output image is likely to result.
 * Trace/informational messages. These come with a trace level indicating the importance of the message; you can control the verbosity of the program by adjusting the maximum trace level that will be displayed.

You may, if you wish, simply replace the entire JPEG error handling module (jerror.c) with your own code. However, you can avoid code duplication by only replacing some of the routines depending on the behavior you need. This is accomplished by calling jpeg_std_error() as usual, but then overriding some of the method pointers in the jpeg_error_mgr struct, as illustrated by example.c.

All of the error handling routines will receive a pointer to the JPEG object (a j_common_ptr which points to either a jpeg_compress_struct or a jpeg_decompress_struct; if you need to tell which, test the is_decompressor field). This struct includes a pointer to the error manager struct in its "err" field. Frequently, custom error handler routines will need to access additional data which is not known to the JPEG library or the standard error handler. The most convenient way to do this is to embed either the JPEG object or the jpeg_error_mgr struct in a larger structure that contains additional fields; then casting the passed pointer provides access to the additional fields. Again, see example.c for one way to do it. (Beginning with IJG version 6b, there is also a void pointer "client_data" in each JPEG object, which the application can also use to find related data. The library does not touch client_data at all.)

The individual methods that you might wish to override are:

error_exit (j_common_ptr cinfo)
 Receives control for a fatal error. Information sufficient to
 generate the error message has been stored in cinfo->err; call
 output_message to display it. Control must NOT return to the caller;
 generally this routine will exit() or longjmp() somewhere.

Typically you would override this routine to get rid of the exit()
default behavior. Note that if you continue processing, you should
clean up the JPEG object with jpeg_abort() or jpeg_destroy().

output_message (j_common_ptr cinfo)
Actual output of any JPEG message. Override this to send messages
somewhere other than stderr. Note that this method does not know
how to generate a message, only where to send it.

format_message (j_common_ptr cinfo, char * buffer)
Constructs a readable error message string based on the error info
stored in cinfo->err. This method is called by output_message. Few
applications should need to override this method. One possible
reason for doing so is to implement dynamic switching of error message
language.

emit_message (j_common_ptr cinfo, int msg_level)
Decide whether or not to emit a warning or trace message; if so,
calls output_message. The main reason for overriding this method
would be to abort on warnings. msg_level is -1 for warnings,
0 and up for trace messages.

Only error_exit() and emit_message() are called from the rest of the JPEG
library; the other two are internal to the error handler.

The actual message texts are stored in an array of strings which is pointed to
by the field err->jpeg_message_table. The messages are numbered from 0 to
err->last_jpeg_message, and it is these code numbers that are used in the
JPEG library code. You could replace the message texts (for instance, with
messages in French or German) by changing the message table pointer. See
jerror.h for the default texts. CAUTION: this table will almost certainly
change or grow from one library version to the next.

It may be useful for an application to add its own message texts that are
handled by the same mechanism. The error handler supports a second "add-on"
message table for this purpose. To define an addon table, set the pointer
err->addon_message_table and the message numbers err->first_addon_message and
err->last_addon_message. If you number the addon messages beginning at 1000
or so, you won't have to worry about conflicts with the library's built-in
messages. See the sample applications cjpeg/djpeg for an example of using
addon messages (the addon messages are defined in cderror.h).

Actual invocation of the error handler is done via macros defined in jerror.h:
ERREXITn(...) for fatal errors
WARNMSn(...) for corrupt-data warnings
TRACEMSn(...) for trace and informational messages.
These macros store the message code and any additional parameters into the
error handler struct, then invoke the error_exit() or emit_message() method.

The variants of each macro are for varying numbers of additional parameters. The additional parameters are inserted into the generated message using standard printf() format codes.

See jerror.h and jerror.c for further details.

Compressed data handling (source and destination managers)

The JPEG compression library sends its compressed data to a "destination manager" module. The default destination manager just writes the data to a memory buffer or to a stdio stream, but you can provide your own manager to do something else. Similarly, the decompression library calls a "source manager" to obtain the compressed data; you can provide your own source manager if you want the data to come from somewhere other than a memory buffer or a stdio stream.

In both cases, compressed data is processed a bufferload at a time: the destination or source manager provides a work buffer, and the library invokes the manager only when the buffer is filled or emptied. (You could define a one-character buffer to force the manager to be invoked for each byte, but that would be rather inefficient.) The buffer's size and location are controlled by the manager, not by the library. For example, the memory source manager just makes the buffer pointer and length point to the original data in memory. In this case the buffer-reload procedure will be invoked only if the decompressor ran off the end of the datastream, which would indicate an erroneous datastream.

The work buffer is defined as an array of datatype JOCTET, which is generally "char" or "unsigned char". On a machine where char is not exactly 8 bits wide, you must define JOCTET as a wider data type and then modify the data source and destination modules to transcribe the work arrays into 8-bit units on external storage.

A data destination manager struct contains a pointer and count defining the next byte to write in the work buffer and the remaining free space:

```
JOCTET * next_output_byte;  /* => next byte to write in buffer */
size_t free_in_buffer;      /* # of byte spaces remaining in buffer */
```

The library increments the pointer and decrements the count until the buffer is filled. The manager's empty_output_buffer method must reset the pointer and count. The manager is expected to remember the buffer's starting address and total size in private fields not visible to the library.

A data destination manager provides three methods:

init_destination (j_compress_ptr cinfo)
 Initialize destination. This is called by jpeg_start_compress()
 before any data is actually written. It must initialize
 next_output_byte and free_in_buffer. free_in_buffer must be
 initialized to a positive value.

empty_output_buffer (j_compress_ptr cinfo)
 This is called whenever the buffer has filled (free_in_buffer
 reaches zero). In typical applications, it should write out the
 entire buffer (use the saved start address and buffer length;
 ignore the current state of next_output_byte and free_in_buffer).
 Then reset the pointer & count to the start of the buffer, and
 return TRUE indicating that the buffer has been dumped.
 free_in_buffer must be set to a positive value when TRUE is
 returned. A FALSE return should only be used when I/O suspension is
 desired (this operating mode is discussed in the next section).

term_destination (j_compress_ptr cinfo)
 Terminate destination --- called by jpeg_finish_compress() after all
 data has been written. In most applications, this must flush any
 data remaining in the buffer. Use either next_output_byte or
 free_in_buffer to determine how much data is in the buffer.

term_destination() is NOT called by jpeg_abort() or jpeg_destroy(). If you
want the destination manager to be cleaned up during an abort, you must do it
yourself.

You will also need code to create a jpeg_destination_mgr struct, fill in its
method pointers, and insert a pointer to the struct into the "dest" field of
the JPEG compression object. This can be done in-line in your setup code if
you like, but it's probably cleaner to provide a separate routine similar to
the jpeg_stdio_dest() or jpeg_mem_dest() routines of the supplied destination
managers.

Decompression source managers follow a parallel design, but with some
additional frammishes. The source manager struct contains a pointer and count
defining the next byte to read from the work buffer and the number of bytes
remaining:

 const JOCTET * next_input_byte; /* => next byte to read from buffer */
 size_t bytes_in_buffer;   /* # of bytes remaining in buffer */

The library increments the pointer and decrements the count until the buffer
is emptied. The manager's fill_input_buffer method must reset the pointer and
count. In most applications, the manager must remember the buffer's starting
address and total size in private fields not visible to the library.

A data source manager provides five methods:

init_source (j_decompress_ptr cinfo)
 Initialize source. This is called by jpeg_read_header() before any
 data is actually read. Unlike init_destination(), it may leave
 bytes_in_buffer set to 0 (in which case a fill_input_buffer() call
 will occur immediately).

fill_input_buffer (j_decompress_ptr cinfo)
 This is called whenever bytes_in_buffer has reached zero and more
 data is wanted. In typical applications, it should read fresh data
 into the buffer (ignoring the current state of next_input_byte and
 bytes_in_buffer), reset the pointer & count to the start of the
 buffer, and return TRUE indicating that the buffer has been reloaded.
 It is not necessary to fill the buffer entirely, only to obtain at
 least one more byte. bytes_in_buffer MUST be set to a positive value
 if TRUE is returned. A FALSE return should only be used when I/O
 suspension is desired (this mode is discussed in the next section).

skip_input_data (j_decompress_ptr cinfo, long num_bytes)
 Skip num_bytes worth of data. The buffer pointer and count should
 be advanced over num_bytes input bytes, refilling the buffer as
 needed. This is used to skip over a potentially large amount of
 uninteresting data (such as an APPn marker). In some applications
 it may be possible to optimize away the reading of the skipped data,
 but it's not clear that being smart is worth much trouble; large
 skips are uncommon. bytes_in_buffer may be zero on return.
 A zero or negative skip count should be treated as a no-op.

resync_to_restart (j_decompress_ptr cinfo, int desired)
 This routine is called only when the decompressor has failed to find
 a restart (RSTn) marker where one is expected. Its mission is to
 find a suitable point for resuming decompression. For most
 applications, we recommend that you just use the default resync
 procedure, jpeg_resync_to_restart(). However, if you are able to back
 up in the input data stream, or if you have a-priori knowledge about
 the likely location of restart markers, you may be able to do better.
 Read the read_restart_marker() and jpeg_resync_to_restart() routines
 in jdmarker.c if you think you'd like to implement your own resync
 procedure.

term_source (j_decompress_ptr cinfo)
 Terminate source --- called by jpeg_finish_decompress() after all
 data has been read. Often a no-op.

For both fill_input_buffer() and skip_input_data(), there is no such thing
as an EOF return. If the end of the file has been reached, the routine has
a choice of exiting via ERREXIT() or inserting fake data into the buffer.
In most cases, generating a warning message and inserting a fake EOI marker

is the best course of action --- this will allow the decompressor to output however much of the image is there. In pathological cases, the decompressor may swallow the EOI and again demand data ... just keep feeding it fake EOIs. jdatasrc.c illustrates the recommended error recovery behavior.

term_source() is NOT called by jpeg_abort() or jpeg_destroy(). If you want the source manager to be cleaned up during an abort, you must do it yourself.

You will also need code to create a jpeg_source_mgr struct, fill in its method pointers, and insert a pointer to the struct into the "src" field of the JPEG decompression object. This can be done in-line in your setup code if you like, but it's probably cleaner to provide a separate routine similar to the jpeg_stdio_src() or jpeg_mem_src() routines of the supplied source managers.

For more information, consult the memory and stdio source and destination managers in jdatasrc.c and jdatadst.c.

I/O suspension

Some applications need to use the JPEG library as an incremental memory-to-memory filter: when the compressed data buffer is filled or emptied, they want control to return to the outer loop, rather than expecting that the buffer can be emptied or reloaded within the data source/destination manager subroutine. The library supports this need by providing an "I/O suspension" mode, which we describe in this section.

The I/O suspension mode is not a panacea: nothing is guaranteed about the maximum amount of time spent in any one call to the library, so it will not eliminate response-time problems in single-threaded applications. If you need guaranteed response time, we suggest you "bite the bullet" and implement a real multi-tasking capability.

To use I/O suspension, cooperation is needed between the calling application and the data source or destination manager; you will always need a custom source/destination manager. (Please read the previous section if you haven't already.) The basic idea is that the empty_output_buffer() or fill_input_buffer() routine is a no-op, merely returning FALSE to indicate that it has done nothing. Upon seeing this, the JPEG library suspends operation and returns to its caller. The surrounding application is responsible for emptying or refilling the work buffer before calling the JPEG library again.

Compression suspension:

For compression suspension, use an empty_output_buffer() routine that returns FALSE; typically it will not do anything else. This will cause the

compressor to return to the caller of jpeg_write_scanlines(), with the return value indicating that not all the supplied scanlines have been accepted. The application must make more room in the output buffer, adjust the output buffer pointer/count appropriately, and then call jpeg_write_scanlines() again, pointing to the first unconsumed scanline.

When forced to suspend, the compressor will backtrack to a convenient stopping point (usually the start of the current MCU); it will regenerate some output data when restarted. Therefore, although empty_output_buffer() is only called when the buffer is filled, you should NOT write out the entire buffer after a suspension. Write only the data up to the current position of next_output_byte/free_in_buffer. The data beyond that point will be regenerated after resumption.

Because of the backtracking behavior, a good-size output buffer is essential for efficiency; you don't want the compressor to suspend often. (In fact, an overly small buffer could lead to infinite looping, if a single MCU required more data than would fit in the buffer.) We recommend a buffer of at least several Kbytes. You may want to insert explicit code to ensure that you don't call jpeg_write_scanlines() unless there is a reasonable amount of space in the output buffer; in other words, flush the buffer before trying to compress more data.

The compressor does not allow suspension while it is trying to write JPEG markers at the beginning and end of the file. This means that:

* At the beginning of a compression operation, there must be enough free space in the output buffer to hold the header markers (typically 600 or so bytes). The recommended buffer size is bigger than this anyway, so this is not a problem as long as you start with an empty buffer. However, this restriction might catch you if you insert large special markers, such as a JFIF thumbnail image, without flushing the buffer afterwards.
* When you call jpeg_finish_compress(), there must be enough space in the output buffer to emit any buffered data and the final EOI marker. In the current implementation, half a dozen bytes should suffice for this, but for safety's sake we recommend ensuring that at least 100 bytes are free before calling jpeg_finish_compress().

A more significant restriction is that jpeg_finish_compress() cannot suspend. This means you cannot use suspension with multi-pass operating modes, namely Huffman code optimization and multiple-scan output. Those modes write the whole file during jpeg_finish_compress(), which will certainly result in buffer overrun. (Note that this restriction applies only to compression, not decompression. The decompressor supports input suspension in all of its operating modes.)

Decompression suspension:

For decompression suspension, use a fill_input_buffer() routine that simply

returns FALSE (except perhaps during error recovery, as discussed below).
This will cause the decompressor to return to its caller with an indication
that suspension has occurred. This can happen at four places:
 * jpeg_read_header(): will return JPEG_SUSPENDED.
 * jpeg_start_decompress(): will return FALSE, rather than its usual TRUE.
 * jpeg_read_scanlines(): will return the number of scanlines already
 completed (possibly 0).
 * jpeg_finish_decompress(): will return FALSE, rather than its usual TRUE.
The surrounding application must recognize these cases, load more data into
the input buffer, and repeat the call. In the case of jpeg_read_scanlines(),
increment the passed pointers past any scanlines successfully read.

Just as with compression, the decompressor will typically backtrack to a
convenient restart point before suspending. When fill_input_buffer() is
called, next_input_byte/bytes_in_buffer point to the current restart point,
which is where the decompressor will backtrack to if FALSE is returned.
The data beyond that position must NOT be discarded if you suspend; it needs
to be re-read upon resumption. In most implementations, you'll need to shift
this data down to the start of your work buffer and then load more data after
it. Again, this behavior means that a several-Kbyte work buffer is essential
for decent performance; furthermore, you should load a reasonable amount of
new data before resuming decompression. (If you loaded, say, only one new
byte each time around, you could waste a LOT of cycles.)

The skip_input_data() source manager routine requires special care in a
suspension scenario. This routine is NOT granted the ability to suspend the
decompressor; it can decrement bytes_in_buffer to zero, but no more. If the
requested skip distance exceeds the amount of data currently in the input
buffer, then skip_input_data() must set bytes_in_buffer to zero and record the
additional skip distance somewhere else. The decompressor will immediately
call fill_input_buffer(), which should return FALSE, which will cause a
suspension return. The surrounding application must then arrange to discard
the recorded number of bytes before it resumes loading the input buffer.
(Yes, this design is rather baroque, but it avoids complexity in the far more
common case where a non-suspending source manager is used.)

If the input data has been exhausted, we recommend that you emit a warning
and insert dummy EOI markers just as a non-suspending data source manager
would do. This can be handled either in the surrounding application logic or
within fill_input_buffer(); the latter is probably more efficient. If
fill_input_buffer() knows that no more data is available, it can set the
pointer/count to point to a dummy EOI marker and then return TRUE just as
though it had read more data in a non-suspending situation.

The decompressor does not attempt to suspend within standard JPEG markers;
instead it will backtrack to the start of the marker and reprocess the whole
marker next time. Hence the input buffer must be large enough to hold the
longest standard marker in the file. Standard JPEG markers should normally

not exceed a few hundred bytes each (DHT tables are typically the longest).
We recommend at least a 2K buffer for performance reasons, which is much
larger than any correct marker is likely to be. For robustness against
damaged marker length counts, you may wish to insert a test in your
application for the case that the input buffer is completely full and yet
the decoder has suspended without consuming any data --- otherwise, if this
situation did occur, it would lead to an endless loop. (The library can't
provide this test since it has no idea whether "the buffer is full", or
even whether there is a fixed-size input buffer.)

The input buffer would need to be 64K to allow for arbitrary COM or APPn
markers, but these are handled specially: they are either saved into allocated
memory, or skipped over by calling skip_input_data(). In the former case,
suspension is handled correctly, and in the latter case, the problem of
buffer overrun is placed on skip_input_data's shoulders, as explained above.
Note that if you provide your own marker handling routine for large markers,
you should consider how to deal with buffer overflow.

Multiple-buffer management:

In some applications it is desirable to store the compressed data in a linked
list of buffer areas, so as to avoid data copying. This can be handled by
having empty_output_buffer() or fill_input_buffer() set the pointer and count
to reference the next available buffer; FALSE is returned only if no more
buffers are available. Although seemingly straightforward, there is a
pitfall in this approach: the backtrack that occurs when FALSE is returned
could back up into an earlier buffer. For example, when fill_input_buffer()
is called, the current pointer & count indicate the backtrack restart point.
Since fill_input_buffer() will set the pointer and count to refer to a new
buffer, the restart position must be saved somewhere else. Suppose a second
call to fill_input_buffer() occurs in the same library call, and no
additional input data is available, so fill_input_buffer must return FALSE.
If the JPEG library has not moved the pointer/count forward in the current
buffer, then *the correct restart point is the saved position in the prior
buffer*. Prior buffers may be discarded only after the library establishes
a restart point within a later buffer. Similar remarks apply for output into
a chain of buffers.

The library will never attempt to backtrack over a skip_input_data() call,
so any skipped data can be permanently discarded. You still have to deal
with the case of skipping not-yet-received data, however.

It's much simpler to use only a single buffer; when fill_input_buffer() is
called, move any unconsumed data (beyond the current pointer/count) down to
the beginning of this buffer and then load new data into the remaining buffer
space. This approach requires a little more data copying but is far easier
to get right.

Progressive JPEG support

Progressive JPEG rearranges the stored data into a series of scans of increasing quality. In situations where a JPEG file is transmitted across a slow communications link, a decoder can generate a low-quality image very quickly from the first scan, then gradually improve the displayed quality as more scans are received. The final image after all scans are complete is identical to that of a regular (sequential) JPEG file of the same quality setting. Progressive JPEG files are often slightly smaller than equivalent sequential JPEG files, but the possibility of incremental display is the main reason for using progressive JPEG.

The IJG encoder library generates progressive JPEG files when given a suitable "scan script" defining how to divide the data into scans.
Creation of progressive JPEG files is otherwise transparent to the encoder.
Progressive JPEG files can also be read transparently by the decoder library.
If the decoding application simply uses the library as defined above, it will receive a final decoded image without any indication that the file was progressive. Of course, this approach does not allow incremental display.
To perform incremental display, an application needs to use the decoder library's "buffered-image" mode, in which it receives a decoded image multiple times.

Each displayed scan requires about as much work to decode as a full JPEG image of the same size, so the decoder must be fairly fast in relation to the data transmission rate in order to make incremental display useful. However, it is possible to skip displaying the image and simply add the incoming bits to the decoder's coefficient buffer. This is fast because only Huffman decoding need be done, not IDCT, upsampling, colorspace conversion, etc.
The IJG decoder library allows the application to switch dynamically between displaying the image and simply absorbing the incoming bits. A properly coded application can automatically adapt the number of display passes to suit the time available as the image is received. Also, a final higher-quality display cycle can be performed from the buffered data after the end of the file is reached.

Progressive compression:

To create a progressive JPEG file (or a multiple-scan sequential JPEG file), set the scan_info cinfo field to point to an array of scan descriptors, and perform compression as usual. Instead of constructing your own scan list, you can call the jpeg_simple_progression() helper routine to create a recommended progression sequence; this method should be used by all applications that don't want to get involved in the nitty-gritty of progressive scan sequence design. (If you want to provide user control of scan sequences, you may wish to borrow the scan script reading code found

in rdswitch.c, so that you can read scan script files just like cjpeg's.)
When scan_info is not NULL, the compression library will store DCT'd data
into a buffer array as jpeg_write_scanlines() is called, and will emit all
the requested scans during jpeg_finish_compress(). This implies that
multiple-scan output cannot be created with a suspending data destination
manager, since jpeg_finish_compress() does not support suspension. We
should also note that the compressor currently forces Huffman optimization
mode when creating a progressive JPEG file, because the default Huffman
tables are unsuitable for progressive files.

Progressive decompression:

When buffered-image mode is not used, the decoder library will read all of
a multi-scan file during jpeg_start_decompress(), so that it can provide a
final decoded image. (Here "multi-scan" means either progressive or
multi-scan sequential.) This makes multi-scan files transparent to the
decoding application. However, existing applications that used suspending
input with version 5 of the IJG library will need to be modified to check
for a suspension return from jpeg_start_decompress().

To perform incremental display, an application must use the library's
buffered-image mode. This is described in the next section.

Buffered-image mode

In buffered-image mode, the library stores the partially decoded image in a
coefficient buffer, from which it can be read out as many times as desired.
This mode is typically used for incremental display of progressive JPEG files,
but it can be used with any JPEG file. Each scan of a progressive JPEG file
adds more data (more detail) to the buffered image. The application can
display in lockstep with the source file (one display pass per input scan),
or it can allow input processing to outrun display processing. By making
input and display processing run independently, it is possible for the
application to adapt progressive display to a wide range of data transmission
rates.

The basic control flow for buffered-image decoding is

```
jpeg_create_decompress()
set data source
jpeg_read_header()
set overall decompression parameters
cinfo.buffered_image = TRUE; /* select buffered-image mode */
jpeg_start_decompress()
for (each output pass) {
    adjust output decompression parameters if required
```

```
    jpeg_start_output()  /* start a new output pass */
    for (all scanlines in image) {
        jpeg_read_scanlines()
        display scanlines
    }
    jpeg_finish_output() /* terminate output pass */
}
jpeg_finish_decompress()
jpeg_destroy_decompress()
```

This differs from ordinary unbuffered decoding in that there is an additional level of looping. The application can choose how many output passes to make and how to display each pass.

The simplest approach to displaying progressive images is to do one display pass for each scan appearing in the input file. In this case the outer loop condition is typically

```
while (! jpeg_input_complete(&cinfo))
```

and the start-output call should read

```
jpeg_start_output(&cinfo, cinfo.input_scan_number);
```

The second parameter to jpeg_start_output() indicates which scan of the input file is to be displayed; the scans are numbered starting at 1 for this purpose. (You can use a loop counter starting at 1 if you like, but using the library's input scan counter is easier.) The library automatically reads data as necessary to complete each requested scan, and jpeg_finish_output() advances to the next scan or end-of-image marker (hence input_scan_number will be incremented by the time control arrives back at jpeg_start_output()). With this technique, data is read from the input file only as needed, and input and output processing run in lockstep.

After reading the final scan and reaching the end of the input file, the buffered image remains available; it can be read additional times by repeating the jpeg_start_output()/jpeg_read_scanlines()/jpeg_finish_output() sequence. For example, a useful technique is to use fast one-pass color quantization for display passes made while the image is arriving, followed by a final display pass using two-pass quantization for highest quality. This is done by changing the library parameters before the final output pass. Changing parameters between passes is discussed in detail below.

In general the last scan of a progressive file cannot be recognized as such until after it is read, so a post-input display pass is the best approach if you want special processing in the final pass.

When done with the image, be sure to call jpeg_finish_decompress() to release the buffered image (or just use jpeg_destroy_decompress()).

If input data arrives faster than it can be displayed, the application can cause the library to decode input data in advance of what's needed to produce

output. This is done by calling the routine jpeg_consume_input().
The return value is one of the following:
 JPEG_REACHED_SOS: reached an SOS marker (the start of a new scan)
 JPEG_REACHED_EOI: reached the EOI marker (end of image)
 JPEG_ROW_COMPLETED: completed reading one MCU row of compressed data
 JPEG_SCAN_COMPLETED: completed reading last MCU row of current scan
 JPEG_SUSPENDED: suspended before completing any of the above
(JPEG_SUSPENDED can occur only if a suspending data source is used.) This
routine can be called at any time after initializing the JPEG object. It
reads some additional data and returns when one of the indicated significant
events occurs. (If called after the EOI marker is reached, it will
immediately return JPEG_REACHED_EOI without attempting to read more data.)

The library's output processing will automatically call jpeg_consume_input()
whenever the output processing overtakes the input; thus, simple lockstep
display requires no direct calls to jpeg_consume_input(). But by adding
calls to jpeg_consume_input(), you can absorb data in advance of what is
being displayed. This has two benefits:
 * You can limit buildup of unprocessed data in your input buffer.
 * You can eliminate extra display passes by paying attention to the
   state of the library's input processing.

The first of these benefits only requires interspersing calls to
jpeg_consume_input() with your display operations and any other processing
you may be doing. To avoid wasting cycles due to backtracking, it's best to
call jpeg_consume_input() only after a hundred or so new bytes have arrived.
This is discussed further under "I/O suspension", above. (Note: the JPEG
library currently is not thread-safe. You must not call jpeg_consume_input()
from one thread of control if a different library routine is working on the
same JPEG object in another thread.)

When input arrives fast enough that more than one new scan is available
before you start a new output pass, you may as well skip the output pass
corresponding to the completed scan. This occurs for free if you pass
cinfo.input_scan_number as the target scan number to jpeg_start_output().
The input_scan_number field is simply the index of the scan currently being
consumed by the input processor. You can ensure that this is up-to-date by
emptying the input buffer just before calling jpeg_start_output(): call
jpeg_consume_input() repeatedly until it returns JPEG_SUSPENDED or
JPEG_REACHED_EOI.

The target scan number passed to jpeg_start_output() is saved in the
cinfo.output_scan_number field. The library's output processing calls
jpeg_consume_input() whenever the current input scan number and row within
that scan is less than or equal to the current output scan number and row.
Thus, input processing can "get ahead" of the output processing but is not
allowed to "fall behind". You can achieve several different effects by
manipulating this interlock rule. For example, if you pass a target scan

number greater than the current input scan number, the output processor will wait until that scan starts to arrive before producing any output. (To avoid an infinite loop, the target scan number is automatically reset to the last scan number when the end of image is reached. Thus, if you specify a large target scan number, the library will just absorb the entire input file and then perform an output pass. This is effectively the same as what jpeg_start_decompress() does when you don't select buffered-image mode.) When you pass a target scan number equal to the current input scan number, the image is displayed no faster than the current input scan arrives. The final possibility is to pass a target scan number less than the current input scan number; this disables the input/output interlock and causes the output processor to simply display whatever it finds in the image buffer, without waiting for input. (However, the library will not accept a target scan number less than one, so you can't avoid waiting for the first scan.)

When data is arriving faster than the output display processing can advance through the image, jpeg_consume_input() will store data into the buffered image beyond the point at which the output processing is reading data out again. If the input arrives fast enough, it may "wrap around" the buffer to the point where the input is more than one whole scan ahead of the output. If the output processing simply proceeds through its display pass without paying attention to the input, the effect seen on-screen is that the lower part of the image is one or more scans better in quality than the upper part. Then, when the next output scan is started, you have a choice of what target scan number to use. The recommended choice is to use the current input scan number at that time, which implies that you've skipped the output scans corresponding to the input scans that were completed while you processed the previous output scan. In this way, the decoder automatically adapts its speed to the arriving data, by skipping output scans as necessary to keep up with the arriving data.

When using this strategy, you'll want to be sure that you perform a final output pass after receiving all the data; otherwise your last display may not be full quality across the whole screen. So the right outer loop logic is something like this:

```
 do {
    absorb any waiting input by calling jpeg_consume_input()
    final_pass = jpeg_input_complete(&cinfo);
    adjust output decompression parameters if required
    jpeg_start_output(&cinfo, cinfo.input_scan_number);
    ...
    jpeg_finish_output()
 } while (! final_pass);
```

rather than quitting as soon as jpeg_input_complete() returns TRUE. This arrangement makes it simple to use higher-quality decoding parameters for the final pass. But if you don't want to use special parameters for the final pass, the right loop logic is like this:

```
 for (;;) {
```

```
    absorb any waiting input by calling jpeg_consume_input()
    jpeg_start_output(&cinfo, cinfo.input_scan_number);
    ...
    jpeg_finish_output()
    if (jpeg_input_complete(&cinfo) &&
        cinfo.input_scan_number == cinfo.output_scan_number)
      break;
  }
```

In this case you don't need to know in advance whether an output pass is to be the last one, so it's not necessary to have reached EOF before starting the final output pass; rather, what you want to test is whether the output pass was performed in sync with the final input scan. This form of the loop will avoid an extra output pass whenever the decoder is able (or nearly able) to keep up with the incoming data.

When the data transmission speed is high, you might begin a display pass, then find that much or all of the file has arrived before you can complete the pass. (You can detect this by noting the JPEG_REACHED_EOI return code from jpeg_consume_input(), or equivalently by testing jpeg_input_complete().) In this situation you may wish to abort the current display pass and start a new one using the newly arrived information. To do so, just call jpeg_finish_output() and then start a new pass with jpeg_start_output().

A variant strategy is to abort and restart display if more than one complete scan arrives during an output pass; this can be detected by noting JPEG_REACHED_SOS returns and/or examining cinfo.input_scan_number. This idea should be employed with caution, however, since the display process might never get to the bottom of the image before being aborted, resulting in the lower part of the screen being several passes worse than the upper. In most cases it's probably best to abort an output pass only if the whole file has arrived and you want to begin the final output pass immediately.

When receiving data across a communication link, we recommend always using the current input scan number for the output target scan number; if a higher-quality final pass is to be done, it should be started (aborting any incomplete output pass) as soon as the end of file is received. However, many other strategies are possible. For example, the application can examine the parameters of the current input scan and decide whether to display it or not. If the scan contains only chroma data, one might choose not to use it as the target scan, expecting that the scan will be small and will arrive quickly. To skip to the next scan, call jpeg_consume_input() until it returns JPEG_REACHED_SOS or JPEG_REACHED_EOI. Or just use the next higher number as the target scan for jpeg_start_output(); but that method doesn't let you inspect the next scan's parameters before deciding to display it.

In buffered-image mode, jpeg_start_decompress() never performs input and thus never suspends. An application that uses input suspension with

buffered-image mode must be prepared for suspension returns from these routines:

* jpeg_start_output() performs input only if you request 2-pass quantization and the target scan isn't fully read yet. (This is discussed below.)
* jpeg_read_scanlines(), as always, returns the number of scanlines that it was able to produce before suspending.
* jpeg_finish_output() will read any markers following the target scan, up to the end of the file or the SOS marker that begins another scan. (But it reads no input if jpeg_consume_input() has already reached the end of the file or a SOS marker beyond the target output scan.)
* jpeg_finish_decompress() will read until the end of file, and thus can suspend if the end hasn't already been reached (as can be tested by calling jpeg_input_complete()).

jpeg_start_output(), jpeg_finish_output(), and jpeg_finish_decompress() all return TRUE if they completed their tasks, FALSE if they had to suspend. In the event of a FALSE return, the application must load more input data and repeat the call. Applications that use non-suspending data sources need not check the return values of these three routines.

It is possible to change decoding parameters between output passes in the buffered-image mode. The decoder library currently supports only very limited changes of parameters. ONLY THE FOLLOWING parameter changes are allowed after jpeg_start_decompress() is called:

* dct_method can be changed before each call to jpeg_start_output(). For example, one could use a fast DCT method for early scans, changing to a higher quality method for the final scan.
* dither_mode can be changed before each call to jpeg_start_output(); of course this has no impact if not using color quantization. Typically one would use ordered dither for initial passes, then switch to Floyd-Steinberg dither for the final pass. Caution: changing dither mode can cause more memory to be allocated by the library. Although the amount of memory involved is not large (a scanline or so), it may cause the initial max_memory_to_use specification to be exceeded, which in the worst case would result in an out-of-memory failure.
* do_block_smoothing can be changed before each call to jpeg_start_output(). This setting is relevant only when decoding a progressive JPEG image. During the first DC-only scan, block smoothing provides a very "fuzzy" look instead of the very "blocky" look seen without it; which is better seems a matter of personal taste. But block smoothing is nearly always a win during later stages, especially when decoding a successive-approximation image: smoothing helps to hide the slight blockiness that otherwise shows up on smooth gradients until the lowest coefficient bits are sent.
* Color quantization mode can be changed under the rules described below. You *cannot* change between full-color and quantized output (because that would alter the required I/O buffer sizes), but you can change which quantization method is used.

When generating color-quantized output, changing quantization method is a
very useful way of switching between high-speed and high-quality display.
The library allows you to change among its three quantization methods:
1. Single-pass quantization to a fixed color cube.
  Selected by cinfo.two_pass_quantize = FALSE and cinfo.colormap = NULL.
2. Single-pass quantization to an application-supplied colormap.
  Selected by setting cinfo.colormap to point to the colormap (the value of
  two_pass_quantize is ignored); also set cinfo.actual_number_of_colors.
3. Two-pass quantization to a colormap chosen specifically for the image.
  Selected by cinfo.two_pass_quantize = TRUE and cinfo.colormap = NULL.
  (This is the default setting selected by jpeg_read_header, but it is
  probably NOT what you want for the first pass of progressive display!)
These methods offer successively better quality and lesser speed. However,
only the first method is available for quantizing in non-RGB color spaces.

IMPORTANT: because the different quantizer methods have very different
working-storage requirements, the library requires you to indicate which
one(s) you intend to use before you call jpeg_start_decompress(). (If we did
not require this, the max_memory_to_use setting would be a complete fiction.)
You do this by setting one or more of these three cinfo fields to TRUE:
 enable_1pass_quant Fixed color cube colormap
 enable_external_quant Externally-supplied colormap
 enable_2pass_quant Two-pass custom colormap
All three are initialized FALSE by jpeg_read_header(). But
jpeg_start_decompress() automatically sets TRUE the one selected by the
current two_pass_quantize and colormap settings, so you only need to set the
enable flags for any other quantization methods you plan to change to later.

After setting the enable flags correctly at jpeg_start_decompress() time, you
can change to any enabled quantization method by setting two_pass_quantize
and colormap properly just before calling jpeg_start_output(). The following
special rules apply:
1. You must explicitly set cinfo.colormap to NULL when switching to 1-pass
  or 2-pass mode from a different mode, or when you want the 2-pass
  quantizer to be re-run to generate a new colormap.
2. To switch to an external colormap, or to change to a different external
  colormap than was used on the prior pass, you must call
  jpeg_new_colormap() after setting cinfo.colormap.
NOTE: if you want to use the same colormap as was used in the prior pass,
you should not do either of these things. This will save some nontrivial
switchover costs.
(These requirements exist because cinfo.colormap will always be non-NULL
after completing a prior output pass, since both the 1-pass and 2-pass
quantizers set it to point to their output colormaps. Thus you have to
do one of these two things to notify the library that something has changed.
Yup, it's a bit klugy, but it's necessary to do it this way for backwards
compatibility.)

Note that in buffered-image mode, the library generates any requested colormap during jpeg_start_output(), not during jpeg_start_decompress().

When using two-pass quantization, jpeg_start_output() makes a pass over the buffered image to determine the optimum color map; it therefore may take a significant amount of time, whereas ordinarily it does little work. The progress monitor hook is called during this pass, if defined. It is also important to realize that if the specified target scan number is greater than or equal to the current input scan number, jpeg_start_output() will attempt to consume input as it makes this pass. If you use a suspending data source, you need to check for a FALSE return from jpeg_start_output() under these conditions. The combination of 2-pass quantization and a not-yet-fully-read target scan is the only case in which jpeg_start_output() will consume input.

Application authors who support buffered-image mode may be tempted to use it for all JPEG images, even single-scan ones. This will work, but it is inefficient: there is no need to create an image-sized coefficient buffer for single-scan images. Requesting buffered-image mode for such an image wastes memory. Worse, it can cost time on large images, since the buffered data has to be swapped out or written to a temporary file. If you are concerned about maximum performance on baseline JPEG files, you should use buffered-image mode only when the incoming file actually has multiple scans. This can be tested by calling jpeg_has_multiple_scans(), which will return a correct result at any time after jpeg_read_header() completes.

It is also worth noting that when you use jpeg_consume_input() to let input processing get ahead of output processing, the resulting pattern of access to the coefficient buffer is quite nonsequential. It's best to use the memory manager jmemnobs.c if you can (ie, if you have enough real or virtual main memory). If not, at least make sure that max_memory_to_use is set as high as possible. If the JPEG memory manager has to use a temporary file, you will probably see a lot of disk traffic and poor performance. (This could be improved with additional work on the memory manager, but we haven't gotten around to it yet.)

In some applications it may be convenient to use jpeg_consume_input() for all input processing, including reading the initial markers; that is, you may wish to call jpeg_consume_input() instead of jpeg_read_header() during startup. This works, but note that you must check for JPEG_REACHED_SOS and JPEG_REACHED_EOI return codes as the equivalent of jpeg_read_header's codes. Once the first SOS marker has been reached, you must call jpeg_start_decompress() before jpeg_consume_input() will consume more input; it'll just keep returning JPEG_REACHED_SOS until you do. If you read a tables-only file this way, jpeg_consume_input() will return JPEG_REACHED_EOI without ever returning JPEG_REACHED_SOS; be sure to check for this case. If this happens, the decompressor will not read any more input until you call jpeg_abort() to reset it. It is OK to call jpeg_consume_input() even when not

using buffered-image mode, but in that case it's basically a no-op after the initial markers have been read: it will just return JPEG_SUSPENDED.

Abbreviated datastreams and multiple images

A JPEG compression or decompression object can be reused to process multiple images. This saves a small amount of time per image by eliminating the "create" and "destroy" operations, but that isn't the real purpose of the feature. Rather, reuse of an object provides support for abbreviated JPEG datastreams. Object reuse can also simplify processing a series of images in a single input or output file. This section explains these features.

A JPEG file normally contains several hundred bytes worth of quantization and Huffman tables. In a situation where many images will be stored or transmitted with identical tables, this may represent an annoying overhead. The JPEG standard therefore permits tables to be omitted. The standard defines three classes of JPEG datastreams:

* "Interchange" datastreams contain an image and all tables needed to decode the image. These are the usual kind of JPEG file.
* "Abbreviated image" datastreams contain an image, but are missing some or all of the tables needed to decode that image.
* "Abbreviated table specification" (henceforth "tables-only") datastreams contain only table specifications.

To decode an abbreviated image, it is necessary to load the missing table(s) into the decoder beforehand. This can be accomplished by reading a separate tables-only file. A variant scheme uses a series of images in which the first image is an interchange (complete) datastream, while subsequent ones are abbreviated and rely on the tables loaded by the first image. It is assumed that once the decoder has read a table, it will remember that table until a new definition for the same table number is encountered.

It is the application designer's responsibility to figure out how to associate the correct tables with an abbreviated image. While abbreviated datastreams can be useful in a closed environment, their use is strongly discouraged in any situation where data exchange with other applications might be needed. Caveat designer.

The JPEG library provides support for reading and writing any combination of tables-only datastreams and abbreviated images. In both compression and decompression objects, a quantization or Huffman table will be retained for the lifetime of the object, unless it is overwritten by a new table definition.

To create abbreviated image datastreams, it is only necessary to tell the compressor not to emit some or all of the tables it is using. Each quantization and Huffman table struct contains a boolean field "sent_table",

which normally is initialized to FALSE. For each table used by the image, the
header-writing process emits the table and sets sent_table = TRUE unless it is
already TRUE. (In normal usage, this prevents outputting the same table
definition multiple times, as would otherwise occur because the chroma
components typically share tables.) Thus, setting this field to TRUE before
calling jpeg_start_compress() will prevent the table from being written at
all.

If you want to create a "pure" abbreviated image file containing no tables,
just call "jpeg_suppress_tables(&cinfo, TRUE)" after constructing all the
tables. If you want to emit some but not all tables, you'll need to set the
individual sent_table fields directly.

To create an abbreviated image, you must also call jpeg_start_compress()
with a second parameter of FALSE, not TRUE. Otherwise jpeg_start_compress()
will force all the sent_table fields to FALSE. (This is a safety feature to
prevent abbreviated images from being created accidentally.)

To create a tables-only file, perform the same parameter setup that you
normally would, but instead of calling jpeg_start_compress() and so on, call
jpeg_write_tables(&cinfo). This will write an abbreviated datastream
containing only SOI, DQT and/or DHT markers, and EOI. All the quantization
and Huffman tables that are currently defined in the compression object will
be emitted unless their sent_tables flag is already TRUE, and then all the
sent_tables flags will be set TRUE.

A sure-fire way to create matching tables-only and abbreviated image files
is to proceed as follows:

```
create JPEG compression object
set JPEG parameters
set destination to tables-only file
jpeg_write_tables(&cinfo);
set destination to image file
jpeg_start_compress(&cinfo, FALSE);
write data...
jpeg_finish_compress(&cinfo);
```

Since the JPEG parameters are not altered between writing the table file and
the abbreviated image file, the same tables are sure to be used. Of course,
you can repeat the jpeg_start_compress() ... jpeg_finish_compress() sequence
many times to produce many abbreviated image files matching the table file.

You cannot suppress output of the computed Huffman tables when Huffman
optimization is selected. (If you could, there'd be no way to decode the
image...) Generally, you don't want to set optimize_coding = TRUE when
you are trying to produce abbreviated files.

In some cases you might want to compress an image using tables which are
not stored in the application, but are defined in an interchange or
tables-only file readable by the application. This can be done by setting up
a JPEG decompression object to read the specification file, then copying the
tables into your compression object. See jpeg_copy_critical_parameters()
for an example of copying quantization tables.

To read abbreviated image files, you simply need to load the proper tables
into the decompression object before trying to read the abbreviated image.
If the proper tables are stored in the application program, you can just
allocate the table structs and fill in their contents directly. For example,
to load a fixed quantization table into table slot "n":

```
  if (cinfo.quant_tbl_ptrs[n] == NULL)
    cinfo.quant_tbl_ptrs[n] = jpeg_alloc_quant_table((j_common_ptr) &cinfo);
  quant_ptr = cinfo.quant_tbl_ptrs[n]; /* quant_ptr is JQUANT_TBL* */
  for (i = 0; i < 64; i++) {
    /* Qtable[] is desired quantization table, in natural array order */
    quant_ptr->quantval[i] = Qtable[i];
  }
```

Code to load a fixed Huffman table is typically (for AC table "n"):

```
  if (cinfo.ac_huff_tbl_ptrs[n] == NULL)
    cinfo.ac_huff_tbl_ptrs[n] = jpeg_alloc_huff_table((j_common_ptr) &cinfo);
  huff_ptr = cinfo.ac_huff_tbl_ptrs[n]; /* huff_ptr is JHUFF_TBL* */
  for (i = 1; i <= 16; i++) {
    /* counts[i] is number of Huffman codes of length i bits, i=1..16 */
    huff_ptr->bits[i] = counts[i];
  }
  for (i = 0; i < 256; i++) {
    /* symbols[] is the list of Huffman symbols, in code-length order */
    huff_ptr->huffval[i] = symbols[i];
  }
```

(Note that trying to set cinfo.quant_tbl_ptrs[n] to point directly at a
constant JQUANT_TBL object is not safe. If the incoming file happened to
contain a quantization table definition, your master table would get
overwritten! Instead allocate a working table copy and copy the master table
into it, as illustrated above. Ditto for Huffman tables, of course.)

You might want to read the tables from a tables-only file, rather than
hard-wiring them into your application. The jpeg_read_header() call is
sufficient to read a tables-only file. You must pass a second parameter of
FALSE to indicate that you do not require an image to be present. Thus, the
typical scenario is

```
create JPEG decompression object
set source to tables-only file
jpeg_read_header(&cinfo, FALSE);
set source to abbreviated image file
jpeg_read_header(&cinfo, TRUE);
set decompression parameters
jpeg_start_decompress(&cinfo);
read data...
jpeg_finish_decompress(&cinfo);
```

In some cases, you may want to read a file without knowing whether it contains an image or just tables. In that case, pass FALSE and check the return value from jpeg_read_header(): it will be JPEG_HEADER_OK if an image was found, JPEG_HEADER_TABLES_ONLY if only tables were found. (A third return value, JPEG_SUSPENDED, is possible when using a suspending data source manager.) Note that jpeg_read_header() will not complain if you read an abbreviated image for which you haven't loaded the missing tables; the missing-table check occurs later, in jpeg_start_decompress().

It is possible to read a series of images from a single source file by repeating the jpeg_read_header() ... jpeg_finish_decompress() sequence, without releasing/recreating the JPEG object or the data source module. (If you did reinitialize, any partial bufferload left in the data source buffer at the end of one image would be discarded, causing you to lose the start of the next image.) When you use this method, stored tables are automatically carried forward, so some of the images can be abbreviated images that depend on tables from earlier images.

If you intend to write a series of images into a single destination file, you might want to make a specialized data destination module that doesn't flush the output buffer at term_destination() time. This would speed things up by some trifling amount. Of course, you'd need to remember to flush the buffer after the last image. You can make the later images be abbreviated ones by passing FALSE to jpeg_start_compress().

Special markers

Some applications may need to insert or extract special data in the JPEG datastream. The JPEG standard provides marker types "COM" (comment) and "APP0" through "APP15" (application) to hold application-specific data. Unfortunately, the use of these markers is not specified by the standard. COM markers are fairly widely used to hold user-supplied text. The JFIF file format spec uses APP0 markers with specified initial strings to hold certain data. Adobe applications use APP14 markers beginning with the string "Adobe" for miscellaneous data. Other APPn markers are rarely seen, but might

contain almost anything.

If you wish to store user-supplied text, we recommend you use COM markers
and place readable 7-bit ASCII text in them. Newline conventions are not
standardized --- expect to find LF (Unix style), CR/LF (DOS style), or CR
(Mac style). A robust COM reader should be able to cope with random binary
garbage, including nulls, since some applications generate COM markers
containing non-ASCII junk. (But yours should not be one of them.)

For program-supplied data, use an APPn marker, and be sure to begin it with an
identifying string so that you can tell whether the marker is actually yours.
It's probably best to avoid using APP0 or APP14 for any private markers.
(NOTE: the upcoming SPIFF standard will use APP8 markers; we recommend you
not use APP8 markers for any private purposes, either.)

Keep in mind that at most 65533 bytes can be put into one marker, but you
can have as many markers as you like.

By default, the IJG compression library will write a JFIF APP0 marker if the
selected JPEG colorspace is grayscale or YCbCr, or an Adobe APP14 marker if
the selected colorspace is RGB, CMYK, or YCCK. You can disable this, but
we don't recommend it. The decompression library will recognize JFIF and
Adobe markers and will set the JPEG colorspace properly when one is found.

You can write special markers immediately following the datastream header by
calling jpeg_write_marker() after jpeg_start_compress() and before the first
call to jpeg_write_scanlines(). When you do this, the markers appear after
the SOI and the JFIF APP0 and Adobe APP14 markers (if written), but before
all else. Specify the marker type parameter as "JPEG_COM" for COM or
"JPEG_APP0 + n" for APPn. (Actually, jpeg_write_marker will let you write
any marker type, but we don't recommend writing any other kinds of marker.)
For example, to write a user comment string pointed to by comment_text:
 jpeg_write_marker(cinfo, JPEG_COM, comment_text, strlen(comment_text));

If it's not convenient to store all the marker data in memory at once,
you can instead call jpeg_write_m_header() followed by multiple calls to
jpeg_write_m_byte(). If you do it this way, it's your responsibility to
call jpeg_write_m_byte() exactly the number of times given in the length
parameter to jpeg_write_m_header(). (This method lets you empty the
output buffer partway through a marker, which might be important when
using a suspending data destination module. In any case, if you are using
a suspending destination, you should flush its buffer after inserting
any special markers. See "I/O suspension".)

Or, if you prefer to synthesize the marker byte sequence yourself,
you can just cram it straight into the data destination module.

If you are writing JFIF 1.02 extension markers (thumbnail images), don't
forget to set cinfo.JFIF_minor_version = 2 so that the encoder will write the
correct JFIF version number in the JFIF header marker. The library's default
is to write version 1.01, but that's wrong if you insert any 1.02 extension
markers. (We could probably get away with just defaulting to 1.02, but there
used to be broken decoders that would complain about unknown minor version
numbers. To reduce compatibility risks it's safest not to write 1.02 unless
you are actually using 1.02 extensions.)

When reading, two methods of handling special markers are available:
1. You can ask the library to save the contents of COM and/or APPn markers
into memory, and then examine them at your leisure afterwards.
2. You can supply your own routine to process COM and/or APPn markers
on-the-fly as they are read.
The first method is simpler to use, especially if you are using a suspending
data source; writing a marker processor that copes with input suspension is
not easy (consider what happens if the marker is longer than your available
input buffer). However, the second method conserves memory since the marker
data need not be kept around after it's been processed.

For either method, you'd normally set up marker handling after creating a
decompression object and before calling jpeg_read_header(), because the
markers of interest will typically be near the head of the file and so will
be scanned by jpeg_read_header. Once you've established a marker handling
method, it will be used for the life of that decompression object
(potentially many datastreams), unless you change it. Marker handling is
determined separately for COM markers and for each APPn marker code.

To save the contents of special markers in memory, call
 jpeg_save_markers(cinfo, marker_code, length_limit)
where marker_code is the marker type to save, JPEG_COM or JPEG_APP0+n.
(To arrange to save all the special marker types, you need to call this
routine 17 times, for COM and APP0-APP15.) If the incoming marker is longer
than length_limit data bytes, only length_limit bytes will be saved; this
parameter allows you to avoid chewing up memory when you only need to see the
first few bytes of a potentially large marker. If you want to save all the
data, set length_limit to 0xFFFF; that is enough since marker lengths are only
16 bits. As a special case, setting length_limit to 0 prevents that marker
type from being saved at all. (That is the default behavior, in fact.)

After jpeg_read_header() completes, you can examine the special markers by
following the cinfo->marker_list pointer chain. All the special markers in
the file appear in this list, in order of their occurrence in the file (but
omitting any markers of types you didn't ask for). Both the original data
length and the saved data length are recorded for each list entry; the latter
will not exceed length_limit for the particular marker type. Note that these

lengths exclude the marker length word, whereas the stored representation
within the JPEG file includes it. (Hence the maximum data length is really
only 65533.)

It is possible that additional special markers appear in the file beyond the
SOS marker at which jpeg_read_header stops; if so, the marker list will be
extended during reading of the rest of the file. This is not expected to be
common, however. If you are short on memory you may want to reset the length
limit to zero for all marker types after finishing jpeg_read_header, to
ensure that the max_memory_to_use setting cannot be exceeded due to addition
of later markers.

The marker list remains stored until you call jpeg_finish_decompress or
jpeg_abort, at which point the memory is freed and the list is set to empty.
(jpeg_destroy also releases the storage, of course.)

Note that the library is internally interested in APP0 and APP14 markers;
if you try to set a small nonzero length limit on these types, the library
will silently force the length up to the minimum it wants. (But you can set
a zero length limit to prevent them from being saved at all.) Also, in a
16-bit environment, the maximum length limit may be constrained to less than
65533 by malloc() limitations. It is therefore best not to assume that the
effective length limit is exactly what you set it to be.

If you want to supply your own marker-reading routine, you do it by calling
jpeg_set_marker_processor(). A marker processor routine must have the
signature
  boolean jpeg_marker_parser_method (j_decompress_ptr cinfo)
Although the marker code is not explicitly passed, the routine can find it
in cinfo->unread_marker. At the time of call, the marker proper has been
read from the data source module. The processor routine is responsible for
reading the marker length word and the remaining parameter bytes, if any.
Return TRUE to indicate success. (FALSE should be returned only if you are
using a suspending data source and it tells you to suspend. See the standard
marker processors in jdmarker.c for appropriate coding methods if you need to
use a suspending data source.)

If you override the default APP0 or APP14 processors, it is up to you to
recognize JFIF and Adobe markers if you want colorspace recognition to occur
properly. We recommend copying and extending the default processors if you
want to do that. (A better idea is to save these marker types for later
examination by calling jpeg_save_markers(); that method doesn't interfere
with the library's own processing of these markers.)

jpeg_set_marker_processor() and jpeg_save_markers() are mutually exclusive
--- if you call one it overrides any previous call to the other, for the
particular marker type specified.

A simple example of an external COM processor can be found in djpeg.c.
Also, see jpegtran.c for an example of using jpeg_save_markers.

Raw (downsampled) image data

Some applications need to supply already-downsampled image data to the JPEG compressor, or to receive raw downsampled data from the decompressor. The library supports this requirement by allowing the application to write or read raw data, bypassing the normal preprocessing or postprocessing steps. The interface is different from the standard one and is somewhat harder to use. If your interest is merely in bypassing color conversion, we recommend that you use the standard interface and simply set jpeg_color_space = in_color_space (or jpeg_color_space = out_color_space for decompression). The mechanism described in this section is necessary only to supply or receive downsampled image data, in which not all components have the same dimensions.

To compress raw data, you must supply the data in the colorspace to be used in the JPEG file (please read the earlier section on Special color spaces) and downsampled to the sampling factors specified in the JPEG parameters. You must supply the data in the format used internally by the JPEG library, namely a JSAMPIMAGE array. This is an array of pointers to two-dimensional arrays, each of type JSAMPARRAY. Each 2-D array holds the values for one color component. This structure is necessary since the components are of different sizes. If the image dimensions are not a multiple of the MCU size, you must also pad the data correctly (usually, this is done by replicating the last column and/or row). The data must be padded to a multiple of a DCT block in each component: that is, each downsampled row must contain a multiple of 8 valid samples, and there must be a multiple of 8 sample rows for each component. (For applications such as conversion of digital TV images, the standard image size is usually a multiple of the DCT block size, so that no padding need actually be done.)

The procedure for compression of raw data is basically the same as normal compression, except that you call jpeg_write_raw_data() in place of jpeg_write_scanlines(). Before calling jpeg_start_compress(), you must do the following:

* Set cinfo->raw_data_in to TRUE. (It is set FALSE by jpeg_set_defaults().) This notifies the library that you will be supplying raw data.
* Ensure jpeg_color_space is correct --- an explicit jpeg_set_colorspace() call is a good idea. Note that since color conversion is bypassed, in_color_space is ignored, except that jpeg_set_defaults() uses it to choose the default jpeg_color_space setting.
* Ensure the sampling factors, cinfo->comp_info[i].h_samp_factor and

cinfo->comp_info[i].v_samp_factor, are correct. Since these indicate the dimensions of the data you are supplying, it's wise to set them explicitly, rather than assuming the library's defaults are what you want.

To pass raw data to the library, call jpeg_write_raw_data() in place of jpeg_write_scanlines(). The two routines work similarly except that jpeg_write_raw_data takes a JSAMPIMAGE data array rather than JSAMPARRAY. The scanlines count passed to and returned from jpeg_write_raw_data is measured in terms of the component with the largest v_samp_factor.

jpeg_write_raw_data() processes one MCU row per call, which is to say v_samp_factor*DCTSIZE sample rows of each component. The passed num_lines value must be at least max_v_samp_factor*DCTSIZE, and the return value will be exactly that amount (or possibly some multiple of that amount, in future library versions). This is true even on the last call at the bottom of the image; don't forget to pad your data as necessary.

The required dimensions of the supplied data can be computed for each component as
 cinfo->comp_info[i].width_in_blocks*DCTSIZE samples per row
 cinfo->comp_info[i].height_in_blocks*DCTSIZE rows in image
after jpeg_start_compress() has initialized those fields. If the valid data is smaller than this, it must be padded appropriately. For some sampling factors and image sizes, additional dummy DCT blocks are inserted to make the image a multiple of the MCU dimensions. The library creates such dummy blocks itself; it does not read them from your supplied data. Therefore you need never pad by more than DCTSIZE samples. An example may help here. Assume 2h2v downsampling of YCbCr data, that is
 cinfo->comp_info[0].h_samp_factor = 2 for Y
 cinfo->comp_info[0].v_samp_factor = 2
 cinfo->comp_info[1].h_samp_factor = 1 for Cb
 cinfo->comp_info[1].v_samp_factor = 1
 cinfo->comp_info[2].h_samp_factor = 1 for Cr
 cinfo->comp_info[2].v_samp_factor = 1
and suppose that the nominal image dimensions (cinfo->image_width and cinfo->image_height) are 101x101 pixels. Then jpeg_start_compress() will compute downsampled_width = 101 and width_in_blocks = 13 for Y, downsampled_width = 51 and width_in_blocks = 7 for Cb and Cr (and the same for the height fields). You must pad the Y data to at least 13*8 = 104 columns and rows, the Cb/Cr data to at least 7*8 = 56 columns and rows. The MCU height is max_v_samp_factor = 2 DCT rows so you must pass at least 16 scanlines on each call to jpeg_write_raw_data(), which is to say 16 actual sample rows of Y and 8 each of Cb and Cr. A total of 7 MCU rows are needed, so you must pass a total of 7*16 = 112 "scanlines". The last DCT block row of Y data is dummy, so it doesn't matter what you pass for it in the data arrays, but the scanlines count must total up to 112 so that all of the Cb and Cr data gets passed.

Output suspension is supported with raw-data compression: if the data
destination module suspends, jpeg_write_raw_data() will return 0.
In this case the same data rows must be passed again on the next call.

Decompression with raw data output implies bypassing all postprocessing:
you cannot ask for rescaling or color quantization, for instance. More
seriously, you must deal with the color space and sampling factors present in
the incoming file. If your application only handles, say, 2h1v YCbCr data,
you must check for and fail on other color spaces or other sampling factors.
The library will not convert to a different color space for you.

To obtain raw data output, set cinfo->raw_data_out = TRUE before
jpeg_start_decompress() (it is set FALSE by jpeg_read_header()). Be sure to
verify that the color space and sampling factors are ones you can handle.
Then call jpeg_read_raw_data() in place of jpeg_read_scanlines(). The
decompression process is otherwise the same as usual.

jpeg_read_raw_data() returns one MCU row per call, and thus you must pass a
buffer of at least max_v_samp_factor*DCTSIZE scanlines (scanline counting is
the same as for raw-data compression). The buffer you pass must be large
enough to hold the actual data plus padding to DCT-block boundaries. As with
compression, any entirely dummy DCT blocks are not processed so you need not
allocate space for them, but the total scanline count includes them. The
above example of computing buffer dimensions for raw-data compression is
equally valid for decompression.

Input suspension is supported with raw-data decompression: if the data source
module suspends, jpeg_read_raw_data() will return 0. You can also use
buffered-image mode to read raw data in multiple passes.

Really raw data: DCT coefficients

It is possible to read or write the contents of a JPEG file as raw DCT
coefficients. This facility is mainly intended for use in lossless
transcoding between different JPEG file formats. Other possible applications
include lossless cropping of a JPEG image, lossless reassembly of a
multi-strip or multi-tile TIFF/JPEG file into a single JPEG datastream, etc.

To read the contents of a JPEG file as DCT coefficients, open the file and do
jpeg_read_header() as usual. But instead of calling jpeg_start_decompress()
and jpeg_read_scanlines(), call jpeg_read_coefficients(). This will read the
entire image into a set of virtual coefficient-block arrays, one array per
component. The return value is a pointer to an array of virtual-array
descriptors. Each virtual array can be accessed directly using the JPEG
memory manager's access_virt_barray method (see Memory management, below,

and also read structure.txt's discussion of virtual array handling). Or,
for simple transcoding to a different JPEG file format, the array list can
just be handed directly to jpeg_write_coefficients().

Each block in the block arrays contains quantized coefficient values in
normal array order (not JPEG zigzag order). The block arrays contain only
DCT blocks containing real data; any entirely-dummy blocks added to fill out
interleaved MCUs at the right or bottom edges of the image are discarded
during reading and are not stored in the block arrays. (The size of each
block array can be determined from the width_in_blocks and height_in_blocks
fields of the component's comp_info entry.) This is also the data format
expected by jpeg_write_coefficients().

When you are done using the virtual arrays, call jpeg_finish_decompress()
to release the array storage and return the decompression object to an idle
state; or just call jpeg_destroy() if you don't need to reuse the object.

If you use a suspending data source, jpeg_read_coefficients() will return
NULL if it is forced to suspend; a non-NULL return value indicates successful
completion. You need not test for a NULL return value when using a
non-suspending data source.

It is also possible to call jpeg_read_coefficients() to obtain access to the
decoder's coefficient arrays during a normal decode cycle in buffered-image
mode. This frammish might be useful for progressively displaying an incoming
image and then re-encoding it without loss. To do this, decode in buffered-
image mode as discussed previously, then call jpeg_read_coefficients() after
the last jpeg_finish_output() call. The arrays will be available for your use
until you call jpeg_finish_decompress().

To write the contents of a JPEG file as DCT coefficients, you must provide
the DCT coefficients stored in virtual block arrays. You can either pass
block arrays read from an input JPEG file by jpeg_read_coefficients(), or
allocate virtual arrays from the JPEG compression object and fill them
yourself. In either case, jpeg_write_coefficients() is substituted for
jpeg_start_compress() and jpeg_write_scanlines(). Thus the sequence is
 * Create compression object
 * Set all compression parameters as necessary
 * Request virtual arrays if needed
 * jpeg_write_coefficients()
 * jpeg_finish_compress()
 * Destroy or re-use compression object
jpeg_write_coefficients() is passed a pointer to an array of virtual block
array descriptors; the number of arrays is equal to cinfo.num_components.

The virtual arrays need only have been requested, not realized, before
jpeg_write_coefficients() is called. A side-effect of

jpeg_write_coefficients() is to realize any virtual arrays that have been
requested from the compression object's memory manager. Thus, when obtaining
the virtual arrays from the compression object, you should fill the arrays
after calling jpeg_write_coefficients(). The data is actually written out
when you call jpeg_finish_compress(); jpeg_write_coefficients() only writes
the file header.

When writing raw DCT coefficients, it is crucial that the JPEG quantization
tables and sampling factors match the way the data was encoded, or the
resulting file will be invalid. For transcoding from an existing JPEG file,
we recommend using jpeg_copy_critical_parameters(). This routine initializes
all the compression parameters to default values (like jpeg_set_defaults()),
then copies the critical information from a source decompression object.
The decompression object should have just been used to read the entire
JPEG input file --- that is, it should be awaiting jpeg_finish_decompress().

jpeg_write_coefficients() marks all tables stored in the compression object
as needing to be written to the output file (thus, it acts like
jpeg_start_compress(cinfo, TRUE)). This is for safety's sake, to avoid
emitting abbreviated JPEG files by accident. If you really want to emit an
abbreviated JPEG file, call jpeg_suppress_tables(), or set the tables'
individual sent_table flags, between calling jpeg_write_coefficients() and
jpeg_finish_compress().

Progress monitoring

Some applications may need to regain control from the JPEG library every so
often. The typical use of this feature is to produce a percent-done bar or
other progress display. (For a simple example, see cjpeg.c or djpeg.c.)
Although you do get control back frequently during the data-transferring pass
(the jpeg_read_scanlines or jpeg_write_scanlines loop), any additional passes
will occur inside jpeg_finish_compress or jpeg_start_decompress; those
routines may take a long time to execute, and you don't get control back
until they are done.

You can define a progress-monitor routine which will be called periodically
by the library. No guarantees are made about how often this call will occur,
so we don't recommend you use it for mouse tracking or anything like that.
At present, a call will occur once per MCU row, scanline, or sample row
group, whichever unit is convenient for the current processing mode; so the
wider the image, the longer the time between calls. During the data
transferring pass, only one call occurs per call of jpeg_read_scanlines or
jpeg_write_scanlines, so don't pass a large number of scanlines at once if
you want fine resolution in the progress count. (If you really need to use
the callback mechanism for time-critical tasks like mouse tracking, you could
insert additional calls inside some of the library's inner loops.)

To establish a progress-monitor callback, create a struct jpeg_progress_mgr,
fill in its progress_monitor field with a pointer to your callback routine,
and set cinfo->progress to point to the struct. The callback will be called
whenever cinfo->progress is non-NULL. (This pointer is set to NULL by
jpeg_create_compress or jpeg_create_decompress; the library will not change
it thereafter. So if you allocate dynamic storage for the progress struct,
make sure it will live as long as the JPEG object does. Allocating from the
JPEG memory manager with lifetime JPOOL_PERMANENT will work nicely.) You
can use the same callback routine for both compression and decompression.

The jpeg_progress_mgr struct contains four fields which are set by the library:
```
 long pass_counter; /* work units completed in this pass */
 long pass_limit; /* total number of work units in this pass */
 int completed_passes; /* passes completed so far */
 int total_passes; /* total number of passes expected */
```
During any one pass, pass_counter increases from 0 up to (not including)
pass_limit; the step size is usually but not necessarily 1. The pass_limit
value may change from one pass to another. The expected total number of
passes is in total_passes, and the number of passes already completed is in
completed_passes. Thus the fraction of work completed may be estimated as
```
  completed_passes + (pass_counter/pass_limit)
  -------------------------------------------
     total_passes
```
ignoring the fact that the passes may not be equal amounts of work.

When decompressing, pass_limit can even change within a pass, because it
depends on the number of scans in the JPEG file, which isn't always known in
advance. The computed fraction-of-work-done may jump suddenly (if the library
discovers it has overestimated the number of scans) or even decrease (in the
opposite case). It is not wise to put great faith in the work estimate.

When using the decompressor's buffered-image mode, the progress monitor work
estimate is likely to be completely unhelpful, because the library has no way
to know how many output passes will be demanded of it. Currently, the library
sets total_passes based on the assumption that there will be one more output
pass if the input file end hasn't yet been read (jpeg_input_complete() isn't
TRUE), but no more output passes if the file end has been reached when the
output pass is started. This means that total_passes will rise as additional
output passes are requested. If you have a way of determining the input file
size, estimating progress based on the fraction of the file that's been read
will probably be more useful than using the library's value.

Memory management

This section covers some key facts about the JPEG library's built-in memory

manager. For more info, please read structure.txt's section about the memory manager, and consult the source code if necessary.

All memory and temporary file allocation within the library is done via the memory manager. If necessary, you can replace the "back end" of the memory manager to control allocation yourself (for example, if you don't want the library to use malloc() and free() for some reason).

Some data is allocated "permanently" and will not be freed until the JPEG object is destroyed. Most data is allocated "per image" and is freed by jpeg_finish_compress, jpeg_finish_decompress, or jpeg_abort. You can call the memory manager yourself to allocate structures that will automatically be freed at these times. Typical code for this is
 ptr = (*cinfo->mem->alloc_small) ((j_common_ptr) cinfo, JPOOL_IMAGE, size);
Use JPOOL_PERMANENT to get storage that lasts as long as the JPEG object.
Use alloc_large instead of alloc_small for anything bigger than a few Kbytes.
There are also alloc_sarray and alloc_barray routines that automatically
build 2-D sample or block arrays.

The library's minimum space requirements to process an image depend on the image's width, but not on its height, because the library ordinarily works with "strip" buffers that are as wide as the image but just a few rows high. Some operating modes (eg, two-pass color quantization) require full-image buffers. Such buffers are treated as "virtual arrays": only the current strip need be in memory, and the rest can be swapped out to a temporary file.

If you use the simplest memory manager back end (jmemnobs.c), then no temporary files are used; virtual arrays are simply malloc()'d. Images bigger than memory can be processed only if your system supports virtual memory. The other memory manager back ends support temporary files of various flavors and thus work in machines without virtual memory. They may also be useful on Unix machines if you need to process images that exceed available swap space.

When using temporary files, the library will make the in-memory buffers for its virtual arrays just big enough to stay within a "maximum memory" setting. Your application can set this limit by setting cinfo->mem->max_memory_to_use after creating the JPEG object. (Of course, there is still a minimum size for the buffers, so the max-memory setting is effective only if it is bigger than the minimum space needed.) If you allocate any large structures yourself, you must allocate them before jpeg_start_compress() or jpeg_start_decompress() in order to have them counted against the max memory limit. Also keep in mind that space allocated with alloc_small() is ignored, on the assumption that it's too small to be worth worrying about; so a reasonable safety margin should be left when setting max_memory_to_use.

If you use the jmemname.c or jmemdos.c memory manager back end, it is important to clean up the JPEG object properly to ensure that the temporary files get deleted. (This is especially crucial with jmemdos.c, where the

"temporary files" may be extended-memory segments; if they are not freed,
DOS will require a reboot to recover the memory.) Thus, with these memory
managers, it's a good idea to provide a signal handler that will trap any
early exit from your program. The handler should call either jpeg_abort()
or jpeg_destroy() for any active JPEG objects. A handler is not needed with
jmemnobs.c, and shouldn't be necessary with jmemansi.c or jmemmac.c either,
since the C library is supposed to take care of deleting files made with
tmpfile().

Memory usage

Working memory requirements while performing compression or decompression
depend on image dimensions, image characteristics (such as colorspace and
JPEG process), and operating mode (application-selected options).

As of v6b, the decompressor requires:
1. About 24K in more-or-less-fixed-size data. This varies a bit depending
   on operating mode and image characteristics (particularly color vs.
   grayscale), but it doesn't depend on image dimensions.
2. Strip buffers (of size proportional to the image width) for IDCT and
   upsampling results. The worst case for commonly used sampling factors
   is about 34 bytes * width in pixels for a color image. A grayscale image
   only needs about 8 bytes per pixel column.
3. A full-image DCT coefficient buffer is needed to decode a multi-scan JPEG
   file (including progressive JPEGs), or whenever you select buffered-image
   mode. This takes 2 bytes/coefficient. At typical 2x2 sampling, that's
   3 bytes per pixel for a color image. Worst case (1x1 sampling) requires
   6 bytes/pixel. For grayscale, figure 2 bytes/pixel.
4. To perform 2-pass color quantization, the decompressor also needs a
   128K color lookup table and a full-image pixel buffer (3 bytes/pixel).
This does not count any memory allocated by the application, such as a
buffer to hold the final output image.

The above figures are valid for 8-bit JPEG data precision and a machine with
32-bit ints. For 12-bit JPEG data, double the size of the strip buffers and
quantization pixel buffer. The "fixed-size" data will be somewhat smaller
with 16-bit ints, larger with 64-bit ints. Also, CMYK or other unusual
color spaces will require different amounts of space.

The full-image coefficient and pixel buffers, if needed at all, do not
have to be fully RAM resident; you can have the library use temporary
files instead when the total memory usage would exceed a limit you set.
(But if your OS supports virtual memory, it's probably better to just use
jmemnobs and let the OS do the swapping.)

The compressor's memory requirements are similar, except that it has no need

for color quantization. Also, it needs a full-image DCT coefficient buffer
if Huffman-table optimization is asked for, even if progressive mode is not
requested.

If you need more detailed information about memory usage in a particular
situation, you can enable the MEM_STATS code in jmemmgr.c.

Library compile-time options

A number of compile-time options are available by modifying jmorecfg.h.

The JPEG standard provides for both the baseline 8-bit DCT process and
a 12-bit DCT process. The IJG code supports 12-bit lossy JPEG if you define
BITS_IN_JSAMPLE as 12 rather than 8. Note that this causes JSAMPLE to be
larger than a char, so it affects the surrounding application's image data.
The sample applications cjpeg and djpeg can support 12-bit mode only for PPM
and GIF file formats; you must disable the other file formats to compile a
12-bit cjpeg or djpeg. (install.txt has more information about that.)
At present, a 12-bit library can handle *only* 12-bit images, not both
precisions. (If you need to include both 8- and 12-bit libraries in a single
application, you could probably do it by defining NEED_SHORT_EXTERNAL_NAMES
for just one of the copies. You'd have to access the 8-bit and 12-bit copies
from separate application source files. This is untested ... if you try it,
we'd like to hear whether it works!)

Note that a 12-bit library always compresses in Huffman optimization mode,
in order to generate valid Huffman tables. This is necessary because our
default Huffman tables only cover 8-bit data. If you need to output 12-bit
files in one pass, you'll have to supply suitable default Huffman tables.
You may also want to supply your own DCT quantization tables; the existing
quality-scaling code has been developed for 8-bit use, and probably doesn't
generate especially good tables for 12-bit.

The maximum number of components (color channels) in the image is determined
by MAX_COMPONENTS. The JPEG standard allows up to 255 components, but we
expect that few applications will need more than four or so.

On machines with unusual data type sizes, you may be able to improve
performance or reduce memory space by tweaking the various typedefs in
jmorecfg.h. In particular, on some RISC CPUs, access to arrays of "short"s
is quite slow; consider trading memory for speed by making JCOEF, INT16, and
UINT16 be "int" or "unsigned int". UINT8 is also a candidate to become int.
You probably don't want to make JSAMPLE be int unless you have lots of memory
to burn.

You can reduce the size of the library by compiling out various optional

functions. To do this, undefine xxx_SUPPORTED symbols as necessary.

You can also save a few K by not having text error messages in the library;
the standard error message table occupies about 5Kb. This is particularly
reasonable for embedded applications where there's no good way to display
a message anyway. To do this, remove the creation of the message table
(jpeg_std_message_table[]) from jerror.c, and alter format_message to do
something reasonable without it. You could output the numeric value of the
message code number, for example. If you do this, you can also save a couple
more K by modifying the TRACEMSn() macros in jerror.h to expand to nothing;
you don't need trace capability anyway, right?

Portability considerations

The JPEG library has been written to be extremely portable; the sample
applications cjpeg and djpeg are slightly less so. This section summarizes
the design goals in this area. (If you encounter any bugs that cause the
library to be less portable than is claimed here, we'd appreciate hearing
about them.)

The code works fine on ANSI C, C++, and pre-ANSI C compilers, using any of
the popular system include file setups, and some not-so-popular ones too.
See install.txt for configuration procedures.

The code is not dependent on the exact sizes of the C data types. As
distributed, we make the assumptions that
 char is at least 8 bits wide
 short is at least 16 bits wide
 int is at least 16 bits wide
 long is at least 32 bits wide
(These are the minimum requirements of the ANSI C standard.) Wider types will
work fine, although memory may be used inefficiently if char is much larger
than 8 bits or short is much bigger than 16 bits. The code should work
equally well with 16- or 32-bit ints.

In a system where these assumptions are not met, you may be able to make the
code work by modifying the typedefs in jmorecfg.h. However, you will probably
have difficulty if int is less than 16 bits wide, since references to plain
int abound in the code.

char can be either signed or unsigned, although the code runs faster if an
unsigned char type is available. If char is wider than 8 bits, you will need
to redefine JOCTET and/or provide custom data source/destination managers so
that JOCTET represents exactly 8 bits of data on external storage.

The JPEG library proper does not assume ASCII representation of characters.

But some of the image file I/O modules in cjpeg/djpeg do have ASCII dependencies in file-header manipulation; so does cjpeg's select_file_type() routine.

The JPEG library does not rely heavily on the C library. In particular, C stdio is used only by the data source/destination modules and the error handler, all of which are application-replaceable. (cjpeg/djpeg are more heavily dependent on stdio.) malloc and free are called only from the memory manager "back end" module, so you can use a different memory allocator by replacing that one file.

The code generally assumes that C names must be unique in the first 15 characters. However, global function names can be made unique in the first 6 characters by defining NEED_SHORT_EXTERNAL_NAMES.

More info about porting the code may be gleaned by reading jconfig.txt, jmorecfg.h, and jinclude.h.

Notes for MS-DOS implementors

The IJG code is designed to work efficiently in 80x86 "small" or "medium" memory models (i.e., data pointers are 16 bits unless explicitly declared "far"; code pointers can be either size). You may be able to use small model to compile cjpeg or djpeg by itself, but you will probably have to use medium model for any larger application. This won't make much difference in performance. You *will* take a noticeable performance hit if you use a large-data memory model (perhaps 10%-25%), and you should avoid "huge" model if at all possible.

The JPEG library typically needs 2Kb-3Kb of stack space. It will also malloc about 20K-30K of near heap space while executing (and lots of far heap, but that doesn't count in this calculation). This figure will vary depending on selected operating mode, and to a lesser extent on image size. There is also about 5Kb-6Kb of constant data which will be allocated in the near data segment (about 4Kb of this is the error message table).
Thus you have perhaps 20K available for other modules' static data and near heap space before you need to go to a larger memory model. The C library's static data will account for several K of this, but that still leaves a good deal for your needs. (If you are tight on space, you could reduce the sizes of the I/O buffers allocated by jdatasrc.c and jdatadst.c, say from 4K to 1K. Another possibility is to move the error message table to far memory; this should be doable with only localized hacking on jerror.c.)

About 2K of the near heap space is "permanent" memory that will not be released until you destroy the JPEG object. This is only an issue if you save a JPEG object between compression or decompression operations.

Far data space may also be a tight resource when you are dealing with large
images. The most memory-intensive case is decompression with two-pass color
quantization, or single-pass quantization to an externally supplied color
map. This requires a 128Kb color lookup table plus strip buffers amounting
to about 40 bytes per column for typical sampling ratios (eg, about 25600
bytes for a 640-pixel-wide image). You may not be able to process wide
images if you have large data structures of your own.

Of course, all of these concerns vanish if you use a 32-bit flat-memory-model
compiler, such as DJGPP or Watcom C. We highly recommend flat model if you
can use it; the JPEG library is significantly faster in flat model.

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/libjpeg.txt
No license file was found, but licenses were detected in source scan.

```
/*
* jcomapi.c
*
* Copyright (C) 1994-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains application interface routines that are used for both
* compression and decompression.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jcomapi.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdmrgext.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modifications:
* Copyright (C) 2011, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains code for merged upsampling/color conversion.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-

UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdmrgext.c
No license file was found, but licenses were detected in source scan.

```
/*
* jcphuff.c
*
* Copyright (C) 1995-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains Huffman entropy encoding routines for progressive JPEG.
*
* We do not support output suspension in this module, since the library
* currently does not allow multiple-scan files to be written with output
* suspension.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jcphuff.c
No license file was found, but licenses were detected in source scan.

```
/*
* jaricom.c
*
* Developed 1997-2009 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains probability estimation tables for common use in
* arithmetic entropy encoding and decoding routines.
*
* This data represents Table D.2 in the JPEG spec (ISO/IEC IS 10918-1
* and CCITT Recommendation ITU-T T.81) and Table 24 in the JBIG spec
* (ISO/IEC IS 11544 and CCITT Recommendation ITU-T T.82).
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jaricom.c
No license file was found, but licenses were detected in source scan.

```
* All rights reserved.
* Permission is granted to anyone to use this software for any purpose,
* 1. The origin of this software must not be misrepresented; you must not
* 2. Altered source versions must be plainly marked as such, and must not be
* 3. This notice may not be removed or altered from any source distribution.
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jsimd_arm_neon.S
No license file was found, but licenses were detected in source scan.

```
/*
* jdhuff.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modifications:
* Copyright (C) 2009-2011, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains Huffman entropy decoding routines.
*
* Much of the complexity here has to do with supporting input suspension.
* If the data source module demands suspension, we want to be able to back
* up to the start of the current MCU.  To do this, we copy state variables
* into local working storage, and update them back to the permanent
* storage only upon successful completion of an MCU.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdhuff.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdmainct.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modifications:
* Copyright (C) 2010, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the main buffer controller for decompression.
* The main buffer lies between the JPEG decompressor proper and the
* post-processor; it holds downsampled data in the JPEG colorspace.
*
* Note that this code is bypassed in raw-data mode, since the application
* supplies the equivalent of the main buffer in that case.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdmainct.c

No license file was found, but licenses were detected in source scan.

```
/*
* jddctmgr.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2002-2010 by Guido Vollbeding.
* Modifications:
* Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
* Copyright (C) 2010, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the inverse-DCT management logic.
* This code selects a particular IDCT implementation to be used,
* and it performs related housekeeping chores.  No code in this file
* is executed per IDCT step, only during output pass setup.
*
* Note that the IDCT routines are responsible for performing coefficient
* dequantization as well as the IDCT proper.  This module sets up the
* dequantization multiplier table needed by the IDCT routine.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jddctmgr.c
No license file was found, but licenses were detected in source scan.

```
/*
* jchuff.h
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains declarations for Huffman entropy encoding routines
* that are shared between the sequential encoder (jchuff.c) and the
* progressive encoder (jcphuff.c).  No other modules need to see these.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jchuff.h
No license file was found, but licenses were detected in source scan.

```
/*
* jsimd_i386.c
*
```

```
* Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
* Copyright 2009-2011 D. R. Commander
*
* Based on the x86 SIMD extension for IJG JPEG library,
* Copyright (C) 1999-2006, MIYASAKA Masaru.
* For conditions of distribution and use, see copyright notice in jsimdext.inc
*
* This file contains the interface between the "normal" portions
* of the library and the SIMD implementations when running on a
* 32-bit x86 architecture.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jsimd_i386.c
No license file was found, but licenses were detected in source scan.

```
/*
* jcmaster.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modified 2003-2010 by Guido Vollbeding.
* Modifications:
* Copyright (C) 2010, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains master control logic for the JPEG compressor.
* These routines are concerned with parameter validation, initial setup,
* and inter-pass control (determining the number of passes and the work
* to be done in each pass).
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jcmaster.c
No license file was found, but licenses were detected in source scan.

```
/*
* jsimd_none.c
*
* Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
* Copyright 2009-2011 D. R. Commander
*
* Based on the x86 SIMD extension for IJG JPEG library,
* Copyright (C) 1999-2006, MIYASAKA Masaru.
* For conditions of distribution and use, see copyright notice in jsimdext.inc
*
```

* This file contains stubs for when there is no SIMD support available.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jsimd_none.c
No license file was found, but licenses were detected in source scan.

/*
* jcparam.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1998, Thomas G. Lane.
* Modified 2003-2008 by Guido Vollbeding.
* Modifications:
* Copyright (C) 2009-2011, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains optional default-setting code for the JPEG compressor.
* Applications do not have to use this file, but those that don't use it
* must know a lot more about the innards of the JPEG code.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jcparam.c
No license file was found, but licenses were detected in source scan.

/*
* jdmaster.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modified 2002-2009 by Guido Vollbeding.
* Modifications:
* Copyright (C) 2009-2011, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains master control logic for the JPEG decompressor.
* These routines are concerned with selecting the modules to be executed
* and with determining the number of passes and the work to be done in each
* pass.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdmaster.c

No license file was found, but licenses were detected in source scan.

libjpeg-turbo note: This image was extracted from the 8-bit nightshot_iso_100
image. The original can be downloaded at the link below.

The New Image Compression Test Set - Jan 2008
http://www.imagecompression.info/test_images

The images historically used for compression research (lena, barbra, pepper etc...) have outlived their useful life and its about time they become a part of history only. They are too small, come from data sources too old and are available in only 8-bit precision.

These images have been carefully selected to aid in image compression algorithm research and evaluation. These are photographic images chosen to come from a wide variety of sources and each one picked to stress different aspects of algorithms. Images are available in 8-bit, 16-bit and 16-bit linear variations, RGB and gray.

Images are available without any prohibitive copyright restrictions.

These images are (c) there respective owners. You are granted full redistribution and publication rights on these images provided:

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3. No payment is required for distribution this material, it must be available freely under the conditions stated here. That is, it is prohibited to sell the material.
4. This notice may not be removed or altered from any distribution.

Acknowledgments: A lot of people contributed a lot of time and effort in making this test set possible. Thanks to everyone who voiced their opinion in any of the discussions online. Thanks to Axel Becker, Thomas Richter and Niels Frhling for their extensive help in picking images, running all the various tests etc... Thanks to Pete Fraser, Tony Story, Wayne J. Cosshall, David Coffin, Bruce Lindbloom and raw.fotosite.pl for the images which make up this set.

Sachin Garg [India]
sachingarg@c10n.info

www.sachingarg.com | www.c10n.info | www.imagecompression.info

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/testimages/nightshot_iso_100.txt
No license file was found, but licenses were detected in source scan.

/*
* jdtrans.c
*

* Copyright (C) 1995-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains library routines for transcoding decompression,
* that is, reading raw DCT coefficient arrays from an input JPEG file.
* The routines in jdapimin.c will also be needed by a transcoder.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdtrans.c
No license file was found, but licenses were detected in source scan.

/*
* jdatadst-tj.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2009-2012 by Guido Vollbeding.
* Modifications:
* Copyright (C) 2011, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains compression data destination routines for the case of
* emitting JPEG data to memory or to a file (or any stdio stream).
* While these routines are sufficient for most applications,
* some will want to use a different destination manager.
* IMPORTANT: we assume that fwrite() will correctly transcribe an array of
* JOCTETs into 8-bit-wide elements on external storage. If char is wider
* than 8 bits on your machine, you may need to do some tweaking.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdatadst-tj.c
No license file was found, but licenses were detected in source scan.

Package: {__PKGNAME}
Version: {__VERSION}-{__BUILD}
Section: misc
Priority: optional
Architecture: {__ARCH}
Essential: no
Maintainer: The libjpeg-turbo Project [http://www.libjpeg-turbo.org]
Description: A SIMD-accelerated JPEG codec that provides both the libjpeg and TurboJPEG APIs
libjpeg-turbo is a JPEG image codec that uses SIMD instructions (MMX, SSE2,
NEON) to accelerate baseline JPEG compression and decompression on x86,

x86-64, and ARM systems. On such systems, libjpeg-turbo is generally 2-4x as
fast as libjpeg, all else being equal. On other types of systems,
libjpeg-turbo can still outperform libjpeg by a significant amount, by virtue
of its highly-optimized Huffman coding routines. In many cases, the
performance of libjpeg-turbo rivals that of proprietary high-speed JPEG
codecs.
.
libjpeg-turbo implements both the traditional libjpeg API as well as the less
powerful but more straightforward TurboJPEG API. libjpeg-turbo also features
colorspace extensions that allow it to compress from/decompress to 32-bit and
big-endian pixel buffers (RGBX, XBGR, etc.), as well as a full-featured Java
interface.
.
libjpeg-turbo was originally based on libjpeg/SIMD, an MMX-accelerated
derivative of libjpeg v6b developed by Miyasaka Masaru. The TigerVNC and
VirtualGL projects made numerous enhancements to the codec in 2009, and in
early 2010, libjpeg-turbo spun off into an independent project, with the goal
of making high-speed JPEG compression/decompression technology available to a
broader range of users and developers.

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/release/deb-control.tmpl
No license file was found, but licenses were detected in source scan.

****
** Background
****

libjpeg-turbo is a JPEG image codec that uses SIMD instructions (MMX, SSE2,
NEON) to accelerate baseline JPEG compression and decompression on x86, x86-64,
and ARM systems. On such systems, libjpeg-turbo is generally 2-4x as fast as
libjpeg, all else being equal. On other types of systems, libjpeg-turbo can
still outperform libjpeg by a significant amount, by virtue of its
highly-optimized Huffman coding routines. In many cases, the performance of
libjpeg-turbo rivals that of proprietary high-speed JPEG codecs.

libjpeg-turbo implements both the traditional libjpeg API as well as the less
powerful but more straightforward TurboJPEG API. libjpeg-turbo also features
colorspace extensions that allow it to compress from/decompress to 32-bit and
big-endian pixel buffers (RGBX, XBGR, etc.), as well as a full-featured Java
interface.

libjpeg-turbo was originally based on libjpeg/SIMD, an MMX-accelerated
derivative of libjpeg v6b developed by Miyasaka Masaru. The TigerVNC and
VirtualGL projects made numerous enhancements to the codec in 2009, and in
early 2010, libjpeg-turbo spun off into an independent project, with the goal
of making high-speed JPEG compression/decompression technology available to a

broader range of users and developers.

****
** License
****

Most of libjpeg-turbo inherits the non-restrictive, BSD-style license used by
libjpeg (see README.) The TurboJPEG wrapper (both C and Java versions) and
associated test programs bear a similar license, which is reproduced below:

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modification, are permitted provided that the following conditions are met:

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- Neither the name of the libjpeg-turbo Project nor the names of its
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ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE
POSSIBILITY OF SUCH DAMAGE.

****
** Using libjpeg-turbo
****

libjpeg-turbo includes two APIs that can be used to compress and decompress
JPEG images:

TurboJPEG API: This API provides an easy-to-use interface for compressing
and decompressing JPEG images in memory. It also provides some functionality
that would not be straightforward to achieve using the underlying libjpeg
API, such as generating planar YUV images and performing multiple
simultaneous lossless transforms on an image. The Java interface for

libjpeg-turbo is written on top of the TurboJPEG API.

libjpeg API: This is the de facto industry-standard API for compressing and decompressing JPEG images. It is more difficult to use than the TurboJPEG API but also more powerful. The libjpeg API implementation in libjpeg-turbo is both API/ABI-compatible and mathematically compatible with libjpeg v6b. It can also optionally be configured to be API/ABI-compatible with libjpeg v7 and v8 (see below.)

There is no significant performance advantage to either API when both are used to perform similar operations.

==========
Installation Directory
==========

This document assumes that libjpeg-turbo will be installed in the default directory (/opt/libjpeg-turbo on Un*x and Mac systems and c:\libjpeg-turbo[-gcc][64] on Windows systems. If your installation of libjpeg-turbo resides in a different directory, then adjust the instructions accordingly.

==========
Replacing libjpeg at Run Time
==========

Un*x

If a Un*x application is dynamically linked with libjpeg, then you can replace libjpeg with libjpeg-turbo at run time by manipulating LD_LIBRARY_PATH. For instance:

[Using libjpeg]
> time cjpeg <vgl_5674_0098.ppm >vgl_5674_0098.jpg
real 0m0.392s
user 0m0.074s
sys   0m0.020s

[Using libjpeg-turbo]
> export LD_LIBRARY_PATH=/opt/libjpeg-turbo/{lib}:$LD_LIBRARY_PATH
> time cjpeg <vgl_5674_0098.ppm >vgl_5674_0098.jpg
real 0m0.109s
user 0m0.029s
sys   0m0.010s

({lib} = lib32 or lib64, depending on whether you wish to use the 32-bit or the 64-bit version of libjpeg-turbo.)

System administrators can also replace the libjpeg symlinks in /usr/lib* with
links to the libjpeg-turbo dynamic library located in /opt/libjpeg-turbo/{lib}.
This will effectively accelerate every application that uses the libjpeg
dynamic library on the system.

Windows

If a Windows application is dynamically linked with libjpeg, then you can
replace libjpeg with libjpeg-turbo at run time by backing up the application's
copy of jpeg62.dll, jpeg7.dll, or jpeg8.dll (assuming the application has its
own local copy of this library) and copying the corresponding DLL from
libjpeg-turbo into the application's install directory. The official
libjpeg-turbo binary packages only provide jpeg62.dll. If the application uses
jpeg7.dll or jpeg8.dll instead, then it will be necessary to build
libjpeg-turbo from source (see "libjpeg v7 and v8 API/ABI Emulation" below.)

The following information is specific to the official libjpeg-turbo binary
packages for Visual C++:

-- jpeg62.dll requires the Visual C++ 2008 C run-time DLL (msvcr90.dll).
msvcr90.dll ships with more recent versions of Windows, but users of older
Windows releases can obtain it from the Visual C++ 2008 Redistributable
Package, which is available as a free download from Microsoft's web site.

-- Features of the libjpeg API that require passing a C run-time structure,
such as a file handle, from an application to the library will probably not
work with jpeg62.dll, unless the application is also built to use the Visual
C++ 2008 C run-time DLL. In particular, this affects jpeg_stdio_dest() and
jpeg_stdio_src().

Mac

Mac applications typically embed their own copies of the libjpeg dylib inside
the (hidden) application bundle, so it is not possible to globally replace
libjpeg on OS X systems. Replacing the application's version of the libjpeg
dylib would generally involve copying libjpeg.*.dylib from libjpeg-turbo into
the appropriate place in the application bundle and using install_name_tool to
repoint the libjpeg-turbo dylib to its new directory. This requires an
advanced knowledge of OS X and would not survive an upgrade or a re-install of
the application. Thus, it is not recommended for most users.

==========
Using libjpeg-turbo in Your Own Programs
==========

For the most part, libjpeg-turbo should work identically to libjpeg, so in
most cases, an application can be built against libjpeg and then run against
libjpeg-turbo. On Un*x systems and Cygwin, you can build against libjpeg-turbo
instead of libjpeg by setting

 CPATH=/opt/libjpeg-turbo/include
 and
 LIBRARY_PATH=/opt/libjpeg-turbo/{lib}

({lib} = lib32 or lib64, depending on whether you are building a 32-bit or a
64-bit application.)

If using MinGW, then set

 CPATH=/c/libjpeg-turbo-gcc[64]/include
 and
 LIBRARY_PATH=/c/libjpeg-turbo-gcc[64]/lib

Building against libjpeg-turbo is useful, for instance, if you want to build an
application that leverages the libjpeg-turbo colorspace extensions (see below.)
On Un*x systems, you would still need to manipulate LD_LIBRARY_PATH or create
appropriate symlinks to use libjpeg-turbo at run time. On such systems, you
can pass -R /opt/libjpeg-turbo/{lib} to the linker to force the use of
libjpeg-turbo at run time rather than libjpeg (also useful if you want to
leverage the colorspace extensions), or you can link against the libjpeg-turbo
static library.

To force a Un*x or MinGW application to link against the static version of
libjpeg-turbo, you can use the following linker options:

 -Wl,-Bstatic -ljpeg -Wl,-Bdynamic

On OS X, simply add /opt/libjpeg-turbo/lib/libjpeg.a to the linker command
line.

To build Visual C++ applications using libjpeg-turbo, add
c:\libjpeg-turbo[64]\include to the system or user INCLUDE environment
variable and c:\libjpeg-turbo[64]\lib to the system or user LIB environment
variable, and then link against either jpeg.lib (to use the DLL version of
libjpeg-turbo) or jpeg-static.lib (to use the static version of libjpeg-turbo.)

==========
Colorspace Extensions
==========

libjpeg-turbo includes extensions that allow JPEG images to be compressed
directly from (and decompressed directly to) buffers that use BGR, BGRX,
RGBX, XBGR, and XRGB pixel ordering. This is implemented with ten new

colorspace constants:

```
JCS_EXT_RGB   /* red/green/blue */
JCS_EXT_RGBX  /* red/green/blue/x */
JCS_EXT_BGR   /* blue/green/red */
JCS_EXT_BGRX  /* blue/green/red/x */
JCS_EXT_XBGR  /* x/blue/green/red */
JCS_EXT_XRGB  /* x/red/green/blue */
JCS_EXT_RGBA  /* red/green/blue/alpha */
JCS_EXT_BGRA  /* blue/green/red/alpha */
JCS_EXT_ABGR  /* alpha/blue/green/red */
JCS_EXT_ARGB  /* alpha/red/green/blue */
```

Setting cinfo.in_color_space (compression) or cinfo.out_color_space
(decompression) to one of these values will cause libjpeg-turbo to read the
red, green, and blue values from (or write them to) the appropriate position in
the pixel when compressing from/decompressing to an RGB buffer.

Your application can check for the existence of these extensions at compile
time with:

```
#ifdef JCS_EXTENSIONS
```

At run time, attempting to use these extensions with a libjpeg implementation
that does not support them will result in a "Bogus input colorspace" error.
Applications can trap this error in order to test whether run-time support is
available for the colorspace extensions.

When using the RGBX, BGRX, XBGR, and XRGB colorspaces during decompression, the
X byte is undefined, and in order to ensure the best performance, libjpeg-turbo
can set that byte to whatever value it wishes. If an application expects the X
byte to be used as an alpha channel, then it should specify JCS_EXT_RGBA,
JCS_EXT_BGRA, JCS_EXT_ABGR, or JCS_EXT_ARGB. When these colorspace constants
are used, the X byte is guaranteed to be 0xFF, which is interpreted as opaque.

Your application can check for the existence of the alpha channel colorspace
extensions at compile time with:

```
#ifdef JCS_ALPHA_EXTENSIONS
```

jcstest.c, located in the libjpeg-turbo source tree, demonstrates how to check
for the existence of the colorspace extensions at compile time and run time.

==========
libjpeg v7 and v8 API/ABI Emulation
==========

With libjpeg v7 and v8, new features were added that necessitated extending the

compression and decompression structures. Unfortunately, due to the exposed
nature of those structures, extending them also necessitated breaking backward
ABI compatibility with previous libjpeg releases. Thus, programs that were
built to use libjpeg v7 or v8 did not work with libjpeg-turbo, since it is
based on the libjpeg v6b code base. Although libjpeg v7 and v8 are still not
as widely used as v6b, enough programs (including a few Linux distros) made
the switch that there was a demand to emulate the libjpeg v7 and v8 ABIs
in libjpeg-turbo. It should be noted, however, that this feature was added
primarily so that applications that had already been compiled to use libjpeg
v7+ could take advantage of accelerated baseline JPEG encoding/decoding
without recompiling. libjpeg-turbo does not claim to support all of the
libjpeg v7+ features, nor to produce identical output to libjpeg v7+ in all
cases (see below.)

By passing an argument of --with-jpeg7 or --with-jpeg8 to configure, or an
argument of -DWITH_JPEG7=1 or -DWITH_JPEG8=1 to cmake, you can build a version
of libjpeg-turbo that emulates the libjpeg v7 or v8 ABI, so that programs
that are built against libjpeg v7 or v8 can be run with libjpeg-turbo. The
following section describes which libjpeg v7+ features are supported and which
aren't.

Support for libjpeg v7 and v8 Features:

Fully supported:

-- libjpeg: IDCT scaling extensions in decompressor
  libjpeg-turbo supports IDCT scaling with scaling factors of 1/8, 1/4, 3/8,
  1/2, 5/8, 3/4, 7/8, 9/8, 5/4, 11/8, 3/2, 13/8, 7/4, 15/8, and 2/1 (only 1/4
  and 1/2 are SIMD-accelerated.)

-- libjpeg: arithmetic coding

-- libjpeg: In-memory source and destination managers
  See notes below.

-- cjpeg: Separate quality settings for luminance and chrominance
  Note that the libpjeg v7+ API was extended to accommodate this feature only
  for convenience purposes. It has always been possible to implement this
  feature with libjpeg v6b (see rdswitch.c for an example.)

-- cjpeg: 32-bit BMP support

-- cjpeg: -rgb option

-- jpegtran: lossless cropping

-- jpegtran: -perfect option

-- jpegtran: forcing width/height when performing lossless crop

-- rdjpgcom: -raw option

-- rdjpgcom: locale awareness

Not supported:

NOTE: As of this writing, extensive research has been conducted into the usefulness of DCT scaling as a means of data reduction and SmartScale as a means of quality improvement. The reader is invited to peruse the research at http://www.libjpeg-turbo.org/About/SmartScale and draw his/her own conclusions, but it is the general belief of our project that these features have not demonstrated sufficient usefulness to justify inclusion in libjpeg-turbo.

-- libjpeg: DCT scaling in compressor
cinfo.scale_num and cinfo.scale_denom are silently ignored.
There is no technical reason why DCT scaling could not be supported when emulating the libjpeg v7+ API/ABI, but without the SmartScale extension (see below), only scaling factors of 1/2, 8/15, 4/7, 8/13, 2/3, 8/11, 4/5, and 8/9 would be available, which is of limited usefulness.

-- libjpeg: SmartScale
cinfo.block_size is silently ignored.
SmartScale is an extension to the JPEG format that allows for DCT block sizes other than 8x8. Providing support for this new format would be feasible (particularly without full acceleration.) However, until/unless the format becomes either an official industry standard or, at minimum, an accepted solution in the community, we are hesitant to implement it, as there is no sense of whether or how it might change in the future. It is our belief that SmartScale has not demonstrated sufficient usefulness as a lossless format nor as a means of quality enhancement, and thus, our primary interest in providing this feature would be as a means of supporting additional DCT scaling factors.

-- libjpeg: Fancy downsampling in compressor
cinfo.do_fancy_downsampling is silently ignored.
This requires the DCT scaling feature, which is not supported.

-- jpegtran: Scaling
This requires both the DCT scaling and SmartScale features, which are not supported.

-- Lossless RGB JPEG files
This requires the SmartScale feature, which is not supported.

What About libjpeg v9?
---

libjpeg v9 introduced yet another field to the JPEG compression structure (color_transform), thus making the ABI backward incompatible with that of libjpeg v8. This new field was introduced solely for the purpose of supporting lossless SmartScale encoding. Further, there was actually no reason to extend the API in this manner, as the color transform could have just as easily been activated by way of a new JPEG colorspace constant, thus preserving backward ABI compatibility.

Our research (see link above) has shown that lossless SmartScale does not generally accomplish anything that can't already be accomplished better with existing, standard lossless formats. Thus, at this time, it is our belief that there is not sufficient technical justification for software to upgrade from libjpeg v8 to libjpeg v9, and therefore, not sufficient technical justification for us to emulate the libjpeg v9 ABI.

==========
In-Memory Source/Destination Managers
==========

By default, libjpeg-turbo 1.3 and later includes the jpeg_mem_src() and jpeg_mem_dest() functions, even when not emulating the libjpeg v8 API/ABI. Previously, it was necessary to build libjpeg-turbo from source with libjpeg v8 API/ABI emulation in order to use the in-memory source/destination managers, but several projects requested that those functions be included when emulating the libjpeg v6b API/ABI as well. This allows the use of those functions by programs that need them without breaking ABI compatibility for programs that don't, and it allows those functions to be provided in the "official" libjpeg-turbo binaries.

Those who are concerned about maintaining strict conformance with the libjpeg v6b or v7 API can pass an argument of --without-mem-srcdst to configure or an argument of -DWITH_MEM_SRCDST=0 to CMake prior to building libjpeg-turbo. This will restore the pre-1.3 behavior, in which jpeg_mem_src() and jpeg_mem_dest() are only included when emulating the libjpeg v8 API/ABI.

On Un*x systems, including the in-memory source/destination managers changes the dynamic library version from 62.0.0 to 62.1.0 if using libjpeg v6b API/ABI emulation and from 7.0.0 to 7.1.0 if using libjpeg v7 API/ABI emulation.

Note that, on most Un*x systems, the dynamic linker will not look for a function in a library until that function is actually used. Thus, if a program is built against libjpeg-turbo 1.3+ and uses jpeg_mem_src() or jpeg_mem_dest(), that program will not fail if run against an older version of libjpeg-turbo or against libjpeg v7- until the program actually tries to call jpeg_mem_src() or jpeg_mem_dest(). Such is not the case on Windows. If a program is built

against the libjpeg-turbo 1.3+ DLL and uses jpeg_mem_src() or jpeg_mem_dest(), then it must use the libjpeg-turbo 1.3+ DLL at run time.

Both cjpeg and djpeg have been extended to allow testing the in-memory source/destination manager functions. See their respective man pages for more details.

****
** Mathematical Compatibility
****

For the most part, libjpeg-turbo should produce identical output to libjpeg v6b. The one exception to this is when using the floating point DCT/IDCT, in which case the outputs of libjpeg v6b and libjpeg-turbo are not guaranteed to be identical (the accuracy of the floating point DCT/IDCT is constant when using libjpeg-turbo's SIMD extensions, but otherwise, it can depend heavily on the compiler and compiler settings.)

While libjpeg-turbo does emulate the libjpeg v8 API/ABI, under the hood, it is still using the same algorithms as libjpeg v6b, so there are several specific cases in which libjpeg-turbo cannot be expected to produce the same output as libjpeg v8:

-- When decompressing using scaling factors of 1/2 and 1/4, because libjpeg v8 implements those scaling algorithms a bit differently than libjpeg v6b does, and libjpeg-turbo's SIMD extensions are based on the libjpeg v6b behavior.

-- When using chrominance subsampling, because libjpeg v8 implements this with its DCT/IDCT scaling algorithms rather than with a separate downsampling/upsampling algorithm.

-- When using the floating point IDCT, for the reasons stated above and also because the floating point IDCT algorithm was modified in libjpeg v8a to improve accuracy.

-- When decompressing using a scaling factor > 1 and merged (AKA "non-fancy" or "non-smooth") chrominance upsampling, because libjpeg v8 does not support merged upsampling with scaling factors > 1.

****
** Performance Pitfalls
****

==========
Restart Markers
==========

The optimized Huffman decoder in libjpeg-turbo does not handle restart markers
in a way that makes the rest of the libjpeg infrastructure happy, so it is
necessary to use the slow Huffman decoder when decompressing a JPEG image that
has restart markers. This can cause the decompression performance to drop by
as much as 20%, but the performance will still be much greater than that of
libjpeg. Many consumer packages, such as PhotoShop, use restart markers when
generating JPEG images, so images generated by those programs will experience
this issue.

==========
Fast Integer Forward DCT at High Quality Levels
==========

The algorithm used by the SIMD-accelerated quantization function cannot produce
correct results whenever the fast integer forward DCT is used along with a JPEG
quality of 98-100. Thus, libjpeg-turbo must use the non-SIMD quantization
function in those cases. This causes performance to drop by as much as 40%.
It is therefore strongly advised that you use the slow integer forward DCT
whenever encoding images with a JPEG quality of 98 or higher.

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/README-turbo.txt
No license file was found, but licenses were detected in source scan.

```
/*
* rdcolmap.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file implements djpeg's "-map file" switch.  It reads a source image
* and constructs a colormap to be supplied to the JPEG decompressor.
*
* Currently, these file formats are supported for the map file:
*   GIF: the contents of the GIF's global colormap are used.
*   PPM (either text or raw flavor): the entire file is read and
*      each unique pixel value is entered in the map.
* Note that reading a large PPM file will be horrendously slow.
* Typically, a PPM-format map file should contain just one pixel
* of each desired color.  Such a file can be extracted from an
* ordinary image PPM file with ppmtomap(1).
*
* Rescaling a PPM that has a maxval unequal to MAXJSAMPLE is not
* currently implemented.
*/
```

/* Portions of this code are based on the PBMPLUS library, which is:
**
** Copyright (C) 1988 by Jef Poskanzer.
**
** Permission to use, copy, modify, and distribute this software and its
** documentation for any purpose and without fee is hereby granted, provided
** that the above copyright notice appear in all copies and that both that
** copyright notice and this permission notice appear in supporting
** documentation. This software is provided "as is" without express or
** implied warranty.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/rdcolmap.c
No license file was found, but licenses were detected in source scan.

/*
* Copyright (C)2011 D. R. Commander. All Rights Reserved.
*
* Redistribution and use in source and binary forms, with or without
* modification, are permitted provided that the following conditions are met:
*
* - Redistributions of source code must retain the above copyright notice,
*   this list of conditions and the following disclaimer.
* - Redistributions in binary form must reproduce the above copyright notice,
*   this list of conditions and the following disclaimer in the documentation
*   and/or other materials provided with the distribution.
* - Neither the name of the libjpeg-turbo Project nor the names of its
*   contributors may be used to endorse or promote products derived from this
*   software without specific prior written permission.
*
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* AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE
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* LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR
* CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF
* SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS
* INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN
* CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE)
* ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE
* POSSIBILITY OF SUCH DAMAGE.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/bmp.h

* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/java/org/libjpegturbo/turbojpeg/TJScalingFactor.java
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jcstest.c
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/tjutil.h
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/bmp.c
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/java/org/libjpegturbo/turbojpeg/TJCustomFilter.java
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/java/org/libjpegturbo/turbojpeg/TJTransform.java
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/java/org/libjpegturbo/turbojpeg/TJTransformer.java
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/tjutil.c
No license file was found, but licenses were detected in source scan.

/*
* jsimddct.h
*
* Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
*
* Based on the x86 SIMD extension for IJG JPEG library,
* Copyright (C) 1999-2006, MIYASAKA Masaru.
* For conditions of distribution and use, see copyright notice in jsimdext.inc
*
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jsimddct.h
No license file was found, but licenses were detected in source scan.

/*
* jsimd_arm.c
*
* Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
* Copyright 2009-2011 D. R. Commander
*
* Based on the x86 SIMD extension for IJG JPEG library,
* Copyright (C) 1999-2006, MIYASAKA Masaru.
* For conditions of distribution and use, see copyright notice in jsimdext.inc
*

```
* This file contains the interface between the "normal" portions
* of the library and the SIMD implementations when running on
* ARM architecture.
*
* Based on the stubs from 'jsimd_none.c'
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jsimd_arm.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdapimin.c
*
* Copyright (C) 1994-1998, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains application interface code for the decompression half
* of the JPEG library.  These are the "minimum" API routines that may be
* needed in either the normal full-decompression case or the
* transcoding-only case.
*
* Most of the routines intended to be called directly by an application
* are in this file or in jdapistd.c.  But also see jcomapi.c for routines
* shared by compression and decompression, and jdtrans.c for the transcoding
* case.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdapimin.c
No license file was found, but licenses were detected in source scan.

```
/*
* jmemnobs.c
*
* Copyright (C) 1992-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file provides a really simple implementation of the system-
* dependent portion of the JPEG memory manager.  This implementation
* assumes that no backing-store files are needed: all required space
* can be obtained from malloc().
* This is very portable in the sense that it'll compile on almost anything,
* but you'd better have lots of main memory (or virtual memory) if you want
```

* to process big images.
* Note that the max_memory_to_use option is ignored by this implementation.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jmemnobs.c
No license file was found, but licenses were detected in source scan.

/*
* jcapimin.c
*
* Copyright (C) 1994-1998, Thomas G. Lane.
* Modified 2003-2010 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains application interface code for the compression half
* of the JPEG library. These are the "minimum" API routines that may be
* needed in either the normal full-compression case or the transcoding-only
* case.
*
* Most of the routines intended to be called directly by an application
* are in this file or in jcapistd.c. But also see jcparam.c for
* parameter-setup helper routines, jcomapi.c for routines shared by
* compression and decompression, and jctrans.c for the transcoding case.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jcapimin.c
No license file was found, but licenses were detected in source scan.

/*
* jccolext.c
*
* This file was part of the Independent JPEG Group's software:
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modifications:
* Copyright (C) 2009-2012, D. R. Commander.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains input colorspace conversion routines.
*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jccolext.c

No license file was found, but licenses were detected in source scan.

```
/*
* jdpostct.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the decompression postprocessing controller.
* This controller manages the upsampling, color conversion, and color
* quantization/reduction steps; specifically, it controls the buffering
* between upsample/color conversion and color quantization/reduction.
*
* If no color quantization/reduction is required, then this module has no
* work to do, and it just hands off to the upsample/color conversion code.
* An integrated upsample/convert/quantize process would replace this module
* entirely.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jdpostct.c
No license file was found, but licenses were detected in source scan.

```
/*
* jfdctint.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a slow-but-accurate integer implementation of the
* forward DCT (Discrete Cosine Transform).
*
* A 2-D DCT can be done by 1-D DCT on each row followed by 1-D DCT
* on each column.  Direct algorithms are also available, but they are
* much more complex and seem not to be any faster when reduced to code.
*
* This implementation is based on an algorithm described in
*   C. Loeffler, A. Ligtenberg and G. Moschytz, "Practical Fast 1-D DCT
*   Algorithms with 11 Multiplications", Proc. Int'l. Conf. on Acoustics,
*   Speech, and Signal Processing 1989 (ICASSP '89), pp. 988-991.
* The primary algorithm described there uses 11 multiplies and 29 adds.
* We use their alternate method with 12 multiplies and 32 adds.
* The advantage of this method is that no data path contains more than one
* multiplication; this allows a very simple and accurate implementation in
* scaled fixed-point arithmetic, with a minimal number of shifts.
```

*/

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jfdctint.c
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```
/*
* jctrans.c
*
* Copyright (C) 1995-1998, Thomas G. Lane.
* Modified 2000-2009 by Guido Vollbeding.
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*
* This file contains library routines for transcoding compression,
* that is, writing raw DCT coefficient arrays to an output JPEG file.
* The routines in jcapimin.c will also be needed by a transcoder.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jctrans.c
No license file was found, but licenses were detected in source scan.

```
/*
* jcsample.c
*
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* Copyright 2009 Pierre Ossman <ossman@cendio.se> for Cendio AB
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*
* This file contains downsampling routines.
*
* Downsampling input data is counted in "row groups".  A row group
* is defined to be max_v_samp_factor pixel rows of each component,
* from which the downsampler produces v_samp_factor sample rows.
* A single row group is processed in each call to the downsampler module.
*
* The downsampler is responsible for edge-expansion of its output data
* to fill an integral number of DCT blocks horizontally.  The source buffer
* may be modified if it is helpful for this purpose (the source buffer is
* allocated wide enough to correspond to the desired output width).
* The caller (the prep controller) is responsible for vertical padding.
*
* The downsampler may request "context rows" by setting need_context_rows
* during startup.  In this case, the input arrays will contain at least
```

```
* one row group's worth of pixels above and below the passed-in data;
* the caller will create dummy rows at image top and bottom by replicating
* the first or last real pixel row.
*
* An excellent reference for image resampling is
*   Digital Image Warping, George Wolberg, 1990.
*   Pub. by IEEE Computer Society Press, Los Alamitos, CA. ISBN 0-8186-8944-7.
*
* The downsampling algorithm used here is a simple average of the source
* pixels covered by the output pixel.  The hi-falutin sampling literature
* refers to this as a "box filter".  In general the characteristics of a box
* filter are not very good, but for the specific cases we normally use (1:1
* and 2:1 ratios) the box is equivalent to a "triangle filter" which is not
* nearly so bad.  If you intend to use other sampling ratios, you'd be well
* advised to improve this code.
*
* A simple input-smoothing capability is provided.  This is mainly intended
* for cleaning up color-dithered GIF input files (if you find it inadequate,
* we suggest using an external filtering program such as pnmconvol).  When
* enabled, each input pixel P is replaced by a weighted sum of itself and its
* eight neighbors.  P's weight is 1-8*SF and each neighbor's weight is SF,
* where SF = (smoothing_factor / 1024).
* Currently, smoothing is only supported for 2h2v sampling factors.
*/
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/jcsample.c
No license file was found, but licenses were detected in source scan.

```
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; more details.
```

Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jfss2int-64.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jfss2int.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jiss2int.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jiss2int-64.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jimmxint.asm
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/simd/jfmmxint.asm
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Found in path(s):
* /opt/cola/permits/1105438051_1608299910.76/0/libjpeg-turbo-1.2.90-5.el7-1.src.rpm-cosi-expand-archive-UWi7FaRf/libjpeg-turbo-1.2.90.tar.gz-cosi-expand-archive-C8ga4kAj/libjpeg-turbo-1.2.90/doc/html/search/search.js

1.67 struts 1.3.10

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1.68 libusb 1.0.23

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1.69 jaxb-xjc 2.3.3

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1.70 libtecla 1.4.1

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1.74 asttokens 2.0.8

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1.75 beautiful-soup 4.11.1

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1.76 ipython 8.3.0

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1.77 jsch 0.1.55

1.78 procps 3.3.11

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Jdom-contrib version 1.1.3

The JTS tests module contains source from JDOM Contrib 1.1.3 which is available under the Jdom License [1]. The two files are LineNumberElement.java and LineNumberSAXHandler.java.

Typical users of this library will not need to depend on this module.

[1] https://github.com/hunterhacker/jdom/blob/master/LICENSE.txt

GeoTools

JTS includes some code from the GeoTools project. This code has been licensed to the JTS project under the OSGeo BSD License [2] by the GeoTools PSC [3,4].

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VERSION: 2.1 PoliMorf
BUILD: 2016-02-13 19:37:50+01:00
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core/src/java/org/apache/lucene/util/compress/LZ4.java is a Java implementation of the LZ4 (https://github.com/lz4/lz4/tree/dev/lib)

compression format for Lucene's DataInput/DataOutput abstractions.

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==========
Nori Korean Morphological Analyzer - Apache Lucene Integration
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This software includes a binary and/or source version of data from

mecab-ko-dic-2.0.3-20170922

which can be obtained from

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1.80 mtd-utils 1.2.11

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* /opt/cola/permits/1614004104_1681449501.5165732/0/jersey-client-1-13-sources-2-jar/com/sun/jersey/client/impl/CopyOnWriteHashMap.java
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* /opt/cola/permits/1614004104_1681449501.5165732/0/jersey-client-1-13-sources-2-jar/com/sun/jersey/api/client/filter/ContainerListener.java
* /opt/cola/permits/1614004104_1681449501.5165732/0/jersey-client-1-13-sources-2-jar/com/sun/jersey/api/client/WebResourceLinkHeaders.java
* /opt/cola/permits/1614004104_1681449501.5165732/0/jersey-client-1-13-sources-2-jar/com/sun/jersey/client/proxy/ViewProxyProvider.java
* /opt/cola/permits/1614004104_1681449501.5165732/0/jersey-client-1-13-sources-2-jar/com/sun/jersey/client/proxy/ViewProxy.java
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* /opt/cola/permits/1614004104_1681449501.5165732/0/jersey-client-1-13-sources-2-jar/com/sun/jersey/api/client/config/package-info.java
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Found in path(s):
* /opt/cola/permits/1614004104_1681449501.5165732/0/jersey-client-1-13-sources-2-jar/com/sun/jersey/client/urlconnection/URLConnectionClientHandler.java

1.82 inotify-tools 3.14-r0.51

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1.83 slf4j 1.5.8-PATCHED

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1.84 iputils 20151218

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1.85 pygments 2.13.0

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'# New ports collection makefile for: python25\n' Comment

'# Date created: 3 July 2003\n' Comment

'# Whom: Hye-Shik Chang <perky@FreeBSD.org>\n' Comment

'#\n'   Comment

'# $FreeBSD: ports/lang/python25/Makefile,v 1.145 2007/10/03 23:22:04 edwin Exp $\n' Comment

'\n'   Text

'PORTNAME'   Name.Variable
'='   Operator
'\t'   Text
'python25'   Text
'\n'   Text

'PORTVERSION' Name.Variable
'='   Operator
'\t'   Text
'2'   Literal.Number
'.5.1'   Text
'\n'   Text

'CATEGORIES' Name.Variable
'='   Operator
'\t'   Text
'lang'   Text
' '   Text
'python'   Text
' '   Text
'ipv6'   Text
'\n'   Text

'MASTER_SITES' Name.Variable
'='   Operator
'\t'   Text
'${'   Literal.String.Interpol

'PYTHON_MASTER_SITES' Name.Variable
'}' Literal.String.Interpol
'\n' Text

'MASTER_SITE_SUBDIR' Name.Variable
'=' Operator
'\t' Text
'${' Literal.String.Interpol
'PYTHON_MASTER_SITE_SUBDIR' Name.Variable
'}' Literal.String.Interpol
'\n' Text

'DISTFILES' Name.Variable
'=' Operator
'\t' Text
'${' Literal.String.Interpol
'PYTHON_DISTFILE' Name.Variable
'}' Literal.String.Interpol
'\n' Text

'\n' Text

'MAINTAINER' Name.Variable
'=' Operator
'\t' Text
'python@FreeBSD.org' Text
'\n' Text

'COMMENT' Name.Variable
'?=' Operator
'\t' Text
'An' Text
' ' Text
'interpreted' Text
' ' Text
'object-oriented' Text
' ' Text
'programming' Text
' ' Text
'language' Text
'\n' Text

'\n' Text

'DIST_SUBDIR' Name.Variable
'=' Operator
'\t' Text
'python' Text

'\n' Text

'WRKSRC' Name.Variable
'=' Operator
'\t\t' Text
'${' Literal.String.Interpol
'PYTHON_WRKSRC' Name.Variable
'}' Literal.String.Interpol
'/portbld.static' Text
'\n' Text

'PATCH_WRKSRC' Name.Variable
'=' Operator
'\t' Text
'${' Literal.String.Interpol
'PYTHON_WRKSRC' Name.Variable
'}' Literal.String.Interpol
'\n' Text

'GNU_CONFIGURE' Name.Variable
'=' Operator
'\t' Text
'yes' Text
'\n' Text

'CONFIGURE_TARGET' Name.Variable
'=' Operator
'\t' Text
'--build' Text
'=' Operator
'${' Literal.String.Interpol
'MACHINE_ARCH' Name.Variable
'}' Literal.String.Interpol
'-portbld-freebsd' Text
'${' Literal.String.Interpol
'OSREL' Name.Variable
'}' Literal.String.Interpol
'\n' Text

'CONFIGURE_SCRIPT' Name.Variable
'=' Operator
'\t' Text
'../configure' Text
' ' Text
'# must be relative\n' Comment.Single

'CONFIGURE_ENV' Name.Variable
'=' Operator

'\t' Text
'OPT' Name.Variable
'=' Operator
'' Literal.String.Double
'${' Literal.String.Interpol
'CFLAGS' Name.Variable
'}' Literal.String.Interpol
'' Literal.String.Double
' ' Text
'SVNVERSION' Name.Variable
'=' Operator
'"echo freebsd"' Literal.String.Double
'\n' Text

'MAKE_ENV' Name.Variable
'=' Operator
'\t' Text
'VPATH' Name.Variable
'=' Operator
'' Literal.String.Double
'${' Literal.String.Interpol
'PYTHON_WRKSRC' Name.Variable
'}' Literal.String.Interpol
'' Literal.String.Double
'\n' Text

'INSTALLS_SHLIB' Name.Variable
'=' Operator
'\t' Text
'yes' Text
'\n' Text

'INSTALL_TARGET' Name.Variable
'=' Operator
'\t' Text
'altinstall' Text
'\n' Text

'MAN1' Name.Variable
'=' Operator
'\t\t' Text
'${' Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
'}' Literal.String.Interpol
'.1' Text
'\n' Text

'\n' Text

'USE_PYTHON' Name.Variable
'=' Operator
'\t' Text
'yes' Text
'\n' Text

'PYTHON_VERSION' Name.Variable
'=' Operator
'\t' Text
'python2.5' Text
'\n' Text

'PYTHON_NO_DEPENDS' Name.Variable
'=' Operator
'\t' Text
'yes' Text
'\n' Text

'\n' Text

'SHARED_WRKSRC' Name.Variable
'=' Operator
'\t' Text
'${' Literal.String.Interpol
'PYTHON_WRKSRC' Name.Variable
'}' Literal.String.Interpol
'/portbld.shared' Text
'\n' Text

'PLIST' Name.Variable
'=' Operator
'\t\t' Text
'${' Literal.String.Interpol
'WRKDIR' Name.Variable
'}' Literal.String.Interpol
'/PLIST' Text
'\n' Text

'PLIST_TEMPLATE' Name.Variable
'?=' Operator
'${' Literal.String.Interpol
'PKGDIR' Name.Variable
'}' Literal.String.Interpol
'/pkg-plist' Text
'\n' Text

'PLIST_SUB' Name.Variable

'=' Operator
'\t' Text
'PYVER' Name.Variable
'=' Operator
'${' Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
':' Punctuation
'S' Name.Variable
'/python//' Punctuation
'}' Literal.String.Interpol
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'PYVER_WITHPAT' Name.Variable
'=' Operator
'${' Literal.String.Interpol
'PORTVERSION' Name.Variable
':' Punctuation
'S' Name.Variable
'/.c/c/' Punctuation
'}' Literal.String.Interpol
'\n' Text

'DEMODIR' Name.Variable
'=' Operator
'\t' Text
'${' Literal.String.Interpol
'PREFIX' Name.Variable
'}' Literal.String.Interpol
'/share/examples/' Text
'${' Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
'}' Literal.String.Interpol
'\n' Text

'TOOLSDIR' Name.Variable
'=' Operator
'\t' Text
'${' Literal.String.Interpol
'PREFIX' Name.Variable
'}' Literal.String.Interpol
'/share/' Text
'${' Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
'}' Literal.String.Interpol
'\n' Text

```
'\n'          Text

'BIN_SCRIPTS' Name.Variable
'='           Operator
'\t'          Text
'idle'        Text
' '           Text
'pydoc'       Text
' '           Text
'python'      Text
' '           Text
'python-shared' Text
' '           Text
'smtpd.py'    Text
' '           Text
'python-config' Text
' '           Text
'\\\n'        Literal.String.Escape

'\t\t'        Text
'python-shared-config' Text
'\n'          Text

'BINLINKS_SUB' Name.Variable
'='           Operator
'\t'          Text
'-e'          Text
' '           Text
"'s,smtpd,smtpd${PYTHON_VER},'" Literal.String.Single
' '           Text
'\\\n'        Literal.String.Escape

'\t\t'        Text
'-e'          Text
' '           Text
"'s,(idle|pydoc|python-shared|python),\\1${PYTHON_VER},'" Literal.String.Single
'\n\n'        Text

'OPTIONS'     Name.Variable
'='           Operator
'\t'          Text
'THREADS'     Text
' '           Text
"'Enable thread support'" Literal.String.Double
' '           Text
'on'          Text
' '           Text
'\\\n'        Literal.String.Escape
```

```
'\t\t'        Text
'HUGE_STACK_SIZE' Text
' '           Text
'"Use a larger thread stack"' Literal.String.Double
' '           Text
'off'         Text
' '           Text
'\\\n'        Literal.String.Escape

'\t\t'        Text
'UCS4'        Text
' '           Text
'"Use UCS4 for unicode support"' Literal.String.Double
' '           Text
'on'          Text
' '           Text
'\\\n'        Literal.String.Escape

'\t\t'        Text
'PYMALLOC'    Text
' '           Text
'"Use python\'s internal malloc"' Literal.String.Double
' '           Text
'on'          Text
' '           Text
'\\\n'        Literal.String.Escape

'\t\t'        Text
'IPV6'        Text
' '           Text
'"Enable IPv6 support"' Literal.String.Double
' '           Text
'on'          Text
' '           Text
'\\\n'        Literal.String.Escape

'\t\t'        Text
'FPECTL'      Text
' '           Text
'"Enable floating point exception handling"' Literal.String.Double
' '           Text
'off'         Text
'\n\n'        Text

'.include <bsd.port.pre.mk>\n' Comment.Preproc

'\n'          Text
```

'.if ${PYTHON_VERSION} == ${PYTHON_DEFAULT_VERSION}\n' Comment.Preproc

'MLINKS' Name.Variable
'=' Operator
'\t\t' Text
'${' Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
'}' Literal.String.Interpol
'.1' Text
' ' Text
'python.1' Text
'\n' Text

'PLIST_SUB' Name.Variable
'+=' Operator
'\t' Text
'IF_DEFAULT' Name.Variable
'=' Operator
'"' Literal.String.Double
'\n' Text

'.else\n' Comment.Preproc

'PLIST_SUB' Name.Variable
'+=' Operator
'\t' Text
'IF_DEFAULT' Name.Variable
'=' Operator
'"@comment " Literal.String.Double
'\n' Text

'.endif\n' Comment.Preproc

'\n' Text

'# workaround for a bug in base curses.h.\n' Comment

'CFLAGS' Name.Variable
'+=' Operator
'\t' Text
'-D__wchar_t' Text
'=' Operator
'wchar_t' Text
'\n' Text

'\n' Text

```
'.if !defined(WITHOUT_THREADS)\n' Comment.Preproc

'CONFIGURE_ARGS' Name.Variable
'+='         Operator
'\t'         Text
'--with-threads' Text
'\n'         Text

'CFLAGS'     Name.Variable
'+='         Operator
'\t\t'       Text
'${'         Literal.String.Interpol
'PTHREAD_CFLAGS' Name.Variable
'}'          Literal.String.Interpol
'\n'         Text

'.if defined(WITHOUT_HUGE_STACK_SIZE)\n' Comment.Preproc

'CFLAGS'     Name.Variable
'+='         Operator
'\t\t'       Text
'-DTHREAD_STACK_SIZE' Text
'='          Operator
'0x20000'    Text
'\n'         Text

'.else\n'    Comment.Preproc

'CFLAGS'     Name.Variable
'+='         Operator
'\t\t'       Text
'-DTHREAD_STACK_SIZE' Text
'='          Operator
'0x100000'   Text
'\n'         Text

'.endif # defined(WITHOUT_HUGE_STACK_SIZE)\n' Comment.Preproc

'CONFIGURE_ENV' Name.Variable
'+='         Operator
'\t\t'       Text
'LDFLAGS'    Name.Variable
'='          Operator
''''         Literal.String.Double
'${'         Literal.String.Interpol
'PTHREAD_LIBS' Name.Variable
'}'          Literal.String.Interpol
' '          Literal.String.Double
```

'${' Literal.String.Interpol
'LDFLAGS' Name.Variable
'}' Literal.String.Interpol
'"' Literal.String.Double
'\n' Text

'.else\n' Comment.Preproc

'CONFIGURE_ARGS' Name.Variable
'+=' Operator
'\t' Text
'--without-threads' Text
'\n' Text

'.if defined(LDFLAGS)\n' Comment.Preproc

'CONFIGURE_ENV' Name.Variable
'+=' Operator
'\t\t' Text
'LDFLAGS' Name.Variable
'=' Operator
'"' Literal.String.Double
'${' Literal.String.Interpol
'LDFLAGS' Name.Variable
'}' Literal.String.Interpol
'"' Literal.String.Double
'\n' Text

'.endif # defined(LDFLAGS)\n' Comment.Preproc

'.endif # !defined(WITHOUT_THREADS)\n' Comment.Preproc

'\n' Text

'.if !defined(WITHOUT_UCS4) && !defined(WITH_UCS2)\n' Comment.Preproc

'CONFIGURE_ARGS' Name.Variable
'+=' Operator
'\t' Text
'--enable-unicode' Text
'=' Operator
'ucs4' Text
'\n' Text

'.endif\n' Comment.Preproc

'\n' Text

'.if defined(WITHOUT_PYMALLOC)\n' Comment.Preproc

'CONFIGURE_ARGS' Name.Variable
'+=' Operator
' ' Text
'--without-pymalloc' Text
'\n' Text

'.endif\n' Comment.Preproc

'\n' Text

'.if ${ARCH} == i386\n' Comment.Preproc

'PLIST_SUB' Name.Variable
'+=' Operator
'\t' Text
'X86_ONLY' Name.Variable
'=' Operator
'"' Literal.String.Double
'\n' Text

'.else\n' Comment.Preproc

'PLIST_SUB' Name.Variable
'+=' Operator
'\t' Text
'X86_ONLY' Name.Variable
'=' Operator
'"@comment "' Literal.String.Double
'\n' Text

'.endif\n' Comment.Preproc

'.if ${ARCH} == amd64 || ${ARCH} == ia64 || ${ARCH} == sparc64 || ${ARCH} == alpha\n' Comment.Preproc

'PLIST_SUB' Name.Variable
'+=' Operator
' ' Text
'32BIT_ONLY' Name.Variable
'=' Operator
'"@comment "' Literal.String.Double
'\n' Text

'.else\n' Comment.Preproc

'PLIST_SUB' Name.Variable
'+=' Operator

```
'    '      Text
'32BIT_ONLY'  Name.Variable
'='         Operator
'"'"'       Literal.String.Double
'\n'        Text

'.endif\n'    Comment.Preproc

'.if ${ARCH} == sparc64\n' Comment.Preproc

'CFLAGS'     Name.Variable
'+='         Operator
'       '    Text
'-DPYTHON_DEFAULT_RECURSION_LIMIT' Text
'='         Operator
'900'        Literal.Number
'\n'        Text

'.endif\n'    Comment.Preproc

'\n'        Text

'.if !exists(/usr/bin/ypcat) # the world with NO_NIS\n' Comment.Preproc

'PLIST_SUB'   Name.Variable
'+='         Operator
'\t'        Text
'NO_NIS'     Name.Variable
'='         Operator
'"@comment " Literal.String.Double
'\n'        Text

'.else\n'    Comment.Preproc

'PLIST_SUB'   Name.Variable
'+='         Operator
'\t'        Text
'NO_NIS'     Name.Variable
'='         Operator
'"'"'       Literal.String.Double
'\n'        Text

'.endif\n'    Comment.Preproc

'\n'        Text

'.if !defined(WITHOUT_IPV6)\n' Comment.Preproc
```

'CONFIGURE_ARGS' Name.Variable
'+=' Operator
' ' Text
'--enable-ipv6' Text
'\n' Text

'.else\n' Comment.Preproc

'CONFIGURE_ARGS' Name.Variable
'+=' Operator
' ' Text
'--disable-ipv6' Text
'\n' Text

'.endif\n' Comment.Preproc

'\n' Text

'.if defined(WITH_FPECTL)\n' Comment.Preproc

'CONFIGURE_ARGS' Name.Variable
'+=' Operator
' ' Text
'--with-fpectl' Text
'\n' Text

'.endif\n' Comment.Preproc

'\n' Text

'.if ${OSVERSION} >= 700000\n' Comment.Preproc

'PLATFORMS' Name.Variable
'=' Operator
'plat-freebsd4' Text
' ' Text
'plat-freebsd5' Text
' ' Text
'plat-freebsd6' Text
'\n' Text

'.elif ${OSVERSION} >= 600000\n' Comment.Preproc

'PLATFORMS' Name.Variable
'=' Operator
'plat-freebsd4' Text
' ' Text
'plat-freebsd5' Text

```
' '          Text
'plat-freebsd7' Text
'\n'         Text

'.else\n'    Comment.Preproc

'PLATFORMS'  Name.Variable
'='          Operator
'plat-freebsd4' Text
' '          Text
'plat-freebsd6' Text
' '          Text
'plat-freebsd7' Text
'\n'         Text

'.endif\n'   Comment.Preproc

'\n'         Text

'pre-patch'  Name.Function
':'          Operator
'\n'         Text

'\t'         Text
'${'         Literal.String.Interpol
'MKDIR'      Name.Variable
'}'          Literal.String.Interpol
' '          Text
'${'         Literal.String.Interpol
'WRKSRC'     Name.Variable
'}'          Literal.String.Interpol
' '          Text
'${'         Literal.String.Interpol
'SHARED_WRKSRC' Name.Variable
'}'          Literal.String.Interpol
'/Modules'   Text
'\n\t'       Text
'${'         Literal.String.Interpol
'SED'        Name.Variable
'}'          Literal.String.Interpol
' '          Text
'-e'         Text
' '          Text
"'1s,^.*$$,#!${PREFIX}/bin/${PYTHON_VERSION},'" Literal.String.Single
' '          Text
'\\\n'       Literal.String.Escape

'\t\t'       Text
```

'${' Literal.String.Interpol
'PATCH_WRKSRC' Name.Variable
'}' Literal.String.Interpol
'/Tools/scripts/pydoc' Text
' ' Text
'>' Text
' ' Text
'${' Literal.String.Interpol
'WRKDIR' Name.Variable
'}' Literal.String.Interpol
'/pydoc2.5' Text
'\n\t' Text
'${' Literal.String.Interpol
'SED' Name.Variable
'}' Literal.String.Interpol
' ' Text
'-e' Text
' ' Text
"'1s,^.*$$,#!${PREFIX}/bin/${PYTHON_VERSION},'" Literal.String.Single
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'${' Literal.String.Interpol
'PATCH_WRKSRC' Name.Variable
'}' Literal.String.Interpol
'/Tools/scripts/idle' Text
' ' Text
'>' Text
' ' Text
'${' Literal.String.Interpol
'WRKDIR' Name.Variable
'}' Literal.String.Interpol
'/idle2.5' Text
'\n\t' Text
'${' Literal.String.Interpol
'SED' Name.Variable
'}' Literal.String.Interpol
' ' Text
'-e' Text
' ' Text
"'1s,^.*$$,#!${PREFIX}/bin/${PYTHON_VERSION},'" Literal.String.Single
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'${' Literal.String.Interpol
'PATCH_WRKSRC' Name.Variable

```
'}'          Literal.String.Interpol
'/Lib/smtpd.py' Text
' '          Text
'>'          Text
' '          Text
'${'         Literal.String.Interpol
'WRKDIR'     Name.Variable
'}'          Literal.String.Interpol
'/smtpd2.5.py' Text
'\n\t'       Text
'${'         Literal.String.Interpol
'REINPLACE_CMD' Name.Variable
'}'          Literal.String.Interpol
' '          Text
'-e'         Text
' '          Text
'\\\n'       Literal.String.Escape

'\t\t'       Text
"'s,/usr/doc/python-docs-,${PREFIX}/share/doc/python,g'" Literal.String.Single
' '          Text
'\\\n'       Literal.String.Escape

'\t\t'       Text
'${'         Literal.String.Interpol
'PATCH_WRKSRC' Name.Variable
'}'          Literal.String.Interpol
'/Lib/pydoc.py' Text
'\n\t'       Text
'${'         Literal.String.Interpol
'REINPLACE_CMD' Name.Variable
'}'          Literal.String.Interpol
' '          Text
'-e'         Text
' '          Text
'\\\n'       Literal.String.Escape

'\t\t'       Text
'\'s|^\\( *prefixes = .*\\)\\]$$|\\1, "${X11BASE}"]|g\'' Literal.String.Single
' '          Text
'\\\n'       Literal.String.Escape

'\t\t'       Text
'${'         Literal.String.Interpol
'PATCH_WRKSRC' Name.Variable
'}'          Literal.String.Interpol
'/Lib/site.py' Text
'\n\t'       Text
```

'${' Literal.String.Interpol
'REINPLACE_CMD' Name.Variable
'}' Literal.String.Interpol
' ' Text
'-e' Text
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
"'s|^\t\\(..ASDLGEN.*\\)$$|\t${TRUE}|g'" Literal.String.Single
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'${' Literal.String.Interpol
'PATCH_WRKSRC' Name.Variable
'}' Literal.String.Interpol
'/Makefile.pre.in' Text
'\n\n\t' Text
'${' Literal.String.Interpol
'REINPLACE_CMD' Name.Variable
'}' Literal.String.Interpol
' ' Text
'-e' Text
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
"'s|*\\(..INSTALL_SCRIPT.*\\)python-config$$|#port \\1|'" Literal.String.Single
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'${' Literal.String.Interpol
'PATCH_WRKSRC' Name.Variable
'}' Literal.String.Interpol
'/Makefile.pre.in' Text
'\n\n\t' Text
'${' Literal.String.Interpol
'SED' Name.Variable
'}' Literal.String.Interpol
' ' Text
'-e' Text
' ' Text
"'s|^#!.*|#!${PREFIX}/bin/${PYTHON_VERSION}|'" Literal.String.Single
' ' Text
'\\\n' Literal.String.Escape

```
'\t\t'       Text
'${'         Literal.String.Interpol
'PATCH_WRKSRC' Name.Variable
'}'          Literal.String.Interpol
'/Misc/python-config.in' Text
' '          Text
'>'          Text
' '          Text
'${'         Literal.String.Interpol
'WRKDIR'     Name.Variable
'}'          Literal.String.Interpol
'/'          Text
'${'         Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
'}'          Literal.String.Interpol
'-config'    Text
'\n\t'       Text
'${'         Literal.String.Interpol
'SED'        Name.Variable
'}'          Literal.String.Interpol
' '          Text
'-e'         Text
' '          Text
"'s|^#!.*|#!${PREFIX}/bin/${PYTHON_VERSION:S/thon/thon-shared/}|'" Literal.String.Single
' '          Text
'\\\n'       Literal.String.Escape

'\t\t'       Text
'${'         Literal.String.Interpol
'PATCH_WRKSRC' Name.Variable
'}'          Literal.String.Interpol
'/Misc/python-config.in' Text
' '          Text
'>'          Text
' '          Text
'${'         Literal.String.Interpol
'WRKDIR'     Name.Variable
'}'          Literal.String.Interpol
'/'          Text
'${'         Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
':'          Punctuation
'S'          Name.Variable
'/thon/thon-shared/' Punctuation
'}'          Literal.String.Interpol
'-config'    Text
'\n\n'       Text
```

'.if defined(WITH_FPECTL) && ${ARCH} == i386\n' Comment.Preproc

'\t' Text
'${' Literal.String.Interpol
'MKDIR' Name.Variable
'}' Literal.String.Interpol
' ' Text
'${' Literal.String.Interpol
'WRKSRC' Name.Variable
'}' Literal.String.Interpol
'/Modules' Text
'\n\t' Text
'${' Literal.String.Interpol
'ECHO' Name.Variable
'}' Literal.String.Interpol
' ' Text
'"fpectl fpectlmodule.c"' Literal.String.Double
' ' Text
'>>' Text
' ' Text
'${' Literal.String.Interpol
'WRKSRC' Name.Variable
'}' Literal.String.Interpol
'/Modules/Setup.dist' Text
'\n' Text

'.endif\n' Comment.Preproc

'\n' Text

'post-configure' Name.Function
':' Operator
'\n' Text

'\t' Text
'${' Literal.String.Interpol
'TAR' Name.Variable
'}' Literal.String.Interpol
' ' Text
'-C' Text
' ' Text
'${' Literal.String.Interpol
'WRKSRC' Name.Variable
'}' Literal.String.Interpol
' ' Text
'-cf' Text
' ' Text
'-' Text

```
' '         Text
'.'         Text
' '         Text
'|'         Punctuation
' '         Text
'${'        Literal.String.Interpol
'TAR'       Name.Variable
'}'         Literal.String.Interpol
' '         Text
'-C'        Text
' '         Text
'${'        Literal.String.Interpol
'SHARED_WRKSRC' Name.Variable
'}'         Literal.String.Interpol
' '         Text
'-xf'       Text
' '         Text
'-'         Text
'\n\t'      Text
'${'        Literal.String.Interpol
'LN'        Name.Variable
'}'         Literal.String.Interpol
' '         Text
'-sf'       Text
' '         Text
'${'        Literal.String.Interpol
'PYTHON_WRKSRC' Name.Variable
'}'         Literal.String.Interpol
'/Lib'      Text
' '         Text
'${'        Literal.String.Interpol
'WRKSRC'    Name.Variable
'}'         Literal.String.Interpol
'/Lib'      Text
'\n\t'      Text
'${'        Literal.String.Interpol
'SED'       Name.Variable
'}'         Literal.String.Interpol
' '         Text
'-e'        Text
' '         Text
"'s,^\\(LDLIBRARY=\\).*$$,\\1libpython$$(VERSION).so,'" Literal.String.Single
' '         Text
'\\\n'      Literal.String.Escape

'\t\t'      Text
'-e'        Text
' '         Text
```

"'s,^\\(BLDLIBRARY=\\).*$$,\\1-L. -lpython$$(VERSION),'" Literal.String.Single
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'-e' Text
' ' Text
"'s,^\\(CFLAGSFORSHARED=\\).*$$,\\1$$(CCSHARED),'" Literal.String.Single
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'-e' Text
' ' Text
"'s,^\\(Makefile Modules/config.c:.*\\)Makefile.pre,\\1,'" Literal.String.Single
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'-e' Text
' ' Text
"'s,^\\(.(BUILDPYTHON)\\: .*\\).(LIBRARY),\\1,'" Literal.String.Single
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'-e' Text
' ' Text
"'s,^\\(.(BUILDPYTHON):.*\\).(LIBRARY),\\1,'" Literal.String.Single
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'${' Literal.String.Interpol
'WRKSRC' Name.Variable
'}' Literal.String.Interpol
'/Makefile' Text
' ' Text
'>' Text
' ' Text
'${' Literal.String.Interpol
'SHARED_WRKSRC' Name.Variable
'}' Literal.String.Interpol
'/Makefile' Text
'\n\n' Text

'pre-build' Name.Function
':' Operator

```
'\n'          Text

'\t'          Text
'cd'          Name.Builtin
' '           Text
'${'          Literal.String.Interpol
'SHARED_WRKSRC' Name.Variable
'}'           Literal.String.Interpol
';'           Punctuation
' '           Text
'\\\n'        Literal.String.Escape

'\t'          Text
'${'          Literal.String.Interpol
'SETENV'      Name.Variable
'}'           Literal.String.Interpol
' '           Text
'${'          Literal.String.Interpol
'MAKE_ENV'    Name.Variable
'}'           Literal.String.Interpol
' '           Text
'${'          Literal.String.Interpol
'MAKE'        Name.Variable
'}'           Literal.String.Interpol
' '           Text
'lib'         Text
'${'          Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
'}'           Literal.String.Interpol
'.so'         Text
' '           Text
'python'      Text
';'           Punctuation
' '           Text
'\\\n'        Literal.String.Escape

'\t'          Text
'${'          Literal.String.Interpol
'LN'          Name.Variable
'}'           Literal.String.Interpol
' '           Text
'-f'          Text
' '           Text
'lib'         Text
'${'          Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
'}'           Literal.String.Interpol
'.so'         Text
```

```
' '          Text
'lib'        Text
'${'         Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
'}'          Literal.String.Interpol
'.so.1'      Text
';'          Punctuation
' '          Text
'\\\n'       Literal.String.Escape

'\t'         Text
'${'         Literal.String.Interpol
'LN'         Name.Variable
'}'          Literal.String.Interpol
' '          Text
'-f'         Text
' '          Text
'python'     Text
' '          Text
'${'         Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
':'          Punctuation
'S'          Name.Variable
'/thon/thon-shared/' Punctuation
'}'          Literal.String.Interpol
'\n\n'       Text

'pre-su-install' Name.Function
':'          Operator
'\n'         Text

'.for platform in ${PLATFORMS}\n' Comment.Preproc

'\t'         Text
'${'         Literal.String.Interpol
'MKDIR'      Name.Variable
'}'          Literal.String.Interpol
' '          Text
'${'         Literal.String.Interpol
'PYTHONPREFIX_LIBDIR' Name.Variable
'}'          Literal.String.Interpol
'/'          Text
'${'         Literal.String.Interpol
'platform'   Name.Variable
'}'          Literal.String.Interpol
'\n'         Text

'.for file in IN.py regen\n' Comment.Preproc
```

```
'\t'          Text
'${'          Literal.String.Interpol
'INSTALL_DATA' Name.Variable
'}'           Literal.String.Interpol
' '           Text
'${'          Literal.String.Interpol
'WRKSRC'      Name.Variable
'}'           Literal.String.Interpol
'/Lib/'       Text
'${'          Literal.String.Interpol
'platform'    Name.Variable
'}'           Literal.String.Interpol
'/'           Text
'${'          Literal.String.Interpol
'file'        Name.Variable
'}'           Literal.String.Interpol
' '           Text
'\\\n'        Literal.String.Escape

'\t\t'        Text
'${'          Literal.String.Interpol
'PYTHONPREFIX_LIBDIR' Name.Variable
'}'           Literal.String.Interpol
'/'           Text
'${'          Literal.String.Interpol
'platform'    Name.Variable
'}'           Literal.String.Interpol
'/'           Text
'\n'          Text

'.endfor\n'   Comment.Preproc

'.endfor\n'   Comment.Preproc

'\n'          Text

'pre-install' Name.Function
':'           Operator
'\n'          Text

'\t'          Text
'${'          Literal.String.Interpol
'CAT'         Name.Variable
'}'           Literal.String.Interpol
' '           Text
'${'          Literal.String.Interpol
'PLIST_TEMPLATE' Name.Variable
```

'}' Literal.String.Interpol
' ' Text
'|' Punctuation
' ' Text
'${' Literal.String.Interpol
'AWK' Name.Variable
'}' Literal.String.Interpol
' ' Text
'\'{ print $$0; } \\\n\t/LIBDIR.*\\.py$$/ && !/\\/bad/ { print $$0 "o"; print $$0 "c"; }\" Literal.String.Single
'\t' Text
'>' Text
' ' Text
'${' Literal.String.Interpol
'PLIST' Name.Variable
'}' Literal.String.Interpol
'\n\n' Text

"\t@# if openssl 0.9.8 is detected, _sha{256,512} module won't be installed\n" Comment

'\t' Text
'(' Operator
'[' Operator
' ' Text
'-f' Text
' ' Text
'${' Literal.String.Interpol
'WRKSRC' Name.Variable
'}' Literal.String.Interpol
'/.without_own_sha' Text
' ' Text
']' Operator
' ' Text
'&&' Operator
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'${' Literal.String.Interpol
'GREP' Name.Variable
'}' Literal.String.Interpol
' ' Text
'-v' Text
' ' Text
"'lib-dynload/_sha'" Literal.String.Single
' ' Text
'${' Literal.String.Interpol
'PLIST' Name.Variable
'}' Literal.String.Interpol

' ' Text
'>' Text
' ' Text
'${' Literal.String.Interpol
'PLIST' Name.Variable
'}' Literal.String.Interpol
'.tmp' Text
' ' Text
'&&' Operator
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'${' Literal.String.Interpol
'CAT' Name.Variable
'}' Literal.String.Interpol
' ' Text
'${' Literal.String.Interpol
'PLIST' Name.Variable
'}' Literal.String.Interpol
'.tmp' Text
' ' Text
'>' Text
' ' Text
'${' Literal.String.Interpol
'PLIST' Name.Variable
'}' Literal.String.Interpol
')' Operator
' ' Text
'||' Operator
' ' Text
'${' Literal.String.Interpol
'TRUE' Name.Variable
'}' Literal.String.Interpol
'\n\n' Text

'post-install' Name.Function
':' Operator
'\n' Text

'\t@# install config providers\n' Comment

'\t' Text
'${' Literal.String.Interpol
'INSTALL_SCRIPT' Name.Variable
'}' Literal.String.Interpol
' ' Text
'${' Literal.String.Interpol

'WRKDIR' Name.Variable
'}' Literal.String.Interpol
'/' Text
'${' Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
'}' Literal.String.Interpol
'-config' Text
' ' Text
'${' Literal.String.Interpol
'PREFIX' Name.Variable
'}' Literal.String.Interpol
'/bin' Text
'\n\t' Text
'${' Literal.String.Interpol
'INSTALL_SCRIPT' Name.Variable
'}' Literal.String.Interpol
' ' Text
'${' Literal.String.Interpol
'WRKDIR' Name.Variable
'}' Literal.String.Interpol
'/' Text
'${' Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
':' Punctuation
'S' Name.Variable
'/thon/thon-shared/' Punctuation
'}' Literal.String.Interpol
'-config' Text
' ' Text
'${' Literal.String.Interpol
'PREFIX' Name.Variable
'}' Literal.String.Interpol
'/bin' Text
'\n\n' Text

'\t@# shared version of executable and library\n' Comment

'\t' Text
'${' Literal.String.Interpol
'INSTALL_PROGRAM' Name.Variable
'}' Literal.String.Interpol
' ' Text
'${' Literal.String.Interpol
'SHARED_WRKSRC' Name.Variable
'}' Literal.String.Interpol
'/lib' Text
'${' Literal.String.Interpol
'PYTHON_VERSION' Name.Variable

```
'}'          Literal.String.Interpol
'.so.1'      Text
' '          Text
'\\\n'       Literal.String.Escape

'\t\t'       Text
'${'         Literal.String.Interpol
'PREFIX'     Name.Variable
'}'          Literal.String.Interpol
'/lib'       Text
'\n\t'       Text
'cd'         Name.Builtin
' '          Text
'${'         Literal.String.Interpol
'PREFIX'     Name.Variable
'}'          Literal.String.Interpol
'/lib'       Text
';'          Punctuation
' '          Text
'${'         Literal.String.Interpol
'LN'         Name.Variable
'}'          Literal.String.Interpol
' '          Text
'-sf'        Text
' '          Text
'lib'        Text
'${'         Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
'}'          Literal.String.Interpol
'.so.1'      Text
' '          Text
'\\\n'       Literal.String.Escape

'\t\t'       Text
'lib'        Text
'${'         Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
'}'          Literal.String.Interpol
'.so'        Text
'\n\t'       Text
'${'         Literal.String.Interpol
'LN'         Name.Variable
'}'          Literal.String.Interpol
' '          Text
'-sf'        Text
' '          Text
'${'         Literal.String.Interpol
'PREFIX'     Name.Variable
```

'}' Literal.String.Interpol
'/lib/lib' Text
'${' Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
'}' Literal.String.Interpol
'.so' Text
' ' Text
'${' Literal.String.Interpol
'PYTHONPREFIX_LIBDIR' Name.Variable
'}' Literal.String.Interpol
'/config' Text
'\n\t' Text
'${' Literal.String.Interpol
'INSTALL_PROGRAM' Name.Variable
'}' Literal.String.Interpol
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'${' Literal.String.Interpol
'SHARED_WRKSRC' Name.Variable
'}' Literal.String.Interpol
'/' Text
'${' Literal.String.Interpol
'PYTHON_VERSION' Name.Variable
':' Punctuation
'S' Name.Variable
'/thon/thon-shared/' Punctuation
'}' Literal.String.Interpol
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'${' Literal.String.Interpol
'PREFIX' Name.Variable
'}' Literal.String.Interpol
'/bin' Text
'\n\n' Text

'\t@# additional files installing by ports\n' Comment

'\t' Text
'${' Literal.String.Interpol
'INSTALL_SCRIPT' Name.Variable
'}' Literal.String.Interpol
' ' Text
'${' Literal.String.Interpol
'WRKDIR' Name.Variable

'}' Literal.String.Interpol
'/pydoc2.5' Text
' ' Text
'${' Literal.String.Interpol
'WRKDIR' Name.Variable
'}' Literal.String.Interpol
'/idle2.5' Text
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'${' Literal.String.Interpol
'WRKDIR' Name.Variable
'}' Literal.String.Interpol
'/smtpd2.5.py' Text
' ' Text
'${' Literal.String.Interpol
'PREFIX' Name.Variable
'}' Literal.String.Interpol
'/bin' Text
'\n\t' Text
'@' Text
'${' Literal.String.Interpol
'MKDIR' Name.Variable
'}' Literal.String.Interpol
' ' Text
'${' Literal.String.Interpol
'MANPREFIX' Name.Variable
'}' Literal.String.Interpol
'/man/man1' Text
'\n\t' Text
'${' Literal.String.Interpol
'INSTALL_MAN' Name.Variable
'}' Literal.String.Interpol
' ' Text
'${' Literal.String.Interpol
'PYTHON_WRKSRC' Name.Variable
'}' Literal.String.Interpol
'/Misc/python.man' Text
' ' Text
'\\\n' Literal.String.Escape

'\t\t' Text
'${' Literal.String.Interpol
'MANPREFIX' Name.Variable
'}' Literal.String.Interpol
'/man/man1/' Text
'${' Literal.String.Interpol

```
'PYTHON_VERSION' Name.Variable
'}'          Literal.String.Interpol
'.1'         Text
'\n\n'       Text

'.if ${PYTHON_VERSION} == ${PYTHON_DEFAULT_VERSION}\n' Comment.Preproc

'\t'         Text
'for'        Keyword
' '          Text
'f'          Text
' '          Text
'in'         Keyword
' '          Text
'${'         Literal.String.Interpol
'BIN_SCRIPTS' Name.Variable
'}'          Literal.String.Interpol
';'          Punctuation
' '          Text
'do'         Keyword
' '          Text
'\\\n'       Literal.String.Escape

'\t\t'       Text
'TARGET'     Name.Variable
'='          Operator
'`'          Literal.String.Backtick
'${'         Literal.String.Interpol
'ECHO_CMD'   Name.Variable
'}'          Literal.String.Interpol
' '          Text
'$$'         Name.Variable
'f'          Text
' '          Text
'|'          Punctuation
' '          Text
'${'         Literal.String.Interpol
'SED'        Name.Variable
'}'          Literal.String.Interpol
' '          Text
'-E'         Text
' '          Text
'${'         Literal.String.Interpol
'BINLINKS_SUB' Name.Variable
'}'          Literal.String.Interpol
'`'          Literal.String.Backtick
';'          Punctuation
' '          Text
```

```
'\\\n'       Literal.String.Escape

'\t\t'       Text
'cd'         Name.Builtin
' '          Text
'${'         Literal.String.Interpol
'PREFIX'     Name.Variable
'}'          Literal.String.Interpol
'/bin'       Text
' '          Text
'&&'         Operator
' '          Text
'${'         Literal.String.Interpol
'LN'         Name.Variable
'}'          Literal.String.Interpol
' '          Text
'-f'         Text
' '          Text
'$$'         Name.Variable
'TARGET'     Text
' '          Text
'$$'         Name.Variable
'f'          Text
';'          Punctuation
' '          Text
'\\\n'       Literal.String.Escape

'\t'         Text
'done'       Keyword
'\n'         Text

'.endif\n'   Comment.Preproc

'\n'         Text

'.if !defined(NOPORTDOCS)\n' Comment.Preproc

'\t'         Text
'@'          Text
'${'         Literal.String.Interpol
'MKDIR'      Name.Variable
'}'          Literal.String.Interpol
' '          Text
'${'         Literal.String.Interpol
'TOOLSDIR'   Name.Variable
'}'          Literal.String.Interpol
'\n\t'       Text
'@cd'        Text
```

```
' '         Text
'${'        Literal.String.Interpol
'PYTHON_WRKSRC' Name.Variable
'}'         Literal.String.Interpol
';'         Punctuation
' '         Text
'${'        Literal.String.Interpol
'TAR'       Name.Variable
'}'         Literal.String.Interpol
' '         Text
'-cf'       Text
' '         Text
'-'         Text
' '         Text
'Tools'     Text
' '         Text
'|'         Punctuation
' '         Text
'\\\n'      Literal.String.Escape

'\t\t'      Text
'('         Operator
'cd'        Name.Builtin
' '         Text
'${'        Literal.String.Interpol
'TOOLSDIR'  Name.Variable
'}'         Literal.String.Interpol
';'         Punctuation
' '         Text
'${'        Literal.String.Interpol
'TAR'       Name.Variable
'}'         Literal.String.Interpol
' '         Text
'-xf'       Text
' '         Text
'-'         Text
')'         Operator
'\n\t'      Text
'@'         Text
'${'        Literal.String.Interpol
'MKDIR'     Name.Variable
'}'         Literal.String.Interpol
' '         Text
'${'        Literal.String.Interpol
'DEMODIR'   Name.Variable
'}'         Literal.String.Interpol
'\n\t'      Text
'@cd'       Text
```

```
' '          Text
'${'         Literal.String.Interpol
'PYTHON_WRKSRC' Name.Variable
'}'          Literal.String.Interpol
'/Demo'      Text
';'          Punctuation
' '          Text
'${'         Literal.String.Interpol
'TAR'        Name.Variable
'}'          Literal.String.Interpol
' '          Text
'-cf'        Text
' '          Text
'-'          Text
' '          Text
'*'          Text
' '          Text
'|'          Punctuation
' '          Text
'\\\n'       Literal.String.Escape

'\t\t'       Text
'('          Operator
'cd'         Name.Builtin
' '          Text
'${'         Literal.String.Interpol
'DEMODIR'    Name.Variable
'}'          Literal.String.Interpol
';'          Punctuation
' '          Text
'${'         Literal.String.Interpol
'TAR'        Name.Variable
'}'          Literal.String.Interpol
' '          Text
'-xf'        Text
' '          Text
'-'          Text
')'          Operator
'\n'         Text

'.endif\n'   Comment.Preproc

'\n\t'       Text
'@'          Text
'${'         Literal.String.Interpol
'CAT'        Name.Variable
'}'          Literal.String.Interpol
' '          Text
```

'${' Literal.String.Interpol
'PKGMESSAGE' Name.Variable
'}' Literal.String.Interpol
'\n\n' Text

'.include <bsd.port.post.mk>\n' Comment.Preproc

1.86 urllib3 1.26.9

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1.87 slf4j-jdk14 1.7.32

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* /opt/cola/permits/1198680824_1630400480.93/0/slf4j-jdk14-1-7-32-sources-jar/org/slf4j/impl/JDK14LoggerFactory.java
* /opt/cola/permits/1198680824_1630400480.93/0/slf4j-jdk14-1-7-32-sources-jar/org/slf4j/impl/JDK14LoggerAdapter.java
* /opt/cola/permits/1198680824_1630400480.93/0/slf4j-jdk14-1-7-32-sources-jar/org/slf4j/impl/StaticMDCBinder.java
* /opt/cola/permits/1198680824_1630400480.93/0/slf4j-jdk14-1-7-32-sources-jar/org/slf4j/impl/StaticMarkerBinder.java

1.88 jansi 2.4.0

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jar/org/fusesource/jansi/AnsiColors.java
* /opt/cola/permits/1438819361_1665479538.9984722/0/jansi-2-4-0-sources-jar/org/fusesource/jansi/Ansi.java
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* /opt/cola/permits/1438819361_1665479538.9984722/0/jansi-2-4-0-sources-jar/org/fusesource/jansi/AnsiMain.java
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* /opt/cola/permits/1438819361_1665479538.9984722/0/jansi-2-4-0-sources-jar/org/fusesource/jansi/AnsiConsole.java
* /opt/cola/permits/1438819361_1665479538.9984722/0/jansi-2-4-0-sources-jar/org/fusesource/jansi/io/ColorsAnsiProcessor.java
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* /opt/cola/permits/1438819361_1665479538.9984722/0/jansi-2-4-0-sources-jar/org/fusesource/jansi/io/FastBufferedOutputStream.java
* /opt/cola/permits/1438819361_1665479538.9984722/0/jansi-2-4-0-sources-jar/org/fusesource/jansi/AnsiPrintStream.java

1.89 ipp-crypto 2020.0

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Jean-loup Gailly Mark Adler
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Andrew, Nick
Andric, Dimitry
Barron, Danny
Bates, Tom
Behan, Zdenk
Bellis, Ray
Benali, Elias
Beverly, Jamie
Boardman, Spider
Bostley, P.J.
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Boyce, Keith Garry
Brantley, Michael
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Brooks, Piete
Brown, Jerry
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Burton, Ross
Bussjaeger, Andreas
Calvin, Gary
Campbell, Aaron
Chazelas, Stephane
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Coleman, Chris
Corzine, Deven T.
Cusack, Frank
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McLaughlin, Tom
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Michael, David
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Moffat, Darren

Moldung, Jan Thomas
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Mueller, Andreas
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Peslyak, Alexander
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Pickett, Joel
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Reid, Steve
Richards, Matt
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Wieringen, Marco van
Wilk, Jakub
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The following people have worked to translate sudo into other languages:

Blttermann, Mario
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1.92 luajit 2.1.0.beta3

1.92.1 Available under license :

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1.93 pycparser 2.21

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1.94 nettle 3.2

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```
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```

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```
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<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
```

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1.95 jline-terminal 3.21.0

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black
maroon
green
olive
navy
purple
teal
silver
grey
red
lime
yellow
blue
fuchsia
aqua
white
grey0
navyblue
darkblue
blue3
blue3a
blue1
darkgreen
deepskyblue4
deepskyblue4a
deepskyblue4b

dodgerblue3
dodgerblue2
green4
springgreen4
turquoise4
deepskyblue3
deepskyblue3a
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lightseagreen
deepskyblue2
deepskyblue1
green3a
springgreen3a
springgreen2
cyan3
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green1
springgreen2a
springgreen1
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cyan2
cyan1
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paleturquoise4
steelblue
steelblue3
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cadetblue
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skyblue3
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grey69
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cornsilk1
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* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/utils/colors.txt
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key_f47, kf47, Fb
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key_f49, kf49, Fd
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set_a_foreground, setaf, AF
set_color_band, setcolor, Yz
set_lr_margin, smglr, ML
set_page_length, slines, YZ
set_tb_margin, smgtb, MT
enter_horizontal_hl_mode, ehhlm, Xh
enter_left_hl_mode, elhlm, Xl
enter_low_hl_mode, elohlm, Xo
enter_right_hl_mode, erhlm, Xr
enter_top_hl_mode, ethlm, Xt
enter_vertical_hl_mode, evhlm, Xv
set_a_attributes, sgr1, sA
set_pglen_inch, slength, sL

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* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/utils/WriterOutputStream.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/terminal/impl/AbstractWindowsConsoleWriter.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/utils/PumpReader.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/utils/NonBlockingPumpInputStream.java
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* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/terminal/impl/PosixSysTerminal.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/terminal/Terminal.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/utils/NonBlockingInputStream.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/utils/StyleResolver.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/terminal/Size.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/terminal/impl/PosixPtyTerminal.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/utils/NonBlockingInputStreamImpl.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/terminal/impl/ExternalTerminal.java
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* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/terminal/impl/LineDisciplineTerminal.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/terminal/impl/DumbTerminal.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/utils/NonBlockingReaderImpl.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/utils/Curses.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/utils/AttributedStringBuilder.java
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* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/utils/DiffHelper.java
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* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/terminal/impl/MouseSupport.java
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* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/utils/WCWidth.java
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* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/utils/Status.java
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* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/utils/Signals.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/utils/ColorPalette.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-

jar/org/jline/utils/Display.java
* /opt/cola/permits/1337889613_1654234494.7314086/0/jline-terminal-3-21-0-sources-1-jar/org/jline/terminal/spi/JansiSupport.java
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1.106 jackson-jr-objects 2.13.4

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1.107 json-c 0.12

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1.108 bcel 2.7.0

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1.109 libcap-ng 0.7.5-4.el7

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1.110 nfs-utils 1.3.3

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1.111 kerberos 1.15.1-55.el7_9

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cmd/krb5/iprop/iprop_hdr.h
cmd/krb5/kadmin/server/ipropd_svc.c
cmd/krb5/kproplog/kproplog.c
cmd/krb5/slave/kpropd_rpc.c
lib/gss_mechs/mech_krb5/et/kdb5_err.c
lib/gss_mechs/mech_spnego/mech/gssapiP_spnego.h
lib/gss_mechs/mech_spnego/mech/spnego_mech.c
lib/krb5/kadm5/kadm_host_srv_names.c
lib/krb5/kdb/kdb_convert.c
lib/krb5/kdb/kdb_hdr.h
lib/krb5/kdb/kdb_log.c

lib/krb5/kdb/kdb_log.h
lib/libgss/g_accept_sec_context.c
lib/libgss/g_acquire_cred.c
lib/libgss/g_canon_name.c
lib/libgss/g_compare_name.c
lib/libgss/g_context_time.c
lib/libgss/g_delete_sec_context.c
lib/libgss/g_dsp_name.c
lib/libgss/g_dsp_status.c
lib/libgss/g_dup_name.c
lib/libgss/g_exp_sec_context.c
lib/libgss/g_export_name.c
lib/libgss/g_glue.c
lib/libgss/g_imp_name.c
lib/libgss/g_imp_sec_context.c
lib/libgss/g_init_sec_context.c
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lib/libgss/g_sign.c
lib/libgss/g_store_cred.c
lib/libgss/g_unseal.c
lib/libgss/g_userok.c
lib/libgss/g_utils.c
lib/libgss/g_verify.c
lib/libgss/gssd_pname_to_uid.c
uts/common/gssapi/include/gssapi_err_generic.h
uts/common/gssapi/include/mechglueP.h

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lib/gssapi/mechglue/g_accept_sec_context.c
lib/gssapi/mechglue/g_acquire_cred.c
lib/gssapi/mechglue/g_canon_name.c
lib/gssapi/mechglue/g_compare_name.c
lib/gssapi/mechglue/g_context_time.c
lib/gssapi/mechglue/g_delete_sec_context.c
lib/gssapi/mechglue/g_dsp_name.c
lib/gssapi/mechglue/g_dsp_status.c
lib/gssapi/mechglue/g_dup_name.c
lib/gssapi/mechglue/g_exp_sec_context.c
lib/gssapi/mechglue/g_export_name.c
lib/gssapi/mechglue/g_glue.c

lib/gssapi/mechglue/g_imp_name.c
lib/gssapi/mechglue/g_imp_sec_context.c
lib/gssapi/mechglue/g_init_sec_context.c
lib/gssapi/mechglue/g_initialize.c
lib/gssapi/mechglue/g_inquire_context.c
lib/gssapi/mechglue/g_inquire_cred.c
lib/gssapi/mechglue/g_inquire_names.c
lib/gssapi/mechglue/g_process_context.c
lib/gssapi/mechglue/g_rel_buffer.c
lib/gssapi/mechglue/g_rel_cred.c
lib/gssapi/mechglue/g_rel_name.c
lib/gssapi/mechglue/g_rel_oid_set.c
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lib/gssapi/mechglue/g_utils.c
lib/gssapi/mechglue/g_verify.c
lib/gssapi/mechglue/gssd_pname_to_uid.c
lib/gssapi/mechglue/mglueP.h
lib/gssapi/mechglue/oid_ops.c
lib/gssapi/spnego/gssapiP_spnego.h
lib/gssapi/spnego/spnego_mech.c

and the initial implementation of incremental propagation, including
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include/iprop_hdr.h
kadmin/server/ipropd_svc.c
lib/kdb/iprop.x
lib/kdb/kdb_convert.c
lib/kdb/kdb_log.c
lib/kdb/kdb_log.h
lib/krb5/error_tables/kdb5_err.et
slave/kpropd_rpc.c
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Found in path(s):

* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/tftp/tftp.c
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/common/tftpsubs.c
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/tftp/main.c

No license file was found, but licenses were detected in source scan.

```
/* -*- c -*- ----------------------------------------------------------- *
*
*   Copyright 2001-2006 H. Peter Anvin - All Rights Reserved
*
*   This program is free software available under the same license
*   as the "OpenBSD" operating system, distributed at
```

```
*   http://www.openbsd.org/.
*
* ---------------------------------------------------------------------- */
```

Found in path(s):
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/config.h
No license file was found, but licenses were detected in source scan.

```
/* ---------------------------------------------------------------------- *
*
*   Copyright 2001-2007 H. Peter Anvin - All Rights Reserved
*
*   This program is free software available under the same license
*   as the "OpenBSD" operating system, distributed at
*   http://www.openbsd.org/.
*
* ---------------------------------------------------------------------- */
```

Found in path(s):
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/tftpd/remap.h
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/tftpd/misc.c
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/tftpd/remap.c
No license file was found, but licenses were detected in source scan.

```
Summary: The client for the Trivial File Transfer Protocol (TFTP).
Name: tftp
Version: @@VERSION@@
Release: 1
License: BSD
Group: Applications/Internet
Source0: http://www.kernel.org/pub/software/network/tftp/tftp-hpa-%{version}.tar.gz
BuildRequires: tcp_wrappers-devel
BuildRoot: %{_tmppath}/%{name}-root

%description
The Trivial File Transfer Protocol (TFTP) is normally used only for
booting diskless workstations.  The tftp package provides the user
interface for TFTP, which allows users to transfer files to and from a
remote machine.  This program and TFTP provide very little security,
and should not be enabled unless it is expressly needed.

%package server
Group: System Environment/Daemons
Summary: The server for the Trivial File Transfer Protocol (TFTP).
Requires: xinetd

%description server
The Trivial File Transfer Protocol (TFTP) is normally used only for
```

booting diskless workstations. The tftp-server package provides the
server for TFTP, which allows users to transfer files to and from a
remote machine. TFTP provides very little security, and should not be
enabled unless it is expressly needed. The TFTP server is run from
/etc/xinetd.d/tftp, and is disabled by default on Red Hat Linux systems.

```
%prep
%setup -q -n tftp-hpa-%{version}

%build

%configure
make %{?_smp_mflags}

%install
rm -rf ${RPM_BUILD_ROOT}
mkdir -p ${RPM_BUILD_ROOT}%{_bindir}
mkdir -p ${RPM_BUILD_ROOT}%{_mandir}/man{1,8}
mkdir -p ${RPM_BUILD_ROOT}%{_sbindir}

make INSTALLROOT=${RPM_BUILD_ROOT} \
   SBINDIR=%{_sbindir} MANDIR=%{_mandir} \
 install
install -m755 -d ${RPM_BUILD_ROOT}%{_sysconfdir}/xinetd.d/ ${RPM_BUILD_ROOT}/tftpboot
install -m644 tftp-xinetd ${RPM_BUILD_ROOT}%{_sysconfdir}/xinetd.d/tftp

%post server
/sbin/service xinetd reload > /dev/null 2>&1 || :

%postun server
if [ $1 = 0 ]; then
   /sbin/service xinetd reload > /dev/null 2>&1 || :
fi

%clean
rm -rf ${RPM_BUILD_ROOT}

%files
%defattr(-,root,root)
%{_bindir}/tftp
%{_mandir}/man1/*

%files server
%defattr(-,root,root)
%config(noreplace) %{_sysconfdir}/xinetd.d/tftp
%dir /tftpboot
%{_sbindir}/in.tftpd
%{_mandir}/man8/*
```

%changelog
* Tue Sep 14 2004 H. Peter Anvin <hpa@zytor.com>
- removed completely broken "Malta" patch.
- integrated into build machinery so rpm -ta works.

* Fri Feb 13 2004 Elliot Lee <sopwith@redhat.com>
- rebuilt

* Wed Jun 04 2003 Elliot Lee <sopwith@redhat.com>
- rebuilt

* Fri Apr 11 2003 Elliot Lee <sopwith@redhat.com>
- 0.33
- Add /tftpboot directory (#88204)

* Mon Feb 24 2003 Elliot Lee <sopwith@redhat.com>
- rebuilt

* Sun Feb 23 2003 Tim Powers <timp@redhat.com>
- add BuildPreReq on tcp_wrappers

* Wed Jan 22 2003 Tim Powers <timp@redhat.com>
- rebuilt

* Mon Nov 11 2002 Elliot Lee <sopwith@redhat.com> 0.32-1
- Update to 0.32

* Wed Oct 23 2002 Elliot Lee <sopwith@redhat.com> 0.30-1
- Fix #55789
- Update to 0.30

* Thu Jun 27 2002 Elliot Lee <sopwith@redhat.com>
- Try applying HJ's patch from #65476

* Fri Jun 21 2002 Tim Powers <timp@redhat.com>
- automated rebuild

* Mon Jun 17 2002 Elliot Lee <sopwith@redhat.com>
- Update to 0.29

* Thu May 23 2002 Tim Powers <timp@redhat.com>
- automated rebuild

* Wed Jan 09 2002 Tim Powers <timp@redhat.com>
- automated rebuild

* Tue Dec 18 2001 Elliot Lee <sopwith@redhat.com> 0.17-15

- Add patch4: netkit-tftp-0.17-defaultport.patch for bug #57562
- Update to tftp-hpa-0.28 (bug #56131)
- Remove include/arpa/tftp.h to fix #57259
- Add resource limits in tftp-xinetd (#56722)

* Sun Jun 24 2001 Elliot Lee <sopwith@redhat.com>
- Bump release + rebuild.

* Tue Jun 12 2001 Helge Deller <hdeller@redhat.de> (0.17-13)
- updated tftp-hpa source to tftp-hpa-0.17
- tweaked specfile with different defines for tftp-netkit and tftp-hpa version
- use hpa's tftpd.8 man page instead of the netkits one

* Mon May 07 2001 Helge Deller <hdeller@redhat.de>
- rebuilt in 7.1.x

* Wed Apr 18 2001 Helge Deller <hdeller@redhat.de>
- fix tftp client's put problems (#29529)
- update to tftp-hpa-0.16

* Wed Apr 4 2001 Jakub Jelinek <jakub@redhat.com>
- don't let configure to guess compiler, it can pick up egcs

* Thu Feb 08 2001 Helge Deller <hdeller@redhat.de>
- changed "wait" in xinetd file to "yes" (hpa-tftpd forks and exits) (#26467)
- fixed hpa-tftpd to handle files greater than 32MB (#23725)
- added "-l" flag to hpa-tftpd for file-logging (#26467)
- added description for "-l" to the man-page

* Thu Feb 08 2001 Helge Deller <hdeller@redhat.de>
- updated tftp client to 0.17 stable (#19640),
- drop dependency on xinetd for tftp client (#25051),

* Wed Jan 17 2001 Jeff Johnson <jbj@redhat.com>
- xinetd shouldn't wait on tftp (which forks) (#23923).

* Sat Jan 6 2001 Jeff Johnson <jbj@redhat.com>
- fix to permit tftp put's (#18128).
- startup as root with chroot to /tftpboot with early reversion to nobody
 is preferable to starting as nobody w/o ability to chroot.
- %%post is needed by server, not client. Add %%postun for erasure as well.

* Wed Aug 23 2000 Nalin Dahyabhai <nalin@redhat.com>
- default to being disabled

* Thu Aug 17 2000 Jeff Johnson <jbj@redhat.com>
- correct group.

* Tue Jul 25 2000 Nalin Dahyabhai <nalin@redhat.com>
- change user from root to nobody

* Sat Jul 22 2000 Jeff Johnson <jbj@redhat.com>
- update to tftp-hpa-0.14 (#14003).
- add server_args (#14003).
- remove -D_BSD_SOURCE (#14003).

* Fri Jul 21 2000 Nalin Dahyabhai <nalin@redhat.com>
- cook up an xinetd config file for tftpd

* Wed Jul 12 2000 Prospector <bugzilla@redhat.com>
- automatic rebuild

* Sun Jun 18 2000 Jeff Johnson <jbj@redhat.com>
- FHS packaging.
- update to 0.17.

* Fri May 5 2000 Matt Wilson <msw@redhat.com>
- use _BSD_SOURCE for hpa's tftpd so we get BSD signal semantics.

* Fri Feb 11 2000 Bill Nottingham <notting@redhat.com>
- fix description

* Wed Feb 9 2000 Jeff Johnson <jbj@redhat.com>
- compress man pages (again).

* Wed Feb 02 2000 Cristian Gafton <gafton@redhat.com>
- man pages are compressed
- fix description and summary

* Tue Jan 4 2000 Bill Nottingham <notting@redhat.com>
- split client and server

* Tue Dec 21 1999 Jeff Johnson <jbj@redhat.com>
- update to 0.16.

* Sat Aug 28 1999 Jeff Johnson <jbj@redhat.com>
- update to 0.15.

* Wed Apr 7 1999 Jeff Johnson <jbj@redhat.com>
- tftpd should truncate file when overwriting (#412)

* Sun Mar 21 1999 Cristian Gafton <gafton@redhat.com>
- auto rebuild in the new build environment (release 22)

* Mon Mar 15 1999 Jeff Johnson <jbj@redhat.com>
- compile for 6.0.

* Fri Aug 7 1998 Jeff Johnson <jbj@redhat.com>
- build root

* Mon Apr 27 1998 Prospector System <bugs@redhat.com>
- translations modified for de, fr, tr

* Mon Sep 22 1997 Erik Troan <ewt@redhat.com>
- added check for getpwnam() failure

* Tue Jul 15 1997 Erik Troan <ewt@redhat.com>
- initial build

Found in path(s):
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/tftp.spec.in
No license file was found, but licenses were detected in source scan.

Summary: The client for the Trivial File Transfer Protocol (TFTP).
Name: tftp
Version: 5.2
Release: 1
License: BSD
Group: Applications/Internet
Source0: http://www.kernel.org/pub/software/network/tftp/tftp-hpa-%{version}.tar.gz
BuildRequires: tcp_wrappers-devel
BuildRoot: %{_tmppath}/%{name}-root

%description
The Trivial File Transfer Protocol (TFTP) is normally used only for
booting diskless workstations. The tftp package provides the user
interface for TFTP, which allows users to transfer files to and from a
remote machine. This program and TFTP provide very little security,
and should not be enabled unless it is expressly needed.

%package server
Group: System Environment/Daemons
Summary: The server for the Trivial File Transfer Protocol (TFTP).
Requires: xinetd

%description server
The Trivial File Transfer Protocol (TFTP) is normally used only for
booting diskless workstations. The tftp-server package provides the
server for TFTP, which allows users to transfer files to and from a
remote machine. TFTP provides very little security, and should not be
enabled unless it is expressly needed. The TFTP server is run from
/etc/xinetd.d/tftp, and is disabled by default on Red Hat Linux systems.

%prep

```
%setup -q -n tftp-hpa-%{version}

%build

%configure
make %{?_smp_mflags}

%install
rm -rf ${RPM_BUILD_ROOT}
mkdir -p ${RPM_BUILD_ROOT}%{_bindir}
mkdir -p ${RPM_BUILD_ROOT}%{_mandir}/man{1,8}
mkdir -p ${RPM_BUILD_ROOT}%{_sbindir}

make INSTALLROOT=${RPM_BUILD_ROOT} \
   SBINDIR=%{_sbindir} MANDIR=%{_mandir} \
 install
install -m755 -d ${RPM_BUILD_ROOT}%{_sysconfdir}/xinetd.d/ ${RPM_BUILD_ROOT}/tftpboot
install -m644 tftp-xinetd ${RPM_BUILD_ROOT}%{_sysconfdir}/xinetd.d/tftp

%post server
/sbin/service xinetd reload > /dev/null 2>&1 || :

%postun server
if [ $1 = 0 ]; then
   /sbin/service xinetd reload > /dev/null 2>&1 || :
fi

%clean
rm -rf ${RPM_BUILD_ROOT}

%files
%defattr(-,root,root)
%{_bindir}/tftp
%{_mandir}/man1/*

%files server
%defattr(-,root,root)
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%dir /tftpboot
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- Update to 0.32

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- Fix #55789
- Update to 0.30

* Thu Jun 27 2002 Elliot Lee <sopwith@redhat.com>
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* Thu Feb 08 2001 Helge Deller <hdeller@redhat.de>
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- updated tftp client to 0.17 stable (#19640),
- drop dependency on xinetd for tftp client (#25051),

* Wed Jan 17 2001 Jeff Johnson <jbj@redhat.com>
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* Sat Jan 6 2001 Jeff Johnson <jbj@redhat.com>
- fix to permit tftp put's (#18128).
- startup as root with chroot to /tftpboot with early reversion to nobody
 is preferable to starting as nobody w/o ability to chroot.
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* Wed Aug 23 2000 Nalin Dahyabhai <nalin@redhat.com>
- default to being disabled

* Thu Aug 17 2000 Jeff Johnson <jbj@redhat.com>
- correct group.

* Tue Jul 25 2000 Nalin Dahyabhai <nalin@redhat.com>
- change user from root to nobody

* Sat Jul 22 2000 Jeff Johnson <jbj@redhat.com>
- update to tftp-hpa-0.14 (#14003).
- add server_args (#14003).
- remove -D_BSD_SOURCE (#14003).

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- cook up an xinetd config file for tftpd

* Wed Jul 12 2000 Prospector <bugzilla@redhat.com>
- automatic rebuild

* Sun Jun 18 2000 Jeff Johnson <jbj@redhat.com>
- FHS packaging.
- update to 0.17.

* Fri May 5 2000 Matt Wilson <msw@redhat.com>
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* Sun Mar 21 1999 Cristian Gafton <gafton@redhat.com>
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* Mon Mar 15 1999 Jeff Johnson <jbj@redhat.com>
- compile for 6.0.

* Fri Aug 7 1998 Jeff Johnson <jbj@redhat.com>
- build root

* Mon Apr 27 1998 Prospector System <bugs@redhat.com>
- translations modified for de, fr, tr

* Mon Sep 22 1997 Erik Troan <ewt@redhat.com>
- added check for getpwnam() failure

* Tue Jul 15 1997 Erik Troan <ewt@redhat.com>
- initial build

Found in path(s):
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/tftp.spec
No license file was found, but licenses were detected in source scan.

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Found in path(s):
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/MCONFIG.in
No license file was found, but licenses were detected in source scan.

.\" -*- nroff -*- -- *
.\"
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.\"   The Regents of the University of California. All rights reserved.
.\"
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.\"
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.\" OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)
.\" HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT
.\" LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY
.\" OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF
.\" SUCH DAMAGE.
.\"

.\"-- */

Found in path(s):
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/tftpd/tftpd.8.in
No license file was found, but licenses were detected in source scan.

/* -- *
*
*   Copyright 2001-2006 H. Peter Anvin - All Rights Reserved
*
*   This program is free software available under the same license
*   as the "OpenBSD" operating system, distributed at
*   http://www.openbsd.org/.
*
* -- */

Found in path(s):
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/tftpd/recvfrom.c
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/tftpd/recvfrom.h
No license file was found, but licenses were detected in source scan.

.\" -*- nroff -*- -- *
.\"
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.\"
.\" Copyright 2001 H. Peter Anvin - All Rights Reserved
.\"
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.\"
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.\" OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION)
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.\" LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY
.\" OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF
.\" SUCH DAMAGE.
.\"
.\"-- */

Found in path(s):
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/tftp/tftp.1.in
No license file was found, but licenses were detected in source scan.

/* -- *
*
*   Copyright 2001 H. Peter Anvin - All Rights Reserved
*
*   This program is free software available under the same license
*   as the "OpenBSD" operating system, distributed at
*   http://www.openbsd.org/.
*
* -- */

Found in path(s):
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/tftpd/tftpd.h
No license file was found, but licenses were detected in source scan.

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*
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* 2. Redistributions in binary form must reproduce the above copyright
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* HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT
* LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY
* OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF
* SUCH DAMAGE.
*/

Found in path(s):
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/tftp/extern.h
* /opt/cola/permits/1108298343_1611281305.28/0/tftp-hpa-5-2-tar-bz2/tftp-hpa-5.2/common/tftpsubs.h
No license file was found, but licenses were detected in source scan.

/*
* Copyright (c) 1983 Regents of the University of California.
* Copyright (c) 1999-2009 H. Peter Anvin
* Copyright (c) 2011 Intel Corporation; author: H. Peter Anvin
* All rights reserved.
*
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* 2. Redistributions in binary form must reproduce the above copyright
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* 3. All advertising materials mentioning features or use of this software
*   must display the following acknowledgement:
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* 4. Neither the name of the University nor the names of its contributors
*   may be used to endorse or promote products derived from this software
*   without specific prior written permission.
*
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* ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE
* IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE
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1.113 jaxb-core 2.3.0-b170202.1032

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1.115 oci 2.88.2

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a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever

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d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

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1.116 libjpeg 6b

1.116.1 Notifications :

This software is based in part on the work of the Independent JPEG Group.

1.116.2 Available under license :

The Independent JPEG Group's JPEG software

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README for release 6b of 27-Mar-1998

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This distribution contains the sixth public release of the Independent JPEG Group's free JPEG software. You are welcome to redistribute this software and to use it for any purpose, subject to the conditions under LEGAL ISSUES, below.

Serious users of this software (particularly those incorporating it into larger programs) should contact IJG at jpeg-info@uunet.uu.net to be added to our electronic mailing list. Mailing list members are notified of updates and have a chance to participate in technical discussions, etc.

This software is the work of Tom Lane, Philip Gladstone, Jim Boucher, Lee Crocker, Julian Minguillon, Luis Ortiz, George Phillips, Davide Rossi, Guido Vollbeding, Ge' Weijers, and other members of the Independent JPEG Group.

IJG is not affiliated with the official ISO JPEG standards committee.

DOCUMENTATION ROADMAP
=====================

This file contains the following sections:

OVERVIEW General description of JPEG and the IJG software.
LEGAL ISSUES Copyright, lack of warranty, terms of distribution.
REFERENCES Where to learn more about JPEG.
ARCHIVE LOCATIONS Where to find newer versions of this software.
RELATED SOFTWARE Other stuff you should get.
FILE FORMAT WARS Software *not* to get.
TO DO Plans for future IJG releases.

Other documentation files in the distribution are:

User documentation:
install.doc How to configure and install the IJG software.
usage.doc Usage instructions for cjpeg, djpeg, jpegtran,
rdjpgcom, and wrjpgcom.
*.1 Unix-style man pages for programs (same info as usage.doc).
wizard.doc Advanced usage instructions for JPEG wizards only.
change.log Version-to-version change highlights.
Programmer and internal documentation:
libjpeg.doc How to use the JPEG library in your own programs.
example.c Sample code for calling the JPEG library.
structure.doc Overview of the JPEG library's internal structure.
filelist.doc Road map of IJG files.
coderules.doc Coding style rules --- please read if you contribute code.

Please read at least the files install.doc and usage.doc. Useful information can also be found in the JPEG FAQ (Frequently Asked Questions) article. See ARCHIVE LOCATIONS below to find out where to obtain the FAQ article.

If you want to understand how the JPEG code works, we suggest reading one or more of the REFERENCES, then looking at the documentation files (in roughly the order listed) before diving into the code.

OVERVIEW
========

This package contains C software to implement JPEG image compression and decompression. JPEG (pronounced "jay-peg") is a standardized compression method for full-color and gray-scale images. JPEG is intended for compressing "real-world" scenes; line drawings, cartoons and other non-realistic images are not its strong suit. JPEG is lossy, meaning that the output image is not

exactly identical to the input image. Hence you must not use JPEG if you
have to have identical output bits. However, on typical photographic images,
very good compression levels can be obtained with no visible change, and
remarkably high compression levels are possible if you can tolerate a
low-quality image. For more details, see the references, or just experiment
with various compression settings.

This software implements JPEG baseline, extended-sequential, and progressive
compression processes. Provision is made for supporting all variants of these
processes, although some uncommon parameter settings aren't implemented yet.
For legal reasons, we are not distributing code for the arithmetic-coding
variants of JPEG; see LEGAL ISSUES. We have made no provision for supporting
the hierarchical or lossless processes defined in the standard.

We provide a set of library routines for reading and writing JPEG image files,
plus two sample applications "cjpeg" and "djpeg", which use the library to
perform conversion between JPEG and some other popular image file formats.
The library is intended to be reused in other applications.

In order to support file conversion and viewing software, we have included
considerable functionality beyond the bare JPEG coding/decoding capability;
for example, the color quantization modules are not strictly part of JPEG
decoding, but they are essential for output to colormapped file formats or
colormapped displays. These extra functions can be compiled out of the
library if not required for a particular application. We have also included
"jpegtran", a utility for lossless transcoding between different JPEG
processes, and "rdjpgcom" and "wrjpgcom", two simple applications for
inserting and extracting textual comments in JFIF files.

The emphasis in designing this software has been on achieving portability and
flexibility, while also making it fast enough to be useful. In particular,
the software is not intended to be read as a tutorial on JPEG. (See the
REFERENCES section for introductory material.) Rather, it is intended to
be reliable, portable, industrial-strength code. We do not claim to have
achieved that goal in every aspect of the software, but we strive for it.

We welcome the use of this software as a component of commercial products.
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ansi2knr.c is NOT covered by the above copyright and conditions, but instead
by the usual distribution terms of the Free Software Foundation; principally,
that you must include source code if you redistribute it. (See the file

ansi2knr.c for full details.) However, since ansi2knr.c is not needed as part
of any program generated from the IJG code, this does not limit you more than
the foregoing paragraphs do.

The Unix configuration script "configure" was produced with GNU Autoconf.
It is copyright by the Free Software Foundation but is freely distributable.
The same holds for its supporting scripts (config.guess, config.sub,
ltconfig, ltmain.sh). Another support script, install-sh, is copyright
by M.I.T. but is also freely distributable.

It appears that the arithmetic coding option of the JPEG spec is covered by
patents owned by IBM, AT&T, and Mitsubishi. Hence arithmetic coding cannot
legally be used without obtaining one or more licenses. For this reason,
support for arithmetic coding has been removed from the free JPEG software.
(Since arithmetic coding provides only a marginal gain over the unpatented
Huffman mode, it is unlikely that very many implementations will support it.)
So far as we are aware, there are no patent restrictions on the remaining
code.

The IJG distribution formerly included code to read and write GIF files.
To avoid entanglement with the Unisys LZW patent, GIF reading support has
been removed altogether, and the GIF writer has been simplified to produce
"uncompressed GIFs". This technique does not use the LZW algorithm; the
resulting GIF files are larger than usual, but are readable by all standard
GIF decoders.

We are required to state that
  "The Graphics Interchange Format(c) is the Copyright property of
  CompuServe Incorporated. GIF(sm) is a Service Mark property of
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REFERENCES
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We highly recommend reading one or more of these references before trying to
understand the innards of the JPEG software.

The best short technical introduction to the JPEG compression algorithm is
 Wallace, Gregory K. "The JPEG Still Picture Compression Standard",
 Communications of the ACM, April 1991 (vol. 34 no. 4), pp. 30-44.
(Adjacent articles in that issue discuss MPEG motion picture compression,
applications of JPEG, and related topics.) If you don't have the CACM issue
handy, a PostScript file containing a revised version of Wallace's article is
available at ftp://ftp.uu.net/graphics/jpeg/wallace.ps.gz. The file (actually
a preprint for an article that appeared in IEEE Trans. Consumer Electronics)
omits the sample images that appeared in CACM, but it includes corrections
and some added material. Note: the Wallace article is copyright ACM and IEEE,

and it may not be used for commercial purposes.

A somewhat less technical, more leisurely introduction to JPEG can be found in "The Data Compression Book" by Mark Nelson and Jean-loup Gailly, published by M&T Books (New York), 2nd ed. 1996, ISBN 1-55851-434-1. This book provides good explanations and example C code for a multitude of compression methods including JPEG. It is an excellent source if you are comfortable reading C code but don't know much about data compression in general. The book's JPEG sample code is far from industrial-strength, but when you are ready to look at a full implementation, you've got one here...

The best full description of JPEG is the textbook "JPEG Still Image Data Compression Standard" by William B. Pennebaker and Joan L. Mitchell, published by Van Nostrand Reinhold, 1993, ISBN 0-442-01272-1. Price US$59.95, 638 pp. The book includes the complete text of the ISO JPEG standards (DIS 10918-1 and draft DIS 10918-2). This is by far the most complete exposition of JPEG in existence, and we highly recommend it.

The JPEG standard itself is not available electronically; you must order a paper copy through ISO or ITU. (Unless you feel a need to own a certified official copy, we recommend buying the Pennebaker and Mitchell book instead; it's much cheaper and includes a great deal of useful explanatory material.) In the USA, copies of the standard may be ordered from ANSI Sales at (212) 642-4900, or from Global Engineering Documents at (800) 854-7179. (ANSI doesn't take credit card orders, but Global does.) It's not cheap: as of 1992, ANSI was charging $95 for Part 1 and $47 for Part 2, plus 7% shipping/handling. The standard is divided into two parts, Part 1 being the actual specification, while Part 2 covers compliance testing methods. Part 1 is titled "Digital Compression and Coding of Continuous-tone Still Images, Part 1: Requirements and guidelines" and has document numbers ISO/IEC IS 10918-1, ITU-T T.81. Part 2 is titled "Digital Compression and Coding of Continuous-tone Still Images, Part 2: Compliance testing" and has document numbers ISO/IEC IS 10918-2, ITU-T T.83.

Some extensions to the original JPEG standard are defined in JPEG Part 3, a newer ISO standard numbered ISO/IEC IS 10918-3 and ITU-T T.84. IJG currently does not support any Part 3 extensions.

The JPEG standard does not specify all details of an interchangeable file format. For the omitted details we follow the "JFIF" conventions, revision 1.02. A copy of the JFIF spec is available from:
Literature Department
C-Cube Microsystems, Inc.
1778 McCarthy Blvd.
Milpitas, CA 95035
phone (408) 944-6300, fax (408) 944-6314
A PostScript version of this document is available by FTP at ftp://ftp.uu.net/graphics/jpeg/jfif.ps.gz. There is also a plain text

version at ftp://ftp.uu.net/graphics/jpeg/jfif.txt.gz, but it is missing
the figures.

The TIFF 6.0 file format specification can be obtained by FTP from
ftp://ftp.sgi.com/graphics/tiff/TIFF6.ps.gz. The JPEG incorporation scheme
found in the TIFF 6.0 spec of 3-June-92 has a number of serious problems.
IJG does not recommend use of the TIFF 6.0 design (TIFF Compression tag 6).
Instead, we recommend the JPEG design proposed by TIFF Technical Note #2
(Compression tag 7). Copies of this Note can be obtained from ftp.sgi.com or
from ftp://ftp.uu.net/graphics/jpeg/. It is expected that the next revision
of the TIFF spec will replace the 6.0 JPEG design with the Note's design.
Although IJG's own code does not support TIFF/JPEG, the free libtiff library
uses our library to implement TIFF/JPEG per the Note. libtiff is available
from ftp://ftp.sgi.com/graphics/tiff/.

ARCHIVE LOCATIONS
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The "official" archive site for this software is ftp.uu.net (Internet
address 192.48.96.9). The most recent released version can always be found
there in directory graphics/jpeg. This particular version will be archived
as ftp://ftp.uu.net/graphics/jpeg/jpegsrc.v6b.tar.gz. If you don't have
direct Internet access, UUNET's archives are also available via UUCP; contact
help@uunet.uu.net for information on retrieving files that way.

Numerous Internet sites maintain copies of the UUNET files. However, only
ftp.uu.net is guaranteed to have the latest official version.

You can also obtain this software in DOS-compatible "zip" archive format from
the SimTel archives (ftp://ftp.simtel.net/pub/simtelnet/msdos/graphics/), or
on CompuServe in the Graphics Support forum (GO CIS:GRAPHSUP), library 12
"JPEG Tools". Again, these versions may sometimes lag behind the ftp.uu.net
release.

The JPEG FAQ (Frequently Asked Questions) article is a useful source of
general information about JPEG. It is updated constantly and therefore is
not included in this distribution. The FAQ is posted every two weeks to
Usenet newsgroups comp.graphics.misc, news.answers, and other groups.
It is available on the World Wide Web at http://www.faqs.org/faqs/jpeg-faq/
and other news.answers archive sites, including the official news.answers
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with body
 send usenet/news.answers/jpeg-faq/part1
 send usenet/news.answers/jpeg-faq/part2

RELATED SOFTWARE
==========

Numerous viewing and image manipulation programs now support JPEG. (Quite a few of them use this library to do so.) The JPEG FAQ described above lists some of the more popular free and shareware viewers, and tells where to obtain them on Internet.

If you are on a Unix machine, we highly recommend Jef Poskanzer's free PBMPLUS software, which provides many useful operations on PPM-format image files. In particular, it can convert PPM images to and from a wide range of other formats, thus making cjpeg/djpeg considerably more useful. The latest version is distributed by the NetPBM group, and is available from numerous sites, notably ftp://wuarchive.wustl.edu/graphics/graphics/packages/NetPBM/. Unfortunately PBMPLUS/NETPBM is not nearly as portable as the IJG software is; you are likely to have difficulty making it work on any non-Unix machine.

A different free JPEG implementation, written by the PVRG group at Stanford, is available from ftp://havefun.stanford.edu/pub/jpeg/. This program is designed for research and experimentation rather than production use; it is slower, harder to use, and less portable than the IJG code, but it is easier to read and modify. Also, the PVRG code supports lossless JPEG, which we do not. (On the other hand, it doesn't do progressive JPEG.)

FILE FORMAT WARS
==========

Some JPEG programs produce files that are not compatible with our library. The root of the problem is that the ISO JPEG committee failed to specify a concrete file format. Some vendors "filled in the blanks" on their own, creating proprietary formats that no one else could read. (For example, none of the early commercial JPEG implementations for the Macintosh were able to exchange compressed files.)

The file format we have adopted is called JFIF (see REFERENCES). This format has been agreed to by a number of major commercial JPEG vendors, and it has become the de facto standard. JFIF is a minimal or "low end" representation. We recommend the use of TIFF/JPEG (TIFF revision 6.0 as modified by TIFF Technical Note #2) for "high end" applications that need to record a lot of additional data about an image. TIFF/JPEG is fairly new and not yet widely supported, unfortunately.

The upcoming JPEG Part 3 standard defines a file format called SPIFF. SPIFF is interoperable with JFIF, in the sense that most JFIF decoders should be able to read the most common variant of SPIFF. SPIFF has some technical advantages over JFIF, but its major claim to fame is simply that it is an official standard rather than an informal one. At this point it is unclear

whether SPIFF will supersede JFIF or whether JFIF will remain the de-facto standard. IJG intends to support SPIFF once the standard is frozen, but we have not decided whether it should become our default output format or not. (In any case, our decoder will remain capable of reading JFIF indefinitely.)

Various proprietary file formats incorporating JPEG compression also exist. We have little or no sympathy for the existence of these formats. Indeed, one of the original reasons for developing this free software was to help force convergence on common, open format standards for JPEG files. Don't use a proprietary file format!

TO DO
=====

The major thrust for v7 will probably be improvement of visual quality. The current method for scaling the quantization tables is known not to be very good at low Q values. We also intend to investigate block boundary smoothing, "poor man's variable quantization", and other means of improving quality-vs-file-size performance without sacrificing compatibility.

In future versions, we are considering supporting some of the upcoming JPEG Part 3 extensions --- principally, variable quantization and the SPIFF file format.

As always, speeding things up is of great interest.

Please send bug reports, offers of help, etc. to jpeg-info@uunet.uu.net.

1.117 nss 3.79

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1.118 fdisk 2.27.0

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DAMAGE.
Initialize empty image
f1c9645dbc14efddc7d8a322685f26eb bsd.img
Create new DOS partition table
57e721e38d1266c2df055067c18f2cf9 bsd.img

---layout----------
Disk <removed>: 10 MiB, 10485760 bytes, 20480 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: <removed>

Create 1st primary partition
ada64ace122978d00d1d1c0e5ee45d26 bsd.img

---layout----------
Disk <removed>: 10 MiB, 10485760 bytes, 20480 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: <removed>

Device Boot Start End Sectors Size Id Type
<removed>1 2048 4095 2048 1M 83 Linux

Create 2st primary partition
1bebf87248e05d6e4e62b749da65d023 bsd.img
Set 2nd partition type
2d8e8dff51a88a045db233418dd73fbe bsd.img

---layout----------
Disk <removed>: 10 MiB, 10485760 bytes, 20480 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: dos
Disk identifier: <removed>

Device Boot Start End Sectors Size Id Type
<removed>1 2048 4095 2048 1M 83 Linux
<removed>2 4096 20479 16384 8M a5 FreeBSD

Create default BSD
2e1cee529cb59c9341afef0443f196a1 bsd.img

---layout----------

Welcome to fdisk <removed>.
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Command (m for help): Entering nested BSD disklabel.

Command (m for help): Disk <removed>2: 10 MiB, 10485760 bytes, 20480 sectors
Geometry: 255 heads, 63 sectors/track, 1 cylinders
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disklabel type: bsd

Slice Start End Sectors Size Type Fsize Bsize Cpg
c 4096 20479 16384 8M unused 0 0 0
d 0 16064 16065 7.9M unused 0 0 0

Partition table entries are not in disk order.

Command (m for help): Leaving nested disklabel.

Command (m for help):
---

b5c121c2091b2ff26b880551feac7112 bsd.img

---layout----------

Welcome to fdisk <removed>.
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Command (m for help): Entering nested BSD disklabel.

Command (m for help): Disk <removed>2: 10 MiB, 10485760 bytes, 20480 sectors
Geometry: 255 heads, 63 sectors/track, 1 cylinders
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disklabel type: bsd

Slice Start End Sectors Size Type Fsize Bsize Cpg
a 4096 6144 2049 1M 4.2BSD 0 0 0
c 4096 20479 16384 8M unused 0 0 0
d 0 16064 16065 7.9M unused 0 0 0

Partition table entries are not in disk order.

Command (m for help): Leaving nested disklabel.

Command (m for help):

Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Command (m for help): Entering nested BSD disklabel.

Command (m for help):
0 unused 5 4.1BSD 9 4.4LFS d boot
1 swap 6 Eighth Edition a unknown e ADOS
2 Version 6 7 4.2BSD b HPFS f HFS
3 Version 7 8 MS-DOS c ISO-9660 10 AdvFS
4 System V

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1.119 prompt-toolkit 3.0.31

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1.120 safeclib 4.1.3

1.120.1 Available under license :

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1.121 iptables 1.8.5

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1.122 activation-api 1.1

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1.123 zlib 1.2.13

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1.124 xz 5.2.2

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5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not.

Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if

the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

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To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

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library `Frob' (a library for tweaking knobs) written by James Random Hacker.

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Version 2, June 1991

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[This is the first released version of the library GPL. It is
numbered 2 because it goes with version 2 of the ordinary GPL.]

Preamble

The licenses for most software are designed to take away your
freedom to share and change it. By contrast, the GNU General Public
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your libraries, too.

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code. If you link a program with the library, you must provide
complete object files to the recipients so that they can relink them

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The reason we have a separate public license for some libraries is that they blur the distinction we usually make between modifying or adding to a program and simply using it. Linking a program with a library, without changing the library, is in some sense simply using the library, and is analogous to running a utility program or application program. However, in a textual and legal sense, the linked executable is a combined work, a derivative of the original library, and the ordinary General Public License treats it as such.

Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve

this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

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a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the

entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood

that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

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It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

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Appendix: How to Apply These Terms to Your New Libraries

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To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

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Also add information on how to contact you by electronic and paper mail.

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That's all there is to it!

1.127 eclipse-jgit-ssh-apache 5.13.1.202206130422-r

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* /opt/cola/permits/1612280040_1679588346.8530915/0/org-eclipse-jgit-ssh-apache-5-13-1-202206130422-r-sources-1-jar/org/eclipse/jgit/internal/transport/sshd/proxy/StatefulProxyConnector.java
* /opt/cola/permits/1612280040_1679588346.8530915/0/org-eclipse-jgit-ssh-apache-5-13-1-202206130422-r-sources-1-jar/org/eclipse/jgit/internal/transport/sshd/proxy/HttpClientConnector.java
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* /opt/cola/permits/1612280040_1679588346.8530915/0/org-eclipse-jgit-ssh-apache-5-13-1-202206130422-r-sources-1-jar/org/eclipse/jgit/internal/transport/sshd/auth/GssApiAuthentication.java
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* /opt/cola/permits/1612280040_1679588346.8530915/0/org-eclipse-jgit-ssh-apache-5-13-1-202206130422-r-

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* /opt/cola/permits/1612280040_1679588346.8530915/0/org-eclipse-jgit-ssh-apache-5-13-1-202206130422-r-sources-1-jar/org/eclipse/jgit/transport/sshd/DefaultProxyDataFactory.java
* /opt/cola/permits/1612280040_1679588346.8530915/0/org-eclipse-jgit-ssh-apache-5-13-1-202206130422-r-sources-1-jar/org/eclipse/jgit/internal/transport/sshd/proxy/HttpParser.java
* /opt/cola/permits/1612280040_1679588346.8530915/0/org-eclipse-jgit-ssh-apache-5-13-1-202206130422-r-sources-1-jar/org/eclipse/jgit/transport/sshd/KeyPasswordProvider.java
* /opt/cola/permits/1612280040_1679588346.8530915/0/org-eclipse-jgit-ssh-apache-5-13-1-202206130422-r-sources-1-jar/org/eclipse/jgit/internal/transport/sshd/KnownHostEntryReader.java
* /opt/cola/permits/1612280040_1679588346.8530915/0/org-eclipse-jgit-ssh-apache-5-13-1-202206130422-r-sources-1-jar/org/eclipse/jgit/transport/sshd/ProxyData.java
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* /opt/cola/permits/1612280040_1679588346.8530915/0/org-eclipse-jgit-ssh-apache-5-13-1-202206130422-r-sources-1-jar/org/eclipse/jgit/internal/transport/sshd/JGitSshClient.java
* /opt/cola/permits/1612280040_1679588346.8530915/0/org-eclipse-jgit-ssh-apache-5-13-1-202206130422-r-sources-1-jar/org/eclipse/jgit/internal/transport/sshd/JGitClientSession.java
* /opt/cola/permits/1612280040_1679588346.8530915/0/org-eclipse-jgit-ssh-apache-5-13-1-202206130422-r-sources-1-jar/org/eclipse/jgit/internal/transport/sshd/OpenSshServerKeyDatabase.java
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* /opt/cola/permits/1612280040_1679588346.8530915/0/org-eclipse-jgit-ssh-apache-5-13-1-202206130422-r-sources-1-jar/org/eclipse/jgit/internal/transport/sshd/PasswordProviderWrapper.java

1.128 cx-oracle 8.3.0

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1.129 python-pip 22.2.2

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This package contains a modified version of ca-bundle.crt:

ca-bundle.crt -- Bundle of CA Root Certificates

Certificate data from Mozilla as of: Thu Nov 3 19:04:19 2011#

This is a bundle of X.509 certificates of public Certificate Authorities
(CA). These were automatically extracted from Mozilla's root certificates
file (certdata.txt). This file can be found in the mozilla source tree:
http://mxr.mozilla.org/mozilla/source/security/nss/lib/ckfw/builtins/certdata.txt?raw=1#
It contains the certificates in PEM format and therefore
can be directly used with curl / libcurl / php_curl, or with
an Apache+mod_ssl webserver for SSL client authentication.
Just configure this file as the SSLCACertificateFile.#

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@(#) $RCSfile: certdata.txt,v $ $Revision: 1.80 $ $Date: 2011/11/03 15:11:58 $
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A. HISTORY OF THE SOFTWARE
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Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands
as a successor of a language called ABC. Guido remains Python's
principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for
National Research Initiatives (CNRI, see http://www.cnri.reston.va.us)
in Reston, Virginia where he released several versions of the
software.

In May 2000, Guido and the Python core development team moved to
BeOpen.com to form the BeOpen PythonLabs team. In October of the same
year, the PythonLabs team moved to Digital Creations (now Zope
Corporation, see http://www.zope.com). In 2001, the Python Software
Foundation (PSF, see http://www.python.org/psf/) was formed, a
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Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes
2.4.4	2.4.3	2006	PSF	yes
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
3.0	2.6	2008	PSF	yes
3.0.1	3.0	2009	PSF	yes

3.1	3.0.1	2009	PSF	yes
3.1.1	3.1	2009	PSF	yes
3.1.2	3.1	2010	PSF	yes
3.2	3.1	2010	PSF	yes

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Thanks to the many outside volunteers who have worked under Guido's direction to make these releases possible.

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Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands
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in Reston, Virginia where he released several versions of the
software.

In May 2000, Guido and the Python core development team moved to
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Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2 and above	2.1.1	2001-now	PSF	yes

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1.136 jupyter-client 7.3.5

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1.141 jaxb-jxc 2.3.0-b170202.1032

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1.142 matplotlib-inline 0.1.6

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1.143 httpcomponents-mime 4.5.7

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1.144 rsync 3.2.3

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1.145 webencodings 0.5.1

1.145.1 Available under license :

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Found in path(s):
* /opt/cola/permits/1401468445_1661617535.3616152/0/webencodings-0-5-1-1-tar-gz/webencodings-0.5.1/webencodings/labels.py
* /opt/cola/permits/1401468445_1661617535.3616152/0/webencodings-0-5-1-1-tar-gz/webencodings-0.5.1/webencodings/__init__.py
* /opt/cola/permits/1401468445_1661617535.3616152/0/webencodings-0-5-1-1-tar-gz/webencodings-0.5.1/webencodings/tests.py
* /opt/cola/permits/1401468445_1661617535.3616152/0/webencodings-0-5-1-1-tar-gz/webencodings-0.5.1/webencodings/x_user_defined.py
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```
from setuptools import setup, find_packages
import io
from os import path
import re


VERSION = re.search("VERSION = '([^']+)'", io.open(
  path.join(path.dirname(__file__), 'webencodings', '__init__.py'),
  encoding='utf-8'
).read().strip()).group(1)

LONG_DESCRIPTION = io.open(
  path.join(path.dirname(__file__), 'README.rst'),
  encoding='utf-8'
```

```
).read()


setup(
  name='webencodings',
  version=VERSION,
  url='https://github.com/SimonSapin/python-webencodings',
  license='BSD',
  author='Simon Sapin',
  author_email='simon.sapin@exyr.org',
  maintainer='Geoffrey Sneddon',
  maintainer_email='me@gsnedders.com',
  description='Character encoding aliases for legacy web content',
  long_description=LONG_DESCRIPTION,
  classifiers=[
      'Development Status :: 4 - Beta',
      'Intended Audience :: Developers',
      'License :: OSI Approved :: BSD License',
      'Programming Language :: Python',
      'Programming Language :: Python :: 2',
      'Programming Language :: Python :: 2.6',
      'Programming Language :: Python :: 2.7',
      'Programming Language :: Python :: 3',
      'Programming Language :: Python :: 3.3',
      'Programming Language :: Python :: 3.4',
      'Programming Language :: Python :: 3.5',
      'Programming Language :: Python :: 3.6',
      'Programming Language :: Python :: Implementation :: CPython',
      'Programming Language :: Python :: Implementation :: PyPy',
      'Topic :: Internet :: WWW/HTTP',
  ],
  packages=find_packages(),
)

Found in path(s):
* /opt/cola/permits/1401468445_1661617535.3616152/0/webencodings-0-5-1-1-tar-gz/webencodings-
0.5.1/setup.py
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Metadata-Version: 1.1
Name: webencodings
Version: 0.5.1
Summary: Character encoding aliases for legacy web content
Home-page: https://github.com/SimonSapin/python-webencodings
Author: Geoffrey Sneddon
Author-email: me@gsnedders.com
License: BSD
Description: python-webencodings
```

==========

This is a Python implementation of the `WHATWG Encoding standard
<http://encoding.spec.whatwg.org/>`_.

* Latest documentation: http://packages.python.org/webencodings/
* Source code and issue tracker:
  https://github.com/gsnedders/python-webencodings
* PyPI releases: http://pypi.python.org/pypi/webencodings
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* Python 2.6+ and 3.3+

In order to be compatible with legacy web content
when interpreting something like ``Content-Type: text/html; charset=latin1``,
tools need to use a particular set of aliases for encoding labels
as well as some overriding rules.
For example, ``US-ASCII`` and ``iso-8859-1`` on the web are actually
aliases for ``windows-1252``, and an UTF-8 or UTF-16 BOM takes precedence
over any other encoding declaration.
The Encoding standard defines all such details so that implementations do
not have to reverse-engineer each other.

This module has encoding labels and BOM detection,
but the actual implementation for encoders and decoders is Python's.

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* /opt/cola/permits/1401468445_1661617535.3616152/0/webencodings-0-5-1-1-tar-gz/webencodings-0.5.1/webencodings.egg-info/PKG-INFO
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"""

  webencodings.mklabels
  ~~~~~~~~~~~~~~~~~~~~~

  Regenarate the webencodings.labels module.

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"""

import json
try:
  from urllib import urlopen
except ImportError:
  from urllib.request import urlopen


def assert_lower(string):
  assert string == string.lower()
  return string


def generate(url):
  parts = ['''\
"""

  webencodings.labels
  ~~~~~~~~~~~~~~~~~~~

  Map encoding labels to their name.

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"""

# XXX Do not edit!
# This file is automatically generated by mklabels.py

LABELS = {
''']
  labels = [
    (repr(assert_lower(label)).lstrip('u'),
     repr(encoding['name']).lstrip('u'))
```

```
    for category in json.loads(urlopen(url).read().decode('ascii'))
    for encoding in category['encodings']
    for label in encoding['labels']]
  max_len = max(len(label) for label, name in labels)
  parts.extend(
    '    %s:%s %s,\n' % (label, ' ' * (max_len - len(label)), name)
    for label, name in labels)
  parts.append('}')
  return ''.join(parts)


if __name__ == '__main__':
  print(generate('http://encoding.spec.whatwg.org/encodings.json'))
```

Found in path(s):
* /opt/cola/permits/1401468445_1661617535.3616152/0/webencodings-0-5-1-1-tar-gz/webencodings-0.5.1/webencodings/mklabels.py
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python-webencodings
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1.146 zlib 1.0.4

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(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)
@end enumerate

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you

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on the Library, the distribution of the whole must be on the terms of
this License, whose permissions for other licensees extend to the
entire whole, and thus to each and every part regardless of who wrote
it.

Thus, it is not the intent of this section to claim rights or contest
your rights to work written entirely by you; rather, the intent is to
exercise the right to control the distribution of derivative or
collective works based on the Library.

In addition, mere aggregation of another work not based on the Library
with the Library (or with a work based on the Library) on a volume of
a storage or distribution medium does not bring the other work under
the scope of this License.

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You may opt to apply the terms of the ordinary GNU General Public
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this, you must alter all the notices that refer to this License, so
that they refer to the ordinary GNU General Public License, version 2,
instead of to this License. (If a newer version than version 2 of the
ordinary GNU General Public License has appeared, then you can specify
that version instead if you wish.) Do not make any other change in
these notices.

Once this change is made in a given copy, it is irreversible for
that copy, so the ordinary GNU General Public License applies to all
subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of
the Library into a program that is not a library.

@item
You may copy and distribute the Library (or a portion or
derivative of it, under Section 2) in object code or executable form
under the terms of Sections 1 and 2 above provided that you accompany
it with the complete corresponding machine-readable source code, which
must be distributed under the terms of Sections 1 and 2 above on a
medium customarily used for software interchange.

If distribution of object code is made by offering access to copy
from a designated place, then offering equivalent access to copy the
source code from the same place satisfies the requirement to
distribute the source code, even though third parties are not
compelled to copy the source along with the object code.

@item

A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a ``work that uses the Library''. Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a ``work that uses the Library'' with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a ``work that uses the library''. The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a ``work that uses the Library'' uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

@item
As an exception to the Sections above, you may also combine or link a ``work that uses the Library'' with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

@enumerate a

@item
Accompany the work with the complete corresponding
machine-readable source code for the Library including whatever
changes were used in the work (which must be distributed under
Sections 1 and 2 above); and, if the work is an executable linked
with the Library, with the complete machine-readable ``work that
uses the Library'', as object code and/or source code, so that the
user can modify the Library and then relink to produce a modified
executable containing the modified Library. (It is understood
that the user who changes the contents of definitions files in the
Library will not necessarily be able to recompile the application
to use the modified definitions.)

@item
Use a suitable shared library mechanism for linking with the Library. A
suitable mechanism is one that (1) uses at run time a copy of the
library already present on the user's computer system, rather than
copying library functions into the executable, and (2) will operate
properly with a modified version of the library, if the user installs
one, as long as the modified version is interface-compatible with the
version that the work was made with.

@item
Accompany the work with a written offer, valid for at
least three years, to give the same user the materials
specified in Subsection 6a, above, for a charge no more
than the cost of performing this distribution.

@item
If distribution of the work is made by offering access to copy
from a designated place, offer equivalent access to copy the above
specified materials from the same place.

@item
Verify that the user has already received a copy of these
materials or that you have already sent this user a copy.
@end enumerate

For an executable, the required form of the ``work that uses the
Library'' must include any data and utility programs needed for
reproducing the executable from it. However, as a special exception,
the materials to be distributed need not include anything that is
normally distributed (in either source or binary form) with the major
components (compiler, kernel, and so on) of the operating system on
which the executable runs, unless that component itself accompanies the
executable.

It may happen that this requirement contradicts the license

restrictions of other proprietary libraries that do not normally
accompany the operating system. Such a contradiction means you cannot
use both them and the Library together in an executable that you
distribute.

@item
You may place library facilities that are a work based on the
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facilities not covered by this License, and distribute such a combined
library, provided that the separate distribution of the work based on
the Library and of the other library facilities is otherwise
permitted, and provided that you do these two things:

@enumerate a
@item
Accompany the combined library with a copy of the same work
based on the Library, uncombined with any other library
facilities. This must be distributed under the terms of the
Sections above.

@item
Give prominent notice with the combined library of the fact
that part of it is a work based on the Library, and explaining
where to find the accompanying uncombined form of the same work.
@end enumerate

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@end enumerate

@subheading END OF TERMS AND CONDITIONS

@page
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@var{signature of Ty Coon}, 1 April 1990

Ty Coon, President of Vice
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When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

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You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

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a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify

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Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above

specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

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1.158 distlib 0.3.5

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Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands
as a successor of a language called ABC. Guido remains Python's
principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for
National Research Initiatives (CNRI, see http://www.cnri.reston.va.us)
in Reston, Virginia where he released several versions of the
software.

In May 2000, Guido and the Python core development team moved to
BeOpen.com to form the BeOpen PythonLabs team. In October of the same
year, the PythonLabs team moved to Digital Creations (now Zope
Corporation, see http://www.zope.com). In 2001, the Python Software
Foundation (PSF, see http://www.python.org/psf/) was formed, a
non-profit organization created specifically to own Python-related
Intellectual Property. Zope Corporation is a sponsoring member of
the PSF.

All Python releases are Open Source (see http://www.opensource.org for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes
2.4.4	2.4.3	2006	PSF	yes
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
3.0	2.6	2008	PSF	yes
3.0.1	3.0	2009	PSF	yes
3.1	3.0.1	2009	PSF	yes
3.1.1	3.1	2009	PSF	yes

3.1.2	3.1	2010	PSF	yes
3.2	3.1	2010	PSF	yes

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1.159 tomcat-coyote 9.0.74

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analysis/common/src/java/org/apache/lucene/analysis/fr/FrenchMinimalStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/hu/HungarianLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/it/ItalianLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/pt/PortugueseLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/ru/RussianLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/sv/SwedishLightStemmer.java

The Stempel analyzer (stempel) includes BSD-licensed software developed
by the Egothor project http://egothor.sf.net/, created by Leo Galambos, Martin Kvapil,
and Edmond Nolan.

The Polish analyzer (stempel) comes with a default
stopword list that is BSD-licensed created by the Carrot2 project. The file resides
in stempel/src/resources/org/apache/lucene/analysis/pl/stopwords.txt.
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The SmartChineseAnalyzer source code (smartcn) was
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WordBreakTestUnicode_*.java (under modules/analysis/common/src/test/)
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Morfologik uses data from Polish ispell/myspell dictionary
(http://www.sjp.pl/slownik/en/) licenced on the terms of (inter alia)
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Servlet-api.jar and javax.servlet-*.jar are under the CDDL license, the original
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Kuromoji Japanese Morphological Analyzer - Apache Lucene Integration

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mecab-ipadic-2.7.0-20070801

which can be obtained from

http://atilika.com/releases/mecab-ipadic/mecab-ipadic-2.7.0-20070801.tar.gz

or

http://jaist.dl.sourceforge.net/project/mecab/mecab-ipadic/2.7.0-20070801/mecab-ipadic-2.7.0-20070801.tar.gz

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mecab-ipadic-2.7.0-20070801 Notice

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Nori Korean Morphological Analyzer - Apache Lucene Integration

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mecab-ko-dic-2.0.3-20170922

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1.164 futures 3.3.0

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This is perl, v5.24.1 built for MSWin32-x86-multi-thread

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1.166 findutils 4.7.0

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1.172 struts-tiles 1.3.10

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1.173 dom 1.0

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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASNotationDeclaration.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASObject.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/CharacterDataEditAS.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/DOMImplementationAS.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASModel.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/DocumentAS.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASAttributeDeclaration.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASElementDeclaration.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASEntityDeclaration.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASNamedObjectMap.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASDataType.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASContentModel.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/DOMASWriter.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/DocumentEditAS.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/ASObjectList.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/DOMASBuilder.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/DOMASException.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom3/as/NodeEditAS.java
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-
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*/
/**
   * Checks if this content model has had its min/maxOccurs values reduced for
   * purposes of speeding up UPA.  If so, this content model should not be used
   * for any purpose other than checking unique particle attribution
   *
   * @return a boolean that says whether this content has been compacted for UPA
   */
```

Found in path(s):
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/models/XSCMValidator.java
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*/
/**
  * DOM Level 3 LS CR - Experimental.
   * Create a new <code>LSParser</code>. The newly constructed parser may
   * then be configured by means of its <code>DOMConfiguration</code>
   * object, and used to parse documents by means of its <code>parse</code>
   *  method.
   * @param mode  The <code>mode</code> argument is either
   *   <code>MODE_SYNCHRONOUS</code> or <code>MODE_ASYNCHRONOUS</code>, if
   *   <code>mode</code> is <code>MODE_SYNCHRONOUS</code> then the
   *   <code>LSParser</code> that is created will operate in synchronous
   *   mode, if it's <code>MODE_ASYNCHRONOUS</code> then the
   *   <code>LSParser</code> that is created will operate in asynchronous
   *   mode.
```

```
   * @param schemaType  An absolute URI representing the type of the schema
   *   language used during the load of a <code>Document</code> using the
   *   newly created <code>LSParser</code>. Note that no lexical checking
   *   is done on the absolute URI. In order to create a
   *   <code>LSParser</code> for any kind of schema types (i.e. the
   *   LSParser will be free to use any schema found), use the value
   *   <code>null</code>.
   * <p ><b>Note:</b>    For W3C XML Schema [<a href='http://www.w3.org/TR/2001/REC-xmlschema-1-
20010502/'>XML Schema Part 1</a>]
   *   , applications must use the value
   *   <code>"http://www.w3.org/2001/XMLSchema"</code>. For XML DTD [<a
href='http://www.w3.org/TR/2000/REC-xml-20001006'>XML 1.0</a>],
   *   applications must use the value
   *   <code>"http://www.w3.org/TR/REC-xml"</code>. Other Schema languages
   *   are outside the scope of the W3C and therefore should recommend an
   *   absolute URI in order to use this method.
   * @return  The newly created <code>LSParser</code> object. This
   *   <code>LSParser</code> is either synchronous or asynchronous
   *   depending on the value of the <code>mode</code> argument.
   * <p ><b>Note:</b>    By default, the newly created <code>LSParser</code>
   *    does not contain a <code>DOMErrorHandler</code>, i.e. the value of
   *   the "<a href='http://www.w3.org/TR/2003/WD-DOM-Level-3-Core-20030609/core.html#parameter-error-
handler'>
   *   error-handler</a>" configuration parameter is <code>null</code>. However, implementations
   *   may provide a default error handler at creation time. In that case,
   *   the initial value of the <code>"error-handler"</code> configuration
   *   parameter on the new created <code>LSParser</code> contains a
   *   reference to the default error handler.
   * @exception DOMException
   *    NOT_SUPPORTED_ERR: Raised if the requested mode or schema type is
   *   not supported.
  */
```

Found in path(s):
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom/CoreDOMImplementationImpl.java
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*/
/**
    * used to check the 3 constraints against each complex type
    * (should be each model group):
    * Unique Particle Attribution, Particle Derivation (Restriction),
    * Element Declrations Consistent.
    */
```

Found in path(s):
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/XSConstraints.java
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/traversers/XSDElementTraverser.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xni/parser/XMLErrorHandler.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/HTMLFrameElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/util/XMLEntityDescriptionImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/util/ShadowedSymbolTable.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/util/ObjectListImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/dom/WMLImgElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/WMLOptgroupElement.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xni/parser/XMLInputSource.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/WMLImgElement.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom/DeferredCDATASectionImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/traversers/XSDAbstractIDConstraintTraverser.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/dom/WMLTimerElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xs/XSParticle.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/dom/WMLWmlElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dv/xs/AnySimpleDV.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xs/StringList.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/WMLTimerElement.java

* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xpath/regex/CaseInsensitiveMap.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/opti/SchemaDOMImplementation.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/opti/DefaultXMLDocumentHandler.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/dom/DeferredElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/WMLAnchorElement.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xml/serialize/HTMLSerializer.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/html/dom/HTMLHtmlElementImpl.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/stax/DefaultNamespaceContext.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xinclude/MultipleScopeNamespaceSupport.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/xs/opti/SchemaParsingConfig.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/impl/dtd/XML11NSDTDValidator.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xpointer/XPointerMessageFormatter.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xs/XSException.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/wml/dom/WMLMetaElementImpl.java
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* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/util/EncodingMap.java
* /opt/cola/permits/1257218116_1642790294.82/0/xercesimpl-2-12-0-sources-jar/org/apache/xerces/xinclude/XIncludeTextReader.java
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2 7680 16383 8704 4.3M 8f8378c0-02
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x ?"U@,5 @mISmIN<GimCN7g1u|E
43mI,5WEV @@ WEV @mImImIAmImImI0mImImI*mImI
A0mImImI...
lost+found...

;9GimCN7g

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src/arc4random_uniform.c
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src/arc4random_win.h
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This package was added to the e2fsprogs debian source package by
Theodore Ts'o <tytso@mit.edu> on Fri Dec 14 22:24:35 EST 2007

It is part of the main e2fsprogs distribution, which can be found at:

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Upstream Author: Theodore Ts'o <tytso@mit.edu>

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This is the Debian GNU/Linux prepackaged version of the translation
files of the EXT2 file system utilities. The EXT2 utilities were
written by Theodore Ts'o <tytso@mit.edu> and Remy Card
<card@masi.ibp.fr>.

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*/
Index: tdbsa/tdb.c
===
--- tdbsa.orig/tdb.c
+++ tdbsa/tdb.c
@@ -4,11 +4,11 @@ Rev: 23371
Last Changed Date: 2007-06-06 20:14:06 -0400 (Wed, 06 Jun 2007)
*/
 /*
-   Unix SMB/CIFS implementation.
+   trivial database library - standalone version

-   trivial database library - private includes

-
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(tytso@mit.edu) before you ship. The release schedules for this
package are flexible, if you give me enough lead time.

Theodore Ts'o
23-June-2007

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That's all there is to it!
This package was added to the e2fsprogs debian source package by
Theodore Ts'o <tytso@mit.edu> on Sat Mar 15 15:33:37 EST 2003

It is part of the main e2fsprogs distribution, which can be found at:

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Upstream Author: Theodore Ts'o <tytso@mit.edu>

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This is the Debian GNU/Linux prepackaged version of the ss
command-line interface parsing library. It is currently
distributed together with the EXT2 file system utilities, which are
otherwise packaged as "e2fsprogs".

This package was put together by Yann Dirson <dirson@debian.org>,
from sources obtained from a mirror of:
tsx-11.mit.edu:/pub/linux/packages/ext2fs/

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#
This is a Makefile stub which handles the creation of BSD shared
libraries.
#
In order to use this stub, the following makefile variables must be defined.
#
BSDLIB_VERSION = 1.0
BSDLIB_IMAGE = libce
BSDLIB_MYDIR = et
BSDLIB_INSTALL_DIR = $(SHLIBDIR)
#

all:: image

real-subdirs:: Makefile

```
 @echo " MKDIR pic"
 @mkdir -p pic

BSD_LIB = $(BSDLIB_IMAGE).so.$(BSDLIB_VERSION)
BSDLIB_PIC_FLAG = -fpic

image:  $(BSD_LIB)

$(BSD_LIB): $(OBJS)
 (cd pic; ld -Bshareable -o $(BSD_LIB) $(LDFLAGS_SHLIB) $(OBJS))
 $(MV) pic/$(BSD_LIB) .
 $(RM) -f ../$(BSD_LIB)
 (cd ..; $(LN) $(LINK_BUILD_FLAGS) \
  `echo $(my_dir) | sed -e 's;lib/;;'`/$(BSD_LIB) $(BSD_LIB))

install-shlibs install:: $(BSD_LIB)
 @echo " INSTALL_PROGRAM $(BSDLIB_INSTALL_DIR)/$(BSD_LIB)"
 @$(INSTALL_PROGRAM) $(BSD_LIB) \
  $(DESTDIR)$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)
 @-$(LDCONFIG)

install-strip: install

install-shlibs-strip: install-shlibs

uninstall-shlibs uninstall::
 $(RM) -f $(DESTDIR)$(BSDLIB_INSTALL_DIR)/$(BSD_LIB)

clean::
 $(RM) -rf pic
 $(RM) -f $(BSD_LIB)
 $(RM) -f ../$(BSD_LIB)
This is the Debian GNU/Linux prepackaged version of the Common Error
Description library. It is currently distributed together with the EXT2 file
system utilities, which are otherwise packaged as "e2fsprogs".

This package was put together by Yann Dirson <dirson@debian.org>,
from sources obtained from a mirror of:
tsx-11.mit.edu:/pub/linux/packages/ext2fs/

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Gadi Oxman, August 1995

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1.177 liquibase 3.6.3

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1.178 jline-remote-ssh 3.21.0

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1.179 commons-compress 1.21

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1.180 commons-codec 1.16

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1.181 json-c 1.2.3

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1.182 xinetd 2.3.15

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1.183 scannotation 1.0.3

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1.184 icu 71

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## Commands to generate dependency files
GEN_DEPS.c= $(CC) -E -MM $(DEFS) $(CPPFLAGS)
GEN_DEPS.cc= $(CXX) -E -MM $(DEFS) $(CPPFLAGS)

## Flags for position independent code
SHAREDLIBCFLAGS = -fPIC
SHAREDLIBCXXFLAGS = -fPIC
SHAREDLIBCPPFLAGS = -DPIC

## Additional flags when building libraries and with threads
THREADSCPPFLAGS = -D_REENTRANT
LIBCPPFLAGS =

## Compiler switch to embed a runtime search path
LD_RPATH=
LD_RPATH_PRE= -Wl,-rpath,

## Compiler switch to embed a library name
LD_SONAME = -Wl,-soname -Wl,$(notdir $(MIDDLE_SO_TARGET))

## Shared library options
LD_SOOPTIONS= -Wl,-Bsymbolic

## Shared object suffix
SO = so
## Non-shared intermediate object suffix
STATIC_O = ao

## Compilation rules
%.$(STATIC_O): $(srcdir)/%.c
 $(COMPILE.c) $(STATICCPPFLAGS) $(STATICCFLAGS) -o $@ $<
%.o: $(srcdir)/%.c
 $(COMPILE.c) $(DYNAMICCPPFLAGS) $(DYNAMICCFLAGS) -o $@ $<

%.$(STATIC_O): $(srcdir)/%.cpp
 $(COMPILE.cc) $(STATICCPPFLAGS) $(STATICCXXFLAGS) -o $@ $<
%.o: $(srcdir)/%.cpp
 $(COMPILE.cc) $(DYNAMICCPPFLAGS) $(DYNAMICCXXFLAGS) -o $@ $<
```

```
## Dependency rules
%.d: $(srcdir)/%.c
 @echo "generating dependency information for $<"
 @$(SHELL) -ec '$(GEN_DEPS.c) $< \
  | sed '\"s/\($*\)\.o[ :]*/\1.o $@ : /g'\" > $@; \
  [ -s $@ ] || rm -f $@'

%.d: $(srcdir)/%.cpp
 @echo "generating dependency information for $<"
 @$(SHELL) -ec '$(GEN_DEPS.cc) $< \
  | sed '\"s/\($*\)\.o[ :]*/\1.o $@ : /g'\" > $@; \
  [ -s $@ ] || rm -f $@'

## Versioned libraries rules

%.$(SO).$(SO_TARGET_VERSION_MAJOR): %.$(SO).$(SO_TARGET_VERSION)
 $(RM) $@ && ln -s ${<F} $@
%.$(SO): %.$(SO).$(SO_TARGET_VERSION_MAJOR)
 $(RM) $@ && ln -s ${*F}.$(SO).$(SO_TARGET_VERSION) $@

##  Bind internal references

# LDflags that pkgdata will use
BIR_LDFLAGS= -Wl,-Bsymbolic

# Dependencies [i.e. map files] for the final library
BIR_DEPS=

## Remove shared library 's'
STATIC_PREFIX_WHEN_USED =
STATIC_PREFIX =

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The implementations of GSSAPI mechglue in GSSAPI-SPNEGO in "src/lib/gssapi", including the following files:

lib/gssapi/generic/gssapi_err_generic.et
lib/gssapi/mechglue/g_accept_sec_context.c
lib/gssapi/mechglue/g_acquire_cred.c
lib/gssapi/mechglue/g_canon_name.c
lib/gssapi/mechglue/g_compare_name.c
lib/gssapi/mechglue/g_context_time.c

lib/gssapi/mechglue/g_delete_sec_context.c
lib/gssapi/mechglue/g_dsp_name.c
lib/gssapi/mechglue/g_dsp_status.c
lib/gssapi/mechglue/g_dup_name.c
lib/gssapi/mechglue/g_exp_sec_context.c
lib/gssapi/mechglue/g_export_name.c
lib/gssapi/mechglue/g_glue.c
lib/gssapi/mechglue/g_imp_name.c
lib/gssapi/mechglue/g_imp_sec_context.c
lib/gssapi/mechglue/g_init_sec_context.c
lib/gssapi/mechglue/g_initialize.c
lib/gssapi/mechglue/g_inquire_context.c
lib/gssapi/mechglue/g_inquire_cred.c
lib/gssapi/mechglue/g_inquire_names.c
lib/gssapi/mechglue/g_process_context.c
lib/gssapi/mechglue/g_rel_buffer.c
lib/gssapi/mechglue/g_rel_cred.c
lib/gssapi/mechglue/g_rel_name.c
lib/gssapi/mechglue/g_rel_oid_set.c
lib/gssapi/mechglue/g_seal.c
lib/gssapi/mechglue/g_sign.c
lib/gssapi/mechglue/g_store_cred.c
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lib/gssapi/mechglue/g_userok.c
lib/gssapi/mechglue/g_utils.c
lib/gssapi/mechglue/g_verify.c
lib/gssapi/mechglue/gssd_pname_to_uid.c
lib/gssapi/mechglue/mglueP.h
lib/gssapi/mechglue/oid_ops.c
lib/gssapi/spnego/gssapiP_spnego.h
lib/gssapi/spnego/spnego_mech.c

and the initial implementation of incremental propagation, including
the following new or changed files:

include/iprop_hdr.h
kadmin/server/ipropd_svc.c
lib/kdb/iprop.x
lib/kdb/kdb_convert.c
lib/kdb/kdb_log.c
lib/kdb/kdb_log.h
lib/krb5/error_tables/kdb5_err.et
kprop/kpropd_rpc.c
kprop/kproplog.c

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1.186 sysklogd 1.5.1-r0.50

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1.188 json-c 0.15

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1.189 jedi 0.18.1

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1.190 ncurses 6.0

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1.191 slf4j-impl 1.5.8.PATCHED

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This option is useful when you wish to copy part of the code of

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1.203 slf4j-api-jdk15 1.5.8-PATCHED

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* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/helpers/SubstituteLoggerFactory.java
* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/MDC.java

* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/impl/StaticLoggerBinder.java
* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/helpers/BasicMarker.java
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* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/impl/StaticMDCBinder.java
* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/helpers/BasicMarkerFactory.java
* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/spi/MarkerFactoryBinder.java
* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/helpers/NamedLoggerBase.java
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* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/spi/LoggerFactoryBinder.java
* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/LoggerFactory.java
* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/impl/StaticMarkerBinder.java
* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/helpers/NOPLogger.java
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* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/spi/MDCAdapter.java
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* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/MarkerFactory.java
* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/helpers/BasicMDCAdapter.java
* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/Marker.java
* /opt/cola/permits/1258888650_1643119925.96/0/slf4j-api-1-7-32-sources-jar/org/slf4j/IMarkerFactory.java

1.204 pytz 2022.2.1

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1.205 libxml2 2.9.4

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* hash.c: chained hash tables
*
* Reference: Your favorite introductory book on algorithms

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1.206 glibc 2.17-326.el7_9

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b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

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For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

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6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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1.207 lzo 2.09

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1.210 csrp 1.0

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1.211 libpng 1.6.38

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1.216 jaxrs-api 2.2.1.GA

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1.222 commons-codec 1.11

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1.223 sqlite 3.37.2

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Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards

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```
/* nicstar.c  v0.22  Jawaid Bazyar (bazyar@hypermall.com)
* nicstar.c, M. Welsh (matt.welsh@cl.cam.ac.uk)
*
* Hacked October, 1997 by Jawaid Bazyar, Interlink Advertising Services Inc.
*  http://www.hypermall.com/
* 10/1/97 - commented out CFG_PHYIE bit - we don't care when the PHY
* interrupts us (except possibly for removal/insertion of the cable?)
* 10/4/97 - began heavy inline documentation of the code. Corrected typos
* and spelling mistakes.
* 10/5/97 - added code to handle PHY interrupts, disable PHY on
* loss of link, and correctly re-enable PHY when link is
* re-established. (put back CFG_PHYIE)
*
*   Modified to work with the IDT7721 nicstar -- AAL5 (tested) only.
*
* R. D. Rechenmacher <ron@fnal.gov>, Aug. 6, 1997
*
* Linux driver for the IDT77201 NICStAR PCI ATM controller.
* PHY component is expected to be 155 Mbps S/UNI-Lite or IDT 77155;
* see init_nicstar() for PHY initialization to change this. This driver
* expects the Linux ATM stack to support scatter-gather lists
* (skb->atm.iovcnt != 0) for Rx skb's passed to vcc->push.
*
* Implementing minimal-copy of received data:
*   IDT always receives data into a small buffer, then large buffers
*     as needed. This means that data must always be copied to create
*     the linear buffer needed by most non-ATM protocol stacks (e.g. IP)
*     Fix is simple: make large buffers large enough to hold entire
*     SDU, and leave <small_buffer_data> bytes empty at the start. Then
*     copy small buffer contents to head of large buffer.
*   Trick is to avoid fragmenting Linux, due to need for a lot of large
*     buffers. This is done by 2 things:
*       1) skb->destructor / skb->atm.recycle_buffer
*            combined, allow nicstar_free_rx_skb to be called to
*            recycle large data buffers
```

```
*       2) skb_clone of received buffers
*    See nicstar_free_rx_skb and linearize_buffer for implementation
*     details.
*
*
*
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*
* M. Welsh, 6 July 1996
*
*
*/
```

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(in case you are wondering where CyberLogin is, EON changed its login
procedure and CyberLogin is no longer used.)

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Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands
as a successor of a language called ABC. Guido remains Python's
principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for
National Research Initiatives (CNRI, see http://www.cnri.reston.va.us)
in Reston, Virginia where he released several versions of the
software.

In May 2000, Guido and the Python core development team moved to
BeOpen.com to form the BeOpen PythonLabs team. In October of the same
year, the PythonLabs team moved to Digital Creations (now Zope
Corporation, see http://www.zope.com). In 2001, the Python Software
Foundation (PSF, see http://www.python.org/psf/) was formed, a

non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

All Python releases are Open Source (see http://www.opensource.org for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes

Footnotes:

(1) GPL-compatible doesn't mean that we're distributing Python under the GPL. All Python licenses, unlike the GPL, let you distribute a modified version without making your changes open source. The GPL-compatible licenses make it possible to combine Python with other software that is released under the GPL; the others don't.

(2) According to Richard Stallman, 1.6.1 is not GPL-compatible, because its license has a choice of law clause. According to CNRI, however, Stallman's lawyer has told CNRI's lawyer that 1.6.1 is "not incompatible" with the GPL.

Thanks to the many outside volunteers who have worked under Guido's direction to make these releases possible.

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1.228 dosfs-tools 3.0.28

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1.229 commons-compress 1.22

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Python library for Apache Arrow

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This library provides a Python API for functionality provided by the Arrow C++
libraries, along with tools for Arrow integration and interoperability with

pandas, NumPy, and other software in the Python ecosystem.

Installing

Across platforms, you can install a recent version of pyarrow with the conda
package manager:

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On Linux, macOS, and Windows, you can also install binary wheels from PyPI with
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pip install pyarrow
```

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Development

See [Python Development][2] in the documentation subproject.

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See [documentation build instructions][1] in the documentation subproject.

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The ORC and JSON files come from the `examples` directory in the Apache ORC
source tree:
https://github.com/apache/orc/tree/master/examples

Found in path(s):
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/data/orc/README.md
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/cmake_modules/san-config.cmake
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/array.pxi
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/_hdfs.pyx
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/cffi.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/test_dataset.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/_plasma.pyx
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/test_cuda_numba_interop.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/test_strategies.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/read_record_batch.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/_orc.pyx
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/cmake_modules/FindRapidJSONAlt.cmake
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/vendored/__init__.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/cmake_modules/FindArrow.cmake
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/test_builder.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/test_json.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/pandas_compat.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/_csv.pyx
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/parquet/encryption.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/test_scalars.py
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/lib.pxd
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/test_memory.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/bound_function_visit_strings.pyx
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/includes/libarrow_cuda.pxd
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/_parquet_encryption.pyx
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/compute.py
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/_parquet_encryption.pxd

* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/test_flight.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/cmake_modules/FindArrowPythonFlight.cmake
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/test_plasma_tf_op.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/parquet/test_parquet_file.py
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/cmake_modules/FindArrowCUDA.cmake
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/pandas_examples.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/test_fs.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/cmake_modules/FindArrowFlight.cmake
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/test_compute.py
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/_dataset.pyx
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/_compute.pxd
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/test_plasma.py

* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/cmake_modules/FindArrowFlightSql.cmake
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/strategies.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/parquet/test_pandas.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/benchmark.pxi
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/_flight.pyx
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/parquet/test_compliant_nested_type.py
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/error.pxi
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/ipc.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/parquet/test_basic.py
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/parquet/conftest.py
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* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/orc.py
* /opt/cola/permits/1358168517_1687432561.5156896/0/pyarrow-8-0-0-tar-gz/pyarrow-8.0.0/pyarrow/tests/parquet/test_data_types.py
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1.232 tomcat-websocket 9.0.74

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1.235 tdb 1.43

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1.237 ipcalc 0.2.0

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1.240 libpcap 1.9.1

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If you've contributed to gas and your name isn't listed here, it is
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nickc@redhat.com and I'll correct the situation.

This file will eventually be deleted: The general info will go into

the documentation, and info on specific files will go into an AUTHORS
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++++++++++++++++

Dean Elsner wrote the original gas for vax. [more details?]

Jay Fenlason maintained gas for a while, adding support for
gdb-specific debug information and the 68k series machines, most of
the preprocessing pass, and extensive changes in messages.c,
input-file.c, write.c.

K. Richard Pixley maintained gas for a while, adding various
enhancements and many bug fixes, including merging support for several
processors, breaking gas up to handle multiple object file format
backends (including heavy rewrite, testing, an integration of the coff
and b.out backends), adding configuration including heavy testing and
verification of cross assemblers and file splits and renaming,
converted gas to strictly ansi C including full prototypes, added
support for m680[34]0 & cpu32, considerable work on i960 including a
coff port (including considerable amounts of reverse engineering), a
sparc opcode file rewrite, decstation, rs6000, and hp300hpux host
ports, updated "know" assertions and made them work, much other
reorganization, cleanup, and lint.

Ken Raeburn wrote the high-level BFD interface code to replace most of
the code in format-specific I/O modules.

The original Vax-VMS support was contributed by David L. Kashtan.
Eric Youngdale and Pat Rankin have done much work with it since.

The Intel 80386 machine description was written by Eliot Dresselhaus.

Minh Tran-Le at IntelliCorp contributed some AIX 386 support.

The Motorola 88k machine description was contributed by Devon Bowen of
Buffalo University and Torbjorn Granlund of the Swedish Institute of
Computer Science.

Keith Knowles at the Open Software Foundation wrote the original MIPS
back end (tc-mips.c, tc-mips.h), and contributed Rose format support
that hasn't been merged in yet. Ralph Campbell worked with the MIPS
code to support a.out format.

Support for the Zilog Z8k and Hitachi H8/300, H8/500 and SH processors
(tc-z8k, tc-h8300, tc-h8500, tc-sh), and IEEE 695 object file format
(obj-ieee), was written by Steve Chamberlain of Cygnus Solutions.
Steve also modified the COFF back end (obj-coffbfd) to use BFD for

some low-level operations, for use with the Hitachi, 29k and Zilog targets.

John Gilmore built the AMD 29000 support, added .include support, and simplified the configuration of which versions accept which pseudo-ops. He updated the 68k machine description so that Motorola's opcodes always produced fixed-size instructions (e.g. jsr), while synthetic instructions remained shrinkable (jbsr). John fixed many bugs, including true tested cross-compilation support, and one bug in relaxation that took a week and required the proverbial one-bit fix.

Ian Lance Taylor of Cygnus Solutions merged the Motorola and MIT syntaxes for the 68k, completed support for some COFF targets (68k, i386 SVR3, and SCO Unix), wrote the ECOFF support based on Michael Meissner's mips-tfile program, wrote the PowerPC and RS/6000 support, and made a few other minor patches. He handled the binutils releases for versions 2.7 through 2.9.

David Edelsohn contributed fixes for the PowerPC and AIX support.

Steve Chamberlain made gas able to generate listings.

Support for the HP9000/300 was contributed by Glenn Engel of HP.

Support for ELF format files has been worked on by Mark Eichin of Cygnus Solutions (original, incomplete implementation), Pete Hoogenboom at the University of Utah (HPPA mainly), Michael Meissner of the Open Software Foundation (i386 mainly), and Ken Raeburn of Cygnus Solutions (sparc, initial 64-bit support).

Several engineers at Cygnus Solutions have also provided many small bug fixes and configuration enhancements.

The initial Alpha support was contributed by Carnegie-Mellon University. Additional work was done by Ken Raeburn of Cygnus Solutions. Richard Henderson then rewrote much of the Alpha support.

Ian Dall updated the support code for the National Semiconductor 32000 series, and added support for Mach 3 and NetBSD running on the PC532.

Klaus Kaempf ported the assembler and the binutils to openVMS/Alpha.

Steve Haworth contributed the support for the Texas Instruction c30 (tms320c30).

H.J. Lu has contributed many patches and much testing.

Alan Modra reworked much of the i386 backend, improving the error

checking, updating the code, and improving the 16 bit support, using
patches from the work of Martynas Kunigelis and H.J. Lu.

Many others have contributed large or small bugfixes and enhancements. If
you've contributed significant work and are not mentioned on this list, and
want to be, let us know. Some of the history has been lost; we aren't
intentionally leaving anyone out.

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1.242 tomcat-jdbc 9.0.74

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src/arc4random_uniform.c
src/arc4random_unix.h
src/arc4random_win.h
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src/getentropy_aix.c
src/getentropy_bsd.c
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1.244 gdb 7.6.1-120.el7

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

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b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

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In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated

straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

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2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of

its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form

under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies

the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

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a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

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Preamble

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To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library, or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link a program with the library, you must provide complete object files to the recipients so that they can relink them with the library, after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

Our method of protecting your rights has two steps: (1) copyright the library, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the library.

Also, for each distributor's protection, we want to make certain that everyone understands that there is no warranty for this free library. If the library is modified by someone else and passed on, we want its recipients to know that what they have is not the original version, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that companies distributing free software will individually obtain patent licenses, thus in effect transforming the program into proprietary software. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

Most GNU software, including some libraries, is covered by the ordinary

GNU General Public License, which was designed for utility programs. This license, the GNU Library General Public License, applies to certain designated libraries. This license is quite different from the ordinary one; be sure to read it in full, and don't assume that anything in it is the same as in the ordinary license.

The reason we have a separate public license for some libraries is that they blur the distinction we usually make between modifying or adding to a program and simply using it. Linking a program with a library, without changing the library, is in some sense simply using the library, and is analogous to running a utility program or application program. However, in a textual and legal sense, the linked executable is a combined work, a derivative of the original library, and the ordinary General Public License treats it as such.

Because of this blurred distinction, using the ordinary General Public License for libraries did not effectively promote software sharing, because most developers did not use the libraries. We concluded that weaker conditions might promote sharing better.

However, unrestricted linking of non-free programs would deprive the users of those programs of all benefit from the free status of the libraries themselves. This Library General Public License is intended to permit developers of non-free programs to use free libraries, while preserving your freedom as a user of such programs to change the free libraries that are incorporated in them. (We have not seen how to achieve this as regards changes in header files, but we have achieved it as regards changes in the actual functions of the Library.) The hope is that this will lead to faster development of free libraries.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, while the latter only works together with the library.

Note that it is possible for a library to be covered by the ordinary General Public License rather than by this special one.

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.

b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.

c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6.

Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on

which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

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@page
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1.249 activation 1.1

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1.254 pcre 8.38

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1.256 rsync 3.1.2

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1.257 python-setuptools 63.2.0

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1.259 nest-asyncio 1.5.5

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1.262 mysql-jdbc 5.1.6

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1.264 jaxb-core 2.1.3

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* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/v2/util/EditDistance.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/annotation/XmlAttribute.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/annotation/XmlElement.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/StartTag.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/marshaller/NioEscapeHandler.java
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* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/marshaller/CharacterEscapeHandler.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/StartDocument.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/util/ValidationEventLocatorExImpl.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/EndDocument.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/v2/runtime/MarshallerImpl.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/v2/runtime/property/UnmarshallerChain.java

* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/Content.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/Text.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/marshaller/NamespacePrefixMapper.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/DatatypeConverterImpl.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/marshaller/SAX2DOMEx.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/v2/runtime/XMLSerializer.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/annotation/XmlValue.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/output/XmlSerializer.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/IllegalSignatureException.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/output/StreamSerializer.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/annotation/XmlNamespace.java
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* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/v2/runtime/unmarshaller/WildcardLoader.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/TXW.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/WhiteSpaceProcessor.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/output/ResultFactory.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/Locatable.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/unmarshaller/Messages.java
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* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/Attribute.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/v2/runtime/unmarshaller/ValidatingUnmarshaller.java
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* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/v2/runtime/BinderImpl.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/v2/runtime/JAXBContextImpl.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/v2/schemagen/Util.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/NamespaceResolver.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/util/Which.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/AccessorFactoryImpl.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/v2/runtime/unmarshaller/Discarder.java
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* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/output/StaxSerializer.java
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* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/unmarshaller/InfosetScanner.java
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* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/v2/runtime/AssociationMap.java
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/v2/WellKnownNamespace.java
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jar/com/sun/xml/txw2/Pcdata.java
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* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/output/DumbEscapeHandler.java
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*/
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/**
* Default implementation of the Attributes interface.
*
* <blockquote>
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* Public Domain, and comes with <strong>NO WARRANTY</strong>.</em>
* See <a href='http://www.saxproject.org'>http://www.saxproject.org</a>
* for further information.
* </blockquote>
*
* <p>This class provides a default implementation of the SAX2
* {@link org.xml.sax.Attributes Attributes} interface, with the
* addition of manipulators so that the list can be modified or
* reused.</p>
*
* <p>There are two typical uses of this class:</p>
*
* <ol>
* <li>to take a persistent snapshot of an Attributes object
*  in a {@link org.xml.sax.ContentHandler#startElement startElement} event; or</li>
* <li>to construct or modify an Attributes object in a SAX2 driver or filter.</li>
* </ol>
*
* <p>This class replaces the now-deprecated SAX1 {@link
* org.xml.sax.helpers.AttributeListImpl AttributeListImpl}
* class; in addition to supporting the updated Attributes
* interface rather than the deprecated {@link org.xml.sax.AttributeList
* AttributeList} interface, it also includes a much more efficient
* implementation using a single array rather than a set of Vectors.</p>
*
* @since JAXB1.0
* @since SAX 2.0
* @author David Megginson
```

* @version 2.0.1 (sax2r2)
*/

Found in path(s):
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/util/AttributesImpl.java
No license file was found, but licenses were detected in source scan.

/* $Id: StAXEventConnector.java,v 1.6 2006/07/21 21:12:19 kohsuke Exp $
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* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/v2/runtime/unmarshaller/StAXEventConnector.java
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/**

```
   * Sets the int[] data to this object.
   *
   * <p>
   * This method doesn't make a copy for a performance reason.
   * The caller is still free to modify the array it passed to this method,
   * but he should do so with a care. The unmarshalling code isn't expecting
   * the value to be changed while it's being routed.
   */
```

Found in path(s):
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/v2/runtime/unmarshaller/IntArrayData.java
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*/
```

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* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/bind/AccessorFactory.java
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```
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* own identifying information: Portions Copyright [yyyy]
* [name of copyright owner]
*/
// This class is in the Public Domain.  NO WARRANTY!
/**
* Encapsulate Namespace logic for use by applications using SAX,
* or internally by SAX drivers.
*
* <blockquote>
* <em>This module, both source code and documentation, is in the
* Public Domain, and comes with <strong>NO WARRANTY</strong>.</em>
* See <a href='http://www.saxproject.org'>http://www.saxproject.org</a>
* for further information.
* </blockquote>
*
* <p>This class encapsulates the logic of Namespace processing: it
* tracks the declarations currently in force for each context and
* automatically processes qualified XML names into their Namespace
* parts; it can also be used in reverse for generating XML qnames
* from Namespaces.</p>
*
* <p>Namespace support objects are reusable, but the reset method
* must be invoked between each session.</p>
*
* <p>Here is a simple session:</p>
*
* <pre>
* String parts[] = new String[3];
* NamespaceSupport support = new NamespaceSupport();
*
* support.pushContext();
* support.declarePrefix("", "http://www.w3.org/1999/xhtml");
* support.declarePrefix("dc", "http://www.purl.org/dc#");
*
* parts = support.processName("p", parts, false);
* System.out.println("Namespace URI: " + parts[0]);
* System.out.println("Local name: " + parts[1]);
* System.out.println("Raw name: " + parts[2]);
*
* parts = support.processName("dc:title", parts, false);
* System.out.println("Namespace URI: " + parts[0]);
```

```
* System.out.println("Local name: " + parts[1]);
* System.out.println("Raw name: " + parts[2]);
*
* support.popContext();
* </pre>
*
* <p>Note that this class is optimized for the use case where most
* elements do not contain Namespace declarations: if the same
* prefix/URI mapping is repeated for each context (for example), this
* class will be somewhat less efficient.</p>
*
* <p>Although SAX drivers (parsers) may choose to use this class to
* implement namespace handling, they are not required to do so.
* Applications must track namespace information themselves if they
* want to use namespace information.
*
* @since SAX 2.0
* @author David Megginson
* @version 2.0.1 (sax2r2)
*/
```

Found in path(s):
* /opt/cola/permits/1019719965_1687434878.6136558/0/jaxb-impl-2-1-3-sources-jar/com/sun/xml/txw2/NamespaceSupport.java

1.265 fast-infoset 1.2.10

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```

```
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*
* $Header:
/zpool01/javanet/scm/svn/tmp/cvs2svn/fi/FastInfoset/src/com/sun/xml/fastinfoset/AbstractResourceBundle.java,v
1.3.2.4 2009-05-13 08:53:01 oleksiys Exp $
*/
```

Found in path(s):
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/AbstractResourceBundle.java
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* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/sax/SAXDocumentSerializerWithPrefixMapping.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/tools/XML_SAX_FI.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/tools/FI_SAX_Or_XML_SAX_SAXEvent.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/DecoderStateTables.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/CharactersEvent.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/dom/DOMDocumentSerializer.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-

jar/com/sun/xml/fastinfoset/stax/factory/StAXInputFactory.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/ProcessingInstructionEvent.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/AttributeBase.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/util/StringIntMap.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/StartDocumentEvent.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/org/jvnet/fastinfoset/sax/helpers/FastInfosetDefaultHandler.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/org/jvnet/fastinfoset/stax/FastInfosetStreamReader.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/NamespaceBase.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/util/ContiguousCharArrayArray.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/DTDEvent.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/vocab/SerializerVocabulary.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/tools/PrintTable.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/org/jvnet/fastinfoset/sax/FastInfosetWriter.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/org/jvnet/fastinfoset/stax/LowLevelFastInfosetStreamWriter.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/Util.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/org/jvnet/fastinfoset/VocabularyApplicationData.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/util/ValueArrayResourceException.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/org/jvnet/fastinfoset/sax/EncodingAlgorithmContentHandler.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/sax/Properties.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/org/jvnet/fastinfoset/sax/PrimitiveTypeContentHandler.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/tools/XML_DOM_SAX_FI.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/factory/StAXEventFactory.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/sax/AttributesHolder.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/util/PrefixArray.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-

jar/com/sun/xml/fastinfoset/tools/XML_SAX_StAX_FI.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/org/jvnet/fastinfoset/RestrictedAlphabet.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/util/NamespaceContextImplementation.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/EventBase.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/tools/FI_SAX_Or_XML_SAX_DOM_SAX_SAXEvent.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/tools/StAX2SAXReader.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/UnparsedEntity.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/EmptyIterator.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/util/LocalNameQualifiedNamesMap.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/org/jvnet/fastinfoset/FastInfosetSerializer.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/sax/Features.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/EntityReferenceEvent.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/org/jvnet/fastinfoset/sax/helpers/EncodingAlgorithmAttributesImpl.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/ReadIterator.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/tools/FI_DOM_Or_XML_DOM_SAX_SAXEvent.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/factory/StAXOutputFactory.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/algorithm/IEEE754FloatingPointEncodingAlgorithm.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/dom/DOMDocumentParser.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/org/jvnet/fastinfoset/FastInfosetResult.java
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* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/util/FixedEntryStringIntMap.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/Decoder.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/algorithm/BuiltInEncodingAlgorithmState.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/XMLConstants.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-

jar/com/sun/xml/fastinfoset/alphabet/BuiltInRestrictedAlphabets.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/EndDocumentEvent.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/util/CharArrayArray.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/algorithm/BuiltInEncodingAlgorithmFactory.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/algorithm/BuiltInEncodingAlgorithm.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/util/QualifiedNameArray.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/EncodingConstants.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/EventLocation.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/algorithm/BooleanEncodingAlgorithm.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/tools/SAX2StAXWriter.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/org/jvnet/fastinfoset/sax/ExtendedContentHandler.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/StAXEventReader.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/util/KeyIntMap.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/algorithm/ShortEncodingAlgorithm.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/StAXEventAllocatorBase.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/algorithm/FloatEncodingAlgorithm.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/EntityDeclarationImpl.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/util/ValueArray.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/CommonResourceBundle.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/sax/SystemIdResolver.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/algorithm/UUIDEncodingAlgorithm.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/org/jvnet/fastinfoset/EncodingAlgorithmException.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/tools/XML_DOM_FI.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/algorithm/DoubleEncodingAlgorithm.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-

jar/com/sun/xml/fastinfoset/algorithm/LongEncodingAlgorithm.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/tools/FI_SAX_XML.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/org/jvnet/fastinfoset/EncodingAlgorithm.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/sax/SAXDocumentParser.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/vocab/Vocabulary.java
* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/OctetBufferListener.java
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* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/tools/FI_StAX_SAX_Or_XML_SAX_SAXEvent.java
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* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/EndElementEvent.java
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* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/stax/events/StAXFilteredEvent.java
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*/
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* /opt/cola/permits/1257713390_1642995715.72/0/fastinfoset-1-2-10-sources-jar/com/sun/xml/fastinfoset/org/apache/xerces/util/XMLChar.java

1.266 protobuf 3.19.4

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1.267 libvmtools 11.0.5.17716

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>>> freebsd-base64-4.8
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>>> freebsd-base64-4.8

base64.c -- routines to encode/decode base64 data
$OpenLDAP: pkg/ldap/libraries/liblutil/base64.c,v 1.15 2006/01/03 22:12:11 kurt Exp $ /
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>>> unicode-5.0

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1.268 slf4j 1.7.30

1.268.1 Available under license :

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Found in path(s):
* /opt/cola/permits/1512023582_1671282538.4353569/0/slf4j-api-1-7-30-sources-jar/org/slf4j/helpers/BasicMarkerFactory.java
* /opt/cola/permits/1512023582_1671282538.4353569/0/slf4j-api-1-7-30-sources-jar/org/slf4j/spi/LocationAwareLogger.java
* /opt/cola/permits/1512023582_1671282538.4353569/0/slf4j-api-1-7-30-sources-jar/org/slf4j/impl/StaticLoggerBinder.java
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* /opt/cola/permits/1512023582_1671282538.4353569/0/slf4j-api-1-7-30-sources-jar/org/slf4j/impl/StaticMDCBinder.java
* /opt/cola/permits/1512023582_1671282538.4353569/0/slf4j-api-1-7-30-sources-jar/org/slf4j/ILoggerFactory.java
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jar/org/slf4j/helpers/FormattingTuple.java
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* /opt/cola/permits/1512023582_1671282538.4353569/0/slf4j-api-1-7-30-sources-jar/org/slf4j/helpers/SubstituteLogger.java
* /opt/cola/permits/1512023582_1671282538.4353569/0/slf4j-api-1-7-30-sources-jar/org/slf4j/spi/MarkerFactoryBinder.java

1.269 gnutls 3.4.9

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version 0.1
##
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64437c8/include/yajl/yajl_parse.h
* /opt/cola/permits/1723834055_1687183247.6822069/0/dcm-spice-yajl-2-1-0-0-g88d7964-tar-gz/dcm-spice-yajl-64437c8/include/yajl/yajl_common.h
* /opt/cola/permits/1723834055_1687183247.6822069/0/dcm-spice-yajl-2-1-0-0-g88d7964-tar-gz/dcm-spice-yajl-64437c8/include/yajl/yajl_gen.h
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1.271 expat 2.4.9

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1.272 charset-normalizer 2.0.12

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* /opt/cola/permits/1615335858_1681857281.8131983/0/tape-1-2-3-sources-1-jar/com/squareup/tape/QueueFile.java

1.274 jsonschema 4.16.0

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1.275 nbformat 5.5.0

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darkgreen
deepskyblue4
deepskyblue4a

deepskyblue4b
dodgerblue3
dodgerblue2
green4
springgreen4
turquoise4
deepskyblue3
deepskyblue3a
dodgerblue1
green3
springgreen3
darkcyan
lightseagreen
deepskyblue2
deepskyblue1
green3a
springgreen3a
springgreen2
cyan3
darkturquoise
turquoise2
green1
springgreen2a
springgreen1
mediumspringgreen
cyan2
cyan1
darkred
deeppink4
purple4
purple4a
purple3
blueviolet
orange4
grey37
mediumpurple4
slateblue3
slateblue3a
royalblue1
chartreuse4
darkseagreen4
paleturquoise4
steelblue
steelblue3
cornflowerblue
chartreuse3
darkseagreen4a
cadetblue

cadetbluea
skyblue3
steelblue1
chartreuse3a
palegreen3
seagreen3
aquamarine3
mediumturquoise
steelblue1a
chartreuse2
seagreen2
seagreen1
seagreen1a
aquamarine1
darkslategray2
darkreda
deeppink4a
darkmagenta
darkmagentaa
darkviolet
purplea
orange4a
lightpink4
plum4
mediumpurple3
mediumpurple3a
slateblue1
yellow4
wheat4
grey53
lightslategrey
mediumpurple
lightslateblue
yellow4a
darkolivegreen3
darkseagreen
lightskyblue3
lightskyblue3a
skyblue2
chartreuse2a
darkolivegreen3a
palegreen3a
darkseagreen3
darkslategray3
skyblue1
chartreuse1
lightgreen
lightgreena

palegreen1
aquamarine1a
darkslategray1
red3
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magenta3
darkvioleta
purpleb
darkorange3
indianred
hotpink3
mediumorchid3
mediumorchid
mediumpurple2
darkgoldenrod
lightsalmon3
rosybrown
grey63
mediumpurple2a
mediumpurple1
gold3
darkkhaki
navajowhite3
grey69
lightsteelblue3
lightsteelblue
yellow3
darkolivegreen3b
darkseagreen3a
darkseagreen2
lightcyan3
lightskyblue1
greenyellow
darkolivegreen2
palegreen1a
darkseagreen2a
darkseagreen1
paleturquoise1
red3a
deeppink3
deeppink3a
magenta3a
magenta3b
magenta2
darkorange3a
indianreda
hotpink3a

hotpink2
orchid
mediumorchid1
orange3
lightsalmon3a
lightpink3
pink3
plum3
violet
gold3a
lightgoldenrod3
tan
mistyrose3
thistle3
plum2
yellow3a
khaki3
lightgoldenrod2
lightyellow3
grey84
lightsteelblue1
yellow2
darkolivegreen1
darkolivegreen1a
darkseagreen1a
honeydew2
lightcyan1
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deeppink2
deeppink1
deeppink1a
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magenta1
orangered1
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indianred1a
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palevioletred1
orchid2
orchid1
orange1
sandybrown
lightsalmon1

lightpink1
pink1
plum1
gold1
lightgoldenrod2a
lightgoldenrod2b
navajowhite1
mistyrose1
thistle1
yellow1
lightgoldenrod1
khaki1
wheat1
cornsilk1
grey100
grey3
grey7
grey11
grey15
grey19
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grey85
grey89
grey93

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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/colors.txt
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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/telnet/ConnectionEvent.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/telnet/ConnectionData.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/telnet/PortListener.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/telnet/ConnectionManager.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/telnet/TelnetIO.java
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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/impl/completer/FileNameCompleter.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/Colors.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/PosixSysTerminal.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/style/StyleFactory.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/LineDisciplineTerminal.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/NonBlockingInputStream.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/style/StyleSource.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/Terminal.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/MaskingCallback.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/DumbTerminal.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/NonBlocking.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/style/Styler.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/StyleResolver.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/ParsedLine.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/Curses.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/CompletingParsedLine.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/InputRC.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jna/win/Kernel32.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/NonBlockingReaderImpl.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/impl/KillRing.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/NfaMatcher.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/keymap/BindingReader.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/Size.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/History.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/Completer.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/PosixPtyTerminal.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/style/StyleExpression.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/NonBlockingReader.java

* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/ExternalTerminal.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/AttributedStringBuilder.java
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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jansi/win/WindowsAnsiWriter.java
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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jna/solaris/SolarisNativePty.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/ScriptEngine.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/ColorPalette.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jansi/JansiNativePty.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/widget/Widgets.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/Parser.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/ConsoleOptionGetter.java

* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/Signals.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/CmdLine.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jna/JnaNativePty.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/widget/AutosuggestionWidgets.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jansi/win/JansiWinSysTerminal.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/impl/ReaderUtils.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/ConsoleEngine.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/impl/Builtins.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/Less.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/impl/DefaultParser.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/LineReaderBuilder.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/CmdDesc.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/spi/JnaSupport.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/CommandRegistry.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/widget/AutopairWidgets.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jna/solaris/CLibrary.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/CommandMethods.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/CompletionMatcher.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/Log.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jna/win/JnaWinSysTerminal.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/impl/AbstractCommandRegistry.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jna/osx/CLibrary.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/EndOfFileException.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/spi/JansiSupport.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/Display.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jna/freebsd/CLibrary.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jna/linux/CLibrary.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jna/freebsd/FreeBsdNativePty.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jna/linux/LinuxNativePty.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/impl/JlineCommandRegistry.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jna/JnaSupportImpl.java

* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jna/osx/OsXNativePty.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/CommandInput.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/impl/completer/SystemCompleter.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jansi/JansiSupportImpl.java
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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/impl/SystemHighlighter.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/impl/ConsoleEngineImpl.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/impl/SystemRegistryImpl.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/impl/history/DefaultHistory.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/TerminalBuilder.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/Nano.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/Completers.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/ArgDesc.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/impl/LineReaderImpl.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/AbstractTerminal.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/LineReader.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/impl/DefaultHighlighter.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/Commands.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/Printer.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/SystemRegistry.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/console/impl/DefaultPrinter.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/impl/CompletionMatcherImpl.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/PrintAboveWriter.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/TTop.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/AttributedCharSequence.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/AttributedStyle.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/Styles.java
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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/META-

INF/maven/org.jline/jline/pom.xml
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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/META-INF/maven/org.jline/jline-terminal/pom.xml
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/META-INF/maven/org.jline/jline-remote-ssh/pom.xml
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/META-INF/maven/org.jline/jline-terminal-jansi/pom.xml
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/META-INF/maven/org.jline/jline-style/pom.xml
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/META-INF/maven/org.jline/jline-builtins/pom.xml
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/META-INF/maven/org.jline/jline-terminal-jna/pom.xml
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/META-INF/maven/org.jline/jline-remote-telnet/pom.xml
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/META-INF/maven/org.jline/jline-reader/pom.xml
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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/EOFError.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/SyntaxError.java
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jar/org/jline/builtins/telnet/ConnectionListener.java
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auto_left_margin, bw, bw
auto_right_margin, am, am
back_color_erase, bce, ut
can_change, ccc, cc
ceol_standout_glitch, xhp, xs
col_addr_glitch, xhpa, YA
cpi_changes_res, cpix, YF
cr_cancels_micro_mode, crxm, YB
dest_tabs_magic_smso, xt, xt
eat_newline_glitch, xenl, xn
erase_overstrike, eo, eo
generic_type, gn, gn
hard_copy, hc, hc
hard_cursor, chts, HC
has_meta_key, km, km
has_print_wheel, daisy, YC
has_status_line, hs, hs
hue_lightness_saturation, hls, hl
insert_null_glitch, in, in
lpi_changes_res, lpix, YG
memory_above, da, da
memory_below, db, db
move_insert_mode, mir, mi
move_standout_mode, msgr, ms
needs_xon_xoff, nxon, nx
no_esc_ctlc, xsb, xb
no_pad_char, npc, NP
non_dest_scroll_region, ndscr, ND
non_rev_rmcup, nrrmc, NR
over_strike, os, os
prtr_silent, mc5i, 5i
row_addr_glitch, xvpa, YD
semi_auto_right_margin, sam, YE
status_line_esc_ok, eslok, es

tilde_glitch, hz, hz
transparent_underline, ul, ul
xon_xoff, xon, xo
columns, cols, co
init_tabs, it, it
label_height, lh, lh
label_width, lw, lw
lines, lines, li
lines_of_memory, lm, lm
magic_cookie_glitch, xmc, sg
max_attributes, ma, ma
max_colors, colors, Co
max_pairs, pairs, pa
maximum_windows, wnum, MW
no_color_video, ncv, NC
num_labels, nlab, Nl
padding_baud_rate, pb, pb
virtual_terminal, vt, vt
width_status_line, wsl, ws
bit_image_entwining, bitwin, Yo
bit_image_type, bitype, Yp
buffer_capacity, bufsz, Ya
buttons, btns, BT
dot_horz_spacing, spinh, Yc
dot_vert_spacing, spinv, Yb
max_micro_address, maddr, Yd
max_micro_jump, mjump, Ye
micro_col_size, mcs, Yf
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number_of_pins, npins, Yh
output_res_char, orc, Yi
output_res_horz_inch, orhi, Yk
output_res_line, orl, Yj
output_res_vert_inch, orvi, Yl
print_rate, cps, Ym
wide_char_size, widcs, Yn
acs_chars, acsc, ac
back_tab, cbt, bt
bell, bel, bl
carriage_return, cr, cr
change_char_pitch, cpi, ZA
change_line_pitch, lpi, ZB
change_res_horz, chr, ZC
change_res_vert, cvr, ZD
change_scroll_region, csr, cs
char_padding, rmp, rP
clear_all_tabs, tbc, ct
clear_margins, mgc, MC

clear_screen, clear, cl
clr_bol, el1, cb
clr_eol, el, ce
clr_eos, ed, cd
column_address, hpa, ch
command_character, cmdch, CC
create_window, cwin, CW
cursor_address, cup, cm
cursor_down, cud1, do
cursor_home, home, ho
cursor_invisible, civis, vi
cursor_left, cub1, le
cursor_mem_address, mrcup, CM
cursor_normal, cnorm, ve
cursor_right, cuf1, nd
cursor_to_ll, ll, ll
cursor_up, cuu1, up
cursor_visible, cvvis, vs
define_char, defc, ZE
delete_character, dch1, dc
delete_line, dl1, dl
dial_phone, dial, DI
dis_status_line, dsl, ds
display_clock, dclk, DK
down_half_line, hd, hd
ena_acs, enacs, eA
enter_alt_charset_mode, smacs, as
enter_am_mode, smam, SA
enter_blink_mode, blink, mb
enter_bold_mode, bold, md
enter_ca_mode, smcup, ti
enter_delete_mode, smdc, dm
enter_dim_mode, dim, mh
enter_doublewide_mode, swidm, ZF
enter_draft_quality, sdrfq, ZG
enter_insert_mode, smir, im
enter_italics_mode, sitm, ZH
enter_leftward_mode, slm, ZI
enter_micro_mode, smicm, ZJ
enter_near_letter_quality, snlq, ZK
enter_normal_quality, snrmq, ZL
enter_protected_mode, prot, mp
enter_reverse_mode, rev, mr
enter_secure_mode, invis, mk
enter_shadow_mode, sshm, ZM
enter_standout_mode, smso, so
enter_subscript_mode, ssubm, ZN
enter_superscript_mode, ssupm, ZO

enter_underline_mode, smul, us
enter_upward_mode, sum, ZP
enter_xon_mode, smxon, SX
erase_chars, ech, ec
exit_alt_charset_mode, rmacs, ae
exit_am_mode, rmam, RA
exit_attribute_mode, sgr0, me
exit_ca_mode, rmcup, te
exit_delete_mode, rmdc, ed
exit_doublewide_mode, rwidm, ZQ
exit_insert_mode, rmir, ei
exit_italics_mode, ritm, ZR
exit_leftward_mode, rlm, ZS
exit_micro_mode, rmicm, ZT
exit_shadow_mode, rshm, ZU
exit_standout_mode, rmso, se
exit_subscript_mode, rsubm, ZV
exit_superscript_mode, rsupm, ZW
exit_underline_mode, rmul, ue
exit_upward_mode, rum, ZX
exit_xon_mode, rmxon, RX
fixed_pause, pause, PA
flash_hook, hook, fh
flash_screen, flash, vb
form_feed, ff, ff
from_status_line, fsl, fs
goto_window, wingo, WG
hangup, hup, HU
init_1string, is1, i1
init_2string, is2, is
init_3string, is3, i3
init_file, if, if
init_prog, iprog, iP
initialize_color, initc, Ic
initialize_pair, initp, Ip
insert_character, ich1, ic
insert_line, il1, al
insert_padding, ip, ip
key_a1, ka1, K1
key_a3, ka3, K3
key_b2, kb2, K2
key_backspace, kbs, kb
key_beg, kbeg, @1
key_btab, kcbt, kB
key_c1, kc1, K4
key_c3, kc3, K5
key_cancel, kcan, @2
key_catab, ktbc, ka

key_clear, kclr, kC
key_close, kclo, @3
key_command, kcmd, @4
key_copy, kcpy, @5
key_create, kcrt, @6
key_ctab, kctab, kt
key_dc, kdch1, kD
key_dl, kdl1, kL
key_down, kcud1, kd
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key_end, kend, @7
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key_f22, kf22, FC
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key_f24, kf24, FE
key_f25, kf25, FF
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key_f27, kf27, FH
key_f28, kf28, FI
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key_f38, kf38, FS

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key_f58, kf58, Fm
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key_f6, kf6, k6
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key_f62, kf62, Fq
key_f63, kf63, Fr
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key_f8, kf8, k8
key_f9, kf9, k9
key_find, kfnd, @0
key_help, khlp, %1
key_home, khome, kh
key_ic, kich1, kI
key_il, kil1, kA
key_left, kcub1, kl
key_ll, kll, kH
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key_move, kmov, %4
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key_npage, knp, kN
key_open, kopn, %6
key_options, kopt, %7
key_ppage, kpp, kP
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key_print, kprt, %9

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key_reference, kref, &1
key_refresh, krfr, &2
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key_scommand, kCMD, *1
key_scopy, kCPY, *2
key_screate, kCRT, *3
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key_sdl, kDL, *5
key_select, kslt, *6
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key_smove, kMOV, %b
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key_soptions, kOPT, %d
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key_sprint, kPRT, %f
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key_sright, kRIT, %i
key_srsume, kRES, %j
key_ssave, kSAV, !1
key_ssuspend, kSPD, !2
key_stab, khts, kT
key_sundo, kUND, !3
key_suspend, kspd, &7
key_undo, kund, &8
key_up, kcuu1, ku
keypad_local, rmkx, ke
keypad_xmit, smkx, ks
lab_f0, lf0, l0
lab_f1, lf1, l1
lab_f10, lf10, la

lab_f2, lf2, l2
lab_f3, lf3, l3
lab_f4, lf4, l4
lab_f5, lf5, l5
lab_f6, lf6, l6
lab_f7, lf7, l7
lab_f8, lf8, l8
lab_f9, lf9, l9
label_format, fln, Lf
label_off, rmln, LF
label_on, smln, LO
meta_off, rmm, mo
meta_on, smm, mm
micro_column_address, mhpa, ZY
micro_down, mcud1, ZZ
micro_left, mcub1, Za
micro_right, mcuf1, Zb
micro_row_address, mvpa, Zc
micro_up, mcuu1, Zd
newline, nel, nw
order_of_pins, porder, Ze
orig_colors, oc, oc
orig_pair, op, op
pad_char, pad, pc
parm_dch, dch, DC
parm_delete_line, dl, DL
parm_down_cursor, cud, DO
parm_down_micro, mcud, Zf
parm_ich, ich, IC
parm_index, indn, SF
parm_insert_line, il, AL
parm_left_cursor, cub, LE
parm_left_micro, mcub, Zg
parm_right_cursor, cuf, RI
parm_right_micro, mcuf, Zh
parm_rindex, rin, SR
parm_up_cursor, cuu, UP
parm_up_micro, mcuu, Zi
pkey_key, pfkey, pk
pkey_local, pfloc, pl
pkey_xmit, pfx, px
plab_norm, pln, pn
print_screen, mc0, ps
prtr_non, mc5p, pO
prtr_off, mc4, pf
prtr_on, mc5, po
pulse, pulse, PU
quick_dial, qdial, QD

remove_clock, rmclk, RC
repeat_char, rep, rp
req_for_input, rfi, RF
reset_1string, rs1, r1
reset_2string, rs2, r2
reset_3string, rs3, r3
reset_file, rf, rf
restore_cursor, rc, rc
row_address, vpa, cv
save_cursor, sc, sc
scroll_forward, ind, sf
scroll_reverse, ri, sr
select_char_set, scs, Zj
set_attributes, sgr, sa
set_background, setb, Sb
set_bottom_margin, smgb, Zk
set_bottom_margin_parm, smgbp, Zl
set_clock, sclk, SC
set_color_pair, scp, sp
set_foreground, setf, Sf
set_left_margin, smgl, ML
set_left_margin_parm, smglp, Zm
set_right_margin, smgr, MR
set_right_margin_parm, smgrp, Zn
set_tab, hts, st
set_top_margin, smgt, Zo
set_top_margin_parm, smgtp, Zp
set_window, wind, wi
start_bit_image, sbim, Zq
start_char_set_def, scsd, Zr
stop_bit_image, rbim, Zs
stop_char_set_def, rcsd, Zt
subscript_characters, subcs, Zu
superscript_characters, supcs, Zv
tab, ht, ta
these_cause_cr, docr, Zw
to_status_line, tsl, ts
tone, tone, TO
underline_char, uc, uc
up_half_line, hu, hu
user0, u0, u0
user1, u1, u1
user2, u2, u2
user3, u3, u3
user4, u4, u4
user5, u5, u5
user6, u6, u6
user7, u7, u7

user8, u8, u8
user9, u9, u9
wait_tone, wait, WA
xoff_character, xoffc, XF
xon_character, xonc, XN
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alt_scancode_esc, scesa, S8
bit_image_carriage_return, bicr, Yv
bit_image_newline, binel, Zz
bit_image_repeat, birep, Xy
char_set_names, csnm, Zy
code_set_init, csin, ci
color_names, colornm, Yw
define_bit_image_region, defbi, Yx
device_type, devt, dv
display_pc_char, dispc, S1
end_bit_image_region, endbi, Yy
enter_pc_charset_mode, smpch, S2
enter_scancode_mode, smsc, S4
exit_pc_charset_mode, rmpch, S3
exit_scancode_mode, rmsc, S5
get_mouse, getm, Gm
key_mouse, kmous, Km
mouse_info, minfo, Mi
pc_term_options, pctrm, S6
pkey_plab, pfxl, xl
req_mouse_pos, reqmp, RQ
scancode_escape, scesc, S7
set0_des_seq, s0ds, s0
set1_des_seq, s1ds, s1
set2_des_seq, s2ds, s2
set3_des_seq, s3ds, s3
set_a_background, setab, AB
set_a_foreground, setaf, AF
set_color_band, setcolor, Yz
set_lr_margin, smglr, ML
set_page_length, slines, YZ
set_tb_margin, smgtb, MT
enter_horizontal_hl_mode, ehhlm, Xh
enter_left_hl_mode, elhlm, Xl
enter_low_hl_mode, elohlm, Xo
enter_right_hl_mode, erhlm, Xr
enter_top_hl_mode, ethlm, Xt
enter_vertical_hl_mode, evhlm, Xv
set_a_attributes, sgr1, sA
set_pglen_inch, slength, sL

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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/Buffer.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jansi/osx/OsXNativePty.java

* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jansi/freebsd/FreeBsdNativePty.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/style/StyleColor.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/ssh/Ssh.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/impl/BufferImpl.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jna/win/JnaWinConsoleWriter.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/style/InterpolationHelper.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/style/StyleResolver.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/style/StyledWriter.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/AbstractWindowsConsoleWriter.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jansi/solaris/SolarisNativePty.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/style/StyleBundle.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/style/MemoryStyleSource.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jansi/linux/LinuxNativePty.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/NonBlockingPumpReader.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/PumpReader.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/WriterOutputStream.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/style/NopStyleSource.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/NonBlockingPumpInputStream.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/ssh/ShellFactoryImpl.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/style/StyleBundleInvocationHandler.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/ssh/ShellCommand.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jansi/win/JansiWinConsoleWriter.java
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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/Reference.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/Macro.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/ExecPty.java
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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/MouseEvent.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/package-info.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/CursorSupport.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/DiffHelper.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/ExecHelper.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/impl/completer/NullCompleter.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/package-info.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/Cursor.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/package-info.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/ClosedException.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/ShutdownHooks.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/Widget.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/Binding.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/OSUtils.java
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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/impl/DefaultExpander.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/impl/UndoTree.java
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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/Attributes.java
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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/impl/completer/EnumCompleter.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/builtins/Source.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/UserInterruptException.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/jna/win/WindowsAnsiWriter.java
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* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/terminal/impl/AbstractPosixTerminal.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/utils/InputStreamReader.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/Expander.java
* /opt/cola/permits/1300661557_1649159166.41/0/jline-3-21-0-sources-jar/org/jline/reader/impl/completer/AggregateCompleter.java
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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/bind/TypeAdapterRuntimeTypeWrapper.java
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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/stream/JsonReader.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/stream/MalformedJsonException.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/stream/JsonScope.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/stream/JsonToken.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/stream/JsonWriter.java
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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/reflect/ReflectionAccessor.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/reflect/UnsafeReflectionAccessor.java
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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/internal/JavaVersion.java
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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/ToNumberPolicy.java
* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/ToNumberStrategy.java
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* /opt/cola/permits/1330613678_1652979131.328877/0/gson-2-8-9-sources-2-jar/com/google/gson/annotations/JsonAdapter.java

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1.283 curl 7.57.0

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1.285 zlib 1.2.8

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version 1.2.11, January 15th, 2017

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1.286 six 1.16.0

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1.288 encoder 1.2.2

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1.289 click 8.1.3

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==========
click-contrib
==========

As the userbase of Click grows, more and more major feature requests pop up in
Click's bugtracker. As reasonable as it may be for those features to be bundled
with Click instead of being a standalone project, many of those requested
features are either highly experimental or have unproven practical use, while
potentially being a burden to maintain.

This is why click-contrib_ exists. The GitHub organization is a collection of
possibly experimental third-party packages whose featureset does not belong
into Click, but also a playground for major features that may be added to Click
in the future. It is also meant to coordinate and concentrate effort on writing
third-party extensions for Click, and to ease the effort of searching for such
extensions. In that sense it could be described as a low-maintenance
alternative to extension repositories of other frameworks.

Please note that the quality and stability of those packages may be different
than what you expect from Click itself. While published under a common
organization, they are still projects separate from Click.

.. _click-contrib: https://github.com/click-contrib/

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Metadata-Version: 2.1
Name: click
Version: 8.1.3
Summary: Composable command line interface toolkit
Home-page: https://palletsprojects.com/p/click/
Author: Armin Ronacher
Author-email: armin.ronacher@active-4.com
Maintainer: Pallets

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Classifier: Operating System :: OS Independent
Classifier: Programming Language :: Python
Requires-Python: >=3.7
Description-Content-Type: text/x-rst
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\$ click_
==========

Click is a Python package for creating beautiful command line interfaces
in a composable way with as little code as necessary. It's the "Command
Line Interface Creation Kit". It's highly configurable but comes with
sensible defaults out of the box.

It aims to make the process of writing command line tools quick and fun
while also preventing any frustration caused by the inability to
implement an intended CLI API.

Click in three points:

- Arbitrary nesting of commands
- Automatic help page generation
- Supports lazy loading of subcommands at runtime

Installing

Install and update using `pip`_:

.. code-block:: text

  $ pip install -U click

.. _pip: https://pip.pypa.io/en/stable/getting-started/

A Simple Example

.. code-block:: python

  import click

  @click.command()
  @click.option("--count", default=1, help="Number of greetings.")
  @click.option("--name", prompt="Your name", help="The person to greet.")
  def hello(count, name):
      """Simple program that greets NAME for a total of COUNT times."""
      for _ in range(count):
          click.echo(f"Hello, {name}!")

  if __name__ == '__main__':
      hello()

.. code-block:: text

  $ python hello.py --count=3
  Your name: Click
  Hello, Click!
  Hello, Click!
  Hello, Click!

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The Pallets organization develops and supports Click and other popular
packages. In order to grow the community of contributors and users, and
allow the maintainers to devote more time to the projects, `please
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Links

- Documentation: https://click.palletsprojects.com/
- Changes: https://click.palletsprojects.com/changes/
- PyPI Releases: https://pypi.org/project/click/
- Source Code: https://github.com/pallets/click
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[metadata]
name = click
version = attr: click.__version__
url = https://palletsprojects.com/p/click/
project_urls =
 Donate = https://palletsprojects.com/donate
 Documentation = https://click.palletsprojects.com/
 Changes = https://click.palletsprojects.com/changes/
 Source Code = https://github.com/pallets/click/
 Issue Tracker = https://github.com/pallets/click/issues/
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author = Armin Ronacher
author_email = armin.ronacher@active-4.com
maintainer = Pallets
maintainer_email = contact@palletsprojects.com
description = Composable command line interface toolkit
long_description = file: README.rst
long_description_content_type = text/x-rst
classifiers =
 Development Status :: 5 - Production/Stable
 Intended Audience :: Developers
 License :: OSI Approved :: BSD License
 Operating System :: OS Independent
 Programming Language :: Python

[options]
packages = find:
package_dir = = src
include_package_data = True
python_requires = >= 3.7

[options.packages.find]
where = src

[tool:pytest]
testpaths = tests

```
filterwarnings =
 error

[coverage:run]
branch = True
source =
 click
 tests

[coverage:paths]
source =
 src
 */site-packages

[flake8]
select = B, E, F, W, B9, ISC
ignore =
 E203
 E501
 E722
 W503
max-line-length = 80
per-file-ignores =
 src/click/__init__.py: F401

[mypy]
files = src/click
python_version = 3.7
show_error_codes = True
disallow_subclassing_any = True
disallow_untyped_calls = True
disallow_untyped_defs = True
disallow_incomplete_defs = True
check_untyped_defs = True
no_implicit_optional = True
local_partial_types = True
no_implicit_reexport = True
strict_equality = True
warn_redundant_casts = True
warn_unused_configs = True
warn_unused_ignores = True
warn_return_any = True
warn_unreachable = True

[mypy-colorama.*]
ignore_missing_imports = True

[mypy-importlib_metadata.*]
```

ignore_missing_imports = True

[egg_info]
tag_build =
tag_date = 0

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1.290 sshd-common 2.9.2

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1.292 bind 9.11.4

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* configure.ac, Makefile.am: The original versions were derived from the
ones in the XML Catalog Manager project, version 2.2.

Author: Julio Merino <jmmv@users.sourceforge.net>

* atf-c/ui.c: The format_paragraph and format_text functions were
derived form the ones in the Monotone project, revision
3a0982da308228d796df35f98d787c5cff2bb5b6.

Author: Julio Merino <jmmv@NetBSD.org>

* atf-c++/detail/io.hpp, atf-c++/detail/io.cpp, atf-c++/detail/io_test.cpp:
These files were derived from the file_handle, systembuf, pipe and pistream
classes and tests found in the Boost.Process library.

Author: Julio Merino <jmmv84@gmail.com>

* admin/check-style.sh, admin/check-style-common.awk,
admin/check-style-cpp.awk, admin/check-style-shell.awk: These files,
except the first one, were first implemented in the Buildtool project.
They were later adapted to be part of Boost.Process and, during that
process, the shell script was created.

Author: Julio Merino <jmmv84@gmail.com>

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vim: filetype=text:textwidth=75:expandtab:shiftwidth=2:softtabstop=2

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```
<!-- Generate ISC copyright comments from Docbook copyright metadata. -->

<xsl:stylesheet version="1.0"
 xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
 xmlns:xi="http://www.w3.org/2001/XInclude"
 xmlns:db="http://docbook.org/ns/docbook">

 <xsl:template name="isc.copyright.format">
  <xsl:param name="text"/>
  <xsl:value-of select="$isc.copyright.leader"/>
  <xsl:value-of select="normalize-space(substring-before($text, '&#10;'))"/>
  <xsl:text>&#10;</xsl:text>
  <xsl:variable name="rest" select="substring-after($text, '&#10;')"/>
  <xsl:if test="translate($rest, '&#9;&#32;', '')">
    <xsl:call-template name="isc.copyright.format">
      <xsl:with-param name="text" select="$rest"/>
    </xsl:call-template>
  </xsl:if>
 </xsl:template>

 <xsl:variable name="isc.copyright.text">
  <xsl:text>
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  </xsl:text>
 </xsl:variable>

 <xsl:variable name="isc.copyright">
  <xsl:call-template name="isc.copyright.format">
    <xsl:with-param name="text">
      <xsl:for-each select="book/info/copyright | refentry/docinfo/copyright">
  <xsl:text>Copyright (C) </xsl:text>
  <xsl:call-template name="copyright.years">
    <xsl:with-param name="years" select="year"/>
  </xsl:call-template>
  <xsl:text> </xsl:text>
  <xsl:value-of select="holder"/>
       <xsl:value-of select="$isc.copyright.breakline"/>
  <xsl:text>&#10;</xsl:text>
 </xsl:for-each>
 <xsl:value-of select="$isc.copyright.text"/>
    </xsl:with-param>
  </xsl:call-template>
 </xsl:variable>
</xsl:stylesheet>
```

<!--
 - Local variables:
 - mode: sgml
 - End:
-->
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1.293 binutils 2.26.0

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These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form

under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also compile or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

c) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

d) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

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A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

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"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

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d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

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When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object

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6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

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++++++++++++++++

Dean Elsner wrote the original gas for vax. [more details?]

Jay Fenlason maintained gas for a while, adding support for
gdb-specific debug information and the 68k series machines, most of
the preprocessing pass, and extensive changes in messages.c,
input-file.c, write.c.

K. Richard Pixley maintained gas for a while, adding various
enhancements and many bug fixes, including merging support for several
processors, breaking gas up to handle multiple object file format
backends (including heavy rewrite, testing, an integration of the coff
and b.out backends), adding configuration including heavy testing and

verification of cross assemblers and file splits and renaming, converted gas to strictly ansi C including full prototypes, added support for m680[34]0 & cpu32, considerable work on i960 including a coff port (including considerable amounts of reverse engineering), a sparc opcode file rewrite, decstation, rs6000, and hp300hpux host ports, updated "know" assertions and made them work, much other reorganization, cleanup, and lint.

Ken Raeburn wrote the high-level BFD interface code to replace most of the code in format-specific I/O modules.

The original Vax-VMS support was contributed by David L. Kashtan. Eric Youngdale and Pat Rankin have done much work with it since.

The Intel 80386 machine description was written by Eliot Dresselhaus.

Minh Tran-Le at IntelliCorp contributed some AIX 386 support.

The Motorola 88k machine description was contributed by Devon Bowen of Buffalo University and Torbjorn Granlund of the Swedish Institute of Computer Science.

Keith Knowles at the Open Software Foundation wrote the original MIPS back end (tc-mips.c, tc-mips.h), and contributed Rose format support that hasn't been merged in yet. Ralph Campbell worked with the MIPS code to support a.out format.

Support for the Zilog Z8k and Hitachi H8/300, H8/500 and SH processors (tc-z8k, tc-h8300, tc-h8500, tc-sh), and IEEE 695 object file format (obj-ieee), was written by Steve Chamberlain of Cygnus Solutions. Steve also modified the COFF back end (obj-coffbfd) to use BFD for some low-level operations, for use with the Hitachi, 29k and Zilog targets.

John Gilmore built the AMD 29000 support, added .include support, and simplified the configuration of which versions accept which pseudo-ops. He updated the 68k machine description so that Motorola's opcodes always produced fixed-size instructions (e.g. jsr), while synthetic instructions remained shrinkable (jbsr). John fixed many bugs, including true tested cross-compilation support, and one bug in relaxation that took a week and required the proverbial one-bit fix.

Ian Lance Taylor of Cygnus Solutions merged the Motorola and MIT syntaxes for the 68k, completed support for some COFF targets (68k, i386 SVR3, and SCO Unix), wrote the ECOFF support based on Michael Meissner's mips-tfile program, wrote the PowerPC and RS/6000 support, and made a few other minor patches. He handled the binutils releases for versions 2.7 through 2.9.

David Edelsohn contributed fixes for the PowerPC and AIX support.

Steve Chamberlain made gas able to generate listings.

Support for the HP9000/300 was contributed by Glenn Engel of HP.

Support for ELF format files has been worked on by Mark Eichin of Cygnus Solutions (original, incomplete implementation), Pete Hoogenboom at the University of Utah (HPPA mainly), Michael Meissner of the Open Software Foundation (i386 mainly), and Ken Raeburn of Cygnus Solutions (sparc, initial 64-bit support).

Several engineers at Cygnus Solutions have also provided many small bug fixes and configuration enhancements.

The initial Alpha support was contributed by Carnegie-Mellon University. Additional work was done by Ken Raeburn of Cygnus Solutions. Richard Henderson then rewrote much of the Alpha support.

Ian Dall updated the support code for the National Semiconductor 32000 series, and added support for Mach 3 and NetBSD running on the PC532.

Klaus Kaempf ported the assembler and the binutils to openVMS/Alpha.

Steve Haworth contributed the support for the Texas Instruction c30 (tms320c30).

H.J. Lu has contributed many patches and much testing.

Alan Modra reworked much of the i386 backend, improving the error checking, updating the code, and improving the 16 bit support, using patches from the work of Martynas Kunigelis and H.J. Lu.

Many others have contributed large or small bugfixes and enhancements. If you've contributed significant work and are not mentioned on this list, and want to be, let us know. Some of the history has been lost; we aren't intentionally leaving anyone out.

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1.294 httpcomponents-client 4.5.13

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1.297 tomcat-jni 9.0.74

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1.298 bzip2 1.0.6

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Julian Seward, Cambridge, UK.
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bzip2/libbzip2 version 1.0.2 of 30 December 2001

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  usage: minibz2 [-d] [-{1,2,..9}] [[srcfilename] destfilename]
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1.300 jackson 2.9.8

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1.301 xerces-j 2.12.1

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1.304 pandocfilters 1.5.0

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1.305 python-requests 2.27.1

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1.306 slf4j-jdk14 2.0.3

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1.307 urllib3 1.26.12

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1.308 grep 2.23

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1.309 openssl 1.0.2k

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```

1.311 jinja2 3.1.2

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```
[metadata]
name = Jinja2
version = attr: jinja2.__version__
url = https://palletsprojects.com/p/jinja/
project_urls =
 Donate = https://palletsprojects.com/donate
 Documentation = https://jinja.palletsprojects.com/
 Changes = https://jinja.palletsprojects.com/changes/
 Source Code = https://github.com/pallets/jinja/
 Issue Tracker = https://github.com/pallets/jinja/issues/
 Twitter = https://twitter.com/PalletsTeam
 Chat = https://discord.gg/pallets
license = BSD-3-Clause
license_files = LICENSE.rst
author = Armin Ronacher
author_email = armin.ronacher@active-4.com
```

```
maintainer = Pallets
maintainer_email = contact@palletsprojects.com
description = A very fast and expressive template engine.
long_description = file: README.rst
long_description_content_type = text/x-rst
classifiers =
 Development Status :: 5 - Production/Stable
 Environment :: Web Environment
 Intended Audience :: Developers
 License :: OSI Approved :: BSD License
 Operating System :: OS Independent
 Programming Language :: Python
 Topic :: Internet :: WWW/HTTP :: Dynamic Content
 Topic :: Text Processing :: Markup :: HTML

[options]
packages = find:
package_dir = = src
include_package_data = True
python_requires = >= 3.7

[options.packages.find]
where = src

[options.entry_points]
babel.extractors =
 jinja2 = jinja2.ext:babel_extract[i18n]

[tool:pytest]
testpaths = tests
filterwarnings =
 error
 ignore:The loop argument:DeprecationWarning:asyncio[.]base_events:542

[coverage:run]
branch = True
source =
 jinja2
 tests

[coverage:paths]
source =
 src
 */site-packages

[flake8]
select = B, E, F, W, B9, ISC
ignore =
```

E203
E501
E722
W503
max-line-length = 80
per-file-ignores =
src/jinja2/__init__.py: F401

[mypy]
files = src/jinja2
python_version = 3.7
show_error_codes = True
disallow_subclassing_any = True
disallow_untyped_calls = True
disallow_untyped_defs = True
disallow_incomplete_defs = True
no_implicit_optional = True
local_partial_types = True
no_implicit_reexport = True
strict_equality = True
warn_redundant_casts = True
warn_unused_configs = True
warn_unused_ignores = True
warn_return_any = True
warn_unreachable = True

[mypy-jinja2.defaults]
no_implicit_reexport = False

[mypy-markupsafe]
no_implicit_reexport = False

[egg_info]
tag_build =
tag_date = 0

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* /opt/cola/permits/1318182303_1651721512.71/0/jinja2-3-1-2-tar-gz/Jinja2-3.1.2/setup.cfg
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Metadata-Version: 2.1
Name: Jinja2
Version: 3.1.2
Summary: A very fast and expressive template engine.
Home-page: https://palletsprojects.com/p/jinja/
Author: Armin Ronacher
Author-email: armin.ronacher@active-4.com
Maintainer: Pallets

Maintainer-email: contact@palletsprojects.com
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Project-URL: Donate, https://palletsprojects.com/donate
Project-URL: Documentation, https://jinja.palletsprojects.com/
Project-URL: Changes, https://jinja.palletsprojects.com/changes/
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Project-URL: Issue Tracker, https://github.com/pallets/jinja/issues/
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Project-URL: Chat, https://discord.gg/pallets
Platform: UNKNOWN
Classifier: Development Status :: 5 - Production/Stable
Classifier: Environment :: Web Environment
Classifier: Intended Audience :: Developers
Classifier: License :: OSI Approved :: BSD License
Classifier: Operating System :: OS Independent
Classifier: Programming Language :: Python
Classifier: Topic :: Internet :: WWW/HTTP :: Dynamic Content
Classifier: Topic :: Text Processing :: Markup :: HTML
Requires-Python: >=3.7
Description-Content-Type: text/x-rst
Provides-Extra: i18n
License-File: LICENSE.rst

Jinja
=====

Jinja is a fast, expressive, extensible templating engine. Special placeholders in the template allow writing code similar to Python syntax. Then the template is passed data to render the final document.

It includes:

- Template inheritance and inclusion.
- Define and import macros within templates.
- HTML templates can use autoescaping to prevent XSS from untrusted user input.
- A sandboxed environment can safely render untrusted templates.
- AsyncIO support for generating templates and calling async functions.
- I18N support with Babel.
- Templates are compiled to optimized Python code just-in-time and cached, or can be compiled ahead-of-time.
- Exceptions point to the correct line in templates to make debugging easier.
- Extensible filters, tests, functions, and even syntax.

Jinja's philosophy is that while application logic belongs in Python if possible, it shouldn't make the template designer's job difficult by

restricting functionality too much.

Installing

Install and update using `pip`_:

.. code-block:: text

  $ pip install -U Jinja2

.. _pip: https://pip.pypa.io/en/stable/getting-started/

In A Nutshell

.. code-block:: jinja

  {% extends "base.html" %}
  {% block title %}Members{% endblock %}
  {% block content %}

    {% for user in users %}
      {{ user.username }}
    {% endfor %}

  {% endblock %}

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Links

- Documentation: https://jinja.palletsprojects.com/
- Changes: https://jinja.palletsprojects.com/changes/
- PyPI Releases: https://pypi.org/project/Jinja2/

- Source Code: https://github.com/pallets/jinja/
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1.312 tcp-wrappers 7.6-77.el7

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1.313 zlib 1.1.4

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```
/* zlib.h -- interface of the 'zlib' general purpose compression library
  version 1.2.11, January 15th, 2017

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  Jean-loup Gailly        Mark Adler
  jloup@gzip.org          madler@alumni.caltech.edu

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1.316 openssl 1.1.1k

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1.318 mdadm 3.4

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1.320 jackson 2.14.1

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1.321 jaxb-api 2.2.12-b140109.1041

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1.322 httpcomponents-core 4.4.11

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1.325 commons-http-client 3.1

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1.326 backcall 0.2.0

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* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/impl/DefaultHighlighter.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/impl/LineReaderImpl.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/LineReader.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/impl/CompletionMatcherImpl.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/PrintAboveWriter.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/impl/history/DefaultHistory.java
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* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/META-INF/maven/org.jline/jline-reader/pom.xml

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* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/impl/SimpleMaskingCallback.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/impl/BufferImpl.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/Buffer.java
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* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/EOFError.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/SyntaxError.java
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* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/Editor.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/impl/completer/StringsCompleter.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/Highlighter.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/impl/completer/ArgumentCompleter.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/Candidate.java
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* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/impl/ReaderUtils.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/impl/DefaultParser.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/LineReaderBuilder.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/CompletionMatcher.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/impl/completer/SystemCompleter.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/Parser.java
* /opt/cola/permits/1337889370_1654234507.193265/0/jline-reader-3-21-0-sources-1-jar/org/jline/reader/EndOfFileException.java

1.329 slf4j 1.5.8.PATCHED

1.329.1 Available under license :

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* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/helpers/BasicMarker.java
* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/Logger.java
* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/Marker.java
* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/helpers/BasicMDCAdapter.java

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* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/spi/LoggerFactoryBinder.java
* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/helpers/NOPLogger.java
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* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/LoggerFactory.java
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* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/spi/LocationAwareLogger.java
* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/helpers/MarkerIgnoringBase.java
* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/spi/MDCAdapter.java
* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/MDC.java

* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/helpers/BasicMarkerFactory.java
* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/MarkerFactory.java
* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/helpers/Util.java
* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/ILoggerFactory.java
* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/impl/StaticLoggerBinder.java
* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/IMarkerFactory.java
* /opt/ws_local/PERMITS_SQL/1012658366_1596180293.66/0/slf4j-api-1-5-8-sources-1-jar/org/slf4j/impl/StaticMarkerBinder.java
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1.330 libjpeg 9e

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```
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* Modified 1997-2013 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains additional configuration options that customize the
* JPEG software for special applications or support machine-dependent
* optimizations.  Most users will not need to touch this file.
*/
```

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```
/*
* jquant1.c
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*
* This file contains 1-pass color quantization (color mapping) routines.
* These routines provide mapping to a fixed color map using equally spaced
* color values.  Optional Floyd-Steinberg or ordered dithering is available.
*/
```

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```
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* rdrle.c
*
```

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* This file contains routines to read input images in Utah RLE format.
* The Utah Raster Toolkit library is required (version 3.1 or later).
*
* These routines may need modification for non-Unix environments or
* specialized applications. As they stand, they assume input from
* an ordinary stdio stream. They further assume that reading begins
* at the start of the file; start_input may need work if the
* user interface has already read some data (e.g., to determine that
* the file is indeed RLE format).
*
* Based on code contributed by Mike Lijewski,
* with updates from Robert Hutchinson.
*/

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*
* This file contains routines to read input images in PPM/PGM format.
* The extended 2-byte-per-sample raw PPM/PGM formats are supported.
* The PBMPLUS library is NOT required to compile this software
* (but it is highly useful as a set of PPM image manipulation programs).
*
* These routines may need modification for non-Unix environments or
* specialized applications. As they stand, they assume input from
* an ordinary stdio stream. They further assume that reading begins
* at the start of the file; start_input may need work if the
* user interface has already read some data (e.g., to determine that
* the file is indeed PPM format).
*/
/* Portions of this code are based on the PBMPLUS library, which is:
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* jdcoefct.c
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*
* This file contains the coefficient buffer controller for decompression.
* This controller is the top level of the JPEG decompressor proper.
* The coefficient buffer lies between entropy decoding and inverse-DCT steps.
*
* In buffered-image mode, this controller is the interface between
* input-oriented processing and output-oriented processing.
* Also, the input side (only) is used when reading a file for transcoding.
*/

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* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdcoefct.c
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* jdsample.c
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*
* This file contains upsampling routines.
*
* Upsampling input data is counted in "row groups". A row group
* is defined to be (v_samp_factor * DCT_v_scaled_size / min_DCT_v_scaled_size)
* sample rows of each component. Upsampling will normally produce
* max_v_samp_factor pixel rows from each row group (but this could vary
* if the upsampler is applying a scale factor of its own).
*

```
* An excellent reference for image resampling is
*   Digital Image Warping, George Wolberg, 1990.
*   Pub. by IEEE Computer Society Press, Los Alamitos, CA. ISBN 0-8186-8944-7.
*/
```

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```
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* jcarith.c
*
* Developed 1997-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
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*
* This file contains portable arithmetic entropy encoding routines for JPEG
* (implementing the ISO/IEC IS 10918-1 and CCITT Recommendation ITU-T T.81).
*
* Both sequential and progressive modes are supported in this single module.
*
* Suspension is not currently supported in this module.
*/
```

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```
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* jversion.h
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```
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* jmemnobs.c
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* This file is part of the Independent JPEG Group's software.
```

```
* For conditions of distribution and use, see the accompanying README file.
*
* This file provides a really simple implementation of the system-
* dependent portion of the JPEG memory manager.  This implementation
* assumes that no backing-store files are needed: all required space
* can be obtained from malloc().
* This is very portable in the sense that it'll compile on almost anything,
* but you'd better have lots of main memory (or virtual memory) if you want
* to process big images.
* Note that the max_memory_to_use option is respected by this implementation.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jmemnobs.c
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```
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*
* This file contains routines to decode JPEG datastream markers.
* Most of the complexity arises from our desire to support input
* suspension: if not all of the data for a marker is available,
* we must exit back to the application.  On resumption, we reprocess
* the marker.
*/
```

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* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdmarker.c
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```
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*
* This file defines the application interface for the JPEG library.
* Most applications using the library need only include this file,
* and perhaps jerror.h if they want to know the exact error codes.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jpeglib.h
No license file was found, but licenses were detected in source scan.

```
/*
* jconfig.txt
*
* Copyright (C) 1991-1994, Thomas G. Lane.
* Modified 2009-2013 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file documents the configuration options that are required to
* customize the JPEG software for a particular system.
*
* The actual configuration options for a particular installation are stored
* in jconfig.h.  On many machines, jconfig.h can be generated automatically
* or copied from one of the "canned" jconfig files that we supply.  But if
* you need to generate a jconfig.h file by hand, this file tells you how.
*
* DO NOT EDIT THIS FILE --- IT WON'T ACCOMPLISH ANYTHING.
* EDIT A COPY NAMED JCONFIG.H.
*/



/*
* These symbols indicate the properties of your machine or compiler.
* #define the symbol if yes, #undef it if no.
*/

/* Does your compiler support function prototypes?
* (If not, you also need to use ansi2knr, see install.txt)
*/
#define HAVE_PROTOTYPES

/* Does your compiler support the declaration "unsigned char" ?
* How about "unsigned short" ?
*/
#define HAVE_UNSIGNED_CHAR
#define HAVE_UNSIGNED_SHORT

/* Define "void" as "char" if your compiler doesn't know about type void.
* NOTE: be sure to define void such that "void *" represents the most general
* pointer type, e.g., that returned by malloc().
*/
/* #define void char */

/* Define "const" as empty if your compiler doesn't know the "const" keyword.
```

```
*/
/* #define const */

/* Define this if an ordinary "char" type is unsigned.
* If you're not sure, leaving it undefined will work at some cost in speed.
* If you defined HAVE_UNSIGNED_CHAR then the speed difference is minimal.
*/
#undef CHAR_IS_UNSIGNED

/* Define this if your system has an ANSI-conforming <stddef.h> file.
*/
#define HAVE_STDDEF_H

/* Define this if your system has an ANSI-conforming <stdlib.h> file.
*/
#define HAVE_STDLIB_H

/* Define this if your system does not have an ANSI/SysV <string.h>,
* but does have a BSD-style <strings.h>.
*/
#undef NEED_BSD_STRINGS

/* Define this if your system does not provide typedef size_t in any of the
* ANSI-standard places (stddef.h, stdlib.h, or stdio.h), but places it in
* <sys/types.h> instead.
*/
#undef NEED_SYS_TYPES_H

/* For 80x86 machines, you need to define NEED_FAR_POINTERS,
* unless you are using a large-data memory model or 80386 flat-memory mode.
* On less brain-damaged CPUs this symbol must not be defined.
* (Defining this symbol causes large data structures to be referenced through
* "far" pointers and to be allocated with a special version of malloc.)
*/
#undef NEED_FAR_POINTERS

/* Define this if your linker needs global names to be unique in less
* than the first 15 characters.
*/
#undef NEED_SHORT_EXTERNAL_NAMES

/* Although a real ANSI C compiler can deal perfectly well with pointers to
* unspecified structures (see "incomplete types" in the spec), a few pre-ANSI
* and pseudo-ANSI compilers get confused.  To keep one of these bozos happy,
* define INCOMPLETE_TYPES_BROKEN.  This is not recommended unless you
* actually get "missing structure definition" warnings or errors while
* compiling the JPEG code.
*/
```

```
#undef INCOMPLETE_TYPES_BROKEN

/* Define "boolean" as unsigned char, not enum, on Windows systems.
*/
#ifdef _WIN32
#ifndef __RPCNDR_H__  /* don't conflict if rpcndr.h already read */
typedef unsigned char boolean;
#endif
#ifndef FALSE   /* in case these macros already exist */
#define FALSE 0  /* values of boolean */
#endif
#ifndef TRUE
#define TRUE 1
#endif
#define HAVE_BOOLEAN  /* prevent jmorecfg.h from redefining it */
#endif


/*
* The following options affect code selection within the JPEG library,
* but they don't need to be visible to applications using the library.
* To minimize application namespace pollution, the symbols won't be
* defined unless JPEG_INTERNALS has been defined.
*/

#ifdef JPEG_INTERNALS

/* Define this if your compiler implements ">>" on signed values as a logical
* (unsigned) shift; leave it undefined if ">>" is a signed (arithmetic) shift,
* which is the normal and rational definition.
*/
#undef RIGHT_SHIFT_IS_UNSIGNED


#endif /* JPEG_INTERNALS */


/*
* The remaining options do not affect the JPEG library proper,
* but only the sample applications cjpeg/djpeg (see cjpeg.c, djpeg.c).
* Other applications can ignore these.
*/

#ifdef JPEG_CJPEG_DJPEG

/* These defines indicate which image (non-JPEG) file formats are allowed. */

#define BMP_SUPPORTED  /* BMP image file format */
```

```
#define GIF_SUPPORTED  /* GIF image file format */
#define PPM_SUPPORTED  /* PBMPLUS PPM/PGM image file format */
#undef RLE_SUPPORTED  /* Utah RLE image file format */
#define TARGA_SUPPORTED  /* Targa image file format */

/* Define this if you want to name both input and output files on the command
* line, rather than using stdout and optionally stdin.  You MUST do this if
* your system can't cope with binary I/O to stdin/stdout.  See comments at
* head of cjpeg.c or djpeg.c.
*/
#undef TWO_FILE_COMMANDLINE

/* Define this if your system needs explicit cleanup of temporary files.
* This is crucial under MS-DOS, where the temporary "files" may be areas
* of extended memory; on most other systems it's not as important.
*/
#undef NEED_SIGNAL_CATCHER

/* By default, we open image files with fopen(...,"rb") or fopen(...,"wb").
* This is necessary on systems that distinguish text files from binary files,
* and is harmless on most systems that don't.  If you have one of the rare
* systems that complains about the "b" spec, define this symbol.
*/
#undef DONT_USE_B_MODE

/* Define this if you want percent-done progress reports from cjpeg/djpeg.
*/
#undef PROGRESS_REPORT


#endif /* JPEG_CJPEG_DJPEG */
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jconfig.txt
No license file was found, but licenses were detected in source scan.

```
/*
* jcparam.c
*
* Copyright (C) 1991-1998, Thomas G. Lane.
* Modified 2003-2022 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains optional default-setting code for the JPEG compressor.
* Applications do not have to use this file, but those that don't use it
* must know a lot more about the innards of the JPEG code.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jcparam.c
No license file was found, but licenses were detected in source scan.

IJG JPEG LIBRARY: FILE LIST

Copyright (C) 1994-2020, Thomas G. Lane, Guido Vollbeding.
This file is part of the Independent JPEG Group's software.
For conditions of distribution and use, see the accompanying README file.

Here is a road map to the files in the IJG JPEG distribution. The
distribution includes the JPEG library proper, plus two application
programs ("cjpeg" and "djpeg") which use the library to convert JPEG
files to and from some other popular image formats. A third application
"jpegtran" uses the library to do lossless conversion between different
variants of JPEG. There are also two stand-alone applications,
"rdjpgcom" and "wrjpgcom".

THE JPEG LIBRARY
==========

Include files:

jpeglib.h JPEG library's exported data and function declarations.
jconfig.h Configuration declarations. Note: this file is not present
  in the distribution; it is generated during installation.
jmorecfg.h Additional configuration declarations; need not be changed
  for a standard installation.
jerror.h Declares JPEG library's error and trace message codes.
jinclude.h Central include file used by all IJG .c files to reference
  system include files.
jpegint.h JPEG library's internal data structures.
jdct.h Private declarations for forward & reverse DCT subsystems.
jmemsys.h Private declarations for memory management subsystem.
jversion.h Version information.

Applications using the library should include jpeglib.h (which in turn
includes jconfig.h and jmorecfg.h). Optionally, jerror.h may be included
if the application needs to reference individual JPEG error codes. The
other include files are intended for internal use and would not normally
be included by an application program. (cjpeg/djpeg/etc do use jinclude.h,
since its function is to improve portability of the whole IJG distribution.
Most other applications will directly include the system include files they
want, and hence won't need jinclude.h.)

C source code files:

These files contain most of the functions intended to be called directly by
an application program:

jcapimin.c Application program interface: core routines for compression.
jcapistd.c Application program interface: standard compression.
jdapimin.c Application program interface: core routines for decompression.
jdapistd.c Application program interface: standard decompression.
jcomapi.c Application program interface routines common to compression
and decompression.
jcparam.c Compression parameter setting helper routines.
jctrans.c API and library routines for transcoding compression.
jdtrans.c API and library routines for transcoding decompression.

Compression side of the library:

jcinit.c Initialization: determines which other modules to use.
jcmaster.c Master control: setup and inter-pass sequencing logic.
jcmainct.c Main buffer controller (preprocessor => JPEG compressor).
jcprepct.c Preprocessor buffer controller.
jccoefct.c Buffer controller for DCT coefficient buffer.
jccolor.c Color space conversion.
jcsample.c Downsampling.
jcdctmgr.c DCT manager (DCT implementation selection & control).
jfdctint.c Forward DCT using slow-but-accurate integer method.
jfdctfst.c Forward DCT using faster, less accurate integer method.
jfdctflt.c Forward DCT using floating-point arithmetic.
jchuff.c Huffman entropy coding.
jcarith.c Arithmetic entropy coding.
jcmarker.c JPEG marker writing.
jdatadst.c Data destination managers for memory and stdio output.

Decompression side of the library:

jdmaster.c Master control: determines which other modules to use.
jdinput.c Input controller: controls input processing modules.
jdmainct.c Main buffer controller (JPEG decompressor => postprocessor).
jdcoefct.c Buffer controller for DCT coefficient buffer.
jdpostct.c Postprocessor buffer controller.
jdmarker.c JPEG marker reading.
jdhuff.c Huffman entropy decoding.
jdarith.c Arithmetic entropy decoding.
jddctmgr.c IDCT manager (IDCT implementation selection & control).
jidctint.c Inverse DCT using slow-but-accurate integer method.
jidctfst.c Inverse DCT using faster, less accurate integer method.
jidctflt.c Inverse DCT using floating-point arithmetic.

jdsample.c Upsampling.
jdcolor.c Color space conversion.
jdmerge.c Merged upsampling/color conversion (faster, lower quality).
jquant1.c One-pass color quantization using a fixed-spacing colormap.
jquant2.c Two-pass color quantization using a custom-generated colormap.
  Also handles one-pass quantization to an externally given map.
jdatasrc.c Data source managers for memory and stdio input.

Support files for both compression and decompression:

jaricom.c Tables for common use in arithmetic entropy encoding and
  decoding routines.
jerror.c Standard error handling routines (application replaceable).
jmemmgr.c System-independent (more or less) memory management code.
jutils.c Miscellaneous utility routines.

jmemmgr.c relies on a system-dependent memory management module. The IJG
distribution includes the following implementations of the system-dependent
module:

jmemnobs.c "No backing store": assumes adequate virtual memory exists.
jmemansi.c Makes temporary files with ANSI-standard routine tmpfile().
jmemname.c Makes temporary files with program-generated file names.
jmemdos.c Custom implementation for MS-DOS (16-bit environment only):
  can use extended and expanded memory as well as temp files.
jmemmac.c Custom implementation for Apple Macintosh.

Exactly one of the system-dependent modules should be configured into an
installed JPEG library (see install.txt for hints about which one to use).
On unusual systems you may find it worthwhile to make a special
system-dependent memory manager.

Non-C source code files:

jmemdosa.asm 80x86 assembly code support for jmemdos.c; used only in
  MS-DOS-specific configurations of the JPEG library.

CJPEG/DJPEG/JPEGTRAN
====================

Include files:

cdjpeg.h Declarations shared by cjpeg/djpeg/jpegtran modules.
cderror.h Additional error and trace message codes for cjpeg et al.
transupp.h Declarations for jpegtran support routines in transupp.c.

C source code files:

cjpeg.c Main program for cjpeg.
cjpegalt.c Main program for cjpeg with alternate user interface.
djpeg.c Main program for djpeg.
djpegalt.c Main program for djpeg with alternate user interface.
jpegtran.c Main program for jpegtran.
cdjpeg.c Utility routines used by all three programs.
rdcolmap.c Code to read a colormap file for djpeg's "-map" switch.
rdswitch.c Code to process some of cjpeg's more complex switches.
  Also used by jpegtran.
transupp.c Support code for jpegtran: lossless image manipulations.

Image file reader modules for cjpeg:

rdbmp.c BMP file input.
rdgif.c GIF file input.
rdppm.c PPM/PGM file input.
rdrle.c Utah RLE file input.
rdtarga.c Targa file input.

Image file writer modules for djpeg:

wrbmp.c BMP file output.
wrgif.c GIF file output.
wrppm.c PPM/PGM file output.
wrrle.c Utah RLE file output.
wrtarga.c Targa file output.

RDJPGCOM/WRJPGCOM
==========

C source code files:

rdjpgcom.c Stand-alone rdjpgcom application.
wrjpgcom.c Stand-alone wrjpgcom application.

These programs do not depend on the IJG library. They do use
jconfig.h and jinclude.h, only to improve portability.

ADDITIONAL FILES
==========

Documentation (see README for a guide to the documentation files):

README Master documentation file.

*.txt Other documentation files.
*.1 Documentation in Unix man page format.
change.log Version-to-version change highlights.
example.c Sample code for calling JPEG library.

Configuration/installation files and programs (see install.txt for more info):

configure Unix shell script to perform automatic configuration.
configure.ac Source file for use with Autoconf to generate configure.
ltmain.sh Support scripts for configure (from GNU libtool).
config.guess
config.sub
depcomp
missing
ar-lib
compile
install-sh Install shell script for those Unix systems lacking one.
Makefile.in Makefile input for configure.
Makefile.am Source file for use with Automake to generate Makefile.in.
ckconfig.c Program to generate jconfig.h on non-Unix systems.
jconfig.txt Template for making jconfig.h by hand.
mak*.* Sample makefiles for particular systems.
jconfig.* Sample jconfig.h for particular systems.
libjpeg.map Script to generate shared library with versioned symbols.
libjpeg.pc.in libjpeg.pc pkg-config file input for configure.
aclocal.m4 M4 macro definitions for use with Autoconf.

Test files (see install.txt for test procedure):

test*.* Source and comparison files for confidence test.
  These are binary image files, NOT text files.

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/filelist.txt
No license file was found, but licenses were detected in source scan.

/*
* jfdctfst.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2003-2017 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a fast, not so accurate integer implementation of the
* forward DCT (Discrete Cosine Transform).
*
* A 2-D DCT can be done by 1-D DCT on each row followed by 1-D DCT

```
* on each column.  Direct algorithms are also available, but they are
* much more complex and seem not to be any faster when reduced to code.
*
* This implementation is based on Arai, Agui, and Nakajima's algorithm for
* scaled DCT.  Their original paper (Trans. IEICE E-71(11):1095) is in
* Japanese, but the algorithm is described in the Pennebaker & Mitchell
* JPEG textbook (see REFERENCES section in file README).  The following code
* is based directly on figure 4-8 in P&M.
* While an 8-point DCT cannot be done in less than 11 multiplies, it is
* possible to arrange the computation so that many of the multiplies are
* simple scalings of the final outputs.  These multiplies can then be
* folded into the multiplications or divisions by the JPEG quantization
* table entries.  The AA&N method leaves only 5 multiplies and 29 adds
* to be done in the DCT itself.
* The primary disadvantage of this method is that with fixed-point math,
* accuracy is lost due to imprecise representation of the scaled
* quantization values.  The smaller the quantization table entry, the less
* precise the scaled value, so this implementation does worse with high-
* quality-setting files than with low-quality ones.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jfdctfst.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdcolor.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modified 2011-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains output colorspace conversion routines.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdcolor.c
No license file was found, but licenses were detected in source scan.

```
/*
* jpegtran.c
*
* Copyright (C) 1995-2019, Thomas G. Lane, Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a command-line user interface for JPEG transcoding.
```

* It is very similar to cjpeg.c, and partly to djpeg.c, but provides
* lossless transcoding between different JPEG file formats. It also
* provides some lossless and sort-of-lossless transformations of JPEG data.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jpegtran.c
No license file was found, but licenses were detected in source scan.

/*
* jfdctflt.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2003-2017 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a floating-point implementation of the
* forward DCT (Discrete Cosine Transform).
*
* This implementation should be more accurate than either of the integer
* DCT implementations. However, it may not give the same results on all
* machines because of differences in roundoff behavior. Speed will depend
* on the hardware's floating point capacity.
*
* A 2-D DCT can be done by 1-D DCT on each row followed by 1-D DCT
* on each column. Direct algorithms are also available, but they are
* much more complex and seem not to be any faster when reduced to code.
*
* This implementation is based on Arai, Agui, and Nakajima's algorithm for
* scaled DCT. Their original paper (Trans. IEICE E-71(11):1095) is in
* Japanese, but the algorithm is described in the Pennebaker & Mitchell
* JPEG textbook (see REFERENCES section in file README). The following code
* is based directly on figure 4-8 in P&M.
* While an 8-point DCT cannot be done in less than 11 multiplies, it is
* possible to arrange the computation so that many of the multiplies are
* simple scalings of the final outputs. These multiplies can then be
* folded into the multiplications or divisions by the JPEG quantization
* table entries. The AA&N method leaves only 5 multiplies and 29 adds
* to be done in the DCT itself.
* The primary disadvantage of this method is that with a fixed-point
* implementation, accuracy is lost due to imprecise representation of the
* scaled quantization values. However, that problem does not arise if
* we use floating point arithmetic.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jfdctflt.c

No license file was found, but licenses were detected in source scan.

```
/*
* jmemdos.c
*
* Copyright (C) 1992-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file provides an MS-DOS-compatible implementation of the system-
* dependent portion of the JPEG memory manager.  Temporary data can be
* stored in extended or expanded memory as well as in regular DOS files.
*
* If you use this file, you must be sure that NEED_FAR_POINTERS is defined
* if you compile in a small-data memory model; it should NOT be defined if
* you use a large-data memory model.  This file is not recommended if you
* are using a flat-memory-space 386 environment such as DJGCC or Watcom C.
* Also, this code will NOT work if struct fields are aligned on greater than
* 2-byte boundaries.
*
* Based on code contributed by Ge' Weijers.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jmemdos.c
No license file was found, but licenses were detected in source scan.

```
; For conditions of distribution and use, see the accompanying README file.
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jmemdosa.asm
No license file was found, but licenses were detected in source scan.

```
/*
* jdpostct.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the decompression postprocessing controller.
* This controller manages the upsampling, color conversion, and color
* quantization/reduction steps; specifically, it controls the buffering
* between upsample/color conversion and color quantization/reduction.
*
* If no color quantization/reduction is required, then this module has no
* work to do, and it just hands off to the upsample/color conversion code.
* An integrated upsample/convert/quantize process would replace this module
```

```
* entirely.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdpostct.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdarith.c
*
* Developed 1997-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains portable arithmetic entropy decoding routines for JPEG
* (implementing the ISO/IEC IS 10918-1 and CCITT Recommendation ITU-T T.81).
*
* Both sequential and progressive modes are supported in this single module.
*
* Suspension is not currently supported in this module.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdarith.c
No license file was found, but licenses were detected in source scan.

```
/*
* rdtarga.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modified 2017-2019 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to read input images in Targa format.
*
* These routines may need modification for non-Unix environments or
* specialized applications.  As they stand, they assume input from
* an ordinary stdio stream.  They further assume that reading begins
* at the start of the file; start_input may need work if the
* user interface has already read some data (e.g., to determine that
* the file is indeed Targa format).
*
* Based on code contributed by Lee Daniel Crocker.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/rdtarga.c

No license file was found, but licenses were detected in source scan.

```
/*
* jinclude.h
*
* Copyright (C) 1991-1994, Thomas G. Lane.
* Modified 2017 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file exists to provide a single place to fix any problems with
* including the wrong system include files.  (Common problems are taken
* care of by the standard jconfig symbols, but on really weird systems
* you may have to edit this file.)
*
* NOTE: this file is NOT intended to be included by applications using the
* JPEG library.  Most applications need only include jpeglib.h.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jinclude.h
No license file was found, but licenses were detected in source scan.

```
/*
* jidctflt.c
*
* Copyright (C) 1994-1998, Thomas G. Lane.
* Modified 2010-2017 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a floating-point implementation of the
* inverse DCT (Discrete Cosine Transform).  In the IJG code, this routine
* must also perform dequantization of the input coefficients.
*
* This implementation should be more accurate than either of the integer
* IDCT implementations.  However, it may not give the same results on all
* machines because of differences in roundoff behavior.  Speed will depend
* on the hardware's floating point capacity.
*
* A 2-D IDCT can be done by 1-D IDCT on each column followed by 1-D IDCT
* on each row (or vice versa, but it's more convenient to emit a row at
* a time).  Direct algorithms are also available, but they are much more
* complex and seem not to be any faster when reduced to code.
*
* This implementation is based on Arai, Agui, and Nakajima's algorithm for
* scaled DCT.  Their original paper (Trans. IEICE E-71(11):1095) is in
* Japanese, but the algorithm is described in the Pennebaker & Mitchell
```

```
* JPEG textbook (see REFERENCES section in file README).  The following code
* is based directly on figure 4-8 in P&M.
* While an 8-point DCT cannot be done in less than 11 multiplies, it is
* possible to arrange the computation so that many of the multiplies are
* simple scalings of the final outputs.  These multiplies can then be
* folded into the multiplications or divisions by the JPEG quantization
* table entries.  The AA&N method leaves only 5 multiplies and 29 adds
* to be done in the DCT itself.
* The primary disadvantage of this method is that with a fixed-point
* implementation, accuracy is lost due to imprecise representation of the
* scaled quantization values.  However, that problem does not arise if
* we use floating point arithmetic.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jidctflt.c
No license file was found, but licenses were detected in source scan.

```
/*
* jcprepct.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2003-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the compression preprocessing controller.
* This controller manages the color conversion, downsampling,
* and edge expansion steps.
*
* Most of the complexity here is associated with buffering input rows
* as required by the downsampler.  See the comments at the head of
* jcsample.c for the downsampler's needs.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jcprepct.c
No license file was found, but licenses were detected in source scan.

```
/*
* cjpeg.c
*
* Copyright (C) 1991-1998, Thomas G. Lane.
* Modified 2003-2013 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a command-line user interface for the JPEG compressor.
```

* It should work on any system with Unix- or MS-DOS-style command lines.
*
* Two different command line styles are permitted, depending on the
* compile-time switch TWO_FILE_COMMANDLINE:
* cjpeg [options] inputfile outputfile
* cjpeg [options] [inputfile]
* In the second style, output is always to standard output, which you'd
* normally redirect to a file or pipe to some other program. Input is
* either from a named file or from standard input (typically redirected).
* The second style is convenient on Unix but is unhelpful on systems that
* don't support pipes. Also, you MUST use the first style if your system
* doesn't do binary I/O to stdin/stdout.
* To simplify script writing, the "-outfile" switch is provided. The syntax
* cjpeg [options] -outfile outputfile inputfile
* works regardless of which command line style is used.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/cjpeg.c
No license file was found, but licenses were detected in source scan.

IJG JPEG LIBRARY: CODING RULES

Copyright (C) 1991-1996, Thomas G. Lane.
This file is part of the Independent JPEG Group's software.
For conditions of distribution and use, see the accompanying README file.

Since numerous people will be contributing code and bug fixes, it's important
to establish a common coding style. The goal of using similar coding styles
is much more important than the details of just what that style is.

In general we follow the recommendations of "Recommended C Style and Coding
Standards" revision 6.1 (Cannon et al. as modified by Spencer, Keppel and
Brader). This document is available in the IJG FTP archive (see
jpeg/doc/cstyle.ms.tbl.Z, or cstyle.txt.Z for those without nroff/tbl).

Block comments should be laid out thusly:

```
/*
*  Block comments in this style.
*/
```

We indent statements in K&R style, e.g.,

```
 if (test) {
   then-part;
 } else {
   else-part;
```

```
 }
```
with two spaces per indentation level. (This indentation convention is
handled automatically by GNU Emacs and many other text editors.)

Multi-word names should be written in lower case with underscores, e.g.,
multi_word_name (not multiWordName). Preprocessor symbols and enum constants
are similar but upper case (MULTI_WORD_NAME). Names should be unique within
the first fifteen characters. (On some older systems, global names must be
unique within six characters. We accommodate this without cluttering the
source code by using macros to substitute shorter names.)

We use function prototypes everywhere; we rely on automatic source code
transformation to feed prototype-less C compilers. Transformation is done
by the simple and portable tool 'ansi2knr.c' (courtesy of Ghostscript).
ansi2knr is not very bright, so it imposes a format requirement on function
declarations: the function name MUST BEGIN IN COLUMN 1. Thus all functions
should be written in the following style:

```
LOCAL(int *)
function_name (int a, char *b)
{
  code...
}
```

Note that each function definition must begin with GLOBAL(type), LOCAL(type),
or METHODDEF(type). These macros expand to "static type" or just "type" as
appropriate. They provide a readable indication of the routine's usage and
can readily be changed for special needs. (For instance, special linkage
keywords can be inserted for use in Windows DLLs.)

ansi2knr does not transform method declarations (function pointers in
structs). We handle these with a macro JMETHOD, defined as
```
 #ifdef HAVE_PROTOTYPES
 #define JMETHOD(type,methodname,arglist)  type (*methodname) arglist
 #else
 #define JMETHOD(type,methodname,arglist)  type (*methodname) ()
 #endif
```
which is used like this:
```
 struct function_pointers {
   JMETHOD(void, init_entropy_encoder, (int somearg, jparms *jp));
   JMETHOD(void, term_entropy_encoder, (void));
 };
```
Note the set of parentheses surrounding the parameter list.

A similar solution is used for forward and external function declarations
(see the EXTERN and JPP macros).

If the code is to work on non-ANSI compilers, we cannot rely on a prototype

declaration to coerce actual parameters into the right types. Therefore, use
explicit casts on actual parameters whenever the actual parameter type is not
identical to the formal parameter. Beware of implicit conversions to "int".

It seems there are some non-ANSI compilers in which the sizeof() operator
is defined to return int, yet size_t is defined as long. Needless to say,
this is brain-damaged. Always use the SIZEOF() macro in place of sizeof(),
so that the result is guaranteed to be of type size_t.

The JPEG library is intended to be used within larger programs. Furthermore,
we want it to be reentrant so that it can be used by applications that process
multiple images concurrently. The following rules support these requirements:

1. Avoid direct use of file I/O, "malloc", error report printouts, etc;
pass these through the common routines provided.

2. Minimize global namespace pollution. Functions should be declared static
wherever possible. (Note that our method-based calling conventions help this
a lot: in many modules only the initialization function will ever need to be
called directly, so only that function need be externally visible.) All
global function names should begin with "jpeg_", and should have an
abbreviated name (unique in the first six characters) substituted by macro
when NEED_SHORT_EXTERNAL_NAMES is set.

3. Don't use global variables; anything that must be used in another module
should be in the common data structures.

4. Don't use static variables except for read-only constant tables. Variables
that should be private to a module can be placed into private structures (see
the system architecture document, structure.txt).

5. Source file names should begin with "j" for files that are part of the
library proper; source files that are not part of the library, such as cjpeg.c
and djpeg.c, do not begin with "j". Keep source file names to eight
characters (plus ".c" or ".h", etc) to make life easy for MS-DOSers. Keep
compression and decompression code in separate source files --- some
applications may want only one half of the library.

Note: these rules (particularly #4) are not followed religiously in the
modules that are used in cjpeg/djpeg but are not part of the JPEG library
proper. Those modules are not really intended to be used in other
applications.

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/coderules.txt
No license file was found, but licenses were detected in source scan.

```
/*
* jquant2.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modified 2011-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains 2-pass color quantization (color mapping) routines.
* These routines provide selection of a custom color map for an image,
* followed by mapping of the image to that color map, with optional
* Floyd-Steinberg dithering.
* It is also possible to use just the second pass to map to an arbitrary
* externally-given color map.
*
* Note: ordered dithering is not supported, since there isn't any fast
* way to compute intercolor distances; it's unclear that ordered dither's
* fundamental assumptions even hold with an irregularly spaced color map.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jquant2.c
No license file was found, but licenses were detected in source scan.

```
/*
* jerror.h
*
* Copyright (C) 1994-1997, Thomas G. Lane.
* Modified 1997-2018 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file defines the error and message codes for the JPEG library.
* Edit this file to add new codes, or to translate the message strings to
* some other language.
* A set of error-reporting macros are defined too.  Some applications using
* the JPEG library may wish to include this file to get the error codes
* and/or the macros.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jerror.h
No license file was found, but licenses were detected in source scan.

```
/*
* jmemname.c
*
* Copyright (C) 1992-1997, Thomas G. Lane.
```

```
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file provides a generic implementation of the system-dependent
* portion of the JPEG memory manager.  This implementation assumes that
* you must explicitly construct a name for each temp file.
* Also, the problem of determining the amount of memory available
* is shoved onto the user.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jmemname.c
No license file was found, but licenses were detected in source scan.

```
/*
* jpegint.h
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modified 1997-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file provides common declarations for the various JPEG modules.
* These declarations are considered internal to the JPEG library; most
* applications using the library shouldn't need to include this file.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jpegint.h
No license file was found, but licenses were detected in source scan.

```
/*
* jctrans.c
*
* Copyright (C) 1995-1998, Thomas G. Lane.
* Modified 2000-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains library routines for transcoding compression,
* that is, writing raw DCT coefficient arrays to an output JPEG file.
* The routines in jcapimin.c will also be needed by a transcoder.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jctrans.c
No license file was found, but licenses were detected in source scan.

```
/*
* jcmarker.c
*
* Copyright (C) 1991-1998, Thomas G. Lane.
* Modified 2003-2019 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to write JPEG datastream markers.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jcmarker.c
No license file was found, but licenses were detected in source scan.

```
/*
* rdbmp.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2009-2019 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to read input images in Microsoft "BMP"
* format (MS Windows 3.x, OS/2 1.x, and OS/2 2.x flavors).
* Currently, only 8-, 24-, and 32-bit images are supported, not 1-bit or
* 4-bit (feeding such low-depth images into JPEG would be silly anyway).
* Also, we don't support RLE-compressed files.
*
* These routines may need modification for non-Unix environments or
* specialized applications.  As they stand, they assume input from
* an ordinary stdio stream.  They further assume that reading begins
* at the start of the file; start_input may need work if the
* user interface has already read some data (e.g., to determine that
* the file is indeed BMP format).
*
* This code contributed by James Arthur Boucher.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/rdbmp.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdmaster.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modified 2002-2020 by Guido Vollbeding.
```

* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains master control logic for the JPEG decompressor.
* These routines are concerned with selecting the modules to be executed
* and with determining the number of passes and the work to be done in each
* pass.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdmaster.c
No license file was found, but licenses were detected in source scan.

/*
* rdswitch.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modified 2003-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to process some of cjpeg's more complicated
* command-line switches. Switches processed here are:
* -qtables file Read quantization tables from text file
* -scans file Read scan script from text file
* -quality N[,N,...] Set quality ratings
* -qslots N[,N,...] Set component quantization table selectors
* -sample HxV[,HxV,...] Set component sampling factors
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/rdswitch.c
No license file was found, but licenses were detected in source scan.

IJG JPEG LIBRARY: SYSTEM ARCHITECTURE

Copyright (C) 1991-2013, Thomas G. Lane, Guido Vollbeding.
This file is part of the Independent JPEG Group's software.
For conditions of distribution and use, see the accompanying README file.

This file provides an overview of the architecture of the IJG JPEG software;
that is, the functions of the various modules in the system and the interfaces
between modules. For more precise details about any data structure or calling
convention, see the include files and comments in the source code.

We assume that the reader is already somewhat familiar with the JPEG standard.
The README file includes references for learning about JPEG. The file

libjpeg.txt describes the library from the viewpoint of an application
programmer using the library; it's best to read that file before this one.
Also, the file coderules.txt describes the coding style conventions we use.

In this document, JPEG-specific terminology follows the JPEG standard:
 A "component" means a color channel, e.g., Red or Luminance.
 A "sample" is a single component value (i.e., one number in the image data).
 A "coefficient" is a frequency coefficient (a DCT transform output number).
 A "block" is an array of samples or coefficients.
 An "MCU" (minimum coded unit) is an interleaved set of blocks of size
 determined by the sampling factors, or a single block in a
 noninterleaved scan.
We do not use the terms "pixel" and "sample" interchangeably. When we say
pixel, we mean an element of the full-size image, while a sample is an element
of the downsampled image. Thus the number of samples may vary across
components while the number of pixels does not. (This terminology is not used
rigorously throughout the code, but it is used in places where confusion would
otherwise result.)

*** System features ***

The IJG distribution contains two parts:
 * A subroutine library for JPEG compression and decompression.
 * cjpeg/djpeg, two sample applications that use the library to transform
   JFIF JPEG files to and from several other image formats.
cjpeg/djpeg are of no great intellectual complexity: they merely add a simple
command-line user interface and I/O routines for several uncompressed image
formats. This document concentrates on the library itself.

We desire the library to be capable of supporting all JPEG baseline, extended
sequential, and progressive DCT processes. The library does not support the
hierarchical or lossless processes defined in the standard.

Within these limits, any set of compression parameters allowed by the JPEG
spec should be readable for decompression. (We can be more restrictive about
what formats we can generate.) Although the system design allows for all
parameter values, some uncommon settings are not yet implemented and may
never be; nonintegral sampling ratios are the prime example. Furthermore,
we treat 8-bit vs. 12-bit data precision as a compile-time switch, not a
run-time option, because most machines can store 8-bit pixels much more
compactly than 12-bit.

By itself, the library handles only interchange JPEG datastreams --- in
particular the widely used JFIF file format. The library can be used by
surrounding code to process interchange or abbreviated JPEG datastreams that
are embedded in more complex file formats. (For example, libtiff uses this
library to implement JPEG compression within the TIFF file format.)

The library includes a substantial amount of code that is not covered by the JPEG standard but is necessary for typical applications of JPEG. These functions preprocess the image before JPEG compression or postprocess it after decompression. They include colorspace conversion, downsampling/upsampling, and color quantization. This code can be omitted if not needed.

A wide range of quality vs. speed tradeoffs are possible in JPEG processing, and even more so in decompression postprocessing. The decompression library provides multiple implementations that cover most of the useful tradeoffs, ranging from very-high-quality down to fast-preview operation. On the compression side we have generally not provided low-quality choices, since compression is normally less time-critical. It should be understood that the low-quality modes may not meet the JPEG standard's accuracy requirements; nonetheless, they are useful for viewers.

*** Portability issues ***

Portability is an essential requirement for the library. The key portability issues that show up at the level of system architecture are:

1. Memory usage. We want the code to be able to run on PC-class machines with limited memory. Images should therefore be processed sequentially (in strips), to avoid holding the whole image in memory at once. Where a full-image buffer is necessary, we should be able to use either virtual memory or temporary files.

2. Near/far pointer distinction. To run efficiently on 80x86 machines, the code should distinguish "small" objects (kept in near data space) from "large" ones (kept in far data space). This is an annoying restriction, but fortunately it does not impact code quality for less brain-damaged machines, and the source code clutter turns out to be minimal with sufficient use of pointer typedefs.

3. Data precision. We assume that "char" is at least 8 bits, "short" and "int" at least 16, "long" at least 32. The code will work fine with larger data sizes, although memory may be used inefficiently in some cases. However, the JPEG compressed datastream must ultimately appear on external storage as a sequence of 8-bit bytes if it is to conform to the standard. This may pose a problem on machines where char is wider than 8 bits. The library represents compressed data as an array of values of typedef JOCTET. If no data type exactly 8 bits wide is available, custom data source and data destination modules must be written to unpack and pack the chosen JOCTET datatype into 8-bit external representation.

*** System overview ***

The compressor and decompressor are each divided into two main sections:
the JPEG compressor or decompressor proper, and the preprocessing or
postprocessing functions. The interface between these two sections is the
image data that the official JPEG spec regards as its input or output: this
data is in the colorspace to be used for compression, and it is downsampled
to the sampling factors to be used. The preprocessing and postprocessing
steps are responsible for converting a normal image representation to or from
this form. (Those few applications that want to deal with YCbCr downsampled
data can skip the preprocessing or postprocessing step.)

Looking more closely, the compressor library contains the following main
elements:

Preprocessing:
* Color space conversion (e.g., RGB to YCbCr).
* Edge expansion and downsampling. Optionally, this step can do simple
smoothing --- this is often helpful for low-quality source data.

JPEG proper:
* MCU assembly, DCT, quantization.
* Entropy coding (sequential or progressive, Huffman or arithmetic).

In addition to these modules we need overall control, marker generation,
and support code (memory management & error handling). There is also a
module responsible for physically writing the output data --- typically
this is just an interface to fwrite(), but some applications may need to
do something else with the data.

The decompressor library contains the following main elements:

JPEG proper:
* Entropy decoding (sequential or progressive, Huffman or arithmetic).
* Dequantization, inverse DCT, MCU disassembly.

Postprocessing:
* Upsampling. Optionally, this step may be able to do more general
rescaling of the image.
* Color space conversion (e.g., YCbCr to RGB). This step may also
provide gamma adjustment [currently it does not].
* Optional color quantization (e.g., reduction to 256 colors).
* Optional color precision reduction (e.g., 24-bit to 15-bit color).
[This feature is not currently implemented.]

We also need overall control, marker parsing, and a data source module.
The support code (memory management & error handling) can be shared with
the compression half of the library.

There may be several implementations of each of these elements, particularly
in the decompressor, where a wide range of speed/quality tradeoffs is very

useful. It must be understood that some of the best speedups involve
merging adjacent steps in the pipeline. For example, upsampling, color space
conversion, and color quantization might all be done at once when using a
low-quality ordered-dither technique. The system architecture is designed to
allow such merging where appropriate.

Note: it is convenient to regard edge expansion (padding to block boundaries)
as a preprocessing/postprocessing function, even though the JPEG spec includes
it in compression/decompression. We do this because downsampling/upsampling
can be simplified a little if they work on padded data: it's not necessary to
have special cases at the right and bottom edges. Therefore the interface
buffer is always an integral number of blocks wide and high, and we expect
compression preprocessing to pad the source data properly. Padding will occur
only to the next block (block_size-sample) boundary. In an interleaved-scan
situation, additional dummy blocks may be used to fill out MCUs, but the MCU
assembly and disassembly logic will create or discard these blocks internally.
(This is advantageous for speed reasons, since we avoid DCTing the dummy
blocks. It also permits a small reduction in file size, because the
compressor can choose dummy block contents so as to minimize their size
in compressed form. Finally, it makes the interface buffer specification
independent of whether the file is actually interleaved or not.)
Applications that wish to deal directly with the downsampled data must
provide similar buffering and padding for odd-sized images.

*** Poor man's object-oriented programming ***

It should be clear by now that we have a lot of quasi-independent processing
steps, many of which have several possible behaviors. To avoid cluttering the
code with lots of switch statements, we use a simple form of object-style
programming to separate out the different possibilities.

For example, two different color quantization algorithms could be implemented
as two separate modules that present the same external interface; at runtime,
the calling code will access the proper module indirectly through an "object".

We can get the limited features we need while staying within portable C.
The basic tool is a function pointer. An "object" is just a struct
containing one or more function pointer fields, each of which corresponds to
a method name in real object-oriented languages. During initialization we
fill in the function pointers with references to whichever module we have
determined we need to use in this run. Then invocation of the module is done
by indirecting through a function pointer; on most machines this is no more
expensive than a switch statement, which would be the only other way of
making the required run-time choice. The really significant benefit, of
course, is keeping the source code clean and well structured.

We can also arrange to have private storage that varies between different implementations of the same kind of object. We do this by making all the module-specific object structs be separately allocated entities, which will be accessed via pointers in the master compression or decompression struct. The "public" fields or methods for a given kind of object are specified by a commonly known struct. But a module's initialization code can allocate a larger struct that contains the common struct as its first member, plus additional private fields. With appropriate pointer casting, the module's internal functions can access these private fields. (For a simple example, see jdatadst.c, which implements the external interface specified by struct jpeg_destination_mgr, but adds extra fields.)

(Of course this would all be a lot easier if we were using C++, but we are not yet prepared to assume that everyone has a C++ compiler.)

An important benefit of this scheme is that it is easy to provide multiple versions of any method, each tuned to a particular case. While a lot of precalculation might be done to select an optimal implementation of a method, the cost per invocation is constant. For example, the upsampling step might have a "generic" method, plus one or more "hardwired" methods for the most popular sampling factors; the hardwired methods would be faster because they'd use straight-line code instead of for-loops. The cost to determine which method to use is paid only once, at startup, and the selection criteria are hidden from the callers of the method.

This plan differs a little bit from usual object-oriented structures, in that only one instance of each object class will exist during execution. The reason for having the class structure is that on different runs we may create different instances (choose to execute different modules). You can think of the term "method" as denoting the common interface presented by a particular set of interchangeable functions, and "object" as denoting a group of related methods, or the total shared interface behavior of a group of modules.

*** Overall control structure ***

We previously mentioned the need for overall control logic in the compression and decompression libraries. In IJG implementations prior to v5, overall control was mostly provided by "pipeline control" modules, which proved to be large, unwieldy, and hard to understand. To improve the situation, the control logic has been subdivided into multiple modules. The control modules consist of:

1. Master control for module selection and initialization. This has two responsibilities:

1A. Startup initialization at the beginning of image processing.
The individual processing modules to be used in this run are selected

and given initialization calls.

1B. Per-pass control. This determines how many passes will be performed and calls each active processing module to configure itself appropriately at the beginning of each pass. End-of-pass processing, where necessary, is also invoked from the master control module.

Method selection is partially distributed, in that a particular processing module may contain several possible implementations of a particular method, which it will select among when given its initialization call. The master control code need only be concerned with decisions that affect more than one module.

2. Data buffering control. A separate control module exists for each inter-processing-step data buffer. This module is responsible for invoking the processing steps that write or read that data buffer.

Each buffer controller sees the world as follows:

```
input data => processing step A => buffer => processing step B => output data
                  |            |            |
            ------------------ controller ------------------
```

The controller knows the dataflow requirements of steps A and B: how much data they want to accept in one chunk and how much they output in one chunk. Its function is to manage its buffer and call A and B at the proper times.

A data buffer control module may itself be viewed as a processing step by a higher-level control module; thus the control modules form a binary tree with elementary processing steps at the leaves of the tree.

The control modules are objects. A considerable amount of flexibility can be had by replacing implementations of a control module. For example:

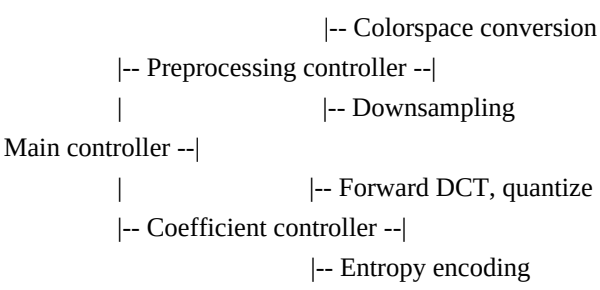
* Merging of adjacent steps in the pipeline is done by replacing a control module and its pair of processing-step modules with a single processing-step module. (Hence the possible merges are determined by the tree of control modules.)
* In some processing modes, a given interstep buffer need only be a "strip" buffer large enough to accommodate the desired data chunk sizes. In other modes, a full-image buffer is needed and several passes are required. The control module determines which kind of buffer is used and manipulates virtual array buffers as needed. One or both processing steps may be unaware of the multi-pass behavior.

In theory, we might be able to make all of the data buffer controllers interchangeable and provide just one set of implementations for all. In practice, each one contains considerable special-case processing for its particular job. The buffer controller concept should be regarded as an

overall system structuring principle, not as a complete description of the task performed by any one controller.

*** Compression object structure ***

Here is a sketch of the logical structure of the JPEG compression library:



This sketch also describes the flow of control (subroutine calls) during typical image data processing. Each of the components shown in the diagram is an "object" which may have several different implementations available. One or more source code files contain the actual implementation(s) of each object.

The objects shown above are:

* Main controller: buffer controller for the subsampled-data buffer, which holds the preprocessed input data. This controller invokes preprocessing to fill the subsampled-data buffer, and JPEG compression to empty it. There is usually no need for a full-image buffer here; a strip buffer is adequate.

* Preprocessing controller: buffer controller for the downsampling input data buffer, which lies between colorspace conversion and downsampling. Note that a unified conversion/downsampling module would probably replace this controller entirely.

* Colorspace conversion: converts application image data into the desired JPEG color space; also changes the data from pixel-interleaved layout to separate component planes. Processes one pixel row at a time.

* Downsampling: performs reduction of chroma components as required. Optionally may perform pixel-level smoothing as well. Processes a "row group" at a time, where a row group is defined as Vmax pixel rows of each component before downsampling, and Vk sample rows afterwards (remember Vk differs across components). Some downsampling or smoothing algorithms may require context rows above and below the current row group; the preprocessing controller is responsible for supplying these rows via proper buffering. The downsampler is responsible for edge expansion at the right edge (i.e., extending each sample row to a multiple of block_size samples); but the preprocessing controller is responsible for vertical edge expansion (i.e., duplicating the bottom sample row as needed to make a multiple of

block_size rows).

* Coefficient controller: buffer controller for the DCT-coefficient data.
This controller handles MCU assembly, including insertion of dummy DCT
blocks when needed at the right or bottom edge. When performing
Huffman-code optimization or emitting a multiscan JPEG file, this
controller is responsible for buffering the full image. The equivalent of
one fully interleaved MCU row of subsampled data is processed per call,
even when the JPEG file is noninterleaved.

* Forward DCT and quantization: Perform DCT, quantize, and emit coefficients.
Works on one or more DCT blocks at a time. (Note: the coefficients are now
emitted in normal array order, which the entropy encoder is expected to
convert to zigzag order as necessary. Prior versions of the IJG code did
the conversion to zigzag order within the quantization step.)

* Entropy encoding: Perform Huffman or arithmetic entropy coding and emit the
coded data to the data destination module. Works on one MCU per call.
For progressive JPEG, the same DCT blocks are fed to the entropy coder
during each pass, and the coder must emit the appropriate subset of
coefficients.

In addition to the above objects, the compression library includes these
objects:

* Master control: determines the number of passes required, controls overall
and per-pass initialization of the other modules.

* Marker writing: generates JPEG markers (except for RSTn, which is emitted
by the entropy encoder when needed).

* Data destination manager: writes the output JPEG datastream to its final
destination (e.g., a file). The destination manager supplied with the
library knows how to write to a stdio stream or to a memory buffer;
for other behaviors, the surrounding application may provide its own
destination manager.

* Memory manager: allocates and releases memory, controls virtual arrays
(with backing store management, where required).

* Error handler: performs formatting and output of error and trace messages;
determines handling of nonfatal errors. The surrounding application may
override some or all of this object's methods to change error handling.

* Progress monitor: supports output of "percent-done" progress reports.
This object represents an optional callback to the surrounding application:
if wanted, it must be supplied by the application.

The error handler, destination manager, and progress monitor objects are
defined as separate objects in order to simplify application-specific
customization of the JPEG library. A surrounding application may override
individual methods or supply its own all-new implementation of one of these
objects. The object interfaces for these objects are therefore treated as
part of the application interface of the library, whereas the other objects
are internal to the library.

The error handler and memory manager are shared by JPEG compression and
decompression; the progress monitor, if used, may be shared as well.

*** Decompression object structure ***

Here is a sketch of the logical structure of the JPEG decompression library:

```
                              |-- Entropy decoding
            |-- Coefficient controller --|
            |                 |-- Dequantize, Inverse DCT
Main controller --|
            |                   |-- Upsampling
            |-- Postprocessing controller --|   |-- Colorspace conversion
                              |-- Color quantization
                              |-- Color precision reduction
```

As before, this diagram also represents typical control flow. The objects
shown are:

* Main controller: buffer controller for the subsampled-data buffer, which
 holds the output of JPEG decompression proper. This controller's primary
 task is to feed the postprocessing procedure. Some upsampling algorithms
 may require context rows above and below the current row group; when this
 is true, the main controller is responsible for managing its buffer so as
 to make context rows available. In the current design, the main buffer is
 always a strip buffer; a full-image buffer is never required.

* Coefficient controller: buffer controller for the DCT-coefficient data.
 This controller handles MCU disassembly, including deletion of any dummy
 DCT blocks at the right or bottom edge. When reading a multiscan JPEG
 file, this controller is responsible for buffering the full image.
 (Buffering DCT coefficients, rather than samples, is necessary to support
 progressive JPEG.) The equivalent of one fully interleaved MCU row of
 subsampled data is processed per call, even when the source JPEG file is
 noninterleaved.

* Entropy decoding: Read coded data from the data source module and perform
 Huffman or arithmetic entropy decoding. Works on one MCU per call.
 For progressive JPEG decoding, the coefficient controller supplies the prior

coefficients of each MCU (initially all zeroes), which the entropy decoder modifies in each scan.

* Dequantization and inverse DCT: like it says. Note that the coefficients buffered by the coefficient controller have NOT been dequantized; we merge dequantization and inverse DCT into a single step for speed reasons. When scaled-down output is asked for, simplified DCT algorithms may be used that need fewer coefficients and emit fewer samples per DCT block, not the full 8x8. Works on one DCT block at a time.

* Postprocessing controller: buffer controller for the color quantization input buffer, when quantization is in use. (Without quantization, this controller just calls the upsampler.) For two-pass quantization, this controller is responsible for buffering the full-image data.

* Upsampling: restores chroma components to full size. (May support more general output rescaling, too. Note that if undersized DCT outputs have been emitted by the DCT module, this module must adjust so that properly sized outputs are created.) Works on one row group at a time. This module also calls the color conversion module, so its top level is effectively a buffer controller for the upsampling->color conversion buffer. However, in all but the highest-quality operating modes, upsampling and color conversion are likely to be merged into a single step.

* Colorspace conversion: convert from JPEG color space to output color space, and change data layout from separate component planes to pixel-interleaved. Works on one pixel row at a time.

* Color quantization: reduce the data to colormapped form, using either an externally specified colormap or an internally generated one. This module is not used for full-color output. Works on one pixel row at a time; may require two passes to generate a color map. Note that the output will always be a single component representing colormap indexes. In the current design, the output values are JSAMPLEs, so an 8-bit compilation cannot quantize to more than 256 colors. This is unlikely to be a problem in practice.

* Color reduction: this module handles color precision reduction, e.g., generating 15-bit color (5 bits/primary) from JPEG's 24-bit output. Not quite clear yet how this should be handled... should we merge it with colorspace conversion???

Note that some high-speed operating modes might condense the entire postprocessing sequence to a single module (upsample, color convert, and quantize in one step).

In addition to the above objects, the decompression library includes these objects:

* Master control: determines the number of passes required, controls overall
 and per-pass initialization of the other modules. This is subdivided into
 input and output control: jdinput.c controls only input-side processing,
 while jdmaster.c handles overall initialization and output-side control.

* Marker reading: decodes JPEG markers (except for RSTn).

* Data source manager: supplies the input JPEG datastream. The source
 manager supplied with the library knows how to read from a stdio stream
 or from a memory buffer; for other behaviors, the surrounding application
 may provide its own source manager.

* Memory manager: same as for compression library.

* Error handler: same as for compression library.

* Progress monitor: same as for compression library.

As with compression, the data source manager, error handler, and progress
monitor are candidates for replacement by a surrounding application.

*** Decompression input and output separation ***

To support efficient incremental display of progressive JPEG files, the
decompressor is divided into two sections that can run independently:

1. Data input includes marker parsing, entropy decoding, and input into the
  coefficient controller's DCT coefficient buffer. Note that this
  processing is relatively cheap and fast.

2. Data output reads from the DCT coefficient buffer and performs the IDCT
  and all postprocessing steps.

For a progressive JPEG file, the data input processing is allowed to get
arbitrarily far ahead of the data output processing. (This occurs only
if the application calls jpeg_consume_input(); otherwise input and output
run in lockstep, since the input section is called only when the output
section needs more data.) In this way the application can avoid making
extra display passes when data is arriving faster than the display pass
can run. Furthermore, it is possible to abort an output pass without
losing anything, since the coefficient buffer is read-only as far as the
output section is concerned. See libjpeg.txt for more detail.

A full-image coefficient array is only created if the JPEG file has multiple
scans (or if the application specifies buffered-image mode anyway). When
reading a single-scan file, the coefficient controller normally creates only

a one-MCU buffer, so input and output processing must run in lockstep in this case. jpeg_consume_input() is effectively a no-op in this situation.

The main impact of dividing the decompressor in this fashion is that we must be very careful with shared variables in the cinfo data structure. Each variable that can change during the course of decompression must be classified as belonging to data input or data output, and each section must look only at its own variables. For example, the data output section may not depend on any of the variables that describe the current scan in the JPEG file, because these may change as the data input section advances into a new scan.

The progress monitor is (somewhat arbitrarily) defined to treat input of the file as one pass when buffered-image mode is not used, and to ignore data input work completely when buffered-image mode is used. Note that the library has no reliable way to predict the number of passes when dealing with a progressive JPEG file, nor can it predict the number of output passes in buffered-image mode. So the work estimate is inherently bogus anyway.

No comparable division is currently made in the compression library, because there isn't any real need for it.

*** Data formats ***

Arrays of pixel sample values use the following data structure:

```
typedef something JSAMPLE;  a pixel component value, 0..MAXJSAMPLE
typedef JSAMPLE *JSAMPROW;  ptr to a row of samples
typedef JSAMPROW *JSAMPARRAY; ptr to a list of rows
typedef JSAMPARRAY *JSAMPIMAGE; ptr to a list of color-component arrays
```

The basic element type JSAMPLE will typically be one of unsigned char, (signed) char, or short. Short will be used if samples wider than 8 bits are to be supported (this is a compile-time option). Otherwise, unsigned char is used if possible. If the compiler only supports signed chars, then it is necessary to mask off the value when reading. Thus, all reads of JSAMPLE values must be coded as "GETJSAMPLE(value)", where the macro will be defined as "((value) & 0xFF)" on signed-char machines and "((int) (value))" elsewhere.

With these conventions, JSAMPLE values can be assumed to be >= 0. This helps simplify correct rounding during downsampling, etc. The JPEG standard's specification that sample values run from -128..127 is accommodated by subtracting 128 from the sample value in the DCT step. Similarly, during decompression the output of the IDCT step will be immediately shifted back to 0..255. (NB: different values are required when 12-bit samples are in use. The code is written in terms of MAXJSAMPLE and CENTERJSAMPLE, which will be defined as 255 and 128 respectively in an 8-bit implementation, and as 4095

and 2048 in a 12-bit implementation.)

We use a pointer per row, rather than a two-dimensional JSAMPLE array. This
choice costs only a small amount of memory and has several benefits:
* Code using the data structure doesn't need to know the allocated width of
 the rows. This simplifies edge expansion/compression, since we can work
 in an array that's wider than the logical picture width.
* Indexing doesn't require multiplication; this is a performance win on many
 machines.
* Arrays with more than 64K total elements can be supported even on machines
 where malloc() cannot allocate chunks larger than 64K.
* The rows forming a component array may be allocated at different times
 without extra copying. This trick allows some speedups in smoothing steps
 that need access to the previous and next rows.

Note that each color component is stored in a separate array; we don't use the
traditional layout in which the components of a pixel are stored together.
This simplifies coding of modules that work on each component independently,
because they don't need to know how many components there are. Furthermore,
we can read or write each component to a temporary file independently, which
is helpful when dealing with noninterleaved JPEG files.

In general, a specific sample value is accessed by code such as
 GETJSAMPLE(image[colorcomponent][row][col])
where col is measured from the image left edge, but row is measured from the
first sample row currently in memory. Either of the first two indexings can
be precomputed by copying the relevant pointer.

Since most image-processing applications prefer to work on images in which
the components of a pixel are stored together, the data passed to or from the
surrounding application uses the traditional convention: a single pixel is
represented by N consecutive JSAMPLE values, and an image row is an array of
(# of color components)*(image width) JSAMPLEs. One or more rows of data can
be represented by a pointer of type JSAMPARRAY in this scheme. This scheme is
converted to component-wise storage inside the JPEG library. (Applications
that want to skip JPEG preprocessing or postprocessing will have to contend
with component-wise storage.)

Arrays of DCT-coefficient values use the following data structure:

```
typedef short JCOEF;  a 16-bit signed integer
typedef JCOEF JBLOCK[DCTSIZE2]; an 8x8 block of coefficients
typedef JBLOCK *JBLOCKROW;  ptr to one horizontal row of 8x8 blocks
typedef JBLOCKROW *JBLOCKARRAY; ptr to a list of such rows
typedef JBLOCKARRAY *JBLOCKIMAGE; ptr to a list of color component arrays
```

The underlying type is at least a 16-bit signed integer; while "short" is big
enough on all machines of interest, on some machines it is preferable to use
"int" for speed reasons, despite the storage cost. Coefficients are grouped
into 8x8 blocks (but we always use #defines DCTSIZE and DCTSIZE2 rather than
"8" and "64").

The contents of a coefficient block may be in either "natural" or zigzagged
order, and may be true values or divided by the quantization coefficients,
depending on where the block is in the processing pipeline. In the current
library, coefficient blocks are kept in natural order everywhere; the entropy
codecs zigzag or dezigzag the data as it is written or read. The blocks
contain quantized coefficients everywhere outside the DCT/IDCT subsystems.
(This latter decision may need to be revisited to support variable
quantization a la JPEG Part 3.)

Notice that the allocation unit is now a row of 8x8 coefficient blocks,
corresponding to block_size rows of samples. Otherwise the structure
is much the same as for samples, and for the same reasons.

On machines where malloc() can't handle a request bigger than 64Kb, this data
structure limits us to rows of less than 512 JBLOCKs, or a picture width of
4000+ pixels. This seems an acceptable restriction.

On 80x86 machines, the bottom-level pointer types (JSAMPROW and JBLOCKROW)
must be declared as "far" pointers, but the upper levels can be "near"
(implying that the pointer lists are allocated in the DS segment).
We use a #define symbol FAR, which expands to the "far" keyword when
compiling on 80x86 machines and to nothing elsewhere.

*** Suspendable processing ***

In some applications it is desirable to use the JPEG library as an
incremental, memory-to-memory filter. In this situation the data source or
destination may be a limited-size buffer, and we can't rely on being able to
empty or refill the buffer at arbitrary times. Instead the application would
like to have control return from the library at buffer overflow/underrun, and
then resume compression or decompression at a later time.

This scenario is supported for simple cases. (For anything more complex, we
recommend that the application "bite the bullet" and develop real multitasking
capability.) The libjpeg.txt file goes into more detail about the usage and
limitations of this capability; here we address the implications for library
structure.

The essence of the problem is that the entropy codec (coder or decoder) must
be prepared to stop at arbitrary times. In turn, the controllers that call

the entropy codec must be able to stop before having produced or consumed all the data that they normally would handle in one call. That part is reasonably straightforward: we make the controller call interfaces include "progress counters" which indicate the number of data chunks successfully processed, and we require callers to test the counter rather than just assume all of the data was processed.

Rather than trying to restart at an arbitrary point, the current Huffman codecs are designed to restart at the beginning of the current MCU after a suspension due to buffer overflow/underrun. At the start of each call, the codec's internal state is loaded from permanent storage (in the JPEG object structures) into local variables. On successful completion of the MCU, the permanent state is updated. (This copying is not very expensive, and may even lead to *improved* performance if the local variables can be registerized.) If a suspension occurs, the codec simply returns without updating the state, thus effectively reverting to the start of the MCU. Note that this implies leaving some data unprocessed in the source/destination buffer (ie, the compressed partial MCU). The data source/destination module interfaces are specified so as to make this possible. This also implies that the data buffer must be large enough to hold a worst-case compressed MCU; a couple thousand bytes should be enough.

In a successive-approximation AC refinement scan, the progressive Huffman decoder has to be able to undo assignments of newly nonzero coefficients if it suspends before the MCU is complete, since decoding requires distinguishing previously-zero and previously-nonzero coefficients. This is a bit tedious but probably won't have much effect on performance. Other variants of Huffman decoding need not worry about this, since they will just store the same values again if forced to repeat the MCU.

This approach would probably not work for an arithmetic codec, since its modifiable state is quite large and couldn't be copied cheaply. Instead it would have to suspend and resume exactly at the point of the buffer end.

The JPEG marker reader is designed to cope with suspension at an arbitrary point. It does so by backing up to the start of the marker parameter segment, so the data buffer must be big enough to hold the largest marker of interest. Again, a couple KB should be adequate. (A special "skip" convention is used to bypass COM and APPn markers, so these can be larger than the buffer size without causing problems; otherwise a 64K buffer would be needed in the worst case.)

The JPEG marker writer currently does *not* cope with suspension. We feel that this is not necessary; it is much easier simply to require the application to ensure there is enough buffer space before starting. (An empty 2K buffer is more than sufficient for the header markers; and ensuring there are a dozen or two bytes available before calling jpeg_finish_compress() will suffice for the trailer.) This would not work for writing multi-scan

JPEG files, but we simply do not intend to support that capability with
suspension.

*** Memory manager services ***

The JPEG library's memory manager controls allocation and deallocation of
memory, and it manages large "virtual" data arrays on machines where the
operating system does not provide virtual memory. Note that the same
memory manager serves both compression and decompression operations.

In all cases, allocated objects are tied to a particular compression or
decompression master record, and they will be released when that master
record is destroyed.

The memory manager does not provide explicit deallocation of objects.
Instead, objects are created in "pools" of free storage, and a whole pool
can be freed at once. This approach helps prevent storage-leak bugs, and
it speeds up operations whenever malloc/free are slow (as they often are).
The pools can be regarded as lifetime identifiers for objects. Two
pools/lifetimes are defined:
 * JPOOL_PERMANENT lasts until master record is destroyed
 * JPOOL_IMAGE lasts until done with image (JPEG datastream)
Permanent lifetime is used for parameters and tables that should be carried
across from one datastream to another; this includes all application-visible
parameters. Image lifetime is used for everything else. (A third lifetime,
JPOOL_PASS = one processing pass, was originally planned. However it was
dropped as not being worthwhile. The actual usage patterns are such that the
peak memory usage would be about the same anyway; and having per-pass storage
substantially complicates the virtual memory allocation rules --- see below.)

The memory manager deals with three kinds of object:
1. "Small" objects. Typically these require no more than 10K-20K total.
2. "Large" objects. These may require tens to hundreds of K depending on
  image size. Semantically they behave the same as small objects, but we
  distinguish them for two reasons:
    * On MS-DOS machines, large objects are referenced by FAR pointers,
      small objects by NEAR pointers.
    * Pool allocation heuristics may differ for large and small objects.
  Note that individual "large" objects cannot exceed the size allowed by
  type size_t, which may be 64K or less on some machines.
3. "Virtual" objects. These are large 2-D arrays of JSAMPLEs or JBLOCKs
  (typically large enough for the entire image being processed). The
  memory manager provides stripwise access to these arrays. On machines
  without virtual memory, the rest of the array may be swapped out to a
  temporary file.

(Note: JSAMPARRAY and JBLOCKARRAY data structures are a combination of large

objects for the data proper and small objects for the row pointers. For convenience and speed, the memory manager provides single routines to create these structures. Similarly, virtual arrays include a small control block and a JSAMPARRAY or JBLOCKARRAY working buffer, all created with one call.)

In the present implementation, virtual arrays are only permitted to have image lifespan. (Permanent lifespan would not be reasonable, and pass lifespan is not very useful since a virtual array's raison d'etre is to store data for multiple passes through the image.) We also expect that only "small" objects will be given permanent lifespan, though this restriction is not required by the memory manager.

In a non-virtual-memory machine, some performance benefit can be gained by making the in-memory buffers for virtual arrays be as large as possible. (For small images, the buffers might fit entirely in memory, so blind swapping would be very wasteful.) The memory manager will adjust the height of the buffers to fit within a prespecified maximum memory usage. In order to do this in a reasonably optimal fashion, the manager needs to allocate all of the virtual arrays at once. Therefore, there isn't a one-step allocation routine for virtual arrays; instead, there is a "request" routine that simply allocates the control block, and a "realize" routine (called just once) that determines space allocation and creates all of the actual buffers. The realize routine must allow for space occupied by non-virtual large objects. (We don't bother to factor in the space needed for small objects, on the grounds that it isn't worth the trouble.)

To support all this, we establish the following protocol for doing business with the memory manager:

1. Modules must request virtual arrays (which may have only image lifespan) during the initial setup phase, i.e., in their jinit_xxx routines.
2. All "large" objects (including JSAMPARRAYs and JBLOCKARRAYs) must also be allocated during initial setup.
3. realize_virt_arrays will be called at the completion of initial setup. The above conventions ensure that sufficient information is available for it to choose a good size for virtual array buffers.

Small objects of any lifespan may be allocated at any time. We expect that the total space used for small objects will be small enough to be negligible in the realize_virt_arrays computation.

In a virtual-memory machine, we simply pretend that the available space is infinite, thus causing realize_virt_arrays to decide that it can allocate all the virtual arrays as full-size in-memory buffers. The overhead of the virtual-array access protocol is very small when no swapping occurs.

A virtual array can be specified to be "pre-zeroed"; when this flag is set, never-yet-written sections of the array are set to zero before being made available to the caller. If this flag is not set, never-written sections of the array contain garbage. (This feature exists primarily because the

equivalent logic would otherwise be needed in jdcoefct.c for progressive
JPEG mode; we may as well make it available for possible other uses.)

The first write pass on a virtual array is required to occur in top-to-bottom
order; read passes, as well as any write passes after the first one, may
access the array in any order. This restriction exists partly to simplify
the virtual array control logic, and partly because some file systems may not
support seeking beyond the current end-of-file in a temporary file. The main
implication of this restriction is that rearrangement of rows (such as
converting top-to-bottom data order to bottom-to-top) must be handled while
reading data out of the virtual array, not while putting it in.

*** Memory manager internal structure ***

To isolate system dependencies as much as possible, we have broken the
memory manager into two parts. There is a reasonably system-independent
"front end" (jmemmgr.c) and a "back end" that contains only the code
likely to change across systems. All of the memory management methods
outlined above are implemented by the front end. The back end provides
the following routines for use by the front end (none of these routines
are known to the rest of the JPEG code):

jpeg_mem_init, jpeg_mem_term system-dependent initialization/shutdown

jpeg_get_small, jpeg_free_small interface to malloc and free library routines
   (or their equivalents)

jpeg_get_large, jpeg_free_large interface to FAR malloc/free in MSDOS machines;
   else usually the same as
   jpeg_get_small/jpeg_free_small

jpeg_mem_available estimate available memory

jpeg_open_backing_store create a backing-store object

read_backing_store, manipulate a backing-store object
write_backing_store,
close_backing_store

On some systems there will be more than one type of backing-store object
(specifically, in MS-DOS a backing store file might be an area of extended
memory as well as a disk file). jpeg_open_backing_store is responsible for
choosing how to implement a given object. The read/write/close routines
are method pointers in the structure that describes a given object; this
lets them be different for different object types.

It may be necessary to ensure that backing store objects are explicitly

released upon abnormal program termination. For example, MS-DOS won't free extended memory by itself. To support this, we will expect the main program or surrounding application to arrange to call self_destruct (typically via jpeg_destroy) upon abnormal termination. This may require a SIGINT signal handler or equivalent. We don't want to have the back end module install its own signal handler, because that would pre-empt the surrounding application's ability to control signal handling.

The IJG distribution includes several memory manager back end implementations. Usually the same back end should be suitable for all applications on a given system, but it is possible for an application to supply its own back end at need.

*** Implications of DNL marker ***

Some JPEG files may use a DNL marker to postpone definition of the image height (this would be useful for a fax-like scanner's output, for instance). In these files the SOF marker claims the image height is 0, and you only find out the true image height at the end of the first scan.

We could read these files as follows:
1. Upon seeing zero image height, replace it by 65535 (the maximum allowed).
2. When the DNL is found, update the image height in the global image descriptor.

This implies that control modules must avoid making copies of the image height, and must re-test for termination after each MCU row. This would be easy enough to do.

In cases where image-size data structures are allocated, this approach will result in very inefficient use of virtual memory or much-larger-than-necessary temporary files. This seems acceptable for something that probably won't be a mainstream usage. People might have to forgo use of memory-hogging options (such as two-pass color quantization or noninterleaved JPEG files) if they want efficient conversion of such files. (One could improve efficiency by demanding a user-supplied upper bound for the height, less than 65536; in most cases it could be much less.)

The standard also permits the SOF marker to overestimate the image height, with a DNL to give the true, smaller height at the end of the first scan. This would solve the space problems if the overestimate wasn't too great. However, it implies that you don't even know whether DNL will be used.

This leads to a couple of very serious objections:
1. Testing for a DNL marker must occur in the inner loop of the decompressor's Huffman decoder; this implies a speed penalty whether the feature is used or not.
2. There is no way to hide the last-minute change in image height from an

application using the decoder. Thus *every* application using the IJG
library would suffer a complexity penalty whether it cared about DNL or
not.
We currently do not support DNL because of these problems.

A different approach is to insist that DNL-using files be preprocessed by a
separate program that reads ahead to the DNL, then goes back and fixes the SOF
marker. This is a much simpler solution and is probably far more efficient.
Even if one wants piped input, buffering the first scan of the JPEG file needs
a lot smaller temp file than is implied by the maximum-height method. For
this approach we'd simply treat DNL as a no-op in the decompressor (at most,
check that it matches the SOF image height).

We will not worry about making the compressor capable of outputting DNL.
Something similar to the first scheme above could be applied if anyone ever
wants to make that work.

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/structure.txt
No license file was found, but licenses were detected in source scan.

/*
* jutils.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modified 2009-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains tables and miscellaneous utility routines needed
* for both compression and decompression.
* Note we prefix all global names with "j" to minimize conflicts with
* a surrounding application.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jutils.c
No license file was found, but licenses were detected in source scan.

/*
* jcapimin.c
*
* Copyright (C) 1994-1998, Thomas G. Lane.
* Modified 2003-2010 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains application interface code for the compression half

```
* of the JPEG library.  These are the "minimum" API routines that may be
* needed in either the normal full-compression case or the transcoding-only
* case.
*
* Most of the routines intended to be called directly by an application
* are in this file or in jcapistd.c.  But also see jcparam.c for
* parameter-setup helper routines, jcomapi.c for routines shared by
* compression and decompression, and jctrans.c for the transcoding case.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jcapimin.c
No license file was found, but licenses were detected in source scan.

```
/*
* wrtarga.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modified 2015-2019 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to write output images in Targa format.
*
* These routines may need modification for non-Unix environments or
* specialized applications.  As they stand, they assume output to
* an ordinary stdio stream.
*
* Based on code contributed by Lee Daniel Crocker.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/wrtarga.c
No license file was found, but licenses were detected in source scan.

```
/*
* jcdctmgr.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2003-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the forward-DCT management logic.
* This code selects a particular DCT implementation to be used,
* and it performs related housekeeping chores including coefficient
* quantization.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jcdctmgr.c
No license file was found, but licenses were detected in source scan.

```
/*
* jcsample.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modified 2003-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains downsampling routines.
*
* Downsampling input data is counted in "row groups".  A row group
* is defined to be max_v_samp_factor pixel rows of each component,
* from which the downsampler produces v_samp_factor sample rows.
* A single row group is processed in each call to the downsampler module.
*
* The downsampler is responsible for edge-expansion of its output data
* to fill an integral number of DCT blocks horizontally.  The source buffer
* may be modified if it is helpful for this purpose (the source buffer is
* allocated wide enough to correspond to the desired output width).
* The caller (the prep controller) is responsible for vertical padding.
*
* The downsampler may request "context rows" by setting need_context_rows
* during startup.  In this case, the input arrays will contain at least
* one row group's worth of pixels above and below the passed-in data;
* the caller will create dummy rows at image top and bottom by replicating
* the first or last real pixel row.
*
* An excellent reference for image resampling is
*   Digital Image Warping, George Wolberg, 1990.
*   Pub. by IEEE Computer Society Press, Los Alamitos, CA. ISBN 0-8186-8944-7.
*
* The downsampling algorithm used here is a simple average of the source
* pixels covered by the output pixel.  The hi-falutin sampling literature
* refers to this as a "box filter".  In general the characteristics of a box
* filter are not very good, but for the specific cases we normally use (1:1
* and 2:1 ratios) the box is equivalent to a "triangle filter" which is not
* nearly so bad.  If you intend to use other sampling ratios, you'd be well
* advised to improve this code.
*
* A simple input-smoothing capability is provided.  This is mainly intended
* for cleaning up color-dithered GIF input files (if you find it inadequate,
* we suggest using an external filtering program such as pnmconvol).  When
* enabled, each input pixel P is replaced by a weighted sum of itself and its
```

* eight neighbors. P's weight is 1-8*SF and each neighbor's weight is SF,
* where SF = (smoothing_factor / 1024).
* Currently, smoothing is only supported for 2h2v sampling factors.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jcsample.c
No license file was found, but licenses were detected in source scan.

/*
* jdct.h
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2002-2019 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This include file contains common declarations for the forward and
* inverse DCT modules. These declarations are private to the DCT managers
* (jcdctmgr.c, jddctmgr.c) and the individual DCT algorithms.
* The individual DCT algorithms are kept in separate files to ease
* machine-dependent tuning (e.g., assembly coding).
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdct.h
No license file was found, but licenses were detected in source scan.

/*
* wrrle.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modified 2017-2019 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to write output images in RLE format.
* The Utah Raster Toolkit library is required (version 3.1 or later).
*
* These routines may need modification for non-Unix environments or
* specialized applications. As they stand, they assume output to
* an ordinary stdio stream.
*
* Based on code contributed by Mike Lijewski,
* with updates from Robert Hutchinson.
*/

Found in path(s):

* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/wrrle.c
No license file was found, but licenses were detected in source scan.

```
/*
* jidctfst.c
*
* Copyright (C) 1994-1998, Thomas G. Lane.
* Modified 2015-2017 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a fast, not so accurate integer implementation of the
* inverse DCT (Discrete Cosine Transform).  In the IJG code, this routine
* must also perform dequantization of the input coefficients.
*
* A 2-D IDCT can be done by 1-D IDCT on each column followed by 1-D IDCT
* on each row (or vice versa, but it's more convenient to emit a row at
* a time).  Direct algorithms are also available, but they are much more
* complex and seem not to be any faster when reduced to code.
*
* This implementation is based on Arai, Agui, and Nakajima's algorithm for
* scaled DCT.  Their original paper (Trans. IEICE E-71(11):1095) is in
* Japanese, but the algorithm is described in the Pennebaker & Mitchell
* JPEG textbook (see REFERENCES section in file README).  The following code
* is based directly on figure 4-8 in P&M.
* While an 8-point DCT cannot be done in less than 11 multiplies, it is
* possible to arrange the computation so that many of the multiplies are
* simple scalings of the final outputs.  These multiplies can then be
* folded into the multiplications or divisions by the JPEG quantization
* table entries.  The AA&N method leaves only 5 multiplies and 29 adds
* to be done in the DCT itself.
* The primary disadvantage of this method is that with fixed-point math,
* accuracy is lost due to imprecise representation of the scaled
* quantization values.  The smaller the quantization table entry, the less
* precise the scaled value, so this implementation does worse with high-
* quality-setting files than with low-quality ones.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jidctfst.c
No license file was found, but licenses were detected in source scan.

```
/*
* wrgif.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modified 2015-2019 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
```

* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to write output images in GIF format.
*
* These routines may need modification for non-Unix environments or
* specialized applications. As they stand, they assume output to
* an ordinary stdio stream.
*/
/*
* This code is loosely based on ppmtogif from the PBMPLUS distribution
* of Feb. 1991. That file contains the following copyright notice:
*   Based on GIFENCODE by David Rowley <mgardi@watdscu.waterloo.edu>.
*   Lempel-Ziv compression based on "compress" by Spencer W. Thomas et al.
*   Copyright (C) 1989 by Jef Poskanzer.
*   Permission to use, copy, modify, and distribute this software and its
*   documentation for any purpose and without fee is hereby granted, provided
*   that the above copyright notice appear in all copies and that both that
*   copyright notice and this permission notice appear in supporting
*   documentation. This software is provided "as is" without express or
*   implied warranty.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/wrgif.c
No license file was found, but licenses were detected in source scan.

/*
* jmemmac.c
*
* Copyright (C) 1992-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* jmemmac.c provides an Apple Macintosh implementation of the system-
* dependent portion of the JPEG memory manager.
*
* If you use jmemmac.c, then you must define USE_MAC_MEMMGR in the
* JPEG_INTERNALS part of jconfig.h.
*
* jmemmac.c uses the Macintosh toolbox routines NewPtr and DisposePtr
* instead of malloc and free. It accurately determines the amount of
* memory available by using CompactMem. Notice that if left to its
* own devices, this code can chew up all available space in the
* application's zone, with the exception of the rather small "slop"
* factor computed in jpeg_mem_available(). The application can ensure
* that more space is left over by reducing max_memory_to_use.
*
* Large images are swapped to disk using temporary files and System 7.0+'s

```
* temporary folder functionality.
*
* Note that jmemmac.c depends on two features of MacOS that were first
* introduced in System 7: FindFolder and the FSSpec-based calls.
* If your application uses jmemmac.c and is run under System 6 or earlier,
* and the jpeg library decides it needs a temporary file, it will abort,
* printing error messages about requiring System 7.  (If no temporary files
* are created, it will run fine.)
*
* If you want to use jmemmac.c in an application that might be used with
* System 6 or earlier, then you should remove dependencies on FindFolder
* and the FSSpec calls.  You will need to replace FindFolder with some
* other mechanism for finding a place to put temporary files, and you
* should replace the FSSpec calls with their HFS equivalents:
*
*     FSpDelete     ->  HDelete
*     FSpGetFInfo   ->  HGetFInfo
*     FSpCreate     ->  HCreate
*     FSpOpenDF     ->  HOpen      *** Note: not HOpenDF ***
*     FSMakeFSSpec  ->  (fill in spec by hand.)
*
* (Use HOpen instead of HOpenDF.  HOpen is just a glue-interface to PBHOpen,
* which is on all HFS macs.  HOpenDF is a System 7 addition which avoids the
* ages-old problem of names starting with a period.)
*
* Contributed by Sam Bushell (jsam@iagu.on.net) and
* Dan Gildor (gyld@in-touch.com).
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jmemmac.c
No license file was found, but licenses were detected in source scan.

```
/*
* jcmaster.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modified 2003-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains master control logic for the JPEG compressor.
* These routines are concerned with parameter validation, initial setup,
* and inter-pass control (determining the number of passes and the work
* to be done in each pass).
*/
```

Found in path(s):

* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jcmaster.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdatadst.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2009-2019 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains compression data destination routines for the case of
* emitting JPEG data to memory or to a file (or any stdio stream).
* While these routines are sufficient for most applications,
* some will want to use a different destination manager.
* IMPORTANT: we assume that fwrite() will correctly transcribe an array of
* JOCTETs into 8-bit-wide elements on external storage.  If char is wider
* than 8 bits on your machine, you may need to do some tweaking.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdatadst.c
No license file was found, but licenses were detected in source scan.

```
/*
* ckconfig.c
*
* Copyright (C) 1991-1994, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/ckconfig.c
No license file was found, but licenses were detected in source scan.

```
/*
* jcmainct.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2003-2012 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the main buffer controller for compression.
* The main buffer lies between the pre-processor and the JPEG
* compressor proper; it holds downsampled data in the JPEG colorspace.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jcmainct.c
No license file was found, but licenses were detected in source scan.

```
/*
* rdjpgcom.c
*
* Copyright (C) 1994-1997, Thomas G. Lane.
* Modified 2009 by Bill Allombert, Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a very simple stand-alone application that displays
* the text in COM (comment) markers in a JFIF file.
* This may be useful as an example of the minimum logic needed to parse
* JPEG markers.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/rdjpgcom.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdmerge.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2013-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains code for merged upsampling/color conversion.
*
* This file combines functions from jdsample.c and jdcolor.c;
* read those files first to understand what's going on.
*
* When the chroma components are to be upsampled by simple replication
* (ie, box filtering), we can save some work in color conversion by
* calculating all the output pixels corresponding to a pair of chroma
* samples at one time.  In the conversion equations
* R = Y           + K1 * Cr
* G = Y + K2 * Cb + K3 * Cr
* B = Y + K4 * Cb
* only the Y term varies among the group of pixels corresponding to a pair
* of chroma samples, so the rest of the terms can be calculated just once.
* At typical sampling ratios, this eliminates half or three-quarters of the
* multiplications needed for color conversion.
*
```

```
* This file currently provides implementations for the following cases:
* YCC => RGB color conversion only (YCbCr or BG_YCC).
* Sampling ratios of 2h1v or 2h2v.
* No scaling needed at upsample time.
* Corner-aligned (non-CCIR601) sampling alignment.
* Other special cases could be added, but in most applications these are
* the only common cases.  (For uncommon cases we fall back on the more
* general code in jdsample.c and jdcolor.c.)
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdmerge.c
No license file was found, but licenses were detected in source scan.

```
/*
* transupp.c
*
* Copyright (C) 1997-2019, Thomas G. Lane, Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains image transformation routines and other utility code
* used by the jpegtran sample application.  These are NOT part of the core
* JPEG library.  But we keep these routines separate from jpegtran.c to
* ease the task of maintaining jpegtran-like programs that have other user
* interfaces.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/transupp.c
No license file was found, but licenses were detected in source scan.

```
/*
* djpeg.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modified 2009-2019 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a command-line user interface for the JPEG decompressor.
* It should work on any system with Unix- or MS-DOS-style command lines.
*
* Two different command line styles are permitted, depending on the
* compile-time switch TWO_FILE_COMMANDLINE:
* djpeg [options]  inputfile outputfile
* djpeg [options]  [inputfile]
* In the second style, output is always to standard output, which you'd
```

```
* normally redirect to a file or pipe to some other program.  Input is
* either from a named file or from standard input (typically redirected).
* The second style is convenient on Unix but is unhelpful on systems that
* don't support pipes.  Also, you MUST use the first style if your system
* doesn't do binary I/O to stdin/stdout.
* To simplify script writing, the "-outfile" switch is provided.  The syntax
* djpeg [options]  -outfile outputfile  inputfile
* works regardless of which command line style is used.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/djpeg.c
No license file was found, but licenses were detected in source scan.

```
/*
* rdgif.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modified 2019-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to read input images in GIF format.
*
* These routines may need modification for non-Unix environments or
* specialized applications.  As they stand, they assume input from
* an ordinary stdio stream.  They further assume that reading begins
* at the start of the file; start_input may need work if the
* user interface has already read some data (e.g., to determine that
* the file is indeed GIF format).
*/
/*
* This code is loosely based on giftoppm from the PBMPLUS distribution
* of Feb. 1991.  That file contains the following copyright notice:
* +-------------------------------------------------------------+
* | Copyright 1990, David Koblas.                               |
* |   Permission to use, copy, modify, and distribute this software   |
* |   and its documentation for any purpose and without fee is hereby |
* |   granted, provided that the above copyright notice appear in all |
* |   copies and that both that copyright notice and this permission  |
* |   notice appear in supporting documentation.  This software is    |
* |   provided "as is" without express or implied warranty.           |
* +-------------------------------------------------------------+
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/rdgif.c

No license file was found, but licenses were detected in source scan.

```
/*
* jdinput.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modified 2002-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains input control logic for the JPEG decompressor.
* These routines are concerned with controlling the decompressor's input
* processing (marker reading and coefficient decoding).  The actual input
* reading is done in jdmarker.c, jdhuff.c, and jdarith.c.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdinput.c
No license file was found, but licenses were detected in source scan.

```
/*
* jcapistd.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2013 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains application interface code for the compression half
* of the JPEG library.  These are the "standard" API routines that are
* used in the normal full-compression case.  They are not used by a
* transcoding-only application.  Note that if an application links in
* jpeg_start_compress, it will end up linking in the entire compressor.
* We thus must separate this file from jcapimin.c to avoid linking the
* whole compression library into a transcoder.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jcapistd.c
No license file was found, but licenses were detected in source scan.

```
/*
* alternate djpeg.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modified 2009-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
```

```
*
* This file contains an alternate user interface for the JPEG decompressor.
* One or more input files are named on the command line, and output file
* names are created by substituting an appropriate extension.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/djpegalt.c
No license file was found, but licenses were detected in source scan.

```
/*
* wrbmp.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2017-2019 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to write output images in Microsoft "BMP"
* format (MS Windows 3.x and OS/2 1.x flavors).
* Either 8-bit colormapped or 24-bit full-color format can be written.
* No compression is supported.
*
* These routines may need modification for non-Unix environments or
* specialized applications.  As they stand, they assume output to
* an ordinary stdio stream.
*
* This code contributed by James Arthur Boucher.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/wrbmp.c
No license file was found, but licenses were detected in source scan.

```
/*
* jmemansi.c
*
* Copyright (C) 1992-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file provides a simple generic implementation of the system-
* dependent portion of the JPEG memory manager.  This implementation
* assumes that you have the ANSI-standard library routine tmpfile().
* Also, the problem of determining the amount of memory available
* is shoved onto the user.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jmemansi.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdapistd.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2002-2013 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains application interface code for the decompression half
* of the JPEG library.  These are the "standard" API routines that are
* used in the normal full-decompression case.  They are not used by a
* transcoding-only application.  Note that if an application links in
* jpeg_start_decompress, it will end up linking in the entire decompressor.
* We thus must separate this file from jdapimin.c to avoid linking the
* whole decompression library into a transcoder.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdapistd.c
No license file was found, but licenses were detected in source scan.

```
/*
* cdjpeg.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains common support routines used by the IJG application
* programs (cjpeg, djpeg, jpegtran).
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/cdjpeg.c
No license file was found, but licenses were detected in source scan.

```
/*
* jdtrans.c
*
* Copyright (C) 1995-1997, Thomas G. Lane.
* Modified 2000-2009 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
```

```
* This file contains library routines for transcoding decompression,
* that is, reading raw DCT coefficient arrays from an input JPEG file.
* The routines in jdapimin.c will also be needed by a transcoder.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdtrans.c
No license file was found, but licenses were detected in source scan.

```
/*
* jaricom.c
*
* Developed 1997-2011 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains probability estimation tables for common use in
* arithmetic entropy encoding and decoding routines.
*
* This data represents Table D.3 in the JPEG spec (D.2 in the draft),
* ISO/IEC IS 10918-1 and CCITT Recommendation ITU-T T.81, and Table 24
* in the JBIG spec, ISO/IEC IS 11544 and CCITT Recommendation ITU-T T.82.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jaricom.c
No license file was found, but licenses were detected in source scan.

```
/*
* rdcolmap.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file implements djpeg's "-map file" switch.  It reads a source image
* and constructs a colormap to be supplied to the JPEG decompressor.
*
* Currently, these file formats are supported for the map file:
*   GIF: the contents of the GIF's global colormap are used.
*   PPM (either text or raw flavor): the entire file is read and
*      each unique pixel value is entered in the map.
* Note that reading a large PPM file will be horrendously slow.
* Typically, a PPM-format map file should contain just one pixel
* of each desired color.  Such a file can be extracted from an
* ordinary image PPM file with ppmtomap(1).
*
* Rescaling a PPM that has a maxval unequal to MAXJSAMPLE is not
```

* currently implemented.
*/
/* Portions of this code are based on the PBMPLUS library, which is:
**
** Copyright (C) 1988 by Jef Poskanzer.
**
** Permission to use, copy, modify, and distribute this software and its
** documentation for any purpose and without fee is hereby granted, provided
** that the above copyright notice appear in all copies and that both that
** copyright notice and this permission notice appear in supporting
** documentation. This software is provided "as is" without express or
** implied warranty.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/rdcolmap.c
No license file was found, but licenses were detected in source scan.

The Independent JPEG Group's JPEG software
==

README for release 9e of 16-Jan-2022
====================================

This distribution contains the ninth public release of the Independent JPEG
Group's free JPEG software. You are welcome to redistribute this software and
to use it for any purpose, subject to the conditions under LEGAL ISSUES, below.

This software is the work of Tom Lane, Guido Vollbeding, Philip Gladstone,
Bill Allombert, Jim Boucher, Lee Crocker, Bob Friesenhahn, Ben Jackson,
John Korejwa, Julian Minguillon, Luis Ortiz, George Phillips, Davide Rossi,
Ge' Weijers, and other members of the Independent JPEG Group.

IJG is not affiliated with the ISO/IEC JTC1/SC29/WG1 standards committee
(previously known as JPEG, together with ITU-T SG16).

DOCUMENTATION ROADMAP
=====================

This file contains the following sections:

OVERVIEW   General description of JPEG and the IJG software.
LEGAL ISSUES   Copyright, lack of warranty, terms of distribution.
REFERENCES   Where to learn more about JPEG.
ARCHIVE LOCATIONS   Where to find newer versions of this software.
ACKNOWLEDGMENTS   Special thanks.
FILE FORMAT WARS   Software *not* to get.

TO DO Plans for future IJG releases.

Other documentation files in the distribution are:

User documentation:
install.txt How to configure and install the IJG software.
usage.txt Usage instructions for cjpeg, djpeg, jpegtran,
rdjpgcom, and wrjpgcom.
*.1 Unix-style man pages for programs (same info as usage.txt).
wizard.txt Advanced usage instructions for JPEG wizards only.
cdaltui.txt Description of alternate user interface for cjpeg/djpeg.
change.log Version-to-version change highlights.
Programmer and internal documentation:
libjpeg.txt How to use the JPEG library in your own programs.
example.c Sample code for calling the JPEG library.
structure.txt Overview of the JPEG library's internal structure.
filelist.txt Road map of IJG files.
coderules.txt Coding style rules --- please read if you contribute code.

Please read at least the files install.txt and usage.txt. Some information can also be found in the JPEG FAQ (Frequently Asked Questions) article. See ARCHIVE LOCATIONS below to find out where to obtain the FAQ article.

If you want to understand how the JPEG code works, we suggest reading one or more of the REFERENCES, then looking at the documentation files (in roughly the order listed) before diving into the code.

OVERVIEW
========

This package contains C software to implement JPEG image encoding, decoding, and transcoding. JPEG (pronounced "jay-peg") is a standardized compression method for full-color and grayscale images.

This software implements JPEG baseline, extended-sequential, and progressive compression processes. Provision is made for supporting all variants of these processes, although some uncommon parameter settings aren't implemented yet. We have made no provision for supporting the hierarchical or lossless processes defined in the standard.

We provide a set of library routines for reading and writing JPEG image files, plus two sample applications "cjpeg" and "djpeg", which use the library to perform conversion between JPEG and some other popular image file formats. The library is intended to be reused in other applications.

In order to support file conversion and viewing software, we have included considerable functionality beyond the bare JPEG coding/decoding capability;

for example, the color quantization modules are not strictly part of JPEG
decoding, but they are essential for output to colormapped file formats or
colormapped displays. These extra functions can be compiled out of the
library if not required for a particular application.

We have also included "jpegtran", a utility for lossless transcoding between
different JPEG processes, and "rdjpgcom" and "wrjpgcom", two simple
applications for inserting and extracting textual comments in JFIF files.

The emphasis in designing this software has been on achieving portability and
flexibility, while also making it fast enough to be useful. In particular,
the software is not intended to be read as a tutorial on JPEG. (See the
REFERENCES section for introductory material.) Rather, it is intended to
be reliable, portable, industrial-strength code. We do not claim to have
achieved that goal in every aspect of the software, but we strive for it.

We welcome the use of this software as a component of commercial products.
No royalty is required, but we do ask for an acknowledgement in product
documentation, as described under LEGAL ISSUES.

LEGAL ISSUES
============

In plain English:

1. We don't promise that this software works. (But if you find any bugs,
   please let us know!)
2. You can use this software for whatever you want. You don't have to pay us.
3. You may not pretend that you wrote this software. If you use it in a
   program, you must acknowledge somewhere in your documentation that
   you've used the IJG code.

In legalese:

The authors make NO WARRANTY or representation, either express or implied,
with respect to this software, its quality, accuracy, merchantability, or
fitness for a particular purpose. This software is provided "AS IS", and you,
its user, assume the entire risk as to its quality and accuracy.

This software is copyright (C) 1991-2022, Thomas G. Lane, Guido Vollbeding.
All Rights Reserved except as specified below.

Permission is hereby granted to use, copy, modify, and distribute this
software (or portions thereof) for any purpose, without fee, subject to these
conditions:
(1) If any part of the source code for this software is distributed, then this
README file must be included, with this copyright and no-warranty notice

unaltered; and any additions, deletions, or changes to the original files
must be clearly indicated in accompanying documentation.
(2) If only executable code is distributed, then the accompanying
documentation must state that "this software is based in part on the work of
the Independent JPEG Group".
(3) Permission for use of this software is granted only if the user accepts
full responsibility for any undesirable consequences; the authors accept
NO LIABILITY for damages of any kind.

These conditions apply to any software derived from or based on the IJG code,
not just to the unmodified library. If you use our work, you ought to
acknowledge us.

Permission is NOT granted for the use of any IJG author's name or company name
in advertising or publicity relating to this software or products derived from
it. This software may be referred to only as "the Independent JPEG Group's
software".

We specifically permit and encourage the use of this software as the basis of
commercial products, provided that all warranty or liability claims are
assumed by the product vendor.

The Unix configuration script "configure" was produced with GNU Autoconf.
It is copyright by the Free Software Foundation but is freely distributable.
The same holds for its supporting scripts (config.guess, config.sub,
ltmain.sh). Another support script, install-sh, is copyright by X Consortium
but is also freely distributable.

REFERENCES
==========

We recommend reading one or more of these references before trying to
understand the innards of the JPEG software.

The best short technical introduction to the JPEG compression algorithm is
 Wallace, Gregory K. "The JPEG Still Picture Compression Standard",
 Communications of the ACM, April 1991 (vol. 34 no. 4), pp. 30-44.
(Adjacent articles in that issue discuss MPEG motion picture compression,
applications of JPEG, and related topics.) If you don't have the CACM issue
handy, a PDF file containing a revised version of Wallace's article is
available at https://www.ijg.org/files/Wallace.JPEG.pdf. The file (actually
a preprint for an article that appeared in IEEE Trans. Consumer Electronics)
omits the sample images that appeared in CACM, but it includes corrections
and some added material. Note: the Wallace article is copyright ACM and IEEE,
and it may not be used for commercial purposes.

A somewhat less technical, more leisurely introduction to JPEG can be found in "The Data Compression Book" by Mark Nelson and Jean-loup Gailly, published by M&T Books (New York), 2nd ed. 1996, ISBN 1-55851-434-1. This book provides good explanations and example C code for a multitude of compression methods including JPEG. It is an excellent source if you are comfortable reading C code but don't know much about data compression in general. The book's JPEG sample code is far from industrial-strength, but when you are ready to look at a full implementation, you've got one here...

The best currently available description of JPEG is the textbook "JPEG Still Image Data Compression Standard" by William B. Pennebaker and Joan L. Mitchell, published by Van Nostrand Reinhold, 1993, ISBN 0-442-01272-1. Price US$59.95, 638 pp. The book includes the complete text of the ISO JPEG standards (DIS 10918-1 and draft DIS 10918-2).
Although this is by far the most detailed and comprehensive exposition of JPEG publicly available, we point out that it is still missing an explanation of the most essential properties and algorithms of the underlying DCT technology.
If you think that you know about DCT-based JPEG after reading this book, then you are in delusion. The real fundamentals and corresponding potential of DCT-based JPEG are not publicly known so far, and that is the reason for all the mistaken developments taking place in the image coding domain.

The original JPEG standard is divided into two parts, Part 1 being the actual specification, while Part 2 covers compliance testing methods. Part 1 is titled "Digital Compression and Coding of Continuous-tone Still Images, Part 1: Requirements and guidelines" and has document numbers ISO/IEC IS 10918-1, ITU-T T.81. Part 2 is titled "Digital Compression and Coding of Continuous-tone Still Images, Part 2: Compliance testing" and has document numbers ISO/IEC IS 10918-2, ITU-T T.83.
IJG JPEG 8 introduced an implementation of the JPEG SmartScale extension which is specified in two documents: A contributed document at ITU and ISO with title "ITU-T JPEG-Plus Proposal for Extending ITU-T T.81 for Advanced Image Coding", April 2006, Geneva, Switzerland. The latest version of this document is Revision 3. And a contributed document ISO/IEC JTC1/SC29/WG1 N 5799 with title "Evolution of JPEG", June/July 2011, Berlin, Germany.
IJG JPEG 9 introduces a reversible color transform for improved lossless compression which is described in a contributed document ISO/IEC JTC1/SC29/WG1 N 6080 with title "JPEG 9 Lossless Coding", June/July 2012, Paris, France.

The JPEG standard does not specify all details of an interchangeable file format. For the omitted details we follow the "JFIF" conventions, version 2. JFIF version 1 has been adopted as Recommendation ITU-T T.871 (05/2011) : Information technology - Digital compression and coding of continuous-tone still images: JPEG File Interchange Format (JFIF). It is available as a free download in PDF file format from https://www.itu.int/rec/T-REC-T.871. A PDF file of the older JFIF document is available at https://www.w3.org/Graphics/JPEG/jfif3.pdf.

The TIFF 6.0 file format specification can be obtained by FTP from
ftp://ftp.sgi.com/graphics/tiff/TIFF6.ps.gz. The JPEG incorporation scheme
found in the TIFF 6.0 spec of 3-June-92 has a number of serious problems.
IJG does not recommend use of the TIFF 6.0 design (TIFF Compression tag 6).
Instead, we recommend the JPEG design proposed by TIFF Technical Note #2
(Compression tag 7). Copies of this Note can be obtained from
https://www.ijg.org/files/. It is expected that the next revision
of the TIFF spec will replace the 6.0 JPEG design with the Note's design.
Although IJG's own code does not support TIFF/JPEG, the free libtiff library
uses our library to implement TIFF/JPEG per the Note.

ARCHIVE LOCATIONS
=================

The "official" archive site for this software is www.ijg.org.
The most recent released version can always be found there in
directory "files". This particular version will be archived
in Windows-compatible "zip" archive format as
https://www.ijg.org/files/jpegsr9e.zip, and
in Unix-compatible "tar.gz" archive format as
https://www.ijg.org/files/jpegsrc.v9e.tar.gz.

The JPEG FAQ (Frequently Asked Questions) article is a source of some
general information about JPEG.
It is available on the World Wide Web at http://www.faqs.org/faqs/jpeg-faq/
and other news.answers archive sites, including the official news.answers
archive at rtfm.mit.edu: ftp://rtfm.mit.edu/pub/usenet/news.answers/jpeg-faq/.
If you don't have Web or FTP access, send e-mail to mail-server@rtfm.mit.edu
with body
 send usenet/news.answers/jpeg-faq/part1
 send usenet/news.answers/jpeg-faq/part2

ACKNOWLEDGMENTS
===============

Thank to Juergen Bruder for providing me with a copy of the common DCT
algorithm article, only to find out that I had come to the same result
in a more direct and comprehensible way with a more generative approach.

Thank to Istvan Sebestyen and Joan L. Mitchell for inviting me to the
ITU JPEG (Study Group 16) meeting in Geneva, Switzerland.

Thank to Thomas Wiegand and Gary Sullivan for inviting me to the
Joint Video Team (MPEG & ITU) meeting in Geneva, Switzerland.

Thank to Thomas Richter and Daniel Lee for inviting me to the
ISO/IEC JTC1/SC29/WG1 (previously known as JPEG, together with ITU-T SG16)
meeting in Berlin, Germany.

Thank to John Korejwa and Massimo Ballerini for inviting me to
fruitful consultations in Boston, MA and Milan, Italy.

Thank to Hendrik Elstner, Roland Fassauer, Simone Zuck, Guenther
Maier-Gerber, Walter Stoeber, Fred Schmitz, and Norbert Braunagel
for corresponding business development.

Thank to Nico Zschach and Dirk Stelling of the technical support team
at the Digital Images company in Halle for providing me with extra
equipment for configuration tests.

Thank to Richard F. Lyon (then of Foveon Inc.) for fruitful
communication about JPEG configuration in Sigma Photo Pro software.

Thank to Andrew Finkenstadt for hosting the ijg.org site.

Thank to Thomas G. Lane for the original design and development
of this singular software package.

Thank to Lars Goehler, Andreas Heinecke, Sebastian Fuss,
Yvonne Roebert, Andrej Werner, Ulf-Dietrich Braumann,
and Nina Ssymank for support and public relations.

FILE FORMAT WARS
================

The ISO/IEC JTC1/SC29/WG1 standards committee (previously known as JPEG,
together with ITU-T SG16) currently promotes different formats containing
the name "JPEG" which is misleading because these formats are incompatible
with original DCT-based JPEG and are based on faulty technologies.
IJG therefore does not and will not support such momentary mistakes
(see REFERENCES).
There exist also distributions under the name "OpenJPEG" promoting such
kind of formats which is misleading because they don't support original
JPEG images.
We have no sympathy for the promotion of inferior formats. Indeed, one of
the original reasons for developing this free software was to help force
convergence on common, interoperable format standards for JPEG files.
Don't use an incompatible file format!
(In any case, our decoder will remain capable of reading existing JPEG
image files indefinitely.)

The ISO committee pretends to be "responsible for the popular JPEG" in their

public reports which is not true because they don't respond to actual
requirements for the maintenance of the original JPEG specification.
Furthermore, the ISO committee pretends to "ensure interoperability" with
their standards which is not true because their "standards" support only
application-specific and proprietary use cases and contain mathematically
incorrect code.

There are currently different distributions in circulation containing the
name "libjpeg" which is misleading because they don't have the features and
are incompatible with formats supported by actual IJG libjpeg distributions.
One of those fakes is released by members of the ISO committee and just uses
the name of libjpeg for misdirection of people, similar to the abuse of the
name JPEG as described above, while having nothing in common with actual IJG
libjpeg distributions and containing mathematically incorrect code.
The other one claims to be a "derivative" or "fork" of the original libjpeg,
but violates the license conditions as described under LEGAL ISSUES above
and violates basic C programming properties.
We have no sympathy for the release of misleading, incorrect and illegal
distributions derived from obsolete code bases.
Don't use an obsolete code base!

According to the UCC (Uniform Commercial Code) law, IJG has the lawful and
legal right to foreclose on certain standardization bodies and other
institutions or corporations that knowingly perform substantial and
systematic deceptive acts and practices, fraud, theft, and damaging of the
value of the people of this planet without their knowing, willing and
intentional consent.
The titles, ownership, and rights of these institutions and all their assets
are now duly secured and held in trust for the free people of this planet.
People of the planet, on every country, may have a financial interest in
the assets of these former principals, agents, and beneficiaries of the
foreclosed institutions and corporations.
IJG asserts what is: that each man, woman, and child has unalienable value
and rights granted and deposited in them by the Creator and not any one of
the people is subordinate to any artificial principality, corporate fiction
or the special interest of another without their appropriate knowing,
willing and intentional consent made by contract or accommodation agreement.
IJG expresses that which already was.
The people have already determined and demanded that public administration
entities, national governments, and their supporting judicial systems must
be fully transparent, accountable, and liable.
IJG has secured the value for all concerned free people of the planet.

A partial list of foreclosed institutions and corporations ("Hall of Shame")
is currently prepared and will be published later.

TO DO

=====

Version 9 is the second release of a new generation JPEG standard
to overcome the limitations of the original JPEG specification,
and is the first true source reference JPEG codec.
More features are being prepared for coming releases...

Please send bug reports, offers of help, etc. to jpeg-info@jpegclub.org.

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/README
No license file was found, but licenses were detected in source scan.

IJG JPEG LIBRARY: ALTERNATE USER INTERFACE FOR CJPEG/DJPEG

Copyright (C) 2020, Guido Vollbeding.
This file is part of the Independent JPEG Group's software.
For conditions of distribution and use, see the accompanying README file.

There is an alternate command-line user interface for the IJG JPEG software.
It is designed for use under MS-DOS, and may also be useful on other non-Unix
operating systems. (For that matter, this code works fine on Unix, but the
standard command-line syntax is better on Unix because it is pipe-friendly.)

With this user interface, cjpeg and djpeg accept multiple input file names
on the command line; output file names are generated by substituting
appropriate extensions. The user is prompted before any already-existing
file will be overwritten.

Expansion of wild-card file specifications is useful but is not directly
provided by this code. Most DOS C compilers have the ability to do wild-card
expansion "behind the scenes", and we rely on that feature. On other systems,
the shell may do it for you, as is done on Unix.

Also, a DOS-specific routine is provided to determine available memory;
this makes the -maxmemory switch unnecessary except in unusual cases.
If you know how to determine available memory on a different system,
you can easily add the necessary code. (And please send it along to
jpeg-info@jpegclub.org so we can include it in future releases!)

INSTALLATION
============

Rename the standard cjpeg.c file to cjpegstd.c, then rename cjpegalt.c to
cjpeg.c.
Rename the standard djpeg.c file to djpegstd.c, then rename djpegalt.c to

djpeg.c.
Then build the software as described in install.txt, with these exceptions:

* Define PROGRESS_REPORT in jconfig.h if you want the percent-done display.
* Define NO_OVERWRITE_CHECK if you *don't* want overwrite confirmation.
* You may ignore the USE_SETMODE and TWO_FILE_COMMANDLINE symbols discussed
 in install.txt; these files do not use them.
* As given, djpegalt.c defaults to BMP output (not PPM output as in the
 standard djpeg.c). If you want something different, modify DEFAULT_FMT.

You may also need to do something special to enable filename wild-card
expansion, assuming your compiler has that capability at all.

Modify the standard usage.txt file as described below. (If you want to use
the Unix-style manual pages cjpeg.1 and djpeg.1, better fix them too.)

To restore the standard user interface:
Rename cjpeg.c to cjpegalt.c, then rename cjpegstd.c to cjpeg.c.
Rename djpeg.c to djpegalt.c, then rename djpegstd.c to djpeg.c.
Then recompile/rebuild.

Here are some specific notes for popular MS-DOS compilers:

Borland C:
 Add "-DMSDOS" to CFLAGS to enable use of the DOS memory determination code.
 Link with the standard library file WILDARGS.OBJ to get wild-card expansion.

Microsoft C:
 Add "-DMSDOS" to CFLAGS to enable use of the DOS memory determination code.
 Link with the standard library file SETARGV.OBJ to get wild-card expansion.
 In the versions I've used, you must also add /NOE to the linker switches to
 avoid a duplicate-symbol error from including SETARGV.

DJGPP (we recommend version 2.0 or later):
 Add "-DFREE_MEM_ESTIMATE=0" to CFLAGS. Wild-card expansion is automatic.

USAGE
=====

Most of the standard usage.txt file also applies to the alternate version,
but replace its "GENERAL USAGE" section with the text below. Edit the text
as necessary if you don't support wildcards or overwrite checking. Be sure
to fix the djpeg switch descriptions if you are not defaulting to PPM output.
Also, if you've provided an accurate memory-estimation procedure, you can
probably eliminate the HINTS related to the -maxmemory switch.

GENERAL USAGE

We provide two programs, cjpeg to compress an image file into JPEG format,
and djpeg to decompress a JPEG file back into a conventional image format.

The basic command line is:
 cjpeg [switches] list of image files
or
 djpeg [switches] list of jpeg files

Each file named is compressed or decompressed. The input file(s) are not
modified; the output data is written to files which have the same names
except for extension. cjpeg always uses ".jpg" for the output file name's
extension; djpeg uses one of ".bmp", ".gif", ".ppm", ".rle", or ".tga",
depending on what output format is selected by the switches.

For example, to convert xxx.bmp to xxx.jpg and yyy.ppm to yyy.jpg, say:
 cjpeg xxx.bmp yyy.ppm

On most systems you can use standard wildcards to specify the list of input
files; for example, on DOS "djpeg *.jpg" decompresses all the JPEG files in
the current directory.

If an intended output file already exists, you'll be asked whether or not to
overwrite it. If you say no, the program skips that input file and goes on
to the next one.

You can intermix switches and file names; for example
 djpeg -gif file1.jpg -targa file2.jpg
decompresses file1.jpg into GIF format (file1.gif) and file2.jpg into Targa
format (file2.tga). Only switches to the left of a given file name affect
processing of that file; when there are conflicting switches, the rightmost
one takes precedence.

You can override the program's choice of output file name by using the
-outfile switch, as in
 cjpeg -outfile output.jpg input.ppm
-outfile only affects the first input file name to its right.

The currently supported image file formats are: PPM (PBMPLUS color format),
PGM (PBMPLUS grayscale format), BMP, GIF, Targa, and RLE (Utah Raster Toolkit
format). (RLE is supported only if the URT library is available, which it
isn't on most non-Unix systems.) cjpeg recognizes the input image format
automatically, with the exception of some Targa-format files. You have to
tell djpeg which format to generate.

JPEG files are in the standard JFIF file format. There are other,

less widely used JPEG-based file formats, but we don't support them.

All switch names may be abbreviated; for example, -grayscale may be written
-gray or -gr. Most of the "basic" switches can be abbreviated to as little as
one letter. Upper and lower case are equivalent (-BMP is the same as -bmp).
British spellings are also accepted (e.g., -greyscale), though for brevity
these are not mentioned below.

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/cdaltui.txt
No license file was found, but licenses were detected in source scan.

```
/*
* jdmainct.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2002-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the main buffer controller for decompression.
* The main buffer lies between the JPEG decompressor proper and the
* post-processor; it holds downsampled data in the JPEG colorspace.
*
* Note that this code is bypassed in raw-data mode, since the application
* supplies the equivalent of the main buffer in that case.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdmainct.c
No license file was found, but licenses were detected in source scan.

```
/*
* wrppm.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modified 2009-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains routines to write output images in PPM/PGM format.
* The extended 2-byte-per-sample raw PPM/PGM formats are supported.
* The PBMPLUS library is NOT required to compile this software
* (but it is highly useful as a set of PPM image manipulation programs).
*
* These routines may need modification for non-Unix environments or
* specialized applications.  As they stand, they assume output to
* an ordinary stdio stream.
```

*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/wrppm.c
No license file was found, but licenses were detected in source scan.

/*
* jdapimin.c
*
* Copyright (C) 1994-1998, Thomas G. Lane.
* Modified 2009-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains application interface code for the decompression half
* of the JPEG library. These are the "minimum" API routines that may be
* needed in either the normal full-decompression case or the
* transcoding-only case.
*
* Most of the routines intended to be called directly by an application
* are in this file or in jdapistd.c. But also see jcomapi.c for routines
* shared by compression and decompression, and jdtrans.c for the transcoding
* case.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdapimin.c
No license file was found, but licenses were detected in source scan.

/*
* wrjpgcom.c
*
* Copyright (C) 1994-1997, Thomas G. Lane.
* Modified 2015-2017 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a very simple stand-alone application that inserts
* user-supplied text as a COM (comment) marker in a JFIF file.
* This may be useful as an example of the minimum logic needed to parse
* JPEG markers.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/wrjpgcom.c
No license file was found, but licenses were detected in source scan.

/*

```
* jcinit.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modified 2003-2017 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains initialization logic for the JPEG compressor.
* This routine is in charge of selecting the modules to be executed and
* making an initialization call to each one.
*
* Logically, this code belongs in jcmaster.c.  It's split out because
* linking this routine implies linking the entire compression library.
* For a transcoding-only application, we want to be able to use jcmaster.c
* without linking in the whole library.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jcinit.c
No license file was found, but licenses were detected in source scan.

```
/*
* jidctint.c
*
* Copyright (C) 1991-1998, Thomas G. Lane.
* Modification developed 2002-2018 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a slow-but-accurate integer implementation of the
* inverse DCT (Discrete Cosine Transform).  In the IJG code, this routine
* must also perform dequantization of the input coefficients.
*
* A 2-D IDCT can be done by 1-D IDCT on each column followed by 1-D IDCT
* on each row (or vice versa, but it's more convenient to emit a row at
* a time).  Direct algorithms are also available, but they are much more
* complex and seem not to be any faster when reduced to code.
*
* This implementation is based on an algorithm described in
*   C. Loeffler, A. Ligtenberg and G. Moschytz, "Practical Fast 1-D DCT
*   Algorithms with 11 Multiplications", Proc. Int'l. Conf. on Acoustics,
*   Speech, and Signal Processing 1989 (ICASSP '89), pp. 988-991.
* The primary algorithm described there uses 11 multiplies and 29 adds.
* We use their alternate method with 12 multiplies and 32 adds.
* The advantage of this method is that no data path contains more than one
* multiplication; this allows a very simple and accurate implementation in
* scaled fixed-point arithmetic, with a minimal number of shifts.
*
```

```
* We also provide IDCT routines with various output sample block sizes for
* direct resolution reduction or enlargement and for direct resolving the
* common 2x1 and 1x2 subsampling cases without additional resampling: NxN
* (N=1...16), 2NxN, and Nx2N (N=1...8) pixels for one 8x8 input DCT block.
*
* For N<8 we simply take the corresponding low-frequency coefficients of
* the 8x8 input DCT block and apply an NxN point IDCT on the sub-block
* to yield the downscaled outputs.
* This can be seen as direct low-pass downsampling from the DCT domain
* point of view rather than the usual spatial domain point of view,
* yielding significant computational savings and results at least
* as good as common bilinear (averaging) spatial downsampling.
*
* For N>8 we apply a partial NxN IDCT on the 8 input coefficients as
* lower frequencies and higher frequencies assumed to be zero.
* It turns out that the computational effort is similar to the 8x8 IDCT
* regarding the output size.
* Furthermore, the scaling and descaling is the same for all IDCT sizes.
*
* CAUTION: We rely on the FIX() macro except for the N=1,2,4,8 cases
* since there would be too many additional constants to pre-calculate.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jidctint.c
No license file was found, but licenses were detected in source scan.

```
/*
* jcomapi.c
*
* Copyright (C) 1994-1997, Thomas G. Lane.
* Modified 2019 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains application interface routines that are used for both
* compression and decompression.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jcomapi.c
No license file was found, but licenses were detected in source scan.

```
/*
* transupp.h
*
* Copyright (C) 1997-2019, Thomas G. Lane, Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
```

* For conditions of distribution and use, see the accompanying README file.
*
* This file contains declarations for image transformation routines and
* other utility code used by the jpegtran sample application. These are
* NOT part of the core JPEG library. But we keep these routines separate
* from jpegtran.c to ease the task of maintaining jpegtran-like programs
* that have other user interfaces.
*
* NOTE: all the routines declared here have very specific requirements
* about when they are to be executed during the reading and writing of the
* source and destination files. See the comments in transupp.c, or see
* jpegtran.c for an example of correct usage.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/transupp.h
No license file was found, but licenses were detected in source scan.

/*
* alternate cjpeg.c
*
* Copyright (C) 1991-1998, Thomas G. Lane.
* Modified 2009-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains an alternate user interface for the JPEG compressor.
* One or more input files are named on the command line, and output file
* names are created by substituting ".jpg" for the input file's extension.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/cjpegalt.c
No license file was found, but licenses were detected in source scan.

/*
* jfdctint.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modification developed 2003-2018 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains a slow-but-accurate integer implementation of the
* forward DCT (Discrete Cosine Transform).
*
* A 2-D DCT can be done by 1-D DCT on each row followed by 1-D DCT
* on each column. Direct algorithms are also available, but they are

```
* much more complex and seem not to be any faster when reduced to code.
*
* This implementation is based on an algorithm described in
*   C. Loeffler, A. Ligtenberg and G. Moschytz, "Practical Fast 1-D DCT
*   Algorithms with 11 Multiplications", Proc. Int'l. Conf. on Acoustics,
*   Speech, and Signal Processing 1989 (ICASSP '89), pp. 988-991.
* The primary algorithm described there uses 11 multiplies and 29 adds.
* We use their alternate method with 12 multiplies and 32 adds.
* The advantage of this method is that no data path contains more than one
* multiplication; this allows a very simple and accurate implementation in
* scaled fixed-point arithmetic, with a minimal number of shifts.
*
* We also provide FDCT routines with various input sample block sizes for
* direct resolution reduction or enlargement and for direct resolving the
* common 2x1 and 1x2 subsampling cases without additional resampling: NxN
* (N=1...16), 2NxN, and Nx2N (N=1...8) pixels for one 8x8 output DCT block.
*
* For N<8 we fill the remaining block coefficients with zero.
* For N>8 we apply a partial N-point FDCT on the input samples, computing
* just the lower 8 frequency coefficients and discarding the rest.
*
* We must scale the output coefficients of the N-point FDCT appropriately
* to the standard 8-point FDCT level by 8/N per 1-D pass.  This scaling
* is folded into the constant multipliers (pass 2) and/or final/initial
* shifting.
*
* CAUTION: We rely on the FIX() macro except for the N=1,2,4,8 cases
* since there would be too many additional constants to pre-calculate.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jfdctint.c
No license file was found, but licenses were detected in source scan.

/*
* jddctmgr.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2002-2013 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the inverse-DCT management logic.
* This code selects a particular IDCT implementation to be used,
* and it performs related housekeeping chores.  No code in this file
* is executed per IDCT step, only during output pass setup.
*
* Note that the IDCT routines are responsible for performing coefficient
```

```
* dequantization as well as the IDCT proper.  This module sets up the
* dequantization multiplier table needed by the IDCT routine.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jddctmgr.c
No license file was found, but licenses were detected in source scan.

```
/*
* jccolor.c
*
* Copyright (C) 1991-1996, Thomas G. Lane.
* Modified 2011-2019 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains input colorspace conversion routines.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jccolor.c
No license file was found, but licenses were detected in source scan.

```
/*
* cdjpeg.h
*
* Copyright (C) 1994-1997, Thomas G. Lane.
* Modified 2019 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains common declarations for the sample applications
* cjpeg and djpeg.  It is NOT used by the core JPEG library.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/cdjpeg.h
No license file was found, but licenses were detected in source scan.

```
/*
* jchuff.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modified 2006-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains Huffman entropy encoding routines.
```

```
* Both sequential and progressive modes are supported in this single module.
*
* Much of the complexity here has to do with supporting output suspension.
* If the data destination module demands suspension, we want to be able to
* back up to the start of the current MCU.  To do this, we copy state
* variables into local working storage, and update them back to the
* permanent JPEG objects only upon successful completion of an MCU.
*
* We do not support output suspension for the progressive JPEG mode, since
* the library currently does not allow multiple-scan files to be written
* with output suspension.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jchuff.c
No license file was found, but licenses were detected in source scan.

```
/*
* jccoefct.c
*
* Copyright (C) 1994-1997, Thomas G. Lane.
* Modified 2003-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the coefficient buffer controller for compression.
* This controller is the top level of the JPEG compressor proper.
* The coefficient buffer lies between forward-DCT and entropy encoding steps.
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jccoefct.c
No license file was found, but licenses were detected in source scan.

```
/*
* jerror.c
*
* Copyright (C) 1991-1998, Thomas G. Lane.
* Modified 2012-2015 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains simple error-reporting and trace-message routines.
* These are suitable for Unix-like systems and others where writing to
* stderr is the right thing to do.  Many applications will want to replace
* some or all of these routines.
*
* If you define USE_WINDOWS_MESSAGEBOX in jconfig.h or in the makefile,
```

* you get a Windows-specific hack to display error messages in a dialog box.
* It ain't much, but it beats dropping error messages into the bit bucket,
* which is what happens to output to stderr under most Windows C compilers.
*
* These routines are used by both the compression and decompression code.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jerror.c
No license file was found, but licenses were detected in source scan.

USING THE IJG JPEG LIBRARY

Copyright (C) 1994-2019, Thomas G. Lane, Guido Vollbeding.
This file is part of the Independent JPEG Group's software.
For conditions of distribution and use, see the accompanying README file.

This file describes how to use the IJG JPEG library within an application
program. Read it if you want to write a program that uses the library.

The file example.c provides heavily commented skeleton code for calling the
JPEG library. Also see jpeglib.h (the include file to be used by application
programs) for full details about data structures and function parameter lists.
The library source code, of course, is the ultimate reference.

Note that there have been *major* changes from the application interface
presented by IJG version 4 and earlier versions. The old design had several
inherent limitations, and it had accumulated a lot of cruft as we added
features while trying to minimize application-interface changes. We have
sacrificed backward compatibility in the version 5 rewrite, but we think the
improvements justify this.

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You should read at least the overview and basic usage sections before trying
to program with the library. The sections on advanced features can be read
if and when you need them.

OVERVIEW
========

Functions provided by the library

The IJG JPEG library provides C code to read and write JPEG-compressed image
files. The surrounding application program receives or supplies image data a
scanline at a time, using a straightforward uncompressed image format. All
details of color conversion and other preprocessing/postprocessing can be
handled by the library.

The library includes a substantial amount of code that is not covered by the
JPEG standard but is necessary for typical applications of JPEG. These
functions preprocess the image before JPEG compression or postprocess it after
decompression. They include colorspace conversion, downsampling/upsampling,
and color quantization. The application indirectly selects use of this code
by specifying the format in which it wishes to supply or receive image data.
For example, if colormapped output is requested, then the decompression
library automatically invokes color quantization.

A wide range of quality vs. speed tradeoffs are possible in JPEG processing,
and even more so in decompression postprocessing. The decompression library
provides multiple implementations that cover most of the useful tradeoffs,
ranging from very-high-quality down to fast-preview operation. On the
compression side we have generally not provided low-quality choices, since

compression is normally less time-critical. It should be understood that the low-quality modes may not meet the JPEG standard's accuracy requirements; nonetheless, they are useful for viewers.

A word about functions *not* provided by the library. We handle a subset of the ISO JPEG standard; most baseline, extended-sequential, and progressive JPEG processes are supported. (Our subset includes all features now in common use.) Unsupported ISO options include:

* Hierarchical storage
* Lossless JPEG
* DNL marker
* Nonintegral subsampling ratios

We support 8-bit to 12-bit data precision, but this is a compile-time choice rather than a run-time choice; hence it is difficult to use different precisions in a single application.

By itself, the library handles only interchange JPEG datastreams --- in particular the widely used JFIF file format. The library can be used by surrounding code to process interchange or abbreviated JPEG datastreams that are embedded in more complex file formats. (For example, this library is used by the free LIBTIFF library to support JPEG compression in TIFF.)

Outline of typical usage

The rough outline of a JPEG compression operation is:

```
Allocate and initialize a JPEG compression object
Specify the destination for the compressed data (eg, a file)
Set parameters for compression, including image size & colorspace
jpeg_start_compress(...);
while (scan lines remain to be written)
  jpeg_write_scanlines(...);
jpeg_finish_compress(...);
Release the JPEG compression object
```

A JPEG compression object holds parameters and working state for the JPEG library. We make creation/destruction of the object separate from starting or finishing compression of an image; the same object can be re-used for a series of image compression operations. This makes it easy to re-use the same parameter settings for a sequence of images. Re-use of a JPEG object also has important implications for processing abbreviated JPEG datastreams, as discussed later.

The image data to be compressed is supplied to jpeg_write_scanlines() from in-memory buffers. If the application is doing file-to-file compression, reading image data from the source file is the application's responsibility.

The library emits compressed data by calling a "data destination manager",
which typically will write the data into a file; but the application can
provide its own destination manager to do something else.

Similarly, the rough outline of a JPEG decompression operation is:

```
 Allocate and initialize a JPEG decompression object
 Specify the source of the compressed data (eg, a file)
 Call jpeg_read_header() to obtain image info
 Set parameters for decompression
 jpeg_start_decompress(...);
 while (scan lines remain to be read)
  jpeg_read_scanlines(...);
 jpeg_finish_decompress(...);
 Release the JPEG decompression object
```

This is comparable to the compression outline except that reading the
datastream header is a separate step. This is helpful because information
about the image's size, colorspace, etc is available when the application
selects decompression parameters. For example, the application can choose an
output scaling ratio that will fit the image into the available screen size.

The decompression library obtains compressed data by calling a data source
manager, which typically will read the data from a file; but other behaviors
can be obtained with a custom source manager. Decompressed data is delivered
into in-memory buffers passed to jpeg_read_scanlines().

It is possible to abort an incomplete compression or decompression operation
by calling jpeg_abort(); or, if you do not need to retain the JPEG object,
simply release it by calling jpeg_destroy().

JPEG compression and decompression objects are two separate struct types.
However, they share some common fields, and certain routines such as
jpeg_destroy() can work on either type of object.

The JPEG library has no static variables: all state is in the compression
or decompression object. Therefore it is possible to process multiple
compression and decompression operations concurrently, using multiple JPEG
objects.

Both compression and decompression can be done in an incremental memory-to-
memory fashion, if suitable source/destination managers are used. See the
section on "I/O suspension" for more details.

BASIC LIBRARY USAGE
===================

Data formats

Before diving into procedural details, it is helpful to understand the
image data format that the JPEG library expects or returns.

The standard input image format is a rectangular array of pixels, with each
pixel having the same number of "component" or "sample" values (color
channels). You must specify how many components there are and the colorspace
interpretation of the components. Most applications will use RGB data
(three components per pixel) or grayscale data (one component per pixel).
PLEASE NOTE THAT RGB DATA IS THREE SAMPLES PER PIXEL, GRAYSCALE ONLY ONE.
A remarkable number of people manage to miss this, only to find that their
programs don't work with grayscale JPEG files.

There is no provision for colormapped input. JPEG files are always full-color
or full grayscale (or sometimes another colorspace such as CMYK). You can
feed in a colormapped image by expanding it to full-color format. However
JPEG often doesn't work very well with source data that has been colormapped,
because of dithering noise. This is discussed in more detail in the JPEG FAQ
and the other references mentioned in the README file.

Pixels are stored by scanlines, with each scanline running from left to
right. The component values for each pixel are adjacent in the row; for
example, R,G,B,R,G,B,R,G,B,... for 24-bit RGB color. Each scanline is an
array of data type JSAMPLE --- which is typically "unsigned char", unless
you've changed jmorecfg.h. (You can also change the RGB pixel layout, say
to B,G,R order, by modifying jmorecfg.h. But see the restrictions listed in
that file before doing so.)

A 2-D array of pixels is formed by making a list of pointers to the starts of
scanlines; so the scanlines need not be physically adjacent in memory. Even
if you process just one scanline at a time, you must make a one-element
pointer array to conform to this structure. Pointers to JSAMPLE rows are of
type JSAMPROW, and the pointer to the pointer array is of type JSAMPARRAY.

The library accepts or supplies one or more complete scanlines per call.
It is not possible to process part of a row at a time. Scanlines are always
processed top-to-bottom. You can process an entire image in one call if you
have it all in memory, but usually it's simplest to process one scanline at
a time.

For best results, source data values should have the precision specified by
BITS_IN_JSAMPLE (normally 8 bits). For instance, if you choose to compress
data that's only 6 bits/channel, you should left-justify each value in a
byte before passing it to the compressor. If you need to compress data
that has more than 8 bits/channel, compile with BITS_IN_JSAMPLE = 9 to 12.
(See "Library compile-time options", later.)

The data format returned by the decompressor is the same in all details,
except that colormapped output is supported. (Again, a JPEG file is never
colormapped. But you can ask the decompressor to perform on-the-fly color
quantization to deliver colormapped output.) If you request colormapped
output then the returned data array contains a single JSAMPLE per pixel;
its value is an index into a color map. The color map is represented as
a 2-D JSAMPARRAY in which each row holds the values of one color component,
that is, colormap[i][j] is the value of the i'th color component for pixel
value (map index) j. Note that since the colormap indexes are stored in
JSAMPLEs, the maximum number of colors is limited by the size of JSAMPLE
(ie, at most 256 colors for an 8-bit JPEG library).

Compression details

Here we revisit the JPEG compression outline given in the overview.

1. Allocate and initialize a JPEG compression object.

A JPEG compression object is a "struct jpeg_compress_struct". (It also has
a bunch of subsidiary structures which are allocated via malloc(), but the
application doesn't control those directly.) This struct can be just a local
variable in the calling routine, if a single routine is going to execute the
whole JPEG compression sequence. Otherwise it can be static or allocated
from malloc().

You will also need a structure representing a JPEG error handler. The part
of this that the library cares about is a "struct jpeg_error_mgr". If you
are providing your own error handler, you'll typically want to embed the
jpeg_error_mgr struct in a larger structure; this is discussed later under
"Error handling". For now we'll assume you are just using the default error
handler. The default error handler will print JPEG error/warning messages
on stderr, and it will call exit() if a fatal error occurs.

You must initialize the error handler structure, store a pointer to it into
the JPEG object's "err" field, and then call jpeg_create_compress() to
initialize the rest of the JPEG object.

Typical code for this step, if you are using the default error handler, is

```
struct jpeg_compress_struct cinfo;
struct jpeg_error_mgr jerr;
...
cinfo.err = jpeg_std_error(&jerr);
jpeg_create_compress(&cinfo);
```

jpeg_create_compress allocates a small amount of memory, so it could fail
if you are out of memory. In that case it will exit via the error handler;
that's why the error handler must be initialized first.

2. Specify the destination for the compressed data (eg, a file).

As previously mentioned, the JPEG library delivers compressed data to a
"data destination" module. The library includes one data destination
module which knows how to write to a stdio stream. You can use your own
destination module if you want to do something else, as discussed later.

If you use the standard destination module, you must open the target stdio
stream beforehand. Typical code for this step looks like:

```
FILE * outfile;
...
if ((outfile = fopen(filename, "wb")) == NULL) {
    fprintf(stderr, "can't open %s\n", filename);
    exit(1);
}
jpeg_stdio_dest(&cinfo, outfile);
```

where the last line invokes the standard destination module.

WARNING: it is critical that the binary compressed data be delivered to the
output file unchanged. On non-Unix systems the stdio library may perform
newline translation or otherwise corrupt binary data. To suppress this
behavior, you may need to use a "b" option to fopen (as shown above), or use
setmode() or another routine to put the stdio stream in binary mode. See
cjpeg.c and djpeg.c for code that has been found to work on many systems.

You can select the data destination after setting other parameters (step 3),
if that's more convenient. You may not change the destination between
calling jpeg_start_compress() and jpeg_finish_compress().

3. Set parameters for compression, including image size & colorspace.

You must supply information about the source image by setting the following
fields in the JPEG object (cinfo structure):

```
image_width  Width of image, in pixels
image_height  Height of image, in pixels
input_components Number of color channels (samples per pixel)
in_color_space  Color space of source image
```

The image dimensions are, hopefully, obvious. JPEG supports image dimensions of 1 to 64K pixels in either direction. The input color space is typically RGB or grayscale, and input_components is 3 or 1 accordingly. (See "Special color spaces", later, for more info.) The in_color_space field must be assigned one of the J_COLOR_SPACE enum constants, typically JCS_RGB or JCS_GRAYSCALE.

JPEG has a large number of compression parameters that determine how the image is encoded. Most applications don't need or want to know about all these parameters. You can set all the parameters to reasonable defaults by calling jpeg_set_defaults(); then, if there are particular values you want to change, you can do so after that. The "Compression parameter selection" section tells about all the parameters.

You must set in_color_space correctly before calling jpeg_set_defaults(), because the defaults depend on the source image colorspace. However the other three source image parameters need not be valid until you call jpeg_start_compress(). There's no harm in calling jpeg_set_defaults() more than once, if that happens to be convenient.

Typical code for a 24-bit RGB source image is

```
cinfo.image_width = Width;  /* image width and height, in pixels */
cinfo.image_height = Height;
cinfo.input_components = 3; /* # of color components per pixel */
cinfo.in_color_space = JCS_RGB; /* colorspace of input image */

jpeg_set_defaults(&cinfo);
/* Make optional parameter settings here */
```

4. jpeg_start_compress(...);

After you have established the data destination and set all the necessary source image info and other parameters, call jpeg_start_compress() to begin a compression cycle. This will initialize internal state, allocate working storage, and emit the first few bytes of the JPEG datastream header.

Typical code:

```
jpeg_start_compress(&cinfo, TRUE);
```

The "TRUE" parameter ensures that a complete JPEG interchange datastream will be written. This is appropriate in most cases. If you think you might want to use an abbreviated datastream, read the section on abbreviated datastreams, below.

Once you have called jpeg_start_compress(), you may not alter any JPEG

parameters or other fields of the JPEG object until you have completed
the compression cycle.

5. while (scan lines remain to be written)
 jpeg_write_scanlines(...);

Now write all the required image data by calling jpeg_write_scanlines()
one or more times. You can pass one or more scanlines in each call, up
to the total image height. In most applications it is convenient to pass
just one or a few scanlines at a time. The expected format for the passed
data is discussed under "Data formats", above.

Image data should be written in top-to-bottom scanline order. The JPEG spec
contains some weasel wording about how top and bottom are application-defined
terms (a curious interpretation of the English language...) but if you want
your files to be compatible with everyone else's, you WILL use top-to-bottom
order. If the source data must be read in bottom-to-top order, you can use
the JPEG library's virtual array mechanism to invert the data efficiently.
Examples of this can be found in the sample application cjpeg.

The library maintains a count of the number of scanlines written so far
in the next_scanline field of the JPEG object. Usually you can just use
this variable as the loop counter, so that the loop test looks like
"while (cinfo.next_scanline < cinfo.image_height)".

Code for this step depends heavily on the way that you store the source data.
example.c shows the following code for the case of a full-size 2-D source
array containing 3-byte RGB pixels:

```
 JSAMPROW row_pointer[1]; /* pointer to a single row */
 int row_stride;   /* physical row width in buffer */

 row_stride = image_width * 3; /* JSAMPLEs per row in image_buffer */

 while (cinfo.next_scanline < cinfo.image_height) {
    row_pointer[0] = & image_buffer[cinfo.next_scanline * row_stride];
    jpeg_write_scanlines(&cinfo, row_pointer, 1);
 }
```

jpeg_write_scanlines() returns the number of scanlines actually written.
This will normally be equal to the number passed in, so you can usually
ignore the return value. It is different in just two cases:
 * If you try to write more scanlines than the declared image height,
   the additional scanlines are ignored.
 * If you use a suspending data destination manager, output buffer overrun
   will cause the compressor to return before accepting all the passed lines.
   This feature is discussed under "I/O suspension", below. The normal

stdio destination manager will NOT cause this to happen.
In any case, the return value is the same as the change in the value of
next_scanline.

6. jpeg_finish_compress(...);

After all the image data has been written, call jpeg_finish_compress() to
complete the compression cycle. This step is ESSENTIAL to ensure that the
last bufferload of data is written to the data destination.
jpeg_finish_compress() also releases working memory associated with the JPEG
object.

Typical code:

jpeg_finish_compress(&cinfo);

If using the stdio destination manager, don't forget to close the output
stdio stream (if necessary) afterwards.

If you have requested a multi-pass operating mode, such as Huffman code
optimization, jpeg_finish_compress() will perform the additional passes using
data buffered by the first pass. In this case jpeg_finish_compress() may take
quite a while to complete. With the default compression parameters, this will
not happen.

It is an error to call jpeg_finish_compress() before writing the necessary
total number of scanlines. If you wish to abort compression, call
jpeg_abort() as discussed below.

After completing a compression cycle, you may dispose of the JPEG object
as discussed next, or you may use it to compress another image. In that case
return to step 2, 3, or 4 as appropriate. If you do not change the
destination manager, the new datastream will be written to the same target.
If you do not change any JPEG parameters, the new datastream will be written
with the same parameters as before. Note that you can change the input image
dimensions freely between cycles, but if you change the input colorspace, you
should call jpeg_set_defaults() to adjust for the new colorspace; and then
you'll need to repeat all of step 3.

7. Release the JPEG compression object.

When you are done with a JPEG compression object, destroy it by calling
jpeg_destroy_compress(). This will free all subsidiary memory (regardless of
the previous state of the object). Or you can call jpeg_destroy(), which
works for either compression or decompression objects --- this may be more
convenient if you are sharing code between compression and decompression

cases. (Actually, these routines are equivalent except for the declared type
of the passed pointer. To avoid gripes from ANSI C compilers, jpeg_destroy()
should be passed a j_common_ptr.)

If you allocated the jpeg_compress_struct structure from malloc(), freeing
it is your responsibility --- jpeg_destroy() won't. Ditto for the error
handler structure.

Typical code:

```
jpeg_destroy_compress(&cinfo);
```

8. Aborting.

If you decide to abort a compression cycle before finishing, you can clean up
in either of two ways:

* If you don't need the JPEG object any more, just call
  jpeg_destroy_compress() or jpeg_destroy() to release memory. This is
  legitimate at any point after calling jpeg_create_compress() --- in fact,
  it's safe even if jpeg_create_compress() fails.

* If you want to re-use the JPEG object, call jpeg_abort_compress(), or call
  jpeg_abort() which works on both compression and decompression objects.
  This will return the object to an idle state, releasing any working memory.
  jpeg_abort() is allowed at any time after successful object creation.

Note that cleaning up the data destination, if required, is your
responsibility; neither of these routines will call term_destination().
(See "Compressed data handling", below, for more about that.)

jpeg_destroy() and jpeg_abort() are the only safe calls to make on a JPEG
object that has reported an error by calling error_exit (see "Error handling"
for more info). The internal state of such an object is likely to be out of
whack. Either of these two routines will return the object to a known state.

Decompression details

Here we revisit the JPEG decompression outline given in the overview.

1. Allocate and initialize a JPEG decompression object.

This is just like initialization for compression, as discussed above,
except that the object is a "struct jpeg_decompress_struct" and you
call jpeg_create_decompress(). Error handling is exactly the same.

Typical code:

```
struct jpeg_decompress_struct cinfo;
struct jpeg_error_mgr jerr;
...
cinfo.err = jpeg_std_error(&jerr);
jpeg_create_decompress(&cinfo);
```

(Both here and in the IJG code, we usually use variable name "cinfo" for
both compression and decompression objects.)

2. Specify the source of the compressed data (eg, a file).

As previously mentioned, the JPEG library reads compressed data from a "data
source" module. The library includes one data source module which knows how
to read from a stdio stream. You can use your own source module if you want
to do something else, as discussed later.

If you use the standard source module, you must open the source stdio stream
beforehand. Typical code for this step looks like:

```
FILE * infile;
...
if ((infile = fopen(filename, "rb")) == NULL) {
    fprintf(stderr, "can't open %s\n", filename);
    exit(1);
}
jpeg_stdio_src(&cinfo, infile);
```

where the last line invokes the standard source module.

WARNING: it is critical that the binary compressed data be read unchanged.
On non-Unix systems the stdio library may perform newline translation or
otherwise corrupt binary data. To suppress this behavior, you may need to use
a "b" option to fopen (as shown above), or use setmode() or another routine to
put the stdio stream in binary mode. See cjpeg.c and djpeg.c for code that
has been found to work on many systems.

You may not change the data source between calling jpeg_read_header() and
jpeg_finish_decompress(). If you wish to read a series of JPEG images from
a single source file, you should repeat the jpeg_read_header() to
jpeg_finish_decompress() sequence without reinitializing either the JPEG
object or the data source module; this prevents buffered input data from
being discarded.

3. Call jpeg_read_header() to obtain image info.

Typical code for this step is just

```
jpeg_read_header(&cinfo, TRUE);
```

This will read the source datastream header markers, up to the beginning
of the compressed data proper. On return, the image dimensions and other
info have been stored in the JPEG object. The application may wish to
consult this information before selecting decompression parameters.

More complex code is necessary if
 * A suspending data source is used --- in that case jpeg_read_header()
   may return before it has read all the header data. See "I/O suspension",
   below. The normal stdio source manager will NOT cause this to happen.
 * Abbreviated JPEG files are to be processed --- see the section on
   abbreviated datastreams. Standard applications that deal only in
   interchange JPEG files need not be concerned with this case either.

It is permissible to stop at this point if you just wanted to find out the
image dimensions and other header info for a JPEG file. In that case,
call jpeg_destroy() when you are done with the JPEG object, or call
jpeg_abort() to return it to an idle state before selecting a new data
source and reading another header.

4. Set parameters for decompression.

jpeg_read_header() sets appropriate default decompression parameters based on
the properties of the image (in particular, its colorspace). However, you
may well want to alter these defaults before beginning the decompression.
For example, the default is to produce full color output from a color file.
If you want colormapped output you must ask for it. Other options allow the
returned image to be scaled and allow various speed/quality tradeoffs to be
selected. "Decompression parameter selection", below, gives details.

If the defaults are appropriate, nothing need be done at this step.

Note that all default values are set by each call to jpeg_read_header().
If you reuse a decompression object, you cannot expect your parameter
settings to be preserved across cycles, as you can for compression.
You must set desired parameter values each time.

5. jpeg_start_decompress(...);

Once the parameter values are satisfactory, call jpeg_start_decompress() to
begin decompression. This will initialize internal state, allocate working

memory, and prepare for returning data.

Typical code is just

```
jpeg_start_decompress(&cinfo);
```

If you have requested a multi-pass operating mode, such as 2-pass color
quantization, jpeg_start_decompress() will do everything needed before data
output can begin. In this case jpeg_start_decompress() may take quite a while
to complete. With a single-scan (non progressive) JPEG file and default
decompression parameters, this will not happen; jpeg_start_decompress() will
return quickly.

After this call, the final output image dimensions, including any requested
scaling, are available in the JPEG object; so is the selected colormap, if
colormapped output has been requested. Useful fields include

```
output_width  image width and height, as scaled
output_height
out_color_components # of color components in out_color_space
output_components # of color components returned per pixel
colormap  the selected colormap, if any
actual_number_of_colors  number of entries in colormap
```

output_components is 1 (a colormap index) when quantizing colors; otherwise it
equals out_color_components. It is the number of JSAMPLE values that will be
emitted per pixel in the output arrays.

Typically you will need to allocate data buffers to hold the incoming image.
You will need output_width * output_components JSAMPLEs per scanline in your
output buffer, and a total of output_height scanlines will be returned.

Note: if you are using the JPEG library's internal memory manager to allocate
data buffers (as djpeg does), then the manager's protocol requires that you
request large buffers *before* calling jpeg_start_decompress(). This is a
little tricky since the output_XXX fields are not normally valid then. You
can make them valid by calling jpeg_calc_output_dimensions() after setting the
relevant parameters (scaling, output color space, and quantization flag).

6. while (scan lines remain to be read)

```
jpeg_read_scanlines(...);
```

Now you can read the decompressed image data by calling jpeg_read_scanlines()
one or more times. At each call, you pass in the maximum number of scanlines
to be read (ie, the height of your working buffer); jpeg_read_scanlines()
will return up to that many lines. The return value is the number of lines
actually read. The format of the returned data is discussed under "Data

formats", above. Don't forget that grayscale and color JPEGs will return
different data formats!

Image data is returned in top-to-bottom scanline order. If you must write
out the image in bottom-to-top order, you can use the JPEG library's virtual
array mechanism to invert the data efficiently. Examples of this can be
found in the sample application djpeg.

The library maintains a count of the number of scanlines returned so far
in the output_scanline field of the JPEG object. Usually you can just use
this variable as the loop counter, so that the loop test looks like
"while (cinfo.output_scanline < cinfo.output_height)". (Note that the test
should NOT be against image_height, unless you never use scaling. The
image_height field is the height of the original unscaled image.)
The return value always equals the change in the value of output_scanline.

If you don't use a suspending data source, it is safe to assume that
jpeg_read_scanlines() reads at least one scanline per call, until the
bottom of the image has been reached.

If you use a buffer larger than one scanline, it is NOT safe to assume that
jpeg_read_scanlines() fills it. (The current implementation returns only a
few scanlines per call, no matter how large a buffer you pass.) So you must
always provide a loop that calls jpeg_read_scanlines() repeatedly until the
whole image has been read.

7. jpeg_finish_decompress(...);

After all the image data has been read, call jpeg_finish_decompress() to
complete the decompression cycle. This causes working memory associated
with the JPEG object to be released.

Typical code:

```
 jpeg_finish_decompress(&cinfo);
```

If using the stdio source manager, don't forget to close the source stdio
stream if necessary.

It is an error to call jpeg_finish_decompress() before reading the correct
total number of scanlines. If you wish to abort decompression, call
jpeg_abort() as discussed below.

After completing a decompression cycle, you may dispose of the JPEG object as
discussed next, or you may use it to decompress another image. In that case
return to step 2 or 3 as appropriate. If you do not change the source
manager, the next image will be read from the same source.

8. Release the JPEG decompression object.

When you are done with a JPEG decompression object, destroy it by calling
jpeg_destroy_decompress() or jpeg_destroy(). The previous discussion of
destroying compression objects applies here too.

Typical code:

```
jpeg_destroy_decompress(&cinfo);
```

9. Aborting.

You can abort a decompression cycle by calling jpeg_destroy_decompress() or
jpeg_destroy() if you don't need the JPEG object any more, or
jpeg_abort_decompress() or jpeg_abort() if you want to reuse the object.
The previous discussion of aborting compression cycles applies here too.

Mechanics of usage: include files, linking, etc

Applications using the JPEG library should include the header file jpeglib.h
to obtain declarations of data types and routines. Before including
jpeglib.h, include system headers that define at least the typedefs FILE and
size_t. On ANSI-conforming systems, including <stdio.h> is sufficient; on
older Unix systems, you may need <sys/types.h> to define size_t.

If the application needs to refer to individual JPEG library error codes, also
include jerror.h to define those symbols.

jpeglib.h indirectly includes the files jconfig.h and jmorecfg.h. If you are
installing the JPEG header files in a system directory, you will want to
install all four files: jpeglib.h, jerror.h, jconfig.h, jmorecfg.h.

The most convenient way to include the JPEG code into your executable program
is to prepare a library file ("libjpeg.a", or a corresponding name on non-Unix
machines) and reference it at your link step. If you use only half of the
library (only compression or only decompression), only that much code will be
included from the library, unless your linker is hopelessly brain-damaged.
The supplied makefiles build libjpeg.a automatically (see install.txt).

While you can build the JPEG library as a shared library if the whim strikes
you, we don't really recommend it. The trouble with shared libraries is that
at some point you'll probably try to substitute a new version of the library
without recompiling the calling applications. That generally doesn't work

because the parameter struct declarations usually change with each new
version. In other words, the library's API is *not* guaranteed binary
compatible across versions; we only try to ensure source-code compatibility.
(In hindsight, it might have been smarter to hide the parameter structs from
applications and introduce a ton of access functions instead. Too late now,
however.)

On some systems your application may need to set up a signal handler to ensure
that temporary files are deleted if the program is interrupted. This is most
critical if you are on MS-DOS and use the jmemdos.c memory manager back end;
it will try to grab extended memory for temp files, and that space will NOT be
freed automatically. See cjpeg.c or djpeg.c for an example signal handler.

It may be worth pointing out that the core JPEG library does not actually
require the stdio library: only the default source/destination managers and
error handler need it. You can use the library in a stdio-less environment
if you replace those modules and use jmemnobs.c (or another memory manager of
your own devising). More info about the minimum system library requirements
may be found in jinclude.h.

ADVANCED FEATURES
=================

Compression parameter selection

This section describes all the optional parameters you can set for JPEG
compression, as well as the "helper" routines provided to assist in this
task. Proper setting of some parameters requires detailed understanding
of the JPEG standard; if you don't know what a parameter is for, it's best
not to mess with it! See REFERENCES in the README file for pointers to
more info about JPEG.

It's a good idea to call jpeg_set_defaults() first, even if you plan to set
all the parameters; that way your code is more likely to work with future JPEG
libraries that have additional parameters. For the same reason, we recommend
you use a helper routine where one is provided, in preference to twiddling
cinfo fields directly.

The helper routines are:

jpeg_set_defaults (j_compress_ptr cinfo)
 This routine sets all JPEG parameters to reasonable defaults, using
 only the input image's color space (field in_color_space, which must
 already be set in cinfo). Many applications will only need to use
 this routine and perhaps jpeg_set_quality().

jpeg_set_colorspace (j_compress_ptr cinfo, J_COLOR_SPACE colorspace)
Sets the JPEG file's colorspace (field jpeg_color_space) as specified,
and sets other color-space-dependent parameters appropriately. See
"Special color spaces", below, before using this. A large number of
parameters, including all per-component parameters, are set by this
routine; if you want to twiddle individual parameters you should call
jpeg_set_colorspace() before rather than after.

jpeg_default_colorspace (j_compress_ptr cinfo)
Selects an appropriate JPEG colorspace based on cinfo->in_color_space,
and calls jpeg_set_colorspace(). This is actually a subroutine of
jpeg_set_defaults(). It's broken out in case you want to change
just the colorspace-dependent JPEG parameters.

jpeg_set_quality (j_compress_ptr cinfo, int quality, boolean force_baseline)
Constructs JPEG quantization tables appropriate for the indicated
quality setting. The quality value is expressed on the 0..100 scale
recommended by IJG (cjpeg's "-quality" switch uses this routine).
Note that the exact mapping from quality values to tables may change
in future IJG releases as more is learned about DCT quantization.
If the force_baseline parameter is TRUE, then the quantization table
entries are constrained to the range 1..255 for full JPEG baseline
compatibility. In the current implementation, this only makes a
difference for quality settings below 25, and it effectively prevents
very small/low quality files from being generated. The IJG decoder
is capable of reading the non-baseline files generated at low quality
settings when force_baseline is FALSE, but other decoders may not be.

jpeg_set_linear_quality (j_compress_ptr cinfo, int scale_factor,
boolean force_baseline)
Same as jpeg_set_quality() except that the generated tables are the
sample tables given in the JPEC spec section K.1, multiplied by the
specified scale factor (which is expressed as a percentage; thus
scale_factor = 100 reproduces the spec's tables). Note that larger
scale factors give lower quality. This entry point is useful for
conforming to the Adobe PostScript DCT conventions, but we do not
recommend linear scaling as a user-visible quality scale otherwise.
force_baseline again constrains the computed table entries to 1..255.

int jpeg_quality_scaling (int quality)
Converts a value on the IJG-recommended quality scale to a linear
scaling percentage. Note that this routine may change or go away
in future releases --- IJG may choose to adopt a scaling method that
can't be expressed as a simple scalar multiplier, in which case the
premise of this routine collapses. Caveat user.

jpeg_default_qtables (j_compress_ptr cinfo, boolean force_baseline)
Set default quantization tables with linear q_scale_factor[] values

(see below).

jpeg_add_quant_table (j_compress_ptr cinfo, int which_tbl,
    const unsigned int *basic_table,
    int scale_factor, boolean force_baseline)
Allows an arbitrary quantization table to be created. which_tbl
indicates which table slot to fill. basic_table points to an array
of 64 unsigned ints given in normal array order. These values are
multiplied by scale_factor/100 and then clamped to the range 1..65535
(or to 1..255 if force_baseline is TRUE).
CAUTION: prior to library version 6a, jpeg_add_quant_table expected
the basic table to be given in JPEG zigzag order. If you need to
write code that works with either older or newer versions of this
routine, you must check the library version number. Something like
"#if JPEG_LIB_VERSION >= 61" is the right test.

jpeg_simple_progression (j_compress_ptr cinfo)
Generates a default scan script for writing a progressive-JPEG file.
This is the recommended method of creating a progressive file,
unless you want to make a custom scan sequence. You must ensure that
the JPEG color space is set correctly before calling this routine.

Compression parameters (cinfo fields) include:

boolean arith_code
If TRUE, use arithmetic coding.
If FALSE, use Huffman coding.

int block_size
Set DCT block size. All N from 1 to 16 are possible.
Default is 8 (baseline format).
Larger values produce higher compression,
smaller values produce higher quality.
An exact DCT stage is possible with 1 or 2.
With the default quality of 75 and default Luminance qtable
the DCT+Quantization stage is lossless for value 1.
Note that values other than 8 require a SmartScale capable decoder,
introduced with IJG JPEG 8. Setting the block_size parameter for
compression works with version 8c and later.

J_DCT_METHOD dct_method
Selects the algorithm used for the DCT step. Choices are:
JDCT_ISLOW: slow but accurate integer algorithm
JDCT_IFAST: faster, less accurate integer method
JDCT_FLOAT: floating-point method
JDCT_DEFAULT: default method (normally JDCT_ISLOW)
JDCT_FASTEST: fastest method (normally JDCT_IFAST)

The FLOAT method is very slightly more accurate than the ISLOW method,
but may give different results on different machines due to varying
roundoff behavior. The integer methods should give the same results
on all machines. On machines with sufficiently fast FP hardware, the
floating-point method may also be the fastest. The IFAST method is
considerably less accurate than the other two; its use is not
recommended if high quality is a concern. JDCT_DEFAULT and
JDCT_FASTEST are macros configurable by each installation.

unsigned int scale_num, scale_denom
Scale the image by the fraction scale_num/scale_denom. Default is
1/1, or no scaling. Currently, the supported scaling ratios are
M/N with all N from 1 to 16, where M is the destination DCT size,
which is 8 by default (see block_size parameter above).
(The library design allows for arbitrary scaling ratios but this
is not likely to be implemented any time soon.)

J_COLOR_SPACE jpeg_color_space
int num_components
The JPEG color space and corresponding number of components; see
"Special color spaces", below, for more info. We recommend using
jpeg_set_colorspace() if you want to change these.

J_COLOR_TRANSFORM color_transform
Internal color transform identifier, writes LSE marker if nonzero
(requires decoder with inverse color transform support, introduced
with IJG JPEG 9).
Two values are currently possible: JCT_NONE and JCT_SUBTRACT_GREEN.
Set this value for lossless RGB application *before* calling
jpeg_set_colorspace(), because entropy table assignment in
jpeg_set_colorspace() depends on color_transform.

boolean optimize_coding
TRUE causes the compressor to compute optimal Huffman coding tables
for the image. This requires an extra pass over the data and
therefore costs a good deal of space and time. The default is
FALSE, which tells the compressor to use the supplied or default
Huffman tables. In most cases optimal tables save only a few percent
of file size compared to the default tables. Note that when this is
TRUE, you need not supply Huffman tables at all, and any you do
supply will be overwritten.

unsigned int restart_interval
int restart_in_rows
To emit restart markers in the JPEG file, set one of these nonzero.
Set restart_interval to specify the exact interval in MCU blocks.
Set restart_in_rows to specify the interval in MCU rows. (If
restart_in_rows is not 0, then restart_interval is set after the

image width in MCUs is computed.) Defaults are zero (no restarts).
One restart marker per MCU row is often a good choice.
NOTE: the overhead of restart markers is higher in grayscale JPEG
files than in color files, and MUCH higher in progressive JPEGs.
If you use restarts, you may want to use larger intervals in those
cases.

const jpeg_scan_info * scan_info
int num_scans
By default, scan_info is NULL; this causes the compressor to write a
single-scan sequential JPEG file. If not NULL, scan_info points to
an array of scan definition records of length num_scans. The
compressor will then write a JPEG file having one scan for each scan
definition record. This is used to generate noninterleaved or
progressive JPEG files. The library checks that the scan array
defines a valid JPEG scan sequence. (jpeg_simple_progression creates
a suitable scan definition array for progressive JPEG.) This is
discussed further under "Progressive JPEG support".

boolean do_fancy_downsampling
If TRUE, use direct DCT scaling with DCT size > 8 for downsampling
of chroma components.
If FALSE, use only DCT size <= 8 and simple separate downsampling.
Default is TRUE.
For better image stability in multiple generation compression cycles
it is preferable that this value matches the corresponding
do_fancy_upsampling value in decompression.

int smoothing_factor
If non-zero, the input image is smoothed; the value should be 1 for
minimal smoothing to 100 for maximum smoothing. Consult jcsample.c
for details of the smoothing algorithm. The default is zero.

boolean write_JFIF_header
If TRUE, a JFIF APP0 marker is emitted. jpeg_set_defaults() and
jpeg_set_colorspace() set this TRUE if a JFIF-legal JPEG color space
(ie, YCbCr or grayscale) is selected, otherwise FALSE.

UINT8 JFIF_major_version
UINT8 JFIF_minor_version
The version number to be written into the JFIF marker.
jpeg_set_defaults() initializes the version to 1.01 (major=minor=1).
You should set it to 1.02 (major=1, minor=2) if you plan to write
any JFIF 1.02 extension markers.

UINT8 density_unit
UINT16 X_density
UINT16 Y_density

The resolution information to be written into the JFIF marker;
not used otherwise. density_unit may be 0 for unknown,
1 for dots/inch, or 2 for dots/cm. The default values are 0,1,1
indicating square pixels of unknown size.

boolean write_Adobe_marker
If TRUE, an Adobe APP14 marker is emitted. jpeg_set_defaults() and
jpeg_set_colorspace() set this TRUE if JPEG color space RGB, CMYK,
or YCCK is selected, otherwise FALSE. It is generally a bad idea
to set both write_JFIF_header and write_Adobe_marker. In fact,
you probably shouldn't change the default settings at all --- the
default behavior ensures that the JPEG file's color space can be
recognized by the decoder.

JQUANT_TBL * quant_tbl_ptrs[NUM_QUANT_TBLS]
Pointers to coefficient quantization tables, one per table slot,
or NULL if no table is defined for a slot. Usually these should
be set via one of the above helper routines; jpeg_add_quant_table()
is general enough to define any quantization table. The other
routines will set up table slot 0 for luminance quality and table
slot 1 for chrominance.

int q_scale_factor[NUM_QUANT_TBLS]
Linear quantization scaling factors (percentage, initialized 100)
for use with jpeg_default_qtables().
See rdswitch.c and cjpeg.c for an example of usage.
Note that the q_scale_factor[] fields are the "linear" scales, so you
have to convert from user-defined ratings via jpeg_quality_scaling().
Here is an example code which corresponds to cjpeg -quality 90,70:

```
jpeg_set_defaults(cinfo);

/* Set luminance quality 90. */
cinfo->q_scale_factor[0] = jpeg_quality_scaling(90);
/* Set chrominance quality 70. */
cinfo->q_scale_factor[1] = jpeg_quality_scaling(70);

jpeg_default_qtables(cinfo, force_baseline);
```

CAUTION: You must also set 1x1 subsampling for efficient separate
color quality selection, since the default value used by library
is 2x2:

```
cinfo->comp_info[0].v_samp_factor = 1;
cinfo->comp_info[0].h_samp_factor = 1;
```

JHUFF_TBL * dc_huff_tbl_ptrs[NUM_HUFF_TBLS]
JHUFF_TBL * ac_huff_tbl_ptrs[NUM_HUFF_TBLS]

Pointers to Huffman coding tables, one per table slot, or NULL if
no table is defined for a slot. Slots 0 and 1 are filled with the
JPEG sample tables by jpeg_set_defaults(). If you need to allocate
more table structures, jpeg_alloc_huff_table() may be used.
Note that optimal Huffman tables can be computed for an image
by setting optimize_coding, as discussed above; there's seldom
any need to mess with providing your own Huffman tables.

The actual dimensions of the JPEG image that will be written to the file are
given by the following fields. These are computed from the input image
dimensions and the compression parameters by jpeg_start_compress(). You can
also call jpeg_calc_jpeg_dimensions() to obtain the values that will result
from the current parameter settings. This can be useful if you are trying
to pick a scaling ratio that will get close to a desired target size.

JDIMENSION jpeg_width Actual dimensions of output image.
JDIMENSION jpeg_height

Per-component parameters are stored in the struct cinfo.comp_info[i] for
component number i. Note that components here refer to components of the
JPEG color space, *not* the source image color space. A suitably large
comp_info[] array is allocated by jpeg_set_defaults(); if you choose not
to use that routine, it's up to you to allocate the array.

int component_id
The one-byte identifier code to be recorded in the JPEG file for
this component. For the standard color spaces, we recommend you
leave the default values alone.

int h_samp_factor
int v_samp_factor
Horizontal and vertical sampling factors for the component; must
be 1..4 according to the JPEG standard. Note that larger sampling
factors indicate a higher-resolution component; many people find
this behavior quite unintuitive. The default values are 2,2 for
luminance components and 1,1 for chrominance components, except
for grayscale where 1,1 is used.

int quant_tbl_no
Quantization table number for component. The default value is
0 for luminance components and 1 for chrominance components.

int dc_tbl_no
int ac_tbl_no
DC and AC entropy coding table numbers. The default values are
0 for luminance components and 1 for chrominance components.

int component_index
 Must equal the component's index in comp_info[]. (Beginning in
 release v6, the compressor library will fill this in automatically;
 you don't have to.)

Decompression parameter selection

Decompression parameter selection is somewhat simpler than compression
parameter selection, since all of the JPEG internal parameters are
recorded in the source file and need not be supplied by the application.
(Unless you are working with abbreviated files, in which case see
"Abbreviated datastreams", below.) Decompression parameters control
the postprocessing done on the image to deliver it in a format suitable
for the application's use. Many of the parameters control speed/quality
tradeoffs, in which faster decompression may be obtained at the price of
a poorer-quality image. The defaults select the highest quality (slowest)
processing.

The following fields in the JPEG object are set by jpeg_read_header() and
may be useful to the application in choosing decompression parameters:

JDIMENSION image_width Width and height of image
JDIMENSION image_height
int num_components Number of color components
J_COLOR_SPACE jpeg_color_space Colorspace of image
boolean saw_JFIF_marker TRUE if a JFIF APP0 marker was seen
 UINT8 JFIF_major_version Version information from JFIF marker
 UINT8 JFIF_minor_version
 UINT8 density_unit Resolution data from JFIF marker
 UINT16 X_density
 UINT16 Y_density
boolean saw_Adobe_marker TRUE if an Adobe APP14 marker was seen
 UINT8 Adobe_transform Color transform code from Adobe marker

The JPEG color space, unfortunately, is something of a guess since the JPEG
standard proper does not provide a way to record it. In practice most files
adhere to the JFIF or Adobe conventions, and the decoder will recognize these
correctly. See "Special color spaces", below, for more info.

The decompression parameters that determine the basic properties of the
returned image are:

J_COLOR_SPACE out_color_space
 Output color space. jpeg_read_header() sets an appropriate default

based on jpeg_color_space; typically it will be RGB or grayscale.
The application can change this field to request output in a different
colorspace. For example, set it to JCS_GRAYSCALE to get grayscale
output from a color file. (This is useful for previewing: grayscale
output is faster than full color since the color components need not
be processed.) Note that not all possible color space transforms are
currently implemented; you may need to extend jdcolor.c if you want an
unusual conversion.

unsigned int scale_num, scale_denom
Scale the image by the fraction scale_num/scale_denom. Currently,
the supported scaling ratios are M/N with all M from 1 to 16, where
N is the source DCT size, which is 8 for baseline JPEG. (The library
design allows for arbitrary scaling ratios but this is not likely
to be implemented any time soon.) The values are initialized by
jpeg_read_header() with the source DCT size. For baseline JPEG
this is 8/8. If you change only the scale_num value while leaving
the other unchanged, then this specifies the DCT scaled size to be
applied on the given input. For baseline JPEG this is equivalent
to M/8 scaling, since the source DCT size for baseline JPEG is 8.
Smaller scaling ratios permit significantly faster decoding since
fewer pixels need be processed and a simpler IDCT method can be used.

boolean quantize_colors
If set TRUE, colormapped output will be delivered. Default is FALSE,
meaning that full-color output will be delivered.

The next three parameters are relevant only if quantize_colors is TRUE.

int desired_number_of_colors
Maximum number of colors to use in generating a library-supplied color
map (the actual number of colors is returned in a different field).
Default 256. Ignored when the application supplies its own color map.

boolean two_pass_quantize
If TRUE, an extra pass over the image is made to select a custom color
map for the image. This usually looks a lot better than the one-size-
fits-all colormap that is used otherwise. Default is TRUE. Ignored
when the application supplies its own color map.

J_DITHER_MODE dither_mode
Selects color dithering method. Supported values are:
JDITHER_NONE no dithering: fast, very low quality
JDITHER_ORDERED ordered dither: moderate speed and quality
JDITHER_FS Floyd-Steinberg dither: slow, high quality
Default is JDITHER_FS. (At present, ordered dither is implemented
only in the single-pass, standard-colormap case. If you ask for
ordered dither when two_pass_quantize is TRUE or when you supply

an external color map, you'll get F-S dithering.)

When quantize_colors is TRUE, the target color map is described by the next two fields. colormap is set to NULL by jpeg_read_header(). The application can supply a color map by setting colormap non-NULL and setting actual_number_of_colors to the map size. Otherwise, jpeg_start_decompress() selects a suitable color map and sets these two fields itself. [Implementation restriction: at present, an externally supplied colormap is only accepted for 3-component output color spaces.]

JSAMPARRAY colormap
The color map, represented as a 2-D pixel array of out_color_components rows and actual_number_of_colors columns. Ignored if not quantizing. CAUTION: if the JPEG library creates its own colormap, the storage pointed to by this field is released by jpeg_finish_decompress(). Copy the colormap somewhere else first, if you want to save it.

int actual_number_of_colors
The number of colors in the color map.

Additional decompression parameters that the application may set include:

J_DCT_METHOD dct_method
Selects the algorithm used for the DCT step. Choices are the same as described above for compression.

boolean do_fancy_upsampling
If TRUE, use direct DCT scaling with DCT size > 8 for upsampling of chroma components.
If FALSE, use only DCT size <= 8 and simple separate upsampling.
Default is TRUE.
For better image stability in multiple generation compression cycles it is preferable that this value matches the corresponding do_fancy_downsampling value in compression.

boolean do_block_smoothing
If TRUE, interblock smoothing is applied in early stages of decoding progressive JPEG files; if FALSE, not. Default is TRUE. Early progression stages look "fuzzy" with smoothing, "blocky" without. In any case, block smoothing ceases to be applied after the first few AC coefficients are known to full accuracy, so it is relevant only when using buffered-image mode for progressive images.

boolean enable_1pass_quant
boolean enable_external_quant
boolean enable_2pass_quant
These are significant only in buffered-image mode, which is described in its own section below.

The output image dimensions are given by the following fields. These are
computed from the source image dimensions and the decompression parameters
by jpeg_start_decompress(). You can also call jpeg_calc_output_dimensions()
to obtain the values that will result from the current parameter settings.
This can be useful if you are trying to pick a scaling ratio that will get
close to a desired target size. It's also important if you are using the
JPEG library's memory manager to allocate output buffer space, because you
are supposed to request such buffers *before* jpeg_start_decompress().

JDIMENSION output_width Actual dimensions of output image.
JDIMENSION output_height
int out_color_components Number of color components in out_color_space.
int output_components Number of color components returned.
int rec_outbuf_height Recommended height of scanline buffer.

When quantizing colors, output_components is 1, indicating a single color map
index per pixel. Otherwise it equals out_color_components. The output arrays
are required to be output_width * output_components JSAMPLEs wide.

rec_outbuf_height is the recommended minimum height (in scanlines) of the
buffer passed to jpeg_read_scanlines(). If the buffer is smaller, the
library will still work, but time will be wasted due to unnecessary data
copying. In high-quality modes, rec_outbuf_height is always 1, but some
faster, lower-quality modes set it to larger values (typically 2 to 4).
If you are going to ask for a high-speed processing mode, you may as well
go to the trouble of honoring rec_outbuf_height so as to avoid data copying.
(An output buffer larger than rec_outbuf_height lines is OK, but won't
provide any material speed improvement over that height.)

Special color spaces

The JPEG standard itself is "color blind" and doesn't specify any particular
color space. It is customary to convert color data to a luminance/chrominance
color space before compressing, since this permits greater compression. The
existing JPEG file interchange format standards specify YCbCr or GRAYSCALE
data (JFIF version 1), GRAYSCALE, RGB, YCbCr, CMYK, or YCCK (Adobe), or BG_RGB
or BG_YCC (big gamut color spaces, JFIF version 2). For special applications
such as multispectral images, other color spaces can be used,
but it must be understood that such files will be unportable.

The JPEG library can handle the most common colorspace conversions (namely
RGB <=> YCbCr and CMYK <=> YCCK). It can also deal with data of an unknown
color space, passing it through without conversion. If you deal extensively
with an unusual color space, you can easily extend the library to understand

additional color spaces and perform appropriate conversions.

For compression, the source data's color space is specified by field
in_color_space. This is transformed to the JPEG file's color space given
by jpeg_color_space. jpeg_set_defaults() chooses a reasonable JPEG color
space depending on in_color_space, but you can override this by calling
jpeg_set_colorspace(). Of course you must select a supported transformation.
jccolor.c currently supports the following transformations:
RGB => YCbCr
RGB => GRAYSCALE
RGB => BG_YCC
YCbCr => GRAYSCALE
YCbCr => BG_YCC
CMYK => YCCK
plus the null transforms: GRAYSCALE => GRAYSCALE, RGB => RGB,
BG_RGB => BG_RGB, YCbCr => YCbCr, BG_YCC => BG_YCC, CMYK => CMYK,
YCCK => YCCK, and UNKNOWN => UNKNOWN.

The file interchange format standards (JFIF and Adobe) specify APPn markers
that indicate the color space of the JPEG file. It is important to ensure
that these are written correctly, or omitted if the JPEG file's color space
is not one of the ones supported by the interchange standards.
jpeg_set_colorspace() will set the compression parameters to include or omit
the APPn markers properly, so long as it is told the truth about the JPEG
color space. For example, if you are writing some random 3-component color
space without conversion, don't try to fake out the library by setting
in_color_space and jpeg_color_space to JCS_YCbCr; use JCS_UNKNOWN.
You may want to write an APPn marker of your own devising to identify
the colorspace --- see "Special markers", below.

When told that the color space is UNKNOWN, the library will default to using
luminance-quality compression parameters for all color components. You may
well want to change these parameters. See the source code for
jpeg_set_colorspace(), in jcparam.c, for details.

For decompression, the JPEG file's color space is given in jpeg_color_space,
and this is transformed to the output color space out_color_space.
jpeg_read_header's setting of jpeg_color_space can be relied on if the file
conforms to JFIF or Adobe conventions, but otherwise it is no better than a
guess. If you know the JPEG file's color space for certain, you can override
jpeg_read_header's guess by setting jpeg_color_space. jpeg_read_header also
selects a default output color space based on (its guess of) jpeg_color_space;
set out_color_space to override this. Again, you must select a supported
transformation. jdcolor.c currently supports
YCbCr => RGB
YCbCr => GRAYSCALE
BG_YCC => RGB
BG_YCC => GRAYSCALE

RGB => GRAYSCALE
GRAYSCALE => RGB
YCCK => CMYK
as well as the null transforms. (Since GRAYSCALE=>RGB is provided, an application can force grayscale JPEGs to look like color JPEGs if it only wants to handle one case.)

The two-pass color quantizer, jquant2.c, is specialized to handle RGB data (it weights distances appropriately for RGB colors). You'll need to modify the code if you want to use it for non-RGB output color spaces. Note that jquant2.c is used to map to an application-supplied colormap as well as for the normal two-pass colormap selection process.

CAUTION: it appears that Adobe Photoshop writes inverted data in CMYK JPEG files: 0 represents 100% ink coverage, rather than 0% ink as you'd expect. This is arguably a bug in Photoshop, but if you need to work with Photoshop CMYK files, you will have to deal with it in your application. We cannot "fix" this in the library by inverting the data during the CMYK<=>YCCK transform, because that would break other applications, notably Ghostscript. Photoshop versions prior to 3.0 write EPS files containing JPEG-encoded CMYK data in the same inverted-YCCK representation used in bare JPEG files, but the surrounding PostScript code performs an inversion using the PS image operator. I am told that Photoshop 3.0 will write uninverted YCCK in EPS/JPEG files, and will omit the PS-level inversion. (But the data polarity used in bare JPEG files will not change in 3.0.) In either case, the JPEG library must not invert the data itself, or else Ghostscript would read these EPS files incorrectly.

Error handling

When the default error handler is used, any error detected inside the JPEG routines will cause a message to be printed on stderr, followed by exit(). You can supply your own error handling routines to override this behavior and to control the treatment of nonfatal warnings and trace/debug messages. The file example.c illustrates the most common case, which is to have the application regain control after an error rather than exiting.

The JPEG library never writes any message directly; it always goes through the error handling routines. Three classes of messages are recognized:
* Fatal errors: the library cannot continue.
* Warnings: the library can continue, but the data is corrupt, and a damaged output image is likely to result.
* Trace/informational messages. These come with a trace level indicating the importance of the message; you can control the verbosity of the program by adjusting the maximum trace level that will be displayed.

You may, if you wish, simply replace the entire JPEG error handling module (jerror.c) with your own code. However, you can avoid code duplication by only replacing some of the routines depending on the behavior you need. This is accomplished by calling jpeg_std_error() as usual, but then overriding some of the method pointers in the jpeg_error_mgr struct, as illustrated by example.c.

All of the error handling routines will receive a pointer to the JPEG object (a j_common_ptr which points to either a jpeg_compress_struct or a jpeg_decompress_struct; if you need to tell which, test the is_decompressor field). This struct includes a pointer to the error manager struct in its "err" field. Frequently, custom error handler routines will need to access additional data which is not known to the JPEG library or the standard error handler. The most convenient way to do this is to embed either the JPEG object or the jpeg_error_mgr struct in a larger structure that contains additional fields; then casting the passed pointer provides access to the additional fields. Again, see example.c for one way to do it. (Beginning with IJG version 6b, there is also a void pointer "client_data" in each JPEG object, which the application can also use to find related data. The library does not touch client_data at all.)

The individual methods that you might wish to override are:

error_exit (j_common_ptr cinfo)
 Receives control for a fatal error. Information sufficient to
 generate the error message has been stored in cinfo->err; call
 output_message to display it. Control must NOT return to the caller;
 generally this routine will exit() or longjmp() somewhere.
 Typically you would override this routine to get rid of the exit()
 default behavior. Note that if you continue processing, you should
 clean up the JPEG object with jpeg_abort() or jpeg_destroy().

output_message (j_common_ptr cinfo)
 Actual output of any JPEG message. Override this to send messages
 somewhere other than stderr. Note that this method does not know
 how to generate a message, only where to send it.

format_message (j_common_ptr cinfo, char * buffer)
 Constructs a readable error message string based on the error info
 stored in cinfo->err. This method is called by output_message. Few
 applications should need to override this method. One possible
 reason for doing so is to implement dynamic switching of error message
 language.

emit_message (j_common_ptr cinfo, int msg_level)
 Decide whether or not to emit a warning or trace message; if so,
 calls output_message. The main reason for overriding this method
 would be to abort on warnings. msg_level is -1 for warnings,

0 and up for trace messages.

Only error_exit() and emit_message() are called from the rest of the JPEG library; the other two are internal to the error handler.

The actual message texts are stored in an array of strings which is pointed to by the field err->jpeg_message_table. The messages are numbered from 0 to err->last_jpeg_message, and it is these code numbers that are used in the JPEG library code. You could replace the message texts (for instance, with messages in French or German) by changing the message table pointer. See jerror.h for the default texts. CAUTION: this table will almost certainly change or grow from one library version to the next.

It may be useful for an application to add its own message texts that are handled by the same mechanism. The error handler supports a second "add-on" message table for this purpose. To define an addon table, set the pointer err->addon_message_table and the message numbers err->first_addon_message and err->last_addon_message. If you number the addon messages beginning at 1000 or so, you won't have to worry about conflicts with the library's built-in messages. See the sample applications cjpeg/djpeg for an example of using addon messages (the addon messages are defined in cderror.h).

Actual invocation of the error handler is done via macros defined in jerror.h:
ERREXITn(...) for fatal errors
WARNMSn(...) for corrupt-data warnings
TRACEMSn(...) for trace and informational messages.
These macros store the message code and any additional parameters into the error handler struct, then invoke the error_exit() or emit_message() method. The variants of each macro are for varying numbers of additional parameters. The additional parameters are inserted into the generated message using standard printf() format codes.

See jerror.h and jerror.c for further details.

Compressed data handling (source and destination managers)

The JPEG compression library sends its compressed data to a "destination manager" module. The default destination manager just writes the data to a memory buffer or to a stdio stream, but you can provide your own manager to do something else. Similarly, the decompression library calls a "source manager" to obtain the compressed data; you can provide your own source manager if you want the data to come from somewhere other than a memory buffer or a stdio stream.

In both cases, compressed data is processed a bufferload at a time: the destination or source manager provides a work buffer, and the library invokes

the manager only when the buffer is filled or emptied. (You could define a one-character buffer to force the manager to be invoked for each byte, but that would be rather inefficient.) The buffer's size and location are controlled by the manager, not by the library. For example, the memory source manager just makes the buffer pointer and length point to the original data in memory. In this case the buffer-reload procedure will be invoked only if the decompressor ran off the end of the datastream, which would indicate an erroneous datastream.

The work buffer is defined as an array of datatype JOCTET, which is generally "char" or "unsigned char". On a machine where char is not exactly 8 bits wide, you must define JOCTET as a wider data type and then modify the data source and destination modules to transcribe the work arrays into 8-bit units on external storage.

A data destination manager struct contains a pointer and count defining the next byte to write in the work buffer and the remaining free space:

```
JOCTET * next_output_byte;  /* => next byte to write in buffer */
size_t free_in_buffer;      /* # of byte spaces remaining in buffer */
```

The library increments the pointer and decrements the count until the buffer is filled. The manager's empty_output_buffer method must reset the pointer and count. The manager is expected to remember the buffer's starting address and total size in private fields not visible to the library.

A data destination manager provides three methods:

```
init_destination (j_compress_ptr cinfo)
 Initialize destination.  This is called by jpeg_start_compress()
 before any data is actually written.  It must initialize
 next_output_byte and free_in_buffer.  free_in_buffer must be
 initialized to a positive value.

empty_output_buffer (j_compress_ptr cinfo)
 This is called whenever the buffer has filled (free_in_buffer
 reaches zero).  In typical applications, it should write out the
 *entire* buffer (use the saved start address and buffer length;
 ignore the current state of next_output_byte and free_in_buffer).
 Then reset the pointer & count to the start of the buffer, and
 return TRUE indicating that the buffer has been dumped.
 free_in_buffer must be set to a positive value when TRUE is
 returned.  A FALSE return should only be used when I/O suspension is
 desired (this operating mode is discussed in the next section).

term_destination (j_compress_ptr cinfo)
 Terminate destination --- called by jpeg_finish_compress() after all
 data has been written.  In most applications, this must flush any
```

data remaining in the buffer. Use either next_output_byte or
free_in_buffer to determine how much data is in the buffer.

term_destination() is NOT called by jpeg_abort() or jpeg_destroy(). If you
want the destination manager to be cleaned up during an abort, you must do it
yourself.

You will also need code to create a jpeg_destination_mgr struct, fill in its
method pointers, and insert a pointer to the struct into the "dest" field of
the JPEG compression object. This can be done in-line in your setup code if
you like, but it's probably cleaner to provide a separate routine similar to
the jpeg_stdio_dest() or jpeg_mem_dest() routines of the supplied destination
managers.

Decompression source managers follow a parallel design, but with some
additional frammishes. The source manager struct contains a pointer and count
defining the next byte to read from the work buffer and the number of bytes
remaining:

```
const JOCTET * next_input_byte; /* => next byte to read from buffer */
size_t bytes_in_buffer;         /* # of bytes remaining in buffer */
```

The library increments the pointer and decrements the count until the buffer
is emptied. The manager's fill_input_buffer method must reset the pointer and
count. In most applications, the manager must remember the buffer's starting
address and total size in private fields not visible to the library.

A data source manager provides five methods:

init_source (j_decompress_ptr cinfo)
 Initialize source. This is called by jpeg_read_header() before any
 data is actually read. Unlike init_destination(), it may leave
 bytes_in_buffer set to 0 (in which case a fill_input_buffer() call
 will occur immediately).

fill_input_buffer (j_decompress_ptr cinfo)
 This is called whenever bytes_in_buffer has reached zero and more
 data is wanted. In typical applications, it should read fresh data
 into the buffer (ignoring the current state of next_input_byte and
 bytes_in_buffer), reset the pointer & count to the start of the
 buffer, and return TRUE indicating that the buffer has been reloaded.
 It is not necessary to fill the buffer entirely, only to obtain at
 least one more byte. bytes_in_buffer MUST be set to a positive value
 if TRUE is returned. A FALSE return should only be used when I/O
 suspension is desired (this mode is discussed in the next section).

skip_input_data (j_decompress_ptr cinfo, long num_bytes)
 Skip num_bytes worth of data. The buffer pointer and count should

be advanced over num_bytes input bytes, refilling the buffer as
needed. This is used to skip over a potentially large amount of
uninteresting data (such as an APPn marker). In some applications
it may be possible to optimize away the reading of the skipped data,
but it's not clear that being smart is worth much trouble; large
skips are uncommon. bytes_in_buffer may be zero on return.
A zero or negative skip count should be treated as a no-op.

resync_to_restart (j_decompress_ptr cinfo, int desired)
This routine is called only when the decompressor has failed to find
a restart (RSTn) marker where one is expected. Its mission is to
find a suitable point for resuming decompression. For most
applications, we recommend that you just use the default resync
procedure, jpeg_resync_to_restart(). However, if you are able to back
up in the input data stream, or if you have a-priori knowledge about
the likely location of restart markers, you may be able to do better.
Read the read_restart_marker() and jpeg_resync_to_restart() routines
in jdmarker.c if you think you'd like to implement your own resync
procedure.

term_source (j_decompress_ptr cinfo)
Terminate source --- called by jpeg_finish_decompress() after all
data has been read. Often a no-op.

For both fill_input_buffer() and skip_input_data(), there is no such thing
as an EOF return. If the end of the file has been reached, the routine has
a choice of exiting via ERREXIT() or inserting fake data into the buffer.
In most cases, generating a warning message and inserting a fake EOI marker
is the best course of action --- this will allow the decompressor to output
however much of the image is there. In pathological cases, the decompressor
may swallow the EOI and again demand data ... just keep feeding it fake EOIs.
jdatasrc.c illustrates the recommended error recovery behavior.

term_source() is NOT called by jpeg_abort() or jpeg_destroy(). If you want
the source manager to be cleaned up during an abort, you must do it yourself.

You will also need code to create a jpeg_source_mgr struct, fill in its method
pointers, and insert a pointer to the struct into the "src" field of the JPEG
decompression object. This can be done in-line in your setup code if you
like, but it's probably cleaner to provide a separate routine similar to the
jpeg_stdio_src() or jpeg_mem_src() routines of the supplied source managers.

For more information, consult the memory and stdio source and destination
managers in jdatasrc.c and jdatadst.c.

I/O suspension

Some applications need to use the JPEG library as an incremental memory-to-memory filter: when the compressed data buffer is filled or emptied, they want control to return to the outer loop, rather than expecting that the buffer can be emptied or reloaded within the data source/destination manager subroutine. The library supports this need by providing an "I/O suspension" mode, which we describe in this section.

The I/O suspension mode is not a panacea: nothing is guaranteed about the maximum amount of time spent in any one call to the library, so it will not eliminate response-time problems in single-threaded applications. If you need guaranteed response time, we suggest you "bite the bullet" and implement a real multi-tasking capability.

To use I/O suspension, cooperation is needed between the calling application and the data source or destination manager; you will always need a custom source/destination manager. (Please read the previous section if you haven't already.) The basic idea is that the empty_output_buffer() or fill_input_buffer() routine is a no-op, merely returning FALSE to indicate that it has done nothing. Upon seeing this, the JPEG library suspends operation and returns to its caller. The surrounding application is responsible for emptying or refilling the work buffer before calling the JPEG library again.

Compression suspension:

For compression suspension, use an empty_output_buffer() routine that returns FALSE; typically it will not do anything else. This will cause the compressor to return to the caller of jpeg_write_scanlines(), with the return value indicating that not all the supplied scanlines have been accepted. The application must make more room in the output buffer, adjust the output buffer pointer/count appropriately, and then call jpeg_write_scanlines() again, pointing to the first unconsumed scanline.

When forced to suspend, the compressor will backtrack to a convenient stopping point (usually the start of the current MCU); it will regenerate some output data when restarted. Therefore, although empty_output_buffer() is only called when the buffer is filled, you should NOT write out the entire buffer after a suspension. Write only the data up to the current position of next_output_byte/free_in_buffer. The data beyond that point will be regenerated after resumption.

Because of the backtracking behavior, a good-size output buffer is essential for efficiency; you don't want the compressor to suspend often. (In fact, an overly small buffer could lead to infinite looping, if a single MCU required more data than would fit in the buffer.) We recommend a buffer of at least several Kbytes. You may want to insert explicit code to ensure that you don't call jpeg_write_scanlines() unless there is a reasonable amount of space in

the output buffer; in other words, flush the buffer before trying to compress more data.

The compressor does not allow suspension while it is trying to write JPEG markers at the beginning and end of the file. This means that:

* At the beginning of a compression operation, there must be enough free space in the output buffer to hold the header markers (typically 600 or so bytes). The recommended buffer size is bigger than this anyway, so this is not a problem as long as you start with an empty buffer. However, this restriction might catch you if you insert large special markers, such as a JFIF thumbnail image, without flushing the buffer afterwards.
* When you call jpeg_finish_compress(), there must be enough space in the output buffer to emit any buffered data and the final EOI marker. In the current implementation, half a dozen bytes should suffice for this, but for safety's sake we recommend ensuring that at least 100 bytes are free before calling jpeg_finish_compress().

A more significant restriction is that jpeg_finish_compress() cannot suspend. This means you cannot use suspension with multi-pass operating modes, namely Huffman code optimization and multiple-scan output. Those modes write the whole file during jpeg_finish_compress(), which will certainly result in buffer overrun. (Note that this restriction applies only to compression, not decompression. The decompressor supports input suspension in all of its operating modes.)

Decompression suspension:

For decompression suspension, use a fill_input_buffer() routine that simply returns FALSE (except perhaps during error recovery, as discussed below). This will cause the decompressor to return to its caller with an indication that suspension has occurred. This can happen at four places:

* jpeg_read_header(): will return JPEG_SUSPENDED.
* jpeg_start_decompress(): will return FALSE, rather than its usual TRUE.
* jpeg_read_scanlines(): will return the number of scanlines already completed (possibly 0).
* jpeg_finish_decompress(): will return FALSE, rather than its usual TRUE.

The surrounding application must recognize these cases, load more data into the input buffer, and repeat the call. In the case of jpeg_read_scanlines(), increment the passed pointers past any scanlines successfully read.

Just as with compression, the decompressor will typically backtrack to a convenient restart point before suspending. When fill_input_buffer() is called, next_input_byte/bytes_in_buffer point to the current restart point, which is where the decompressor will backtrack to if FALSE is returned. The data beyond that position must NOT be discarded if you suspend; it needs to be re-read upon resumption. In most implementations, you'll need to shift this data down to the start of your work buffer and then load more data after it. Again, this behavior means that a several-Kbyte work buffer is essential

for decent performance; furthermore, you should load a reasonable amount of new data before resuming decompression. (If you loaded, say, only one new byte each time around, you could waste a LOT of cycles.)

The skip_input_data() source manager routine requires special care in a suspension scenario. This routine is NOT granted the ability to suspend the decompressor; it can decrement bytes_in_buffer to zero, but no more. If the requested skip distance exceeds the amount of data currently in the input buffer, then skip_input_data() must set bytes_in_buffer to zero and record the additional skip distance somewhere else. The decompressor will immediately call fill_input_buffer(), which should return FALSE, which will cause a suspension return. The surrounding application must then arrange to discard the recorded number of bytes before it resumes loading the input buffer. (Yes, this design is rather baroque, but it avoids complexity in the far more common case where a non-suspending source manager is used.)

If the input data has been exhausted, we recommend that you emit a warning and insert dummy EOI markers just as a non-suspending data source manager would do. This can be handled either in the surrounding application logic or within fill_input_buffer(); the latter is probably more efficient. If fill_input_buffer() knows that no more data is available, it can set the pointer/count to point to a dummy EOI marker and then return TRUE just as though it had read more data in a non-suspending situation.

The decompressor does not attempt to suspend within standard JPEG markers; instead it will backtrack to the start of the marker and reprocess the whole marker next time. Hence the input buffer must be large enough to hold the longest standard marker in the file. Standard JPEG markers should normally not exceed a few hundred bytes each (DHT tables are typically the longest). We recommend at least a 2K buffer for performance reasons, which is much larger than any correct marker is likely to be. For robustness against damaged marker length counts, you may wish to insert a test in your application for the case that the input buffer is completely full and yet the decoder has suspended without consuming any data --- otherwise, if this situation did occur, it would lead to an endless loop. (The library can't provide this test since it has no idea whether "the buffer is full", or even whether there is a fixed-size input buffer.)

The input buffer would need to be 64K to allow for arbitrary COM or APPn markers, but these are handled specially: they are either saved into allocated memory, or skipped over by calling skip_input_data(). In the former case, suspension is handled correctly, and in the latter case, the problem of buffer overrun is placed on skip_input_data's shoulders, as explained above. Note that if you provide your own marker handling routine for large markers, you should consider how to deal with buffer overflow.

Multiple-buffer management:

In some applications it is desirable to store the compressed data in a linked
list of buffer areas, so as to avoid data copying. This can be handled by
having empty_output_buffer() or fill_input_buffer() set the pointer and count
to reference the next available buffer; FALSE is returned only if no more
buffers are available. Although seemingly straightforward, there is a
pitfall in this approach: the backtrack that occurs when FALSE is returned
could back up into an earlier buffer. For example, when fill_input_buffer()
is called, the current pointer & count indicate the backtrack restart point.
Since fill_input_buffer() will set the pointer and count to refer to a new
buffer, the restart position must be saved somewhere else. Suppose a second
call to fill_input_buffer() occurs in the same library call, and no
additional input data is available, so fill_input_buffer must return FALSE.
If the JPEG library has not moved the pointer/count forward in the current
buffer, then *the correct restart point is the saved position in the prior
buffer*. Prior buffers may be discarded only after the library establishes
a restart point within a later buffer. Similar remarks apply for output into
a chain of buffers.

The library will never attempt to backtrack over a skip_input_data() call,
so any skipped data can be permanently discarded. You still have to deal
with the case of skipping not-yet-received data, however.

It's much simpler to use only a single buffer; when fill_input_buffer() is
called, move any unconsumed data (beyond the current pointer/count) down to
the beginning of this buffer and then load new data into the remaining buffer
space. This approach requires a little more data copying but is far easier
to get right.

Progressive JPEG support

Progressive JPEG rearranges the stored data into a series of scans of
increasing quality. In situations where a JPEG file is transmitted across a
slow communications link, a decoder can generate a low-quality image very
quickly from the first scan, then gradually improve the displayed quality as
more scans are received. The final image after all scans are complete is
identical to that of a regular (sequential) JPEG file of the same quality
setting. Progressive JPEG files are often slightly smaller than equivalent
sequential JPEG files, but the possibility of incremental display is the main
reason for using progressive JPEG.

The IJG encoder library generates progressive JPEG files when given a
suitable "scan script" defining how to divide the data into scans.
Creation of progressive JPEG files is otherwise transparent to the encoder.
Progressive JPEG files can also be read transparently by the decoder library.
If the decoding application simply uses the library as defined above, it
will receive a final decoded image without any indication that the file was

progressive. Of course, this approach does not allow incremental display.
To perform incremental display, an application needs to use the decoder
library's "buffered-image" mode, in which it receives a decoded image
multiple times.

Each displayed scan requires about as much work to decode as a full JPEG
image of the same size, so the decoder must be fairly fast in relation to the
data transmission rate in order to make incremental display useful. However,
it is possible to skip displaying the image and simply add the incoming bits
to the decoder's coefficient buffer. This is fast because only Huffman
decoding need be done, not IDCT, upsampling, colorspace conversion, etc.
The IJG decoder library allows the application to switch dynamically between
displaying the image and simply absorbing the incoming bits. A properly
coded application can automatically adapt the number of display passes to
suit the time available as the image is received. Also, a final
higher-quality display cycle can be performed from the buffered data after
the end of the file is reached.

Progressive compression:

To create a progressive JPEG file (or a multiple-scan sequential JPEG file),
set the scan_info cinfo field to point to an array of scan descriptors, and
perform compression as usual. Instead of constructing your own scan list,
you can call the jpeg_simple_progression() helper routine to create a
recommended progression sequence; this method should be used by all
applications that don't want to get involved in the nitty-gritty of
progressive scan sequence design. (If you want to provide user control of
scan sequences, you may wish to borrow the scan script reading code found
in rdswitch.c, so that you can read scan script files just like cjpeg's.)
When scan_info is not NULL, the compression library will store DCT'd data
into a buffer array as jpeg_write_scanlines() is called, and will emit all
the requested scans during jpeg_finish_compress(). This implies that
multiple-scan output cannot be created with a suspending data destination
manager, since jpeg_finish_compress() does not support suspension. We
should also note that the compressor currently forces Huffman optimization
mode when creating a progressive JPEG file, because the default Huffman
tables are unsuitable for progressive files.

Progressive decompression:

When buffered-image mode is not used, the decoder library will read all of
a multi-scan file during jpeg_start_decompress(), so that it can provide a
final decoded image. (Here "multi-scan" means either progressive or
multi-scan sequential.) This makes multi-scan files transparent to the
decoding application. However, existing applications that used suspending
input with version 5 of the IJG library will need to be modified to check
for a suspension return from jpeg_start_decompress().

To perform incremental display, an application must use the library's
buffered-image mode. This is described in the next section.

Buffered-image mode

In buffered-image mode, the library stores the partially decoded image in a
coefficient buffer, from which it can be read out as many times as desired.
This mode is typically used for incremental display of progressive JPEG files,
but it can be used with any JPEG file. Each scan of a progressive JPEG file
adds more data (more detail) to the buffered image. The application can
display in lockstep with the source file (one display pass per input scan),
or it can allow input processing to outrun display processing. By making
input and display processing run independently, it is possible for the
application to adapt progressive display to a wide range of data transmission
rates.

The basic control flow for buffered-image decoding is

```
jpeg_create_decompress()
set data source
jpeg_read_header()
set overall decompression parameters
cinfo.buffered_image = TRUE; /* select buffered-image mode */
jpeg_start_decompress()
for (each output pass) {
    adjust output decompression parameters if required
    jpeg_start_output()  /* start a new output pass */
    for (all scanlines in image) {
        jpeg_read_scanlines()
        display scanlines
    }
    jpeg_finish_output() /* terminate output pass */
}
jpeg_finish_decompress()
jpeg_destroy_decompress()
```

This differs from ordinary unbuffered decoding in that there is an additional
level of looping. The application can choose how many output passes to make
and how to display each pass.

The simplest approach to displaying progressive images is to do one display
pass for each scan appearing in the input file. In this case the outer loop
condition is typically

```
while (! jpeg_input_complete(&cinfo))
```

and the start-output call should read

```
jpeg_start_output(&cinfo, cinfo.input_scan_number);
```

The second parameter to jpeg_start_output() indicates which scan of the input
file is to be displayed; the scans are numbered starting at 1 for this
purpose. (You can use a loop counter starting at 1 if you like, but using
the library's input scan counter is easier.) The library automatically reads
data as necessary to complete each requested scan, and jpeg_finish_output()
advances to the next scan or end-of-image marker (hence input_scan_number
will be incremented by the time control arrives back at jpeg_start_output()).
With this technique, data is read from the input file only as needed, and
input and output processing run in lockstep.

After reading the final scan and reaching the end of the input file, the
buffered image remains available; it can be read additional times by
repeating the jpeg_start_output()/jpeg_read_scanlines()/jpeg_finish_output()
sequence. For example, a useful technique is to use fast one-pass color
quantization for display passes made while the image is arriving, followed by
a final display pass using two-pass quantization for highest quality. This
is done by changing the library parameters before the final output pass.
Changing parameters between passes is discussed in detail below.

In general the last scan of a progressive file cannot be recognized as such
until after it is read, so a post-input display pass is the best approach if
you want special processing in the final pass.

When done with the image, be sure to call jpeg_finish_decompress() to release
the buffered image (or just use jpeg_destroy_decompress()).

If input data arrives faster than it can be displayed, the application can
cause the library to decode input data in advance of what's needed to produce
output. This is done by calling the routine jpeg_consume_input().
The return value is one of the following:
 JPEG_REACHED_SOS: reached an SOS marker (the start of a new scan)
 JPEG_REACHED_EOI: reached the EOI marker (end of image)
 JPEG_ROW_COMPLETED: completed reading one MCU row of compressed data
 JPEG_SCAN_COMPLETED: completed reading last MCU row of current scan
 JPEG_SUSPENDED: suspended before completing any of the above
(JPEG_SUSPENDED can occur only if a suspending data source is used.) This
routine can be called at any time after initializing the JPEG object. It
reads some additional data and returns when one of the indicated significant
events occurs. (If called after the EOI marker is reached, it will
immediately return JPEG_REACHED_EOI without attempting to read more data.)

The library's output processing will automatically call jpeg_consume_input()
whenever the output processing overtakes the input; thus, simple lockstep
display requires no direct calls to jpeg_consume_input(). But by adding
calls to jpeg_consume_input(), you can absorb data in advance of what is
being displayed. This has two benefits:
 * You can limit buildup of unprocessed data in your input buffer.
 * You can eliminate extra display passes by paying attention to the

state of the library's input processing.

The first of these benefits only requires interspersing calls to jpeg_consume_input() with your display operations and any other processing you may be doing. To avoid wasting cycles due to backtracking, it's best to call jpeg_consume_input() only after a hundred or so new bytes have arrived. This is discussed further under "I/O suspension", above. (Note: the JPEG library currently is not thread-safe. You must not call jpeg_consume_input() from one thread of control if a different library routine is working on the same JPEG object in another thread.)

When input arrives fast enough that more than one new scan is available before you start a new output pass, you may as well skip the output pass corresponding to the completed scan. This occurs for free if you pass cinfo.input_scan_number as the target scan number to jpeg_start_output(). The input_scan_number field is simply the index of the scan currently being consumed by the input processor. You can ensure that this is up-to-date by emptying the input buffer just before calling jpeg_start_output(): call jpeg_consume_input() repeatedly until it returns JPEG_SUSPENDED or JPEG_REACHED_EOI.

The target scan number passed to jpeg_start_output() is saved in the cinfo.output_scan_number field. The library's output processing calls jpeg_consume_input() whenever the current input scan number and row within that scan is less than or equal to the current output scan number and row. Thus, input processing can "get ahead" of the output processing but is not allowed to "fall behind". You can achieve several different effects by manipulating this interlock rule. For example, if you pass a target scan number greater than the current input scan number, the output processor will wait until that scan starts to arrive before producing any output. (To avoid an infinite loop, the target scan number is automatically reset to the last scan number when the end of image is reached. Thus, if you specify a large target scan number, the library will just absorb the entire input file and then perform an output pass. This is effectively the same as what jpeg_start_decompress() does when you don't select buffered-image mode.) When you pass a target scan number equal to the current input scan number, the image is displayed no faster than the current input scan arrives. The final possibility is to pass a target scan number less than the current input scan number; this disables the input/output interlock and causes the output processor to simply display whatever it finds in the image buffer, without waiting for input. (However, the library will not accept a target scan number less than one, so you can't avoid waiting for the first scan.)

When data is arriving faster than the output display processing can advance through the image, jpeg_consume_input() will store data into the buffered image beyond the point at which the output processing is reading data out again. If the input arrives fast enough, it may "wrap around" the buffer to the point where the input is more than one whole scan ahead of the output.

If the output processing simply proceeds through its display pass without paying attention to the input, the effect seen on-screen is that the lower part of the image is one or more scans better in quality than the upper part. Then, when the next output scan is started, you have a choice of what target scan number to use. The recommended choice is to use the current input scan number at that time, which implies that you've skipped the output scans corresponding to the input scans that were completed while you processed the previous output scan. In this way, the decoder automatically adapts its speed to the arriving data, by skipping output scans as necessary to keep up with the arriving data.

When using this strategy, you'll want to be sure that you perform a final output pass after receiving all the data; otherwise your last display may not be full quality across the whole screen. So the right outer loop logic is something like this:

```
 do {
    absorb any waiting input by calling jpeg_consume_input()
    final_pass = jpeg_input_complete(&cinfo);
    adjust output decompression parameters if required
    jpeg_start_output(&cinfo, cinfo.input_scan_number);
    ...
    jpeg_finish_output()
 } while (! final_pass);
```

rather than quitting as soon as jpeg_input_complete() returns TRUE. This arrangement makes it simple to use higher-quality decoding parameters for the final pass. But if you don't want to use special parameters for the final pass, the right loop logic is like this:

```
 for (;;) {
    absorb any waiting input by calling jpeg_consume_input()
    jpeg_start_output(&cinfo, cinfo.input_scan_number);
    ...
    jpeg_finish_output()
    if (jpeg_input_complete(&cinfo) &&
        cinfo.input_scan_number == cinfo.output_scan_number)
      break;
 }
```

In this case you don't need to know in advance whether an output pass is to be the last one, so it's not necessary to have reached EOF before starting the final output pass; rather, what you want to test is whether the output pass was performed in sync with the final input scan. This form of the loop will avoid an extra output pass whenever the decoder is able (or nearly able) to keep up with the incoming data.

When the data transmission speed is high, you might begin a display pass, then find that much or all of the file has arrived before you can complete the pass. (You can detect this by noting the JPEG_REACHED_EOI return code from jpeg_consume_input(), or equivalently by testing jpeg_input_complete().) In this situation you may wish to abort the current display pass and start a

new one using the newly arrived information. To do so, just call
jpeg_finish_output() and then start a new pass with jpeg_start_output().

A variant strategy is to abort and restart display if more than one complete
scan arrives during an output pass; this can be detected by noting
JPEG_REACHED_SOS returns and/or examining cinfo.input_scan_number. This
idea should be employed with caution, however, since the display process
might never get to the bottom of the image before being aborted, resulting
in the lower part of the screen being several passes worse than the upper.
In most cases it's probably best to abort an output pass only if the whole
file has arrived and you want to begin the final output pass immediately.

When receiving data across a communication link, we recommend always using
the current input scan number for the output target scan number; if a
higher-quality final pass is to be done, it should be started (aborting any
incomplete output pass) as soon as the end of file is received. However,
many other strategies are possible. For example, the application can examine
the parameters of the current input scan and decide whether to display it or
not. If the scan contains only chroma data, one might choose not to use it
as the target scan, expecting that the scan will be small and will arrive
quickly. To skip to the next scan, call jpeg_consume_input() until it
returns JPEG_REACHED_SOS or JPEG_REACHED_EOI. Or just use the next higher
number as the target scan for jpeg_start_output(); but that method doesn't
let you inspect the next scan's parameters before deciding to display it.

In buffered-image mode, jpeg_start_decompress() never performs input and
thus never suspends. An application that uses input suspension with
buffered-image mode must be prepared for suspension returns from these
routines:
* jpeg_start_output() performs input only if you request 2-pass quantization
 and the target scan isn't fully read yet. (This is discussed below.)
* jpeg_read_scanlines(), as always, returns the number of scanlines that it
 was able to produce before suspending.
* jpeg_finish_output() will read any markers following the target scan,
 up to the end of the file or the SOS marker that begins another scan.
 (But it reads no input if jpeg_consume_input() has already reached the
 end of the file or a SOS marker beyond the target output scan.)
* jpeg_finish_decompress() will read until the end of file, and thus can
 suspend if the end hasn't already been reached (as can be tested by
 calling jpeg_input_complete()).
jpeg_start_output(), jpeg_finish_output(), and jpeg_finish_decompress()
all return TRUE if they completed their tasks, FALSE if they had to suspend.
In the event of a FALSE return, the application must load more input data
and repeat the call. Applications that use non-suspending data sources need
not check the return values of these three routines.

It is possible to change decoding parameters between output passes in the
buffered-image mode. The decoder library currently supports only very
limited changes of parameters. ONLY THE FOLLOWING parameter changes are
allowed after jpeg_start_decompress() is called:
* dct_method can be changed before each call to jpeg_start_output().
 For example, one could use a fast DCT method for early scans, changing
 to a higher quality method for the final scan.
* dither_mode can be changed before each call to jpeg_start_output();
 of course this has no impact if not using color quantization. Typically
 one would use ordered dither for initial passes, then switch to
 Floyd-Steinberg dither for the final pass. Caution: changing dither mode
 can cause more memory to be allocated by the library. Although the amount
 of memory involved is not large (a scanline or so), it may cause the
 initial max_memory_to_use specification to be exceeded, which in the worst
 case would result in an out-of-memory failure.
* do_block_smoothing can be changed before each call to jpeg_start_output().
 This setting is relevant only when decoding a progressive JPEG image.
 During the first DC-only scan, block smoothing provides a very "fuzzy" look
 instead of the very "blocky" look seen without it; which is better seems a
 matter of personal taste. But block smoothing is nearly always a win
 during later stages, especially when decoding a successive-approximation
 image: smoothing helps to hide the slight blockiness that otherwise shows
 up on smooth gradients until the lowest coefficient bits are sent.
* Color quantization mode can be changed under the rules described below.
 You *cannot* change between full-color and quantized output (because that
 would alter the required I/O buffer sizes), but you can change which
 quantization method is used.

When generating color-quantized output, changing quantization method is a
very useful way of switching between high-speed and high-quality display.
The library allows you to change among its three quantization methods:
1. Single-pass quantization to a fixed color cube.
  Selected by cinfo.two_pass_quantize = FALSE and cinfo.colormap = NULL.
2. Single-pass quantization to an application-supplied colormap.
  Selected by setting cinfo.colormap to point to the colormap (the value of
  two_pass_quantize is ignored); also set cinfo.actual_number_of_colors.
3. Two-pass quantization to a colormap chosen specifically for the image.
  Selected by cinfo.two_pass_quantize = TRUE and cinfo.colormap = NULL.
  (This is the default setting selected by jpeg_read_header, but it is
  probably NOT what you want for the first pass of progressive display!)
These methods offer successively better quality and lesser speed. However,
only the first method is available for quantizing in non-RGB color spaces.

IMPORTANT: because the different quantizer methods have very different
working-storage requirements, the library requires you to indicate which
one(s) you intend to use before you call jpeg_start_decompress(). (If we did
not require this, the max_memory_to_use setting would be a complete fiction.)
You do this by setting one or more of these three cinfo fields to TRUE:

enable_1pass_quant Fixed color cube colormap
enable_external_quant Externally-supplied colormap
enable_2pass_quant Two-pass custom colormap
All three are initialized FALSE by jpeg_read_header(). But
jpeg_start_decompress() automatically sets TRUE the one selected by the
current two_pass_quantize and colormap settings, so you only need to set the
enable flags for any other quantization methods you plan to change to later.

After setting the enable flags correctly at jpeg_start_decompress() time, you
can change to any enabled quantization method by setting two_pass_quantize
and colormap properly just before calling jpeg_start_output(). The following
special rules apply:
1. You must explicitly set cinfo.colormap to NULL when switching to 1-pass
  or 2-pass mode from a different mode, or when you want the 2-pass
  quantizer to be re-run to generate a new colormap.
2. To switch to an external colormap, or to change to a different external
  colormap than was used on the prior pass, you must call
  jpeg_new_colormap() after setting cinfo.colormap.
NOTE: if you want to use the same colormap as was used in the prior pass,
you should not do either of these things. This will save some nontrivial
switchover costs.
(These requirements exist because cinfo.colormap will always be non-NULL
after completing a prior output pass, since both the 1-pass and 2-pass
quantizers set it to point to their output colormaps. Thus you have to
do one of these two things to notify the library that something has changed.
Yup, it's a bit klugy, but it's necessary to do it this way for backwards
compatibility.)

Note that in buffered-image mode, the library generates any requested colormap
during jpeg_start_output(), not during jpeg_start_decompress().

When using two-pass quantization, jpeg_start_output() makes a pass over the
buffered image to determine the optimum color map; it therefore may take a
significant amount of time, whereas ordinarily it does little work. The
progress monitor hook is called during this pass, if defined. It is also
important to realize that if the specified target scan number is greater than
or equal to the current input scan number, jpeg_start_output() will attempt
to consume input as it makes this pass. If you use a suspending data source,
you need to check for a FALSE return from jpeg_start_output() under these
conditions. The combination of 2-pass quantization and a not-yet-fully-read
target scan is the only case in which jpeg_start_output() will consume input.

Application authors who support buffered-image mode may be tempted to use it
for all JPEG images, even single-scan ones. This will work, but it is
inefficient: there is no need to create an image-sized coefficient buffer for
single-scan images. Requesting buffered-image mode for such an image wastes
memory. Worse, it can cost time on large images, since the buffered data has

to be swapped out or written to a temporary file. If you are concerned about maximum performance on baseline JPEG files, you should use buffered-image mode only when the incoming file actually has multiple scans. This can be tested by calling jpeg_has_multiple_scans(), which will return a correct result at any time after jpeg_read_header() completes.

It is also worth noting that when you use jpeg_consume_input() to let input processing get ahead of output processing, the resulting pattern of access to the coefficient buffer is quite nonsequential. It's best to use the memory manager jmemnobs.c if you can (ie, if you have enough real or virtual main memory). If not, at least make sure that max_memory_to_use is set as high as possible. If the JPEG memory manager has to use a temporary file, you will probably see a lot of disk traffic and poor performance. (This could be improved with additional work on the memory manager, but we haven't gotten around to it yet.)

In some applications it may be convenient to use jpeg_consume_input() for all input processing, including reading the initial markers; that is, you may wish to call jpeg_consume_input() instead of jpeg_read_header() during startup. This works, but note that you must check for JPEG_REACHED_SOS and JPEG_REACHED_EOI return codes as the equivalent of jpeg_read_header's codes. Once the first SOS marker has been reached, you must call jpeg_start_decompress() before jpeg_consume_input() will consume more input; it'll just keep returning JPEG_REACHED_SOS until you do. If you read a tables-only file this way, jpeg_consume_input() will return JPEG_REACHED_EOI without ever returning JPEG_REACHED_SOS; be sure to check for this case. If this happens, the decompressor will not read any more input until you call jpeg_abort() to reset it. It is OK to call jpeg_consume_input() even when not using buffered-image mode, but in that case it's basically a no-op after the initial markers have been read: it will just return JPEG_SUSPENDED.

Abbreviated datastreams and multiple images

A JPEG compression or decompression object can be reused to process multiple images. This saves a small amount of time per image by eliminating the "create" and "destroy" operations, but that isn't the real purpose of the feature. Rather, reuse of an object provides support for abbreviated JPEG datastreams. Object reuse can also simplify processing a series of images in a single input or output file. This section explains these features.

A JPEG file normally contains several hundred bytes worth of quantization and Huffman tables. In a situation where many images will be stored or transmitted with identical tables, this may represent an annoying overhead. The JPEG standard therefore permits tables to be omitted. The standard defines three classes of JPEG datastreams:
 * "Interchange" datastreams contain an image and all tables needed to decode

the image. These are the usual kind of JPEG file.
 * "Abbreviated image" datastreams contain an image, but are missing some or
   all of the tables needed to decode that image.
 * "Abbreviated table specification" (henceforth "tables-only") datastreams
   contain only table specifications.
To decode an abbreviated image, it is necessary to load the missing table(s)
into the decoder beforehand. This can be accomplished by reading a separate
tables-only file. A variant scheme uses a series of images in which the first
image is an interchange (complete) datastream, while subsequent ones are
abbreviated and rely on the tables loaded by the first image. It is assumed
that once the decoder has read a table, it will remember that table until a
new definition for the same table number is encountered.

It is the application designer's responsibility to figure out how to associate
the correct tables with an abbreviated image. While abbreviated datastreams
can be useful in a closed environment, their use is strongly discouraged in
any situation where data exchange with other applications might be needed.
Caveat designer.

The JPEG library provides support for reading and writing any combination of
tables-only datastreams and abbreviated images. In both compression and
decompression objects, a quantization or Huffman table will be retained for
the lifetime of the object, unless it is overwritten by a new table definition.

To create abbreviated image datastreams, it is only necessary to tell the
compressor not to emit some or all of the tables it is using. Each
quantization and Huffman table struct contains a boolean field "sent_table",
which normally is initialized to FALSE. For each table used by the image, the
header-writing process emits the table and sets sent_table = TRUE unless it is
already TRUE. (In normal usage, this prevents outputting the same table
definition multiple times, as would otherwise occur because the chroma
components typically share tables.) Thus, setting this field to TRUE before
calling jpeg_start_compress() will prevent the table from being written at
all.

If you want to create a "pure" abbreviated image file containing no tables,
just call "jpeg_suppress_tables(&cinfo, TRUE)" after constructing all the
tables. If you want to emit some but not all tables, you'll need to set the
individual sent_table fields directly.

To create an abbreviated image, you must also call jpeg_start_compress()
with a second parameter of FALSE, not TRUE. Otherwise jpeg_start_compress()
will force all the sent_table fields to FALSE. (This is a safety feature to
prevent abbreviated images from being created accidentally.)

To create a tables-only file, perform the same parameter setup that you
normally would, but instead of calling jpeg_start_compress() and so on, call

jpeg_write_tables(&cinfo). This will write an abbreviated datastream containing only SOI, DQT and/or DHT markers, and EOI. All the quantization and Huffman tables that are currently defined in the compression object will be emitted unless their sent_tables flag is already TRUE, and then all the sent_tables flags will be set TRUE.

A sure-fire way to create matching tables-only and abbreviated image files is to proceed as follows:

```
create JPEG compression object
set JPEG parameters
set destination to tables-only file
jpeg_write_tables(&cinfo);
set destination to image file
jpeg_start_compress(&cinfo, FALSE);
write data...
jpeg_finish_compress(&cinfo);
```

Since the JPEG parameters are not altered between writing the table file and the abbreviated image file, the same tables are sure to be used. Of course, you can repeat the jpeg_start_compress() ... jpeg_finish_compress() sequence many times to produce many abbreviated image files matching the table file.

You cannot suppress output of the computed Huffman tables when Huffman optimization is selected. (If you could, there'd be no way to decode the image...) Generally, you don't want to set optimize_coding = TRUE when you are trying to produce abbreviated files.

In some cases you might want to compress an image using tables which are not stored in the application, but are defined in an interchange or tables-only file readable by the application. This can be done by setting up a JPEG decompression object to read the specification file, then copying the tables into your compression object. See jpeg_copy_critical_parameters() for an example of copying quantization tables.

To read abbreviated image files, you simply need to load the proper tables into the decompression object before trying to read the abbreviated image. If the proper tables are stored in the application program, you can just allocate the table structs and fill in their contents directly. For example, to load a fixed quantization table into table slot "n":

```
  if (cinfo.quant_tbl_ptrs[n] == NULL)
    cinfo.quant_tbl_ptrs[n] = jpeg_alloc_quant_table((j_common_ptr) &cinfo);
  quant_ptr = cinfo.quant_tbl_ptrs[n]; /* quant_ptr is JQUANT_TBL* */
  for (i = 0; i < 64; i++) {
    /* Qtable[] is desired quantization table, in natural array order */
    quant_ptr->quantval[i] = Qtable[i];
```

```
  }
```

Code to load a fixed Huffman table is typically (for AC table "n"):

```
  if (cinfo.ac_huff_tbl_ptrs[n] == NULL)
    cinfo.ac_huff_tbl_ptrs[n] = jpeg_alloc_huff_table((j_common_ptr) &cinfo);
  huff_ptr = cinfo.ac_huff_tbl_ptrs[n]; /* huff_ptr is JHUFF_TBL* */
  for (i = 1; i <= 16; i++) {
    /* counts[i] is number of Huffman codes of length i bits, i=1..16 */
    huff_ptr->bits[i] = counts[i];
  }
  for (i = 0; i < 256; i++) {
    /* symbols[] is the list of Huffman symbols, in code-length order */
    huff_ptr->huffval[i] = symbols[i];
  }
```

(Note that trying to set cinfo.quant_tbl_ptrs[n] to point directly at a
constant JQUANT_TBL object is not safe. If the incoming file happened to
contain a quantization table definition, your master table would get
overwritten! Instead allocate a working table copy and copy the master table
into it, as illustrated above. Ditto for Huffman tables, of course.)

You might want to read the tables from a tables-only file, rather than
hard-wiring them into your application. The jpeg_read_header() call is
sufficient to read a tables-only file. You must pass a second parameter of
FALSE to indicate that you do not require an image to be present. Thus, the
typical scenario is

```
 create JPEG decompression object
 set source to tables-only file
 jpeg_read_header(&cinfo, FALSE);
 set source to abbreviated image file
 jpeg_read_header(&cinfo, TRUE);
 set decompression parameters
 jpeg_start_decompress(&cinfo);
 read data...
 jpeg_finish_decompress(&cinfo);
```

In some cases, you may want to read a file without knowing whether it contains
an image or just tables. In that case, pass FALSE and check the return value
from jpeg_read_header(): it will be JPEG_HEADER_OK if an image was found,
JPEG_HEADER_TABLES_ONLY if only tables were found. (A third return value,
JPEG_SUSPENDED, is possible when using a suspending data source manager.)
Note that jpeg_read_header() will not complain if you read an abbreviated
image for which you haven't loaded the missing tables; the missing-table check
occurs later, in jpeg_start_decompress().

It is possible to read a series of images from a single source file by
repeating the jpeg_read_header() ... jpeg_finish_decompress() sequence,
without releasing/recreating the JPEG object or the data source module.
(If you did reinitialize, any partial bufferload left in the data source
buffer at the end of one image would be discarded, causing you to lose the
start of the next image.) When you use this method, stored tables are
automatically carried forward, so some of the images can be abbreviated images
that depend on tables from earlier images.

If you intend to write a series of images into a single destination file,
you might want to make a specialized data destination module that doesn't
flush the output buffer at term_destination() time. This would speed things
up by some trifling amount. Of course, you'd need to remember to flush the
buffer after the last image. You can make the later images be abbreviated
ones by passing FALSE to jpeg_start_compress().

Special markers

Some applications may need to insert or extract special data in the JPEG
datastream. The JPEG standard provides marker types "COM" (comment) and
"APP0" through "APP15" (application) to hold application-specific data.
Unfortunately, the use of these markers is not specified by the standard.
COM markers are fairly widely used to hold user-supplied text. The JFIF file
format spec uses APP0 markers with specified initial strings to hold certain
data. Adobe applications use APP14 markers beginning with the string "Adobe"
for miscellaneous data. Other APPn markers are rarely seen, but might
contain almost anything.

If you wish to store user-supplied text, we recommend you use COM markers
and place readable 7-bit ASCII text in them. Newline conventions are not
standardized --- expect to find LF (Unix style), CR/LF (DOS style), or CR
(Mac style). A robust COM reader should be able to cope with random binary
garbage, including nulls, since some applications generate COM markers
containing non-ASCII junk. (But yours should not be one of them.)

For program-supplied data, use an APPn marker, and be sure to begin it with an
identifying string so that you can tell whether the marker is actually yours.
It's probably best to avoid using APP0 or APP14 for any private markers.
(NOTE: the upcoming SPIFF standard will use APP8 markers; we recommend you
not use APP8 markers for any private purposes, either.)

Keep in mind that at most 65533 bytes can be put into one marker, but you
can have as many markers as you like.

By default, the IJG compression library will write a JFIF APP0 marker if the
selected JPEG colorspace is grayscale or YCbCr, or an Adobe APP14 marker if

the selected colorspace is RGB, CMYK, or YCCK. You can disable this, but
we don't recommend it. The decompression library will recognize JFIF and
Adobe markers and will set the JPEG colorspace properly when one is found.

You can write special markers immediately following the datastream header by
calling jpeg_write_marker() after jpeg_start_compress() and before the first
call to jpeg_write_scanlines(). When you do this, the markers appear after
the SOI and the JFIF APP0 and Adobe APP14 markers (if written), but before
all else. Specify the marker type parameter as "JPEG_COM" for COM or
"JPEG_APP0 + n" for APPn. (Actually, jpeg_write_marker will let you write
any marker type, but we don't recommend writing any other kinds of marker.)
For example, to write a user comment string pointed to by comment_text:
 jpeg_write_marker(cinfo, JPEG_COM, comment_text, strlen(comment_text));

If it's not convenient to store all the marker data in memory at once,
you can instead call jpeg_write_m_header() followed by multiple calls to
jpeg_write_m_byte(). If you do it this way, it's your responsibility to
call jpeg_write_m_byte() exactly the number of times given in the length
parameter to jpeg_write_m_header(). (This method lets you empty the
output buffer partway through a marker, which might be important when
using a suspending data destination module. In any case, if you are using
a suspending destination, you should flush its buffer after inserting
any special markers. See "I/O suspension".)

Or, if you prefer to synthesize the marker byte sequence yourself,
you can just cram it straight into the data destination module.

If you are writing JFIF 1.02 extension markers (thumbnail images), don't
forget to set cinfo.JFIF_minor_version = 2 so that the encoder will write the
correct JFIF version number in the JFIF header marker. The library's default
is to write version 1.01, but that's wrong if you insert any 1.02 extension
markers. (We could probably get away with just defaulting to 1.02, but there
used to be broken decoders that would complain about unknown minor version
numbers. To reduce compatibility risks it's safest not to write 1.02 unless
you are actually using 1.02 extensions.)

When reading, two methods of handling special markers are available:
1. You can ask the library to save the contents of COM and/or APPn markers
into memory, and then examine them at your leisure afterwards.
2. You can supply your own routine to process COM and/or APPn markers
on-the-fly as they are read.
The first method is simpler to use, especially if you are using a suspending
data source; writing a marker processor that copes with input suspension is
not easy (consider what happens if the marker is longer than your available
input buffer). However, the second method conserves memory since the marker
data need not be kept around after it's been processed.

For either method, you'd normally set up marker handling after creating a
decompression object and before calling jpeg_read_header(), because the
markers of interest will typically be near the head of the file and so will
be scanned by jpeg_read_header. Once you've established a marker handling
method, it will be used for the life of that decompression object
(potentially many datastreams), unless you change it. Marker handling is
determined separately for COM markers and for each APPn marker code.

To save the contents of special markers in memory, call
 jpeg_save_markers(cinfo, marker_code, length_limit)
where marker_code is the marker type to save, JPEG_COM or JPEG_APP0+n.
(To arrange to save all the special marker types, you need to call this
routine 17 times, for COM and APP0-APP15.) If the incoming marker is longer
than length_limit data bytes, only length_limit bytes will be saved; this
parameter allows you to avoid chewing up memory when you only need to see the
first few bytes of a potentially large marker. If you want to save all the
data, set length_limit to 0xFFFF; that is enough since marker lengths are only
16 bits. As a special case, setting length_limit to 0 prevents that marker
type from being saved at all. (That is the default behavior, in fact.)

After jpeg_read_header() completes, you can examine the special markers by
following the cinfo->marker_list pointer chain. All the special markers in
the file appear in this list, in order of their occurrence in the file (but
omitting any markers of types you didn't ask for). Both the original data
length and the saved data length are recorded for each list entry; the latter
will not exceed length_limit for the particular marker type. Note that these
lengths exclude the marker length word, whereas the stored representation
within the JPEG file includes it. (Hence the maximum data length is really
only 65533.)

It is possible that additional special markers appear in the file beyond the
SOS marker at which jpeg_read_header stops; if so, the marker list will be
extended during reading of the rest of the file. This is not expected to be
common, however. If you are short on memory you may want to reset the length
limit to zero for all marker types after finishing jpeg_read_header, to
ensure that the max_memory_to_use setting cannot be exceeded due to addition
of later markers.

The marker list remains stored until you call jpeg_finish_decompress or
jpeg_abort, at which point the memory is freed and the list is set to empty.
(jpeg_destroy also releases the storage, of course.)

Note that the library is internally interested in APP0 and APP14 markers;
if you try to set a small nonzero length limit on these types, the library
will silently force the length up to the minimum it wants. (But you can set
a zero length limit to prevent them from being saved at all.) Also, in a

16-bit environment, the maximum length limit may be constrained to less than 65533 by malloc() limitations. It is therefore best not to assume that the effective length limit is exactly what you set it to be.

If you want to supply your own marker-reading routine, you do it by calling jpeg_set_marker_processor(). A marker processor routine must have the signature

boolean jpeg_marker_parser_method (j_decompress_ptr cinfo)

Although the marker code is not explicitly passed, the routine can find it in cinfo->unread_marker. At the time of call, the marker proper has been read from the data source module. The processor routine is responsible for reading the marker length word and the remaining parameter bytes, if any. Return TRUE to indicate success. (FALSE should be returned only if you are using a suspending data source and it tells you to suspend. See the standard marker processors in jdmarker.c for appropriate coding methods if you need to use a suspending data source.)

If you override the default APP0 or APP14 processors, it is up to you to recognize JFIF and Adobe markers if you want colorspace recognition to occur properly. We recommend copying and extending the default processors if you want to do that. (A better idea is to save these marker types for later examination by calling jpeg_save_markers(); that method doesn't interfere with the library's own processing of these markers.)

jpeg_set_marker_processor() and jpeg_save_markers() are mutually exclusive --- if you call one it overrides any previous call to the other, for the particular marker type specified.

A simple example of an external COM processor can be found in djpeg.c. Also, see jpegtran.c for an example of using jpeg_save_markers.

Raw (downsampled) image data

Some applications need to supply already-downsampled image data to the JPEG compressor, or to receive raw downsampled data from the decompressor. The library supports this requirement by allowing the application to write or read raw data, bypassing the normal preprocessing or postprocessing steps. The interface is different from the standard one and is somewhat harder to use. If your interest is merely in bypassing color conversion, we recommend that you use the standard interface and simply set jpeg_color_space = in_color_space (or jpeg_color_space = out_color_space for decompression). The mechanism described in this section is necessary only to supply or receive downsampled image data, in which not all components have the same dimensions.

To compress raw data, you must supply the data in the colorspace to be used
in the JPEG file (please read the earlier section on Special color spaces)
and downsampled to the sampling factors specified in the JPEG parameters.
You must supply the data in the format used internally by the JPEG library,
namely a JSAMPIMAGE array. This is an array of pointers to two-dimensional
arrays, each of type JSAMPARRAY. Each 2-D array holds the values for one
color component. This structure is necessary since the components are of
different sizes. If the image dimensions are not a multiple of the MCU size,
you must also pad the data correctly (usually, this is done by replicating
the last column and/or row). The data must be padded to a multiple of a DCT
block in each component: that is, each downsampled row must contain a
multiple of DCT_h_scaled_size valid samples, and there must be a multiple of
DCT_v_scaled_size sample rows for each component. (For applications such as
conversion of digital TV images, the standard image size is usually a
multiple of the DCT block size, so that no padding need actually be done.)

The procedure for compression of raw data is basically the same as normal
compression, except that you call jpeg_write_raw_data() in place of
jpeg_write_scanlines(). Before calling jpeg_start_compress(), you must do
the following:
 * Set cinfo->raw_data_in to TRUE. (It is set FALSE by jpeg_set_defaults().)
   This notifies the library that you will be supplying raw data.
 * Ensure jpeg_color_space is correct --- an explicit jpeg_set_colorspace()
   call is a good idea. Note that since color conversion is bypassed,
   in_color_space is ignored, except that jpeg_set_defaults() uses it to
   choose the default jpeg_color_space setting.
 * Ensure the sampling factors, cinfo->comp_info[i].h_samp_factor and
   cinfo->comp_info[i].v_samp_factor, are correct. Since these indicate the
   dimensions of the data you are supplying, it's wise to set them
   explicitly, rather than assuming the library's defaults are what you want.

To pass raw data to the library, call jpeg_write_raw_data() in place of
jpeg_write_scanlines(). The two routines work similarly except that
jpeg_write_raw_data takes a JSAMPIMAGE data array rather than JSAMPARRAY.
The scanlines count passed to and returned from jpeg_write_raw_data is
measured in terms of the component with the largest v_samp_factor.

jpeg_write_raw_data() processes one MCU row per call, which is to say
v_samp_factor*min_DCT_v_scaled_size sample rows of each component. The passed
num_lines value must be at least max_v_samp_factor*min_DCT_v_scaled_size, and
the return value will be exactly that amount (or possibly some multiple of
that amount, in future library versions). This is true even on the last call
at the bottom of the image; don't forget to pad your data as necessary.

The required dimensions of the supplied data can be computed for each
component as
 cinfo->comp_info[i].width_in_blocks *

 cinfo->comp_info[i].DCT_h_scaled_size samples per row
 cinfo->comp_info[i].height_in_blocks *
 cinfo->comp_info[i].DCT_v_scaled_size rows in image
after jpeg_start_compress() has initialized those fields. If the valid data
is smaller than this, it must be padded appropriately. For some sampling
factors and image sizes, additional dummy DCT blocks are inserted to make
the image a multiple of the MCU dimensions. The library creates such dummy
blocks itself; it does not read them from your supplied data. Therefore you
need never pad by more than DCT_scaled_size samples.
An example may help here. Assume 2h2v downsampling of YCbCr data, that is
 cinfo->comp_info[0].h_samp_factor = 2 for Y
 cinfo->comp_info[0].v_samp_factor = 2
 cinfo->comp_info[1].h_samp_factor = 1 for Cb
 cinfo->comp_info[1].v_samp_factor = 1
 cinfo->comp_info[2].h_samp_factor = 1 for Cr
 cinfo->comp_info[2].v_samp_factor = 1
and suppose that the nominal image dimensions (cinfo->image_width and
cinfo->image_height) are 101x101 pixels. Then jpeg_start_compress() will
compute downsampled_width = 101 and width_in_blocks = 13 for Y,
downsampled_width = 51 and width_in_blocks = 7 for Cb and Cr (and the same
for the height fields). You must pad the Y data to at least 13*8 = 104
columns and rows, the Cb/Cr data to at least 7*8 = 56 columns and rows. The
MCU height is max_v_samp_factor = 2 DCT rows so you must pass at least 16
scanlines on each call to jpeg_write_raw_data(), which is to say 16 actual
sample rows of Y and 8 each of Cb and Cr. A total of 7 MCU rows are needed,
so you must pass a total of 7*16 = 112 "scanlines". The last DCT block row
of Y data is dummy, so it doesn't matter what you pass for it in the data
arrays, but the scanlines count must total up to 112 so that all of the Cb
and Cr data gets passed.

Output suspension is supported with raw-data compression: if the data
destination module suspends, jpeg_write_raw_data() will return 0.
In this case the same data rows must be passed again on the next call.

Decompression with raw data output implies bypassing all postprocessing:
you cannot ask for color quantization, for instance. More seriously, you
must deal with the color space and sampling factors present in the incoming
file. If your application only handles, say, 2h1v YCbCr data, you must
check for and fail on other color spaces or other sampling factors.
The library will not convert to a different color space for you.

To obtain raw data output, set cinfo->raw_data_out = TRUE before
jpeg_start_decompress() (it is set FALSE by jpeg_read_header()). Be sure to
verify that the color space and sampling factors are ones you can handle.
Then call jpeg_read_raw_data() in place of jpeg_read_scanlines(). The
decompression process is otherwise the same as usual.

jpeg_read_raw_data() returns one MCU row per call, and thus you must pass a
buffer of at least max_v_samp_factor*min_DCT_v_scaled_size scanlines (scanline
counting is the same as for raw-data compression). The buffer you pass must
be large enough to hold the actual data plus padding to DCT-block boundaries.
As with compression, any entirely dummy DCT blocks are not processed so you
need not allocate space for them, but the total scanline count includes them.
The above example of computing buffer dimensions for raw-data compression is
equally valid for decompression.

Input suspension is supported with raw-data decompression: if the data source
module suspends, jpeg_read_raw_data() will return 0. You can also use
buffered-image mode to read raw data in multiple passes.

Really raw data: DCT coefficients

It is possible to read or write the contents of a JPEG file as raw DCT
coefficients. This facility is mainly intended for use in lossless
transcoding between different JPEG file formats. Other possible applications
include lossless cropping of a JPEG image, lossless reassembly of a
multi-strip or multi-tile TIFF/JPEG file into a single JPEG datastream, etc.

To read the contents of a JPEG file as DCT coefficients, open the file and do
jpeg_read_header() as usual. But instead of calling jpeg_start_decompress()
and jpeg_read_scanlines(), call jpeg_read_coefficients(). This will read the
entire image into a set of virtual coefficient-block arrays, one array per
component. The return value is a pointer to an array of virtual-array
descriptors. Each virtual array can be accessed directly using the JPEG
memory manager's access_virt_barray method (see Memory management, below,
and also read structure.txt's discussion of virtual array handling). Or,
for simple transcoding to a different JPEG file format, the array list can
just be handed directly to jpeg_write_coefficients().

Each block in the block arrays contains quantized coefficient values in
normal array order (not JPEG zigzag order). The block arrays contain only
DCT blocks containing real data; any entirely-dummy blocks added to fill out
interleaved MCUs at the right or bottom edges of the image are discarded
during reading and are not stored in the block arrays. (The size of each
block array can be determined from the width_in_blocks and height_in_blocks
fields of the component's comp_info entry.) This is also the data format
expected by jpeg_write_coefficients().

When you are done using the virtual arrays, call jpeg_finish_decompress()
to release the array storage and return the decompression object to an idle
state; or just call jpeg_destroy() if you don't need to reuse the object.

If you use a suspending data source, jpeg_read_coefficients() will return

NULL if it is forced to suspend; a non-NULL return value indicates successful
completion. You need not test for a NULL return value when using a
non-suspending data source.

It is also possible to call jpeg_read_coefficients() to obtain access to the
decoder's coefficient arrays during a normal decode cycle in buffered-image
mode. This frammish might be useful for progressively displaying an incoming
image and then re-encoding it without loss. To do this, decode in buffered-
image mode as discussed previously, then call jpeg_read_coefficients() after
the last jpeg_finish_output() call. The arrays will be available for your use
until you call jpeg_finish_decompress().

To write the contents of a JPEG file as DCT coefficients, you must provide
the DCT coefficients stored in virtual block arrays. You can either pass
block arrays read from an input JPEG file by jpeg_read_coefficients(), or
allocate virtual arrays from the JPEG compression object and fill them
yourself. In either case, jpeg_write_coefficients() is substituted for
jpeg_start_compress() and jpeg_write_scanlines(). Thus the sequence is
 * Create compression object
 * Set all compression parameters as necessary
 * Request virtual arrays if needed
 * jpeg_write_coefficients()
 * jpeg_finish_compress()
 * Destroy or re-use compression object
jpeg_write_coefficients() is passed a pointer to an array of virtual block
array descriptors; the number of arrays is equal to cinfo.num_components.

The virtual arrays need only have been requested, not realized, before
jpeg_write_coefficients() is called. A side-effect of
jpeg_write_coefficients() is to realize any virtual arrays that have been
requested from the compression object's memory manager. Thus, when obtaining
the virtual arrays from the compression object, you should fill the arrays
after calling jpeg_write_coefficients(). The data is actually written out
when you call jpeg_finish_compress(); jpeg_write_coefficients() only writes
the file header.

When writing raw DCT coefficients, it is crucial that the JPEG quantization
tables and sampling factors match the way the data was encoded, or the
resulting file will be invalid. For transcoding from an existing JPEG file,
we recommend using jpeg_copy_critical_parameters(). This routine initializes
all the compression parameters to default values (like jpeg_set_defaults()),
then copies the critical information from a source decompression object.
The decompression object should have just been used to read the entire
JPEG input file --- that is, it should be awaiting jpeg_finish_decompress().

jpeg_write_coefficients() marks all tables stored in the compression object
as needing to be written to the output file (thus, it acts like

jpeg_start_compress(cinfo, TRUE)). This is for safety's sake, to avoid emitting abbreviated JPEG files by accident. If you really want to emit an abbreviated JPEG file, call jpeg_suppress_tables(), or set the tables' individual sent_table flags, between calling jpeg_write_coefficients() and jpeg_finish_compress().

Progress monitoring

Some applications may need to regain control from the JPEG library every so often. The typical use of this feature is to produce a percent-done bar or other progress display. (For a simple example, see cjpeg.c or djpeg.c.) Although you do get control back frequently during the data-transferring pass (the jpeg_read_scanlines or jpeg_write_scanlines loop), any additional passes will occur inside jpeg_finish_compress or jpeg_start_decompress; those routines may take a long time to execute, and you don't get control back until they are done.

You can define a progress-monitor routine which will be called periodically by the library. No guarantees are made about how often this call will occur, so we don't recommend you use it for mouse tracking or anything like that. At present, a call will occur once per MCU row, scanline, or sample row group, whichever unit is convenient for the current processing mode; so the wider the image, the longer the time between calls. During the data transferring pass, only one call occurs per call of jpeg_read_scanlines or jpeg_write_scanlines, so don't pass a large number of scanlines at once if you want fine resolution in the progress count. (If you really need to use the callback mechanism for time-critical tasks like mouse tracking, you could insert additional calls inside some of the library's inner loops.)

To establish a progress-monitor callback, create a struct jpeg_progress_mgr, fill in its progress_monitor field with a pointer to your callback routine, and set cinfo->progress to point to the struct. The callback will be called whenever cinfo->progress is non-NULL. (This pointer is set to NULL by jpeg_create_compress or jpeg_create_decompress; the library will not change it thereafter. So if you allocate dynamic storage for the progress struct, make sure it will live as long as the JPEG object does. Allocating from the JPEG memory manager with lifetime JPOOL_PERMANENT will work nicely.) You can use the same callback routine for both compression and decompression.

The jpeg_progress_mgr struct contains four fields which are set by the library:
```
 long pass_counter; /* work units completed in this pass */
 long pass_limit; /* total number of work units in this pass */
 int completed_passes; /* passes completed so far */
 int total_passes; /* total number of passes expected */
```
During any one pass, pass_counter increases from 0 up to (not including) pass_limit; the step size is usually but not necessarily 1. The pass_limit

value may change from one pass to another. The expected total number of passes is in total_passes, and the number of passes already completed is in completed_passes. Thus the fraction of work completed may be estimated as

$$\frac{\text{completed_passes} + (\text{pass_counter}/\text{pass_limit})}{\text{total_passes}}$$

ignoring the fact that the passes may not be equal amounts of work.

When decompressing, pass_limit can even change within a pass, because it depends on the number of scans in the JPEG file, which isn't always known in advance. The computed fraction-of-work-done may jump suddenly (if the library discovers it has overestimated the number of scans) or even decrease (in the opposite case). It is not wise to put great faith in the work estimate.

When using the decompressor's buffered-image mode, the progress monitor work estimate is likely to be completely unhelpful, because the library has no way to know how many output passes will be demanded of it. Currently, the library sets total_passes based on the assumption that there will be one more output pass if the input file end hasn't yet been read (jpeg_input_complete() isn't TRUE), but no more output passes if the file end has been reached when the output pass is started. This means that total_passes will rise as additional output passes are requested. If you have a way of determining the input file size, estimating progress based on the fraction of the file that's been read will probably be more useful than using the library's value.

Memory management

This section covers some key facts about the JPEG library's built-in memory manager. For more info, please read structure.txt's section about the memory manager, and consult the source code if necessary.

All memory and temporary file allocation within the library is done via the memory manager. If necessary, you can replace the "back end" of the memory manager to control allocation yourself (for example, if you don't want the library to use malloc() and free() for some reason).

Some data is allocated "permanently" and will not be freed until the JPEG object is destroyed. Most data is allocated "per image" and is freed by jpeg_finish_compress, jpeg_finish_decompress, or jpeg_abort. You can call the memory manager yourself to allocate structures that will automatically be freed at these times. Typical code for this is

```
ptr = (*cinfo->mem->alloc_small) ((j_common_ptr) cinfo, JPOOL_IMAGE, size);
```

Use JPOOL_PERMANENT to get storage that lasts as long as the JPEG object.
Use alloc_large instead of alloc_small for anything bigger than a few Kbytes.
There are also alloc_sarray and alloc_barray routines that automatically
build 2-D sample or block arrays.

The library's minimum space requirements to process an image depend on the image's width, but not on its height, because the library ordinarily works with "strip" buffers that are as wide as the image but just a few rows high. Some operating modes (eg, two-pass color quantization) require full-image buffers. Such buffers are treated as "virtual arrays": only the current strip need be in memory, and the rest can be swapped out to a temporary file.

If you use the simplest memory manager back end (jmemnobs.c), then no temporary files are used; virtual arrays are simply malloc()'d. Images bigger than memory can be processed only if your system supports virtual memory. The other memory manager back ends support temporary files of various flavors and thus work in machines without virtual memory. They may also be useful on Unix machines if you need to process images that exceed available swap space.

When using temporary files, the library will make the in-memory buffers for its virtual arrays just big enough to stay within a "maximum memory" setting. Your application can set this limit by setting cinfo->mem->max_memory_to_use after creating the JPEG object. (Of course, there is still a minimum size for the buffers, so the max-memory setting is effective only if it is bigger than the minimum space needed.) If you allocate any large structures yourself, you must allocate them before jpeg_start_compress() or jpeg_start_decompress() in order to have them counted against the max memory limit. Also keep in mind that space allocated with alloc_small() is ignored, on the assumption that it's too small to be worth worrying about; so a reasonable safety margin should be left when setting max_memory_to_use.

If you use the jmemname.c or jmemdos.c memory manager back end, it is important to clean up the JPEG object properly to ensure that the temporary files get deleted. (This is especially crucial with jmemdos.c, where the "temporary files" may be extended-memory segments; if they are not freed, DOS will require a reboot to recover the memory.) Thus, with these memory managers, it's a good idea to provide a signal handler that will trap any early exit from your program. The handler should call either jpeg_abort() or jpeg_destroy() for any active JPEG objects. A handler is not needed with jmemnobs.c, and shouldn't be necessary with jmemansi.c or jmemmac.c either, since the C library is supposed to take care of deleting files made with tmpfile().

Memory usage

Working memory requirements while performing compression or decompression depend on image dimensions, image characteristics (such as colorspace and JPEG process), and operating mode (application-selected options).

As of v6b, the decompressor requires:

1. About 24K in more-or-less-fixed-size data. This varies a bit depending
   on operating mode and image characteristics (particularly color vs.
   grayscale), but it doesn't depend on image dimensions.
2. Strip buffers (of size proportional to the image width) for IDCT and
   upsampling results. The worst case for commonly used sampling factors
   is about 34 bytes * width in pixels for a color image. A grayscale image
   only needs about 8 bytes per pixel column.
3. A full-image DCT coefficient buffer is needed to decode a multi-scan JPEG
   file (including progressive JPEGs), or whenever you select buffered-image
   mode. This takes 2 bytes/coefficient. At typical 2x2 sampling, that's
   3 bytes per pixel for a color image. Worst case (1x1 sampling) requires
   6 bytes/pixel. For grayscale, figure 2 bytes/pixel.
4. To perform 2-pass color quantization, the decompressor also needs a
   128K color lookup table and a full-image pixel buffer (3 bytes/pixel).

This does not count any memory allocated by the application, such as a
buffer to hold the final output image.

The above figures are valid for 8-bit JPEG data precision and a machine with
32-bit ints. For 9-bit to 12-bit JPEG data, double the size of the strip
buffers and quantization pixel buffer. The "fixed-size" data will be
somewhat smaller with 16-bit ints, larger with 64-bit ints. Also, CMYK
or other unusual color spaces will require different amounts of space.

The full-image coefficient and pixel buffers, if needed at all, do not
have to be fully RAM resident; you can have the library use temporary
files instead when the total memory usage would exceed a limit you set.
(But if your OS supports virtual memory, it's probably better to just use
jmemnobs and let the OS do the swapping.)

The compressor's memory requirements are similar, except that it has no need
for color quantization. Also, it needs a full-image DCT coefficient buffer
if Huffman-table optimization is asked for, even if progressive mode is not
requested.

If you need more detailed information about memory usage in a particular
situation, you can enable the MEM_STATS code in jmemmgr.c.

Library compile-time options

A number of compile-time options are available by modifying jmorecfg.h.

The IJG code currently supports 8-bit to 12-bit sample data precision by
defining BITS_IN_JSAMPLE as 8, 9, 10, 11, or 12.
Note that a value larger than 8 causes JSAMPLE to be larger than a char,
so it affects the surrounding application's image data.
The sample applications cjpeg and djpeg can support deeper than 8-bit data

only for PPM and GIF file formats; you must disable the other file formats
to compile a 9-bit to 12-bit cjpeg or djpeg. (install.txt has more
information about that.)
Run-time selection and conversion of data precision are currently not
supported and may be added later.
Exception: The transcoding part (jpegtran) supports all settings in a
single instance, since it operates on the level of DCT coefficients and
not sample values.
(If you need to include an 8-bit library and a 9-bit to 12-bit library for
compression or decompression in a single application, you could probably do
it by defining NEED_SHORT_EXTERNAL_NAMES for just one of the copies. You'd
have to access the 8-bit and the 9-bit to 12-bit copies from separate
application source files. This is untested ... if you try it, we'd like to
hear whether it works!)

Note that the standard Huffman tables are only valid for 8-bit data precision.
If you selected more than 8-bit data precision, cjpeg uses arithmetic coding
by default. The Huffman encoder normally uses entropy optimization to
compute usable tables for higher precision. Otherwise, you'll have to
supply different default Huffman tables. You may also want to supply your
own DCT quantization tables; the existing quality-scaling code has been
developed for 8-bit use, and probably doesn't generate especially good tables
for 9-bit to 12-bit.

The maximum number of components (color channels) in the image is determined
by MAX_COMPONENTS. The JPEG standard allows up to 255 components, but we
expect that few applications will need more than four or so.

On machines with unusual data type sizes, you may be able to improve
performance or reduce memory space by tweaking the various typedefs in
jmorecfg.h. In particular, on some RISC CPUs, access to arrays of "short"s
is quite slow; consider trading memory for speed by making JCOEF, INT16, and
UINT16 be "int" or "unsigned int". UINT8 is also a candidate to become int.
You probably don't want to make JSAMPLE be int unless you have lots of memory
to burn.

You can reduce the size of the library by compiling out various optional
functions. To do this, undefine xxx_SUPPORTED symbols as necessary.

You can also save a few K by not having text error messages in the library;
the standard error message table occupies about 5Kb. This is particularly
reasonable for embedded applications where there's no good way to display
a message anyway. To do this, remove the creation of the message table
(jpeg_std_message_table[]) from jerror.c, and alter format_message to do
something reasonable without it. You could output the numeric value of the
message code number, for example. If you do this, you can also save a couple
more K by modifying the TRACEMSn() macros in jerror.h to expand to nothing;
you don't need trace capability anyway, right?

Portability considerations

The JPEG library has been written to be extremely portable; the sample applications cjpeg and djpeg are slightly less so. This section summarizes the design goals in this area. (If you encounter any bugs that cause the library to be less portable than is claimed here, we'd appreciate hearing about them.)

The code works fine on ANSI C, C++, and pre-ANSI C compilers, using any of the popular system include file setups, and some not-so-popular ones too. See install.txt for configuration procedures.

The code is not dependent on the exact sizes of the C data types. As distributed, we make the assumptions that
 char is at least 8 bits wide
 short is at least 16 bits wide
 int is at least 16 bits wide
 long is at least 32 bits wide
(These are the minimum requirements of the ANSI C standard.) Wider types will work fine, although memory may be used inefficiently if char is much larger than 8 bits or short is much bigger than 16 bits. The code should work equally well with 16- or 32-bit ints.

In a system where these assumptions are not met, you may be able to make the code work by modifying the typedefs in jmorecfg.h. However, you will probably have difficulty if int is less than 16 bits wide, since references to plain int abound in the code.

char can be either signed or unsigned, although the code runs faster if an unsigned char type is available. If char is wider than 8 bits, you will need to redefine JOCTET and/or provide custom data source/destination managers so that JOCTET represents exactly 8 bits of data on external storage.

The JPEG library proper does not assume ASCII representation of characters. But some of the image file I/O modules in cjpeg/djpeg do have ASCII dependencies in file-header manipulation; so does cjpeg's select_file_type() routine.

The JPEG library does not rely heavily on the C library. In particular, C stdio is used only by the data source/destination modules and the error handler, all of which are application-replaceable. (cjpeg/djpeg are more heavily dependent on stdio.) malloc and free are called only from the memory manager "back end" module, so you can use a different memory allocator by replacing that one file.

The code generally assumes that C names must be unique in the first 15
characters. However, global function names can be made unique in the
first 6 characters by defining NEED_SHORT_EXTERNAL_NAMES.

More info about porting the code may be gleaned by reading jconfig.txt,
jmorecfg.h, and jinclude.h.

Notes for MS-DOS implementors

The IJG code is designed to work efficiently in 80x86 "small" or "medium"
memory models (i.e., data pointers are 16 bits unless explicitly declared
"far"; code pointers can be either size). You may be able to use small
model to compile cjpeg or djpeg by itself, but you will probably have to use
medium model for any larger application. This won't make much difference in
performance. You *will* take a noticeable performance hit if you use a
large-data memory model (perhaps 10%-25%), and you should avoid "huge" model
if at all possible.

The JPEG library typically needs 2Kb-3Kb of stack space. It will also
malloc about 20K-30K of near heap space while executing (and lots of far
heap, but that doesn't count in this calculation). This figure will vary
depending on selected operating mode, and to a lesser extent on image size.
There is also about 5Kb-6Kb of constant data which will be allocated in the
near data segment (about 4Kb of this is the error message table).
Thus you have perhaps 20K available for other modules' static data and near
heap space before you need to go to a larger memory model. The C library's
static data will account for several K of this, but that still leaves a good
deal for your needs. (If you are tight on space, you could reduce the sizes
of the I/O buffers allocated by jdatasrc.c and jdatadst.c, say from 4K to
1K. Another possibility is to move the error message table to far memory;
this should be doable with only localized hacking on jerror.c.)

About 2K of the near heap space is "permanent" memory that will not be
released until you destroy the JPEG object. This is only an issue if you
save a JPEG object between compression or decompression operations.

Far data space may also be a tight resource when you are dealing with large
images. The most memory-intensive case is decompression with two-pass color
quantization, or single-pass quantization to an externally supplied color
map. This requires a 128Kb color lookup table plus strip buffers amounting
to about 40 bytes per column for typical sampling ratios (eg, about 25600
bytes for a 640-pixel-wide image). You may not be able to process wide
images if you have large data structures of your own.

Of course, all of these concerns vanish if you use a 32-bit flat-memory-model
compiler, such as DJGPP or Watcom C. We highly recommend flat model if you

can use it; the JPEG library is significantly faster in flat model.

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/libjpeg.txt
No license file was found, but licenses were detected in source scan.

```
/*
* jmemmgr.c
*
* Copyright (C) 1991-1997, Thomas G. Lane.
* Modified 2011-2019 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains the JPEG system-independent memory management
* routines.  This code is usable across a wide variety of machines; most
* of the system dependencies have been isolated in a separate file.
* The major functions provided here are:
*   * pool-based allocation and freeing of memory;
*   * policy decisions about how to divide available memory among the
*     virtual arrays;
*   * control logic for swapping virtual arrays between main memory and
*     backing storage.
* The separate system-dependent file provides the actual backing-storage
* access code, and it contains the policy decision about how much total
* main memory to use.
* This file is system-dependent in the sense that some of its functions
* are unnecessary in some systems.  For example, if there is enough virtual
* memory so that backing storage will never be used, much of the virtual
* array control logic could be removed.  (Of course, if you have that much
* memory then you shouldn't care about a little bit of unused code...)
*/
```

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jmemmgr.c
No license file was found, but licenses were detected in source scan.

INSTALLATION INSTRUCTIONS for the Independent JPEG Group's JPEG software

Copyright (C) 1991-2021, Thomas G. Lane, Guido Vollbeding.
This file is part of the Independent JPEG Group's software.
For conditions of distribution and use, see the accompanying README file.

This file explains how to configure and install the IJG software. We have
tried to make this software extremely portable and flexible, so that it can be
adapted to almost any environment. The downside of this decision is that the
installation process is complicated. We have provided shortcuts to simplify

the task on common systems. But in any case, you will need at least a little
familiarity with C programming and program build procedures for your system.

If you are only using this software as part of a larger program, the larger
program's installation procedure may take care of configuring the IJG code.
For example, Ghostscript's installation script will configure the IJG code.
You don't need to read this file if you just want to compile Ghostscript.

If you are on a Unix machine, you may not need to read this file at all.
Try doing
 ./configure
 make
 make test
If that doesn't complain, do
 make install
(better do "make -n install" first to see if the makefile will put the files
where you want them). Read further if you run into snags or want to customize
the code for your system.

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BEFORE YOU START
==========

Before installing the software you must unpack the distributed source code.
Since you are reading this file, you have probably already succeeded in this
task. However, there is a potential for error if you needed to convert the
files to the local standard text file format (for example, if you are on
MS-DOS you may have converted LF end-of-line to CR/LF). You must apply
such conversion to all the files EXCEPT those whose names begin with "test".
The test files contain binary data; if you change them in any way then the
self-test will give bad results.

Please check the last section of this file to see if there are hints for the
specific machine or compiler you are using.

CONFIGURING THE SOFTWARE
========================

To configure the IJG code for your system, you need to create two files:
 * jconfig.h: contains values for system-dependent #define symbols.
 * Makefile: controls the compilation process.
(On a non-Unix machine, you may create "project files" or some other
substitute for a Makefile. jconfig.h is needed in any environment.)

We provide three different ways to generate these files:
 * On a Unix system, you can just run the "configure" script.
 * We provide sample jconfig files and makefiles for popular machines;
   if your machine matches one of the samples, just copy the right sample
   files to jconfig.h and Makefile.
 * If all else fails, read the instructions below and make your own files.

Configuring the software using the automatic "configure" script
----

If you are on a Unix machine, you can just type
 ./configure
and let the configure script construct appropriate configuration files.
If you're using "csh" on an old version of System V, you might need to type
 sh configure
instead to prevent csh from trying to execute configure itself.
Expect configure to run for a few minutes, particularly on slower machines;
it works by compiling a series of test programs.

Configure was created with GNU Autoconf and it follows the usual conventions
for GNU configure scripts. It makes a few assumptions that you may want to
override. You can do this by providing optional switches to configure:

* Configure will build both static and shared libraries, if possible.
If you want to build libjpeg only as a static library, say
 ./configure --disable-shared
If you want to build libjpeg only as a shared library, say
 ./configure --disable-static
Configure uses GNU libtool to take care of system-dependent shared library
building methods.

* Configure will use gcc (GNU C compiler) if it's available, otherwise cc.
To force a particular compiler to be selected, use the CC option, for example
 ./configure CC='cc'

The same method can be used to include any unusual compiler switches.
For example, on HP-UX you probably want to say
 ./configure CC='cc -Aa'
to get HP's compiler to run in ANSI mode.

* The default CFLAGS setting is "-g" for non-gcc compilers, "-g -O2" for gcc.
You can override this by saying, for example,
 ./configure CFLAGS='-O2'
if you want to compile without debugging support.

* Configure will set up the makefile so that "make install" will install files
into /usr/local/bin, /usr/local/man, etc. You can specify an installation
prefix other than "/usr/local" by giving configure the option "--prefix=PATH".

* If you don't have a lot of swap space, you may need to enable the IJG
software's internal virtual memory mechanism. To do this, give the option
"--enable-maxmem=N" where N is the default maxmemory limit in megabytes.
This is discussed in more detail under "Selecting a memory manager", below.
You probably don't need to worry about this on reasonably-sized Unix machines,
unless you plan to process very large images.

Configure has some other features that are useful if you are cross-compiling
or working in a network of multiple machine types; but if you need those
features, you probably already know how to use them.

Configuring the software using one of the supplied jconfig and makefile files
---

If you have one of these systems, you can just use the provided configuration
files:

Makefile jconfig file System and/or compiler

makefile.manx jconfig.manx Amiga, Manx Aztec C
makefile.sas jconfig.sas Amiga, SAS C
makeproj.mac jconfig.mac Apple Macintosh, Metrowerks CodeWarrior
mak*jpeg.st jconfig.st Atari ST/STE/TT, Pure C or Turbo C
makefile.bcc jconfig.bcc MS-DOS or OS/2, Borland C
makefile.dj jconfig.dj MS-DOS, DJGPP (Delorie's port of GNU C)
makefile.mc6 jconfig.mc6 MS-DOS, Microsoft C (16-bit only)
makefile.wat jconfig.wat MS-DOS, OS/2, or Windows NT, Watcom C
makefile.vc jconfig.vc Windows, MS Visual C++
makefile.vs jconfig.vc Windows, MS Visual C++ 6 Developer Studio
make*.vc6
makefile.vs jconfig.vc Windows, Visual Studio 2019 Version 16
make*.v16
makefile.vs jconfig.vc Windows, Visual Studio 2022 Version 17

make*.v16
make*.v17
makefile.b32 jconfig.vc Windows, Borland C++ 32-bit (bcc32)
makefile.mms jconfig.vms Digital VMS, with MMS software
makefile.vms jconfig.vms Digital VMS, without MMS software

Copy the proper jconfig file to jconfig.h and the makefile to Makefile (or whatever your system uses as the standard makefile name). For more info see the appropriate system-specific hints section near the end of this file.

Configuring the software by hand

First, generate a jconfig.h file. If you are moderately familiar with C, the comments in jconfig.txt should be enough information to do this; just copy jconfig.txt to jconfig.h and edit it appropriately. Otherwise, you may prefer to use the ckconfig.c program. You will need to compile and execute ckconfig.c by hand --- we hope you know at least enough to do that. ckconfig.c may not compile the first try (in fact, the whole idea is for it to fail if anything is going to). If you get compile errors, fix them by editing ckconfig.c according to the directions given in ckconfig.c. Once you get it to run, it will write a suitable jconfig.h file, and will also print out some advice about which makefile to use.

You may also want to look at the canned jconfig files, if there is one for a system similar to yours.

Second, select a makefile and copy it to Makefile (or whatever your system uses as the standard makefile name). The most generic makefiles we provide are
makefile.ansi: if your C compiler supports function prototypes
makefile.unix: if not.
(You have function prototypes if ckconfig.c put "#define HAVE_PROTOTYPES" in jconfig.h.) You may want to start from one of the other makefiles if there is one for a system similar to yours.

Look over the selected Makefile and adjust options as needed. In particular you may want to change the CC and CFLAGS definitions. For instance, if you are using GCC, set CC=gcc. If you had to use any compiler switches to get ckconfig.c to work, make sure the same switches are in CFLAGS.

If you are on a system that doesn't use makefiles, you'll need to set up project files (or whatever you do use) to compile all the source files and link them into executable files cjpeg, djpeg, jpegtran, rdjpgcom, and wrjpgcom. See the file lists in any of the makefiles to find out which files go into each program. Note that the provided makefiles all make a "library" file libjpeg first, but you don't have to do that if you don't want to; the file

lists identify which source files are actually needed for compression,
decompression, or both. As a last resort, you can make a batch script that
just compiles everything and links it all together; makefile.vms is an example
of this (it's for VMS systems that have no make-like utility).

Here are comments about some specific configuration decisions you'll
need to make:

Command line style

These programs can use a Unix-like command line style which supports
redirection and piping, like this:
 cjpeg inputfile >outputfile
 cjpeg <inputfile >outputfile
 source program | cjpeg >outputfile
The simpler "two file" command line style is just
 cjpeg inputfile outputfile
You may prefer the two-file style, particularly if you don't have pipes.

You MUST use two-file style on any system that doesn't cope well with binary
data fed through stdin/stdout; this is true for some MS-DOS compilers, for
example. If you're not on a Unix system, it's safest to assume you need
two-file style. (But if your compiler provides either the Posix-standard
fdopen() library routine or a Microsoft-compatible setmode() routine, you
can safely use the Unix command line style, by defining USE_FDOPEN or
USE_SETMODE respectively.)

To use the two-file style, make jconfig.h say "#define TWO_FILE_COMMANDLINE".

Selecting a memory manager

The IJG code is capable of working on images that are too big to fit in main
memory; data is swapped out to temporary files as necessary. However, the
code to do this is rather system-dependent. We provide five different
memory managers:

* jmemansi.c This version uses the ANSI-standard library routine tmpfile(),
  which not all non-ANSI systems have. On some systems
  tmpfile() may put the temporary file in a non-optimal
  location; if you don't like what it does, use jmemname.c.

* jmemname.c This version creates named temporary files. For anything
  except a Unix machine, you'll need to configure the
  select_file_name() routine appropriately; see the comments
  near the head of jmemname.c. If you use this version, define
  NEED_SIGNAL_CATCHER in jconfig.h to make sure the temp files

are removed if the program is aborted.

* jmemnobs.c (That stands for No Backing Store :-).) This will compile on
almost any system, but it assumes you have enough main memory
or virtual memory to hold the biggest images you work with.

* jmemdos.c This should be used with most 16-bit MS-DOS compilers.
See the system-specific notes about MS-DOS for more info.
IMPORTANT: if you use this, define USE_MSDOS_MEMMGR in
jconfig.h, and include the assembly file jmemdosa.asm in the
programs. The supplied makefiles and jconfig files for
16-bit MS-DOS compilers already do both.

* jmemmac.c Custom version for Apple Macintosh; see the system-specific
notes for Macintosh for more info.

To use a particular memory manager, change the SYSDEPMEM variable in your
makefile to equal the corresponding object file name (for example, jmemansi.o
or jmemansi.obj for jmemansi.c).

If you have plenty of (real or virtual) main memory, just use jmemnobs.c.
"Plenty" means about ten bytes for every pixel in the largest images
you plan to process, so a lot of systems don't meet this criterion.
If yours doesn't, try jmemansi.c first. If that doesn't compile, you'll have
to use jmemname.c; be sure to adjust select_file_name() for local conditions.
You may also need to change unlink() to remove() in close_backing_store().

Except with jmemnobs.c or jmemmac.c, you need to adjust the DEFAULT_MAX_MEM
setting to a reasonable value for your system (either by adding a #define for
DEFAULT_MAX_MEM to jconfig.h, or by adding a -D switch to the Makefile).
This value limits the amount of data space the program will attempt to
allocate. Code and static data space isn't counted, so the actual memory
needs for cjpeg or djpeg are typically 100 to 150Kb more than the max-memory
setting. Larger max-memory settings reduce the amount of I/O needed to
process a large image, but too large a value can result in "insufficient
memory" failures. On most Unix machines (and other systems with virtual
memory), just set DEFAULT_MAX_MEM to several million and forget it. At the
other end of the spectrum, for MS-DOS machines you probably can't go much
above 300K to 400K. (On MS-DOS the value refers to conventional memory only.
Extended/expanded memory is handled separately by jmemdos.c.)

BUILDING THE SOFTWARE
=====================

Now you should be able to compile the software. Just say "make" (or
whatever's necessary to start the compilation). Have a cup of coffee.

Here are some things that could go wrong:

If your compiler complains about undefined structures, you should be able to
shut it up by putting "#define INCOMPLETE_TYPES_BROKEN" in jconfig.h.

If you have trouble with missing system include files or inclusion of the
wrong ones, read jinclude.h. This shouldn't happen if you used configure
or ckconfig.c to set up jconfig.h.

There are a fair number of routines that do not use all of their parameters;
some compilers will issue warnings about this, which you can ignore. There
are also a few configuration checks that may give "unreachable code" warnings.
Any other warning deserves investigation.

If you don't have a getenv() library routine, define NO_GETENV.

Also see the system-specific hints, below.

TESTING THE SOFTWARE
====================

As a quick test of functionality we've included a small sample image in
several forms:
 testorig.jpg Starting point for the djpeg tests.
 testimg.ppm The output of djpeg testorig.jpg
 testimg.gif The output of djpeg -gif testorig.jpg
 testimg.bmp The output of djpeg -bmp -colors 256 testorig.jpg
 testimg.jpg The output of cjpeg testimg.ppm
 testprog.jpg Progressive-mode equivalent of testorig.jpg.
 testimgp.jpg The output of cjpeg -progressive -optimize testimg.ppm
(The first- and second-generation .jpg files aren't identical since the
default compression parameters are lossy.) If you can generate duplicates
of the testimg* files then you probably have working programs.

With most of the makefiles, "make test" will perform the necessary
comparisons.

If you're using a makefile that doesn't provide the test option, run djpeg
and cjpeg by hand and compare the output files to testimg* with whatever
binary file comparison tool you have. The files should be bit-for-bit
identical.

If the programs complain "MAX_ALLOC_CHUNK is wrong, please fix", then you
need to reduce MAX_ALLOC_CHUNK to a value that fits in type size_t.
Try adding "#define MAX_ALLOC_CHUNK 65520L" to jconfig.h. A less likely
configuration error is "ALIGN_TYPE is wrong, please fix": defining ALIGN_TYPE
as long should take care of that one.

If the cjpeg test run fails with "Missing Huffman code table entry", it's a good bet that you needed to define RIGHT_SHIFT_IS_UNSIGNED. Go back to the configuration step and run ckconfig.c. (This is a good plan for any other test failure, too.)

If you are using Unix (one-file) command line style on a non-Unix system, it's a good idea to check that binary I/O through stdin/stdout actually works. You should get the same results from "djpeg <testorig.jpg >out.ppm" as from "djpeg -outfile out.ppm testorig.jpg". Note that the makefiles all use the latter style and therefore do not exercise stdin/stdout! If this check fails, try recompiling with USE_SETMODE or USE_FDOPEN defined. If it still doesn't work, better use two-file style.

If you chose a memory manager other than jmemnobs.c, you should test that temporary-file usage works. Try "djpeg -bmp -colors 256 -max 0 testorig.jpg" and make sure its output matches testimg.bmp. If you have any really large images handy, try compressing them with -optimize and/or decompressing with -colors 256 to make sure your DEFAULT_MAX_MEM setting is not too large.

NOTE: this is far from an exhaustive test of the JPEG software; some modules, such as 1-pass color quantization, are not exercised at all. It's just a quick test to give you some confidence that you haven't missed something major.

INSTALLING THE SOFTWARE

Once you're done with the above steps, you can install the software by copying the executable files (cjpeg, djpeg, jpegtran, rdjpgcom, and wrjpgcom) to wherever you normally install programs. On Unix systems, you'll also want to put the man pages (cjpeg.1, djpeg.1, jpegtran.1, rdjpgcom.1, wrjpgcom.1) in the man-page directory. The pre-fab makefiles don't support this step since there's such a wide variety of installation procedures on different systems.

If you generated a Makefile with the "configure" script, you can just say
make install
to install the programs and their man pages into the standard places. (You'll probably need to be root to do this.) We recommend first saying
make -n install
to see where configure thought the files should go. You may need to edit the Makefile, particularly if your system's conventions for man page filenames don't match what configure expects.

If you want to install the IJG library itself, for use in compiling other programs besides ours, then you need to put the four include files

jpeglib.h jerror.h jconfig.h jmorecfg.h
into your include-file directory, and put the library file libjpeg.a
(extension may vary depending on system) wherever library files go.
If you generated a Makefile with "configure", it will do what it thinks
is the right thing if you say
make install-lib

OPTIONAL STUFF
==========

Progress monitor:

If you like, you can #define PROGRESS_REPORT (in jconfig.h) to enable display
of percent-done progress reports. The routine provided in cdjpeg.c merely
prints percentages to stderr, but you can customize it to do something
fancier.

Utah RLE file format support:

We distribute the software with support for RLE image files (Utah Raster
Toolkit format) disabled, because the RLE support won't compile without the
Utah library. If you have URT version 3.1 or later, you can enable RLE
support as follows:

1. #define RLE_SUPPORTED in jconfig.h.
2. Add a -I option to CFLAGS in the Makefile for the directory
   containing the URT .h files (typically the "include"
   subdirectory of the URT distribution).
3. Add -L... -lrle to LDLIBS in the Makefile, where ... specifies
   the directory containing the URT "librle.a" file (typically the
   "lib" subdirectory of the URT distribution).

Support for 9-bit to 12-bit deep pixel data:

The IJG code currently allows 8, 9, 10, 11, or 12 bits sample data precision.
(For color, this means 8 to 12 bits per channel, of course.) If you need to
work with deeper than 8-bit data, you can compile the IJG code for 9-bit to
12-bit operation.
To do so:

1. In jmorecfg.h, define BITS_IN_JSAMPLE as 9, 10, 11, or 12 rather than 8.
2. In jconfig.h, undefine BMP_SUPPORTED, RLE_SUPPORTED, and TARGA_SUPPORTED,
   because the code for those formats doesn't handle deeper than 8-bit data
   and won't even compile. (The PPM code does work, as explained below.
   The GIF code works too; it scales 8-bit GIF data to and from 12-bit
   depth automatically.)
3. Compile. Don't expect "make test" to pass, since the supplied test
   files are for 8-bit data.

Currently, 9-bit to 12-bit support does not work on 16-bit-int machines.

Run-time selection and conversion of data precision are currently not
supported and may be added later.
Exception: The transcoding part (jpegtran) supports all settings in a
single instance, since it operates on the level of DCT coefficients and
not sample values.

The PPM reader (rdppm.c) can read deeper than 8-bit data from either
text-format or binary-format PPM and PGM files. Binary-format PPM/PGM files
which have a maxval greater than 255 are assumed to use 2 bytes per sample,
MSB first (big-endian order). As of early 1995, 2-byte binary format is not
officially supported by the PBMPLUS library, but it is expected that a
future release of PBMPLUS will support it. Note that the PPM reader will
read files of any maxval regardless of the BITS_IN_JSAMPLE setting; incoming
data is automatically rescaled to maxval=MAXJSAMPLE as appropriate for the
cjpeg bit depth.

The PPM writer (wrppm.c) will normally write 2-byte binary PPM or PGM
format, maxval=MAXJSAMPLE, when compiled with BITS_IN_JSAMPLE>8. Since this
format is not yet widely supported, you can disable it by compiling wrppm.c
with PPM_NORAWWORD defined; then the data is scaled down to 8 bits to make a
standard 1-byte/sample PPM or PGM file. (Yes, this means still another copy
of djpeg to keep around. But hopefully you won't need it for very long.
Poskanzer's supposed to get that new PBMPLUS release out Real Soon Now.)

Of course, if you are working with 9-bit to 12-bit data, you probably have
it stored in some other, nonstandard format. In that case you'll probably
want to write your own I/O modules to read and write your format.

Note:
The standard Huffman tables are only valid for 8-bit data precision. If
you selected more than 8-bit data precision, cjpeg uses arithmetic coding
by default. The Huffman encoder normally uses entropy optimization to
compute usable tables for higher precision. Otherwise, you'll have to
supply different default Huffman tables.

Removing code:

If you need to make a smaller version of the JPEG software, some optional
functions can be removed at compile time. See the xxx_SUPPORTED #defines in
jconfig.h and jmorecfg.h. If at all possible, we recommend that you leave in
decoder support for all valid JPEG files, to ensure that you can read anyone's
output. Taking out support for image file formats that you don't use is the
most painless way to make the programs smaller. Another possibility is to
remove some of the DCT methods: in particular, the "IFAST" method may not be
enough faster than the others to be worth keeping on your machine. (If you
do remove ISLOW or IFAST, be sure to redefine JDCT_DEFAULT or JDCT_FASTEST

to a supported method, by adding a #define in jconfig.h.)

OPTIMIZATION
============

Unless you own a Cray, you'll probably be interested in making the JPEG
software go as fast as possible. This section covers some machine-dependent
optimizations you may want to try. We suggest that before trying any of
this, you first get the basic installation to pass the self-test step.
Repeat the self-test after any optimization to make sure that you haven't
broken anything.

The integer DCT routines perform a lot of multiplications. These
multiplications must yield 32-bit results, but none of their input values
are more than 16 bits wide. On many machines, notably the 680x0 and 80x86
CPUs, a 16x16=>32 bit multiply instruction is faster than a full 32x32=>32
bit multiply. Unfortunately there is no portable way to specify such a
multiplication in C, but some compilers can generate one when you use the
right combination of casts. See the MULTIPLYxxx macro definitions in
jdct.h. If your compiler makes "int" be 32 bits and "short" be 16 bits,
defining SHORTxSHORT_32 is fairly likely to work. When experimenting with
alternate definitions, be sure to test not only whether the code still works
(use the self-test), but also whether it is actually faster --- on some
compilers, alternate definitions may compute the right answer, yet be slower
than the default. Timing cjpeg on a large PGM (grayscale) input file is the
best way to check this, as the DCT will be the largest fraction of the runtime
in that mode. (Note: some of the distributed compiler-specific jconfig files
already contain #define switches to select appropriate MULTIPLYxxx
definitions.)

If your machine has sufficiently fast floating point hardware, you may find
that the float DCT method is faster than the integer DCT methods, even
after tweaking the integer multiply macros. In that case you may want to
make the float DCT be the default method. (The only objection to this is
that float DCT results may vary slightly across machines.) To do that, add
"#define JDCT_DEFAULT JDCT_FLOAT" to jconfig.h. Even if you don't change
the default, you should redefine JDCT_FASTEST, which is the method selected
by djpeg's -fast switch. Don't forget to update the documentation files
(usage.txt and/or cjpeg.1, djpeg.1) to agree with what you've done.

If access to "short" arrays is slow on your machine, it may be a win to
define type JCOEF as int rather than short. This will cost a good deal of
memory though, particularly in some multi-pass modes, so don't do it unless
you have memory to burn and short is REALLY slow.

If your compiler can compile function calls in-line, make sure the INLINE
macro in jmorecfg.h is defined as the keyword that marks a function

inline-able. Some compilers have a switch that tells the compiler to inline
any function it thinks is profitable (e.g., -finline-functions for gcc).
Enabling such a switch is likely to make the compiled code bigger but faster.

In general, it's worth trying the maximum optimization level of your compiler,
and experimenting with any optional optimizations such as loop unrolling.
(Unfortunately, far too many compilers have optimizer bugs ... be prepared to
back off if the code fails self-test.) If you do any experimentation along
these lines, please report the optimal settings to jpeg-info@jpegclub.org so
we can mention them in future releases. Be sure to specify your machine and
compiler version.

HINTS FOR SPECIFIC SYSTEMS

We welcome reports on changes needed for systems not mentioned here. Submit
'em to jpeg-info@jpegclub.org. Also, if configure or ckconfig.c is wrong
about how to configure the JPEG software for your system, please let us know.

Acorn RISC OS:

(Thanks to Simon Middleton for these hints on compiling with Desktop C.)
After renaming the files according to Acorn conventions, take a copy of
makefile.ansi, change all occurrences of 'libjpeg.a' to 'libjpeg.o' and
change these definitions as indicated:

```
CFLAGS= -throwback -IC: -Wn
LDLIBS=C:o.Stubs
SYSDEPMEM=jmemansi.o
LN=Link
AR=LibFile -c -o
```

Also add a new line '.c.o:; $(cc) $< $(cflags) -c -o $@'. Remove the
lines '$(RM) libjpeg.o' and '$(AR2) libjpeg.o' and the 'jconfig.h'
dependency section.

Copy jconfig.txt to jconfig.h. Edit jconfig.h to define TWO_FILE_COMMANDLINE
and CHAR_IS_UNSIGNED.

Run the makefile using !AMU not !Make. If you want to use the 'clean' and
'test' makefile entries then you will have to fiddle with the syntax a bit
and rename the test files.

Amiga:

SAS C 6.50 reportedly is too buggy to compile the IJG code properly.
A patch to update to 6.51 is available from SAS or AmiNet FTP sites.

The supplied config files are set up to use jmemname.c as the memory
manager, with temporary files being created on the device named by
"JPEGTMP:".

Atari ST/STE/TT:

Copy the project files makcjpeg.st, makdjpeg.st, maktjpeg.st, and makljpeg.st
to cjpeg.prj, djpeg.prj, jpegtran.prj, and libjpeg.prj respectively. The
project files should work as-is with Pure C. For Turbo C, change library
filenames "pc..." to "tc..." in each project file. Note that libjpeg.prj
selects jmemansi.c as the recommended memory manager. You'll probably want to
adjust the DEFAULT_MAX_MEM setting --- you want it to be a couple hundred K
less than your normal free memory. Put "#define DEFAULT_MAX_MEM nnnn" into
jconfig.h to do this.

To use the 68881/68882 coprocessor for the floating point DCT, add the
compiler option "-8" to the project files and replace pcfltlib.lib with
pc881lib.lib in cjpeg.prj and djpeg.prj. Or if you don't have a
coprocessor, you may prefer to remove the float DCT code by undefining
DCT_FLOAT_SUPPORTED in jmorecfg.h (since without a coprocessor, the float
code will be too slow to be useful). In that case, you can delete
pcfltlib.lib from the project files.

Note that you must make libjpeg.lib before making cjpeg.ttp, djpeg.ttp,
or jpegtran.ttp. You'll have to perform the self-test by hand.

We haven't bothered to include project files for rdjpgcom and wrjpgcom.
Those source files should just be compiled by themselves; they don't
depend on the JPEG library. You can use the default.prj project file
of the Pure C distribution to make the programs.

There is a bug in some older versions of the Turbo C library which causes the
space used by temporary files created with "tmpfile()" not to be freed after
an abnormal program exit. If you check your disk afterwards, you will find
cluster chains that are allocated but not used by a file. This should not
happen in cjpeg/djpeg/jpegtran, since we enable a signal catcher to explicitly
close temp files before exiting. But if you use the JPEG library with your
own code, be sure to supply a signal catcher, or else use a different
system-dependent memory manager.

Cray:

Should you be so fortunate as to be running JPEG on a Cray YMP, there is a

compiler bug in old versions of Cray's Standard C (prior to 3.1). If you
still have an old compiler, you'll need to insert a line reading
"#pragma novector" just before the loop
```
  for (i = 1; i <= (int) htbl->bits[l]; i++)
    huffsize[p++] = (char) l;
```
in fix_huff_tbl (in V5beta1, line 204 of jchuff.c and line 176 of jdhuff.c).
[This bug may or may not still occur with the current IJG code, but it's
probably a dead issue anyway...]

HP-UX:

If you have HP-UX 7.05 or later with the "software development" C compiler,
you should run the compiler in ANSI mode. If using the configure script,
say
```
 ./configure CC='cc -Aa'
```
(or -Ae if you prefer). If configuring by hand, use makefile.ansi and add
"-Aa" to the CFLAGS line in the makefile.

If you have a pre-7.05 system, or if you are using the non-ANSI C compiler
delivered with a minimum HP-UX system, then you must use makefile.unix
(and do NOT add -Aa); or just run configure without the CC option.

On HP 9000 series 800 machines, the HP C compiler is buggy in revisions prior
to A.08.07. If you get complaints about "not a typedef name", you'll have to
use makefile.unix, or run configure without the CC option.

Macintosh, generic comments:

The supplied user-interface files (cjpeg.c, djpeg.c, etc) are set up to
provide a Unix-style command line interface. You can use this interface on
the Mac by means of the ccommand() library routine provided by Metrowerks
CodeWarrior or Think C. This is only appropriate for testing the library,
however; to make a user-friendly equivalent of cjpeg/djpeg you'd really want
to develop a Mac-style user interface. There isn't a complete example
available at the moment, but there are some helpful starting points:
1. Sam Bushell's free "To JPEG" applet provides drag-and-drop conversion to
JPEG under System 7 and later. This only illustrates how to use the
compression half of the library, but it does a very nice job of that part.
The CodeWarrior source code is available from http://www.pobox.com/~jsam.
2. Jim Brunner prepared a Mac-style user interface for both compression and
decompression. Unfortunately, it hasn't been updated since IJG v4, and
the library's API has changed considerably since then. Still it may be of
some help, particularly as a guide to compiling the IJG code under Think C.
Jim's code is available from the Info-Mac archives, at sumex-aim.stanford.edu
or mirrors thereof; see file /info-mac/dev/src/jpeg-convert-c.hqx.

jmemmac.c is the recommended memory manager back end for Macintosh. It uses
NewPtr/DisposePtr instead of malloc/free, and has a Mac-specific
implementation of jpeg_mem_available(). It also creates temporary files that
follow Mac conventions. (That part of the code relies on System-7-or-later OS
functions. See the comments in jmemmac.c if you need to run it on System 6.)
NOTE that USE_MAC_MEMMGR must be defined in jconfig.h to use jmemmac.c.

You can also use jmemnobs.c, if you don't care about handling images larger
than available memory. If you use any memory manager back end other than
jmemmac.c, we recommend replacing "malloc" and "free" by "NewPtr" and
"DisposePtr", because Mac C libraries often have peculiar implementations of
malloc/free. (For instance, free() may not return the freed space to the
Mac Memory Manager. This is undesirable for the IJG code because jmemmgr.c
already clumps space requests.)

Macintosh, Metrowerks CodeWarrior:

The Unix-command-line-style interface can be used by defining USE_CCOMMAND.
You'll also need to define TWO_FILE_COMMANDLINE to avoid stdin/stdout.
This means that when using the cjpeg/djpeg programs, you'll have to type the
input and output file names in the "Arguments" text-edit box, rather than
using the file radio buttons. (Perhaps USE_FDOPEN or USE_SETMODE would
eliminate the problem, but I haven't heard from anyone who's tried it.)

On 680x0 Macs, Metrowerks defines type "double" as a 10-byte IEEE extended
float. jmemmgr.c won't like this: it wants sizeof(ALIGN_TYPE) to be a power
of 2. Add "#define ALIGN_TYPE long" to jconfig.h to eliminate the complaint.

The supplied configuration file jconfig.mac can be used for your jconfig.h;
it includes all the recommended symbol definitions. If you have AppleScript
installed, you can run the supplied script makeproj.mac to create CodeWarrior
project files for the library and the testbed applications, then build the
library and applications. (Thanks to Dan Sears and Don Agro for this nifty
hack, which saves us from trying to maintain CodeWarrior project files as part
of the IJG distribution...)

Macintosh, Think C:

The documentation in Jim Brunner's "JPEG Convert" source code (see above)
includes detailed build instructions for Think C; it's probably somewhat
out of date for the current release, but may be helpful.

If you want to build the minimal command line version, proceed as follows.
You'll have to prepare project files for the programs; we don't include any
in the distribution since they are not text files. Use the file lists in
any of the supplied makefiles as a guide. Also add the ANSI and Unix C

libraries in a separate segment. You may need to divide the JPEG files into
more than one segment; we recommend dividing compression and decompression
modules. Define USE_CCOMMAND in jconfig.h so that the ccommand() routine is
called. You must also define TWO_FILE_COMMANDLINE because stdin/stdout
don't handle binary data correctly.

On 680x0 Macs, Think C defines type "double" as a 12-byte IEEE extended float.
jmemmgr.c won't like this: it wants sizeof(ALIGN_TYPE) to be a power of 2.
Add "#define ALIGN_TYPE long" to jconfig.h to eliminate the complaint.

jconfig.mac should work as a jconfig.h configuration file for Think C,
but the makeproj.mac AppleScript script is specific to CodeWarrior. Sorry.

MIPS R3000:

MIPS's cc version 1.31 has a rather nasty optimization bug. Don't use -O
if you have that compiler version. (Use "cc -V" to check the version.)
Note that the R3000 chip is found in workstations from DEC and others.

MS-DOS, generic comments for 16-bit compilers:

The IJG code is designed to work well in 80x86 "small" or "medium" memory
models (i.e., data pointers are 16 bits unless explicitly declared "far";
code pointers can be either size). You may be able to use small model to
compile cjpeg or djpeg by itself, but you will probably have to use medium
model for any larger application. This won't make much difference in
performance. You *will* take a noticeable performance hit if you use a
large-data memory model, and you should avoid "huge" model if at all
possible. Be sure that NEED_FAR_POINTERS is defined in jconfig.h if you use
a small-data memory model; be sure it is NOT defined if you use a large-data
model. (The supplied makefiles and jconfig files for Borland and Microsoft C
compile in medium model and define NEED_FAR_POINTERS.)

The DOS-specific memory manager, jmemdos.c, should be used if possible.
It needs some assembly-code routines which are in jmemdosa.asm; make sure
your makefile assembles that file and includes it in the library. If you
don't have a suitable assembler, you can get pre-assembled object files for
jmemdosa by FTP from ftp.uu.net:/graphics/jpeg/jdosaobj.zip. (DOS-oriented
distributions of the IJG source code often include these object files.)

When using jmemdos.c, jconfig.h must define USE_MSDOS_MEMMGR and must set
MAX_ALLOC_CHUNK to less than 64K (65520L is a typical value). If your
C library's far-heap malloc() can't allocate blocks that large, reduce
MAX_ALLOC_CHUNK to whatever it can handle.

If you can't use jmemdos.c for some reason --- for example, because you

don't have an assembler to assemble jmemdosa.asm --- you'll have to fall
back to jmemansi.c or jmemname.c. You'll probably still need to set
MAX_ALLOC_CHUNK in jconfig.h, because most DOS C libraries won't malloc()
more than 64K at a time. IMPORTANT: if you use jmemansi.c or jmemname.c,
you will have to compile in a large-data memory model in order to get the
right stdio library. Too bad.

wrjpgcom needs to be compiled in large model, because it malloc()s a 64KB
work area to hold the comment text. If your C library's malloc can't
handle that, reduce MAX_COM_LENGTH as necessary in wrjpgcom.c.

Most MS-DOS compilers treat stdin/stdout as text files, so you must use
two-file command line style. But if your compiler has either fdopen() or
setmode(), you can use one-file style if you like. To do this, define
USE_SETMODE or USE_FDOPEN so that stdin/stdout will be set to binary mode.
(USE_SETMODE seems to work with more DOS compilers than USE_FDOPEN.) You
should test that I/O through stdin/stdout produces the same results as I/O
to explicitly named files... the "make test" procedures in the supplied
makefiles do NOT use stdin/stdout.

MS-DOS, generic comments for 32-bit compilers:

None of the above comments about memory models apply if you are using a
32-bit flat-memory-space environment, such as DJGPP or Watcom C. (And you
should use one if you have it, as performance will be much better than
8086-compatible code!) For flat-memory-space compilers, do NOT define
NEED_FAR_POINTERS, and do NOT use jmemdos.c. Use jmemnobs.c if the
environment supplies adequate virtual memory, otherwise use jmemansi.c or
jmemname.c.

You'll still need to be careful about binary I/O through stdin/stdout.
See the last paragraph of the previous section.

MS-DOS, Borland C:

Be sure to convert all the source files to DOS text format (CR/LF newlines).
Although Borland C will often work OK with unmodified Unix (LF newlines)
source files, sometimes it will give bogus compile errors.
"Illegal character '#'" is the most common such error. (This is true with
Borland C 3.1, but perhaps is fixed in newer releases.)

If you want one-file command line style, just undefine TWO_FILE_COMMANDLINE.
jconfig.bcc already includes #define USE_SETMODE to make this work.
(fdopen does not work correctly.)

MS-DOS, Microsoft C:

makefile.mc6 works with Microsoft C, DOS Visual C++, etc. It should only
be used if you want to build a 16-bit (small or medium memory model) program.

If you want one-file command line style, just undefine TWO_FILE_COMMANDLINE.
jconfig.mc6 already includes #define USE_SETMODE to make this work.
(fdopen does not work correctly.)

Note that this makefile assumes that the working copy of itself is called
"makefile". If you want to call it something else, say "makefile.mak",
be sure to adjust the dependency line that reads "$(RFILE) : makefile".
Otherwise the make will fail because it doesn't know how to create "makefile".
Worse, some releases of Microsoft's make utilities give an incorrect error
message in this situation.

Old versions of MS C fail with an "out of macro expansion space" error
because they can't cope with the macro TRACEMS8 (defined in jerror.h).
If this happens to you, the easiest solution is to change TRACEMS8 to
expand to nothing. You'll lose the ability to dump out JPEG coefficient
tables with djpeg -debug -debug, but at least you can compile.

Original MS C 6.0 is very buggy; it compiles incorrect code unless you turn
off optimization entirely (remove -O from CFLAGS). 6.00A is better, but it
still generates bad code if you enable loop optimizations (-Ol or -Ox).

MS C 8.0 crashes when compiling jquant1.c with optimization switch /Oo ...
which is on by default. To work around this bug, compile that one file
with /Oo-.

Microsoft Windows (all versions), generic comments:

Some Windows system include files define typedef boolean as "unsigned char".
The IJG code also defines typedef boolean, but we make it an "enum" by default.
This doesn't affect the IJG programs because we don't import those Windows
include files. But if you use the JPEG library in your own program, and some
of your program's files import one definition of boolean while some import the
other, you can get all sorts of mysterious problems. A good preventive step
is to make the IJG library use "unsigned char" for boolean. To do that,
add something like this to your jconfig.h file:

```
/* Define "boolean" as unsigned char, not enum, per Windows custom */
#ifndef __RPCNDR_H__ /* don't conflict if rpcndr.h already read */
typedef unsigned char boolean;
#endif
#ifndef FALSE  /* in case these macros already exist */
#define FALSE 0 /* values of boolean */
#endif
```

#ifndef TRUE
#define TRUE 1
#endif
#define HAVE_BOOLEAN /* prevent jmorecfg.h from redefining it */
(This is already in jconfig.vc, by the way.)

windef.h contains the declarations
#define far
#define FAR far
Since jmorecfg.h tries to define FAR as empty, you may get a compiler
warning if you include both jpeglib.h and windef.h (which windows.h
includes). To suppress the warning, you can put "#ifndef FAR"/"#endif"
around the line "#define FAR" in jmorecfg.h.
(Something like this is already in jmorecfg.h, by the way.)

When using the library in a Windows application, you will almost certainly
want to modify or replace the error handler module jerror.c, since our
default error handler does a couple of inappropriate things:
1. it tries to write error and warning messages on stderr;
2. in event of a fatal error, it exits by calling exit().

A simple stopgap solution for problem 1 is to replace the line
fprintf(stderr, "%s\n", buffer);
(in output_message in jerror.c) with
MessageBox(GetActiveWindow(),buffer,"JPEG Error",MB_OK|MB_ICONERROR);
It's highly recommended that you at least do that much, since otherwise
error messages will disappear into nowhere. (Beginning with IJG v6b, this
code is already present in jerror.c; just define USE_WINDOWS_MESSAGEBOX in
jconfig.h to enable it.)

The proper solution for problem 2 is to return control to your calling
application after a library error. This can be done with the setjmp/longjmp
technique discussed in libjpeg.txt and illustrated in example.c. (NOTE:
some older Windows C compilers provide versions of setjmp/longjmp that
don't actually work under Windows. You may need to use the Windows system
functions Catch and Throw instead.)

The recommended memory manager under Windows is jmemnobs.c; in other words,
let Windows do any virtual memory management needed. You should NOT use
jmemdos.c nor jmemdosa.asm under Windows.

For Windows 3.1, we recommend compiling in medium or large memory model;
for newer Windows versions, use a 32-bit flat memory model. (See the MS-DOS
sections above for more info about memory models.) In the 16-bit memory
models only, you'll need to put
#define MAX_ALLOC_CHUNK 65520L /* Maximum request to malloc() */
into jconfig.h to limit allocation chunks to 64Kb. (Without that, you'd
have to use huge memory model, which slows things down unnecessarily.)

jmemnobs.c works without modification in large or flat memory models, but to use medium model, you need to modify its jpeg_get_large and jpeg_free_large routines to allocate far memory. In any case, you might like to replace its calls to malloc and free with direct calls on Windows memory allocation functions.

You may also want to modify jdatasrc.c and jdatadst.c to use Windows file operations rather than fread/fwrite. This is only necessary if your C compiler doesn't provide a competent implementation of C stdio functions.

You might want to tweak the RGB_xxx macros in jmorecfg.h so that the library will accept or deliver color pixels in BGR sample order, not RGB; BGR order is usually more convenient under Windows. Note that this change will break the sample applications cjpeg/djpeg, but the library itself works fine.

Many people want to convert the IJG library into a DLL. This is reasonably straightforward, but watch out for the following:

1. Don't try to compile as a DLL in small or medium memory model; use large model, or even better, 32-bit flat model. Many places in the IJG code assume the address of a local variable is an ordinary (not FAR) pointer; that isn't true in a medium-model DLL.

2. Microsoft C cannot pass file pointers between applications and DLLs. (See Microsoft Knowledge Base, PSS ID Number Q50336.) So jdatasrc.c and jdatadst.c don't work if you open a file in your application and then pass the pointer to the DLL. One workaround is to make jdatasrc.c/jdatadst.c part of your main application rather than part of the DLL.

3. You'll probably need to modify the macros GLOBAL() and EXTERN() to attach suitable linkage keywords to the exported routine names. Similarly, you'll want to modify METHODDEF() and JMETHOD() to ensure function pointers are declared in a way that lets application routines be called back through the function pointers. These macros are in jmorecfg.h. Typical definitions for a 16-bit DLL are:

```
#define GLOBAL(type)  type _far _pascal _loadds _export
#define EXTERN(type)  extern type _far _pascal _loadds
#define METHODDEF(type)  static type _far _pascal
#define JMETHOD(type,methodname,arglist)  \
  type (_far _pascal *methodname) arglist
```

For a 32-bit DLL you may want something like

```
#define GLOBAL(type)  __declspec(dllexport) type
#define EXTERN(type)  extern __declspec(dllexport) type
```

Although not all the GLOBAL routines are actually intended to be called by the application, the performance cost of making them all DLL entry points is negligible.

The unmodified IJG library presents a very C-specific application interface,
so the resulting DLL is only usable from C or C++ applications. There has
been some talk of writing wrapper code that would present a simpler interface
usable from other languages, such as Visual Basic. This is on our to-do list
but hasn't been very high priority --- any volunteers out there?

Microsoft Windows, Borland C:

The provided jconfig.bcc should work OK in a 32-bit Windows environment,
but you'll need to tweak it in a 16-bit environment (you'd need to define
NEED_FAR_POINTERS and MAX_ALLOC_CHUNK). Beware that makefile.bcc will need
alteration if you want to use it for Windows --- in particular, you should
use jmemnobs.c not jmemdos.c under Windows.

Borland C++ 4.5 fails with an internal compiler error when trying to compile
jdmerge.c in 32-bit mode. If enough people complain, perhaps Borland will fix
it. In the meantime, the simplest known workaround is to add a redundant
definition of the variable range_limit in h2v1_merged_upsample(), at the head
of the block that handles odd image width (about line 268 in v6 jdmerge.c):

```
 /* If image width is odd, do the last output column separately */
 if (cinfo->output_width & 1) {
   register JSAMPLE * range_limit = cinfo->sample_range_limit; /* ADD THIS */
   cb = GETJSAMPLE(*inptr1);
```

Pretty bizarre, especially since the very similar routine h2v2_merged_upsample
doesn't trigger the bug.
Recent reports suggest that this bug does not occur with "bcc32a" (the
Pentium-optimized version of the compiler).

Another report from a user of Borland C 4.5 was that incorrect code (leading
to a color shift in processed images) was produced if any of the following
optimization switch combinations were used:

```
 -Ot -Og
 -Ot -Op
 -Ot -Om
```

So try backing off on optimization if you see such a problem. (Are there
several different releases all numbered "4.5"??)

Microsoft Windows, Microsoft Visual C++:

jconfig.vc should work OK with any Microsoft compiler for a 32-bit memory
model. makefile.vc is intended for command-line use. (If you are using
the Developer Studio environment, you may prefer the DevStudio project
files; see below.)

IJG JPEG 7 adds extern "C" to jpeglib.h. This avoids the need to put
extern "C" { ... } around #include "jpeglib.h" in your C++ application.

You can also force VC++ to treat the library as C++ code by renaming
all the *.c files to *.cpp (and adjusting the makefile to match).
In this case you also need to define the symbol DONT_USE_EXTERN_C in
the configuration to prevent jpeglib.h from using extern "C".

Microsoft Windows, Microsoft Visual C++ 6 Developer Studio:

We include makefiles that should work as project files in Developer Studio
6.0 or later. There is a library makefile that builds the IJG library as
a static Win32 library, and application makefiles that build the sample
applications as Win32 console applications. (Even if you only want the
library, we recommend building the applications so that you can run the
self-test.)

To use:
1. Open the Windows Command Prompt, change to the source directory and
execute the command line
nmake /f makefile.vs setup-vc6
If you get an error message saying that the "nmake" command could
not be found, execute the command
"%ProgramFiles%\Microsoft Visual Studio\VC98\Bin\VCVARS32"
to set the environment for using Microsoft Visual C++ tools,
and repeat the nmake call.
This will move jconfig.vc to jconfig.h and makefiles to project files.
(Note that the renaming is critical!)
Alternatively you can use
nmake /f makefile.vs setupcopy-vc6
This will create renamed copies of the files, which allows to repeat
the setup later.
2. Open the workspace file jpeg.dsw, build the library project.
(If you are using Developer Studio more recent than 6.0, you'll
probably get a message saying that the project files are being updated.)
3. Open the workspace file apps.dsw, build the application projects.
4. To perform the self-test, execute the command line
nmake /f makefile.vs test-build
5. Move the application .exe files from the Release folder to an
appropriate location on your path.

Microsoft Windows, Visual Studio 2019 Version 16:

We include makefiles that should work as project files in Visual Studio
2019 Version 16 or later. There is a library makefile that builds the
IJG library as a static Win32/x64/ARM/ARM64 library, and application
makefiles that build the sample applications as Win32/x64/ARM/ARM64
console applications. (Even if you only want the library, we recommend
building the applications so that you can run the self-test.)

To use:
1. Ensure youve checked the item "Desktop development with C++" in the
Workloads tab of Visual Studio Installer.
Open the Developer Command Prompt for VS 2019, change to the source
directory and execute the command line
nmake /f makefile.vs setup-v16
This will move jconfig.vc to jconfig.h and makefiles to project files.
(Note that the renaming is critical!)
Alternatively you can use
nmake /f makefile.vs setupcopy-v16
This will create renamed copies of the files, which allows to repeat
the setup later.
2. Open the solution file jpeg.sln, build the library project.
a) If you are using Visual Studio more recent than
2019 Version 16, you'll probably get a message
saying that the project files are being updated.
b) If necessary, open the project properties and
adapt the Windows Target Platform Version in
the Configuration Properties, General section;
we support the latest version at the time of release.
c) If you get a warning saying that a platform cannot be found,
you can either
* forgo the platform and ignore the warning, or
* remove the platform in the Configuration Manager, or
* install the corresponding platform Buildtools in
Visual Studio Installer (Workloads tab Optional components
or Individual components tab).
d) If you want to build x64 code, change the platform setting from
Win32 to x64. You can build Win32 and x64 versions side by side.
e) If you want to build ARM/ARM64 code, change the platform setting
to ARM/ARM64. Ensure you've installed the ARM/ARM64-Buildtools
in Visual Studio Installer (Workloads tab Optional components
or Individual components tab).
You can build Win32/x64/ARM/ARM64 versions side by side.
3. Open the solution file apps.sln, build the application projects.
4. To perform the self-test, execute the command line
nmake /f makefile.vs test-32
for the Win32 build, or on a 64-bit system
nmake /f makefile.vs test-64
for the x64 build.
5. Move the application .exe files from the Release folder to an
appropriate location on your path.

Microsoft Windows, Visual Studio 2022 Version 17:

We include makefiles that should work as project files in Visual Studio

2022 Version 17 or later. There is a library makefile that builds the
IJG library as a static Win32/x64/ARM/ARM64 library, and application
makefiles that build the sample applications as Win32/x64/ARM/ARM64
console applications. (Even if you only want the library, we recommend
building the applications so that you can run the self-test.)

To use:
1. Ensure youve checked the item "Desktop development with C++" in the
  Workloads tab of Visual Studio Installer.
  Open the Developer Command Prompt for VS 2022, change to the source
  directory and execute the command line
 nmake /f makefile.vs setup-v17
  This will move jconfig.vc to jconfig.h and makefiles to project files.
  (Note that the renaming is critical!)
  Alternatively you can use
 nmake /f makefile.vs setupcopy-v17
  This will create renamed copies of the files, which allows to repeat
  the setup later.
2. Open the solution file jpeg.sln, build the library project.
    a) If you are using Visual Studio more recent than
 2022 Version 17, you'll probably get a message
 saying that the project files are being updated.
    b) If necessary, open the project properties and
 adapt the Windows Target Platform Version in
 the Configuration Properties, General section;
 we support the latest version at the time of release.
    c) If you get a warning saying that a platform cannot be found,
 you can either
   * forgo the platform and ignore the warning, or
   * remove the platform in the Configuration Manager, or
   * install the corresponding platform Buildtools in
     Visual Studio Installer (Workloads tab Optional components
     or Individual components tab).
    d) If you want to build x64 code, change the platform setting from
 Win32 to x64. You can build Win32 and x64 versions side by side.
    e) If you want to build ARM/ARM64 code, change the platform setting
 to ARM/ARM64. Ensure you've installed the ARM/ARM64-Buildtools
 in Visual Studio Installer (Workloads tab Optional components
 or Individual components tab).
 You can build Win32/x64/ARM/ARM64 versions side by side.
3. Open the solution file apps.sln, build the application projects.
4. To perform the self-test, execute the command line
 nmake /f makefile.vs test-32
  for the Win32 build, or on a 64-bit system
 nmake /f makefile.vs test-64
  for the x64 build.
5. Move the application .exe files from the Release folder to an
  appropriate location on your path.

OS/2, Borland C++:

Watch out for optimization bugs in older Borland compilers; you may need
to back off the optimization switch settings. See the comments in
makefile.bcc.

SGI:

On some SGI systems, you may need to set "AR2= ar -ts" in the Makefile.
If you are using configure, you can do this by saying
 ./configure RANLIB='ar -ts'
This change is not needed on all SGIs. Use it only if the make fails at the
stage of linking the completed programs.

On the MIPS R4000 architecture (Indy, etc.), the compiler option "-mips2"
reportedly speeds up the float DCT method substantially, enough to make it
faster than the default int method (but still slower than the fast int
method). If you use -mips2, you may want to alter the default DCT method to
be float. To do this, put "#define JDCT_DEFAULT JDCT_FLOAT" in jconfig.h.

VMS:

On an Alpha/VMS system with MMS, be sure to use the "/Marco=Alpha=1"
qualifier with MMS when building the JPEG package.

VAX/VMS v5.5-1 may have problems with the test step of the build procedure
reporting differences when it compares the original and test images. If the
error points to the last block of the files, it is most likely bogus and may
be safely ignored. It seems to be because the files are Stream_LF and
Backup/Compare has difficulty with the (presumably) null padded files.
This problem was not observed on VAX/VMS v6.1 or AXP/VMS v6.1.

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/install.txt
No license file was found, but licenses were detected in source scan.

```
/*
* jdatasrc.c
*
* Copyright (C) 1994-1996, Thomas G. Lane.
* Modified 2009-2019 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
```

* This file contains decompression data source routines for the case of
* reading JPEG data from memory or from a file (or any stdio stream).
* While these routines are sufficient for most applications,
* some will want to use a different source manager.
* IMPORTANT: we assume that fread() will correctly transcribe an array of
* JOCTETs from 8-bit-wide elements on external storage. If char is wider
* than 8 bits on your machine, you may need to do some tweaking.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdatasrc.c
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*
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* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file defines the error and message codes for the cjpeg/djpeg
* applications. These strings are not needed as part of the JPEG library
* proper.
* Edit this file to add new codes, or to translate the message strings to
* some other language.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/cderror.h
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/*
* jdhuff.c
*
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* Modified 2006-2020 by Guido Vollbeding.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This file contains Huffman entropy decoding routines.
* Both sequential and progressive modes are supported in this single module.
*
* Much of the complexity here has to do with supporting input suspension.
* If the data source module demands suspension, we want to be able to back
* up to the start of the current MCU. To do this, we copy state variables
* into local working storage, and update them back to the permanent
* storage only upon successful completion of an MCU.

*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jdhuff.c
No license file was found, but licenses were detected in source scan.

/*
* jmemsys.h
*
* Copyright (C) 1992-1997, Thomas G. Lane.
* This file is part of the Independent JPEG Group's software.
* For conditions of distribution and use, see the accompanying README file.
*
* This include file defines the interface between the system-independent
* and system-dependent portions of the JPEG memory manager. No other
* modules need include it. (The system-independent portion is jmemmgr.c;
* there are several different versions of the system-dependent portion.)
*
* This file works as-is for the system-dependent memory managers supplied
* in the IJG distribution. You may need to modify it if you write a
* custom memory manager. If system-dependent changes are needed in
* this file, the best method is to #ifdef them based on a configuration
* symbol supplied in jconfig.h, as we have done with USE_MSDOS_MEMMGR
* and USE_MAC_MEMMGR.
*/

Found in path(s):
* /opt/cola/permits/1276844147_1645692341.61/0/jpegsr9e-zip/jpeg-9e/jmemsys.h

1.331 defusedxml 0.7.1

1.331.1 Available under license :

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1.332 python-certifi 2022.06.15

1.332.1 Available under license :

This package contains a modified version of ca-bundle.crt:

ca-bundle.crt -- Bundle of CA Root Certificates

Certificate data from Mozilla as of: Thu Nov 3 19:04:19 2011#
This is a bundle of X.509 certificates of public Certificate Authorities (CA). These were automatically extracted from Mozilla's root certificates file (certdata.txt). This file can be found in the mozilla source tree:
http://mxr.mozilla.org/mozilla/source/security/nss/lib/ckfw/builtins/certdata.txt?raw=1#
It contains the certificates in PEM format and therefore

can be directly used with curl / libcurl / php_curl, or with
an Apache+mod_ssl webserver for SSL client authentication.
Just configure this file as the SSLCACertificateFile.#

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one at http://mozilla.org/MPL/2.0/.

***** END LICENSE BLOCK *****
@(#) $RCSfile: certdata.txt,v $ $Revision: 1.80 $ $Date: 2011/11/03 15:11:58 $

1.333 openssl 1.0.2r

1.333.1 Available under license :

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==============

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* This product includes cryptographic software written by Eric Young
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*
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* The implementation was written so as to conform with Netscapes SSL.
*
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analysis/common/src/java/org/apache/lucene/analysis/de/GermanLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/de/GermanMinimalStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/es/SpanishLightStemmer.java

analysis/common/src/java/org/apache/lucene/analysis/fi/FinnishLightStemmer.java
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analysis/common/src/java/org/apache/lucene/analysis/hu/HungarianLightStemmer.java
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analysis/common/src/java/org/apache/lucene/analysis/pt/PortugueseLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/ru/RussianLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/sv/SwedishLightStemmer.java

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in stempel/src/resources/org/apache/lucene/analysis/pl/stopwords.txt.
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A. HISTORY OF THE SOFTWARE
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Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see http://www.cwi.nl) in the Netherlands
as a successor of a language called ABC. Guido remains Python's

principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see http://www.cnri.reston.va.us) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations (now Zope Corporation, see http://www.zope.com). In 2001, the Python Software Foundation (PSF, see http://www.python.org/psf/) was formed, a non-profit organization created specifically to own Python-related Intellectual Property. Zope Corporation is a sponsoring member of the PSF.

All Python releases are Open Source (see http://www.opensource.org for the Open Source Definition). Historically, most, but not all, Python releases have also been GPL-compatible; the table below summarizes the various releases.

Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.2	2.1.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2.1	2.2	2002	PSF	yes
2.2.2	2.2.1	2002	PSF	yes
2.2.3	2.2.2	2003	PSF	yes
2.3	2.2.2	2002-2003	PSF	yes
2.3.1	2.3	2002-2003	PSF	yes
2.3.2	2.3.1	2002-2003	PSF	yes
2.3.3	2.3.2	2002-2003	PSF	yes
2.3.4	2.3.3	2004	PSF	yes
2.3.5	2.3.4	2005	PSF	yes
2.4	2.3	2004	PSF	yes
2.4.1	2.4	2005	PSF	yes
2.4.2	2.4.1	2005	PSF	yes
2.4.3	2.4.2	2006	PSF	yes

2.4.4	2.4.3	2006	PSF	yes
2.5	2.4	2006	PSF	yes
2.5.1	2.5	2007	PSF	yes
2.5.2	2.5.1	2008	PSF	yes
2.5.3	2.5.2	2008	PSF	yes
2.6	2.5	2008	PSF	yes
2.6.1	2.6	2008	PSF	yes
2.6.2	2.6.1	2009	PSF	yes
2.6.3	2.6.2	2009	PSF	yes
2.6.4	2.6.3	2009	PSF	yes
2.6.5	2.6.4	2010	PSF	yes
2.7	2.6	2010	PSF	yes

Footnotes:

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(2) According to Richard Stallman, 1.6.1 is not GPL-compatible, because its license has a choice of law clause. According to CNRI, however, Stallman's lawyer has told CNRI's lawyer that 1.6.1 is "not incompatible" with the GPL.

Thanks to the many outside volunteers who have worked under Guido's direction to make these releases possible.

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1.342 util-linux 2.27.1

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1.344 lucene-queryparser 8.5.1

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core/src/java/org/apache/lucene/util/compress/LZ4.java is a Java
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analysis/common/src/resources/org/apache/lucene/analysis/hi/stopwords.txt,
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analysis/common/src/java/org/apache/lucene/analysis/fr/FrenchLightStemmer.java
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1.351 tqdm 4.64.1

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1.352 python-requests 2.28.1

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1.356 mdadm 4.1

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inbot-utils (https://github.com/Inbot/inbot-utils)

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```
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-->
<antlib>

  <typedef name="excelant" classname="org.apache.poi.ss.excelant.ExcelAntTask" />
  <typedef name="test" classname="org.apache.poi.ss.excelant.ExcelAntTest"/>
  <typedef name="setDouble" classname="org.apache.poi.ss.excelant.ExcelAntSetDoubleCell"/>
  <typedef name="setString" classname="org.apache.poi.ss.excelant.ExcelAntSetStringCell"/>
  <typedef name="setFormula" classname="org.apache.poi.ss.excelant.ExcelAntSetFormulaCell"/>
  <typedef name="evaluate" classname="org.apache.poi.ss.excelant.ExcelAntEvaluateCell"/>
  <typedef name="udf" classname="org.apache.poi.ss.excelant.ExcelAntUserDefinedFunction"/>
  <typedef name="handler" classname="org.apache.poi.ss.excelant.ExcelAntHandlerTask"/>

</antlib>
```

1.365 xmlparserv 12.2.1.3.0

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1.366 sac 1.3

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-- Tom St Denis

1.368 kmod 20-28.el7

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1.370 numpy 1.22.4

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https://gist.github.com/imneme/f1f7821f07cf76504a97f6537c818083

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Original algorithm for the implementation of rk_interval function from
Richard J. Wagner's implementation of the Mersenne Twister RNG, optimised by
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1.376 libtomcrypt 1.17

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1.378 jaxb-core 2.3.3

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1.380 util-linux 2.27.0

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*/
NR START   END SECTORS SIZE NAME UUID
1    32  7679    7648 3.7M      8f8378c0-01
2  7680 16383    8704 4.3M      8f8378c0-02
5  7936 12799    4864 2.4M
6 12544 16127    3584 1.8M
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If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the program's name and a brief idea of what it does.>
Copyright (C) 19yy <name of author>

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Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this
when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) 19yy name of author
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
This is free software, and you are welcome to redistribute it
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The hypothetical commands `show w' and `show c' should show the appropriate
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mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your
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necessary. Here is a sample; alter the names:

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`Gnomovision' (which makes passes at compilers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice

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The End

1.384 libgcrypt 1.6.5

1.384.1 Available under license :

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1.390 findutils 4.6.0

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- web-app_3_0.xsd
- web-common_3_0.xsd
- web-fragment_3_0.xsd
- javaee_7.xsd
- javaee_web_services_1_4.xsd
- javaee_web_services_client_1_4.xsd
- jsp_2_3.xsd
- web-app_3_1.xsd
- web-common_3_1.xsd
- web-fragment_3_1.xsd
- javaee_8.xsd
- web-app_4_0.xsd
- web-common_4_0.xsd
- web-fragment_4_0.xsd

may be obtained from:
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- javaee_web_services_1_2.xsd

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- javaee_web_services_1_3.xsd
- javaee_web_services_client_1_3.xsd
- jsp_2_2.xsd
- web-app_3_0.xsd
- web-common_3_0.xsd
- web-fragment_3_0.xsd
- javaee_7.xsd
- javaee_web_services_1_4.xsd
- javaee_web_services_client_1_4.xsd
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1.395 sqlite 3.39.4

1.395.1 Available under license :

No license file was found, but licenses were detected in source scan.

/* This will be more informative in a later version. */

Found in path(s):
* /opt/cola/permits/1460468423_1667577396.9698634/0/sqlite-amalgamation-3390400-1-zip/sqlite-amalgamation-3390400/shell.c
No license file was found, but licenses were detected in source scan.

/*
** CAPI3REF: Configuration Options
** KEYWORDS: {configuration option}
**
** These constants are the available integer configuration options that
** can be passed as the first argument to the [sqlite3_config()] interface.
**
** New configuration options may be added in future releases of SQLite.
** Existing configuration options might be discontinued. Applications
** should check the return code from [sqlite3_config()] to make sure that
** the call worked. The [sqlite3_config()] interface will return a
** non-zero [error code] if a discontinued or unsupported configuration option
** is invoked.
**
** <dl>
** [[SQLITE_CONFIG_SINGLETHREAD]] <dt>SQLITE_CONFIG_SINGLETHREAD</dt>
** <dd>There are no arguments to this option. ^This option sets the
** [threading mode] to Single-thread. In other words, it disables
** all mutexing and puts SQLite into a mode where it can only be used
** by a single thread.   ^If SQLite is compiled with
** the [SQLITE_THREADSAFE | SQLITE_THREADSAFE=0] compile-time option then
** it is not possible to change the [threading mode] from its default
** value of Single-thread and so [sqlite3_config()] will return
** [SQLITE_ERROR] if called with the SQLITE_CONFIG_SINGLETHREAD
** configuration option.</dd>
**
** [[SQLITE_CONFIG_MULTITHREAD]] <dt>SQLITE_CONFIG_MULTITHREAD</dt>
** <dd>There are no arguments to this option. ^This option sets the
** [threading mode] to Multi-thread. In other words, it disables
** mutexing on [database connection] and [prepared statement] objects.
** The application is responsible for serializing access to
** [database connections] and [prepared statements]. But other mutexes
** are enabled so that SQLite will be safe to use in a multi-threaded
** environment as long as no two threads attempt to use the same
** [database connection] at the same time. ^If SQLite is compiled with
** the [SQLITE_THREADSAFE | SQLITE_THREADSAFE=0] compile-time option then
** it is not possible to set the Multi-thread [threading mode] and
** [sqlite3_config()] will return [SQLITE_ERROR] if called with the

** SQLITE_CONFIG_MULTITHREAD configuration option.</dd>
**
** [[SQLITE_CONFIG_SERIALIZED]] <dt>SQLITE_CONFIG_SERIALIZED</dt>
** <dd>There are no arguments to this option. ^This option sets the
** [threading mode] to Serialized. In other words, this option enables
** all mutexes including the recursive
** mutexes on [database connection] and [prepared statement] objects.
** In this mode (which is the default when SQLite is compiled with
** [SQLITE_THREADSAFE=1]) the SQLite library will itself serialize access
** to [database connections] and [prepared statements] so that the
** application is free to use the same [database connection] or the
** same [prepared statement] in different threads at the same time.
** ^If SQLite is compiled with
** the [SQLITE_THREADSAFE | SQLITE_THREADSAFE=0] compile-time option then
** it is not possible to set the Serialized [threading mode] and
** [sqlite3_config()] will return [SQLITE_ERROR] if called with the
** SQLITE_CONFIG_SERIALIZED configuration option.</dd>
**
** [[SQLITE_CONFIG_MALLOC]] <dt>SQLITE_CONFIG_MALLOC</dt>
** <dd> ^(The SQLITE_CONFIG_MALLOC option takes a single argument which is
** a pointer to an instance of the [sqlite3_mem_methods] structure.
** The argument specifies
** alternative low-level memory allocation routines to be used in place of
** the memory allocation routines built into SQLite.)^ ^SQLite makes
** its own private copy of the content of the [sqlite3_mem_methods] structure
** before the [sqlite3_config()] call returns.</dd>
**
** [[SQLITE_CONFIG_GETMALLOC]] <dt>SQLITE_CONFIG_GETMALLOC</dt>
** <dd> ^(The SQLITE_CONFIG_GETMALLOC option takes a single argument which
** is a pointer to an instance of the [sqlite3_mem_methods] structure.
** The [sqlite3_mem_methods]
** structure is filled with the currently defined memory allocation routines.)^
** This option can be used to overload the default memory allocation
** routines with a wrapper that simulations memory allocation failure or
** tracks memory usage, for example. </dd>
**
** [[SQLITE_CONFIG_SMALL_MALLOC]] <dt>SQLITE_CONFIG_SMALL_MALLOC</dt>
** <dd> ^The SQLITE_CONFIG_SMALL_MALLOC option takes single argument of
** type int, interpreted as a boolean, which if true provides a hint to
** SQLite that it should avoid large memory allocations if possible.
** SQLite will run faster if it is free to make large memory allocations,
** but some application might prefer to run slower in exchange for
** guarantees about memory fragmentation that are possible if large
** allocations are avoided. This hint is normally off.
** </dd>
**
** [[SQLITE_CONFIG_MEMSTATUS]] <dt>SQLITE_CONFIG_MEMSTATUS</dt>
** <dd> ^The SQLITE_CONFIG_MEMSTATUS option takes single argument of type int,

** interpreted as a boolean, which enables or disables the collection of
** memory allocation statistics. ^(When memory allocation statistics are
** disabled, the following SQLite interfaces become non-operational:
**
**   [sqlite3_hard_heap_limit64()]
**   [sqlite3_memory_used()]
**   [sqlite3_memory_highwater()]
**   [sqlite3_soft_heap_limit64()]
**   [sqlite3_status64()]
**   )^
** ^Memory allocation statistics are enabled by default unless SQLite is
** compiled with [SQLITE_DEFAULT_MEMSTATUS]=0 in which case memory
** allocation statistics are disabled by default.
** </dd>
**
** [[SQLITE_CONFIG_SCRATCH]] <dt>SQLITE_CONFIG_SCRATCH</dt>
** <dd> The SQLITE_CONFIG_SCRATCH option is no longer used.
** </dd>
**
** [[SQLITE_CONFIG_PAGECACHE]] <dt>SQLITE_CONFIG_PAGECACHE</dt>
** <dd> ^The SQLITE_CONFIG_PAGECACHE option specifies a memory pool
** that SQLite can use for the database page cache with the default page
** cache implementation.
** This configuration option is a no-op if an application-defined page
** cache implementation is loaded using the [SQLITE_CONFIG_PCACHE2].
** ^There are three arguments to SQLITE_CONFIG_PAGECACHE: A pointer to
** 8-byte aligned memory (pMem), the size of each page cache line (sz),
** and the number of cache lines (N).
** The sz argument should be the size of the largest database page
** (a power of two between 512 and 65536) plus some extra bytes for each
** page header. ^The number of extra bytes needed by the page header
** can be determined using [SQLITE_CONFIG_PCACHE_HDRSZ].
** ^It is harmless, apart from the wasted memory,
** for the sz parameter to be larger than necessary. The pMem
** argument must be either a NULL pointer or a pointer to an 8-byte
** aligned block of memory of at least sz*N bytes, otherwise
** subsequent behavior is undefined.
** ^When pMem is not NULL, SQLite will strive to use the memory provided
** to satisfy page cache needs, falling back to [sqlite3_malloc()] if
** a page cache line is larger than sz bytes or if all of the pMem buffer
** is exhausted.
** ^If pMem is NULL and N is non-zero, then each database connection
** does an initial bulk allocation for page cache memory
** from [sqlite3_malloc()] sufficient for N cache lines if N is positive or
** of -1024*N bytes if N is negative, . ^If additional
** page cache memory is needed beyond what is provided by the initial
** allocation, then SQLite goes to [sqlite3_malloc()] separately for each
** additional cache line. </dd>

```
**
** [[SQLITE_CONFIG_HEAP]] <dt>SQLITE_CONFIG_HEAP</dt>
** <dd> ^The SQLITE_CONFIG_HEAP option specifies a static memory buffer
** that SQLite will use for all of its dynamic memory allocation needs
** beyond those provided for by [SQLITE_CONFIG_PAGECACHE].
** ^The SQLITE_CONFIG_HEAP option is only available if SQLite is compiled
** with either [SQLITE_ENABLE_MEMSYS3] or [SQLITE_ENABLE_MEMSYS5] and returns
** [SQLITE_ERROR] if invoked otherwise.
** ^There are three arguments to SQLITE_CONFIG_HEAP:
** An 8-byte aligned pointer to the memory,
** the number of bytes in the memory buffer, and the minimum allocation size.
** ^If the first pointer (the memory pointer) is NULL, then SQLite reverts
** to using its default memory allocator (the system malloc() implementation),
** undoing any prior invocation of [SQLITE_CONFIG_MALLOC].  ^If the
** memory pointer is not NULL then the alternative memory
** allocator is engaged to handle all of SQLites memory allocation needs.
** The first pointer (the memory pointer) must be aligned to an 8-byte
** boundary or subsequent behavior of SQLite will be undefined.
** The minimum allocation size is capped at 2**12. Reasonable values
** for the minimum allocation size are 2**5 through 2**8.</dd>
**
** [[SQLITE_CONFIG_MUTEX]] <dt>SQLITE_CONFIG_MUTEX</dt>
** <dd> ^(The SQLITE_CONFIG_MUTEX option takes a single argument which is a
** pointer to an instance of the [sqlite3_mutex_methods] structure.
** The argument specifies alternative low-level mutex routines to be used
** in place the mutex routines built into SQLite.)^  ^SQLite makes a copy of
** the content of the [sqlite3_mutex_methods] structure before the call to
** [sqlite3_config()] returns. ^If SQLite is compiled with
** the [SQLITE_THREADSAFE | SQLITE_THREADSAFE=0] compile-time option then
** the entire mutexing subsystem is omitted from the build and hence calls to
** [sqlite3_config()] with the SQLITE_CONFIG_MUTEX configuration option will
** return [SQLITE_ERROR].</dd>
**
** [[SQLITE_CONFIG_GETMUTEX]] <dt>SQLITE_CONFIG_GETMUTEX</dt>
** <dd> ^(The SQLITE_CONFIG_GETMUTEX option takes a single argument which
** is a pointer to an instance of the [sqlite3_mutex_methods] structure.  The
** [sqlite3_mutex_methods]
** structure is filled with the currently defined mutex routines.)^
** This option can be used to overload the default mutex allocation
** routines with a wrapper used to track mutex usage for performance
** profiling or testing, for example.   ^If SQLite is compiled with
** the [SQLITE_THREADSAFE | SQLITE_THREADSAFE=0] compile-time option then
** the entire mutexing subsystem is omitted from the build and hence calls to
** [sqlite3_config()] with the SQLITE_CONFIG_GETMUTEX configuration option will
** return [SQLITE_ERROR].</dd>
**
** [[SQLITE_CONFIG_LOOKASIDE]] <dt>SQLITE_CONFIG_LOOKASIDE</dt>
** <dd> ^(The SQLITE_CONFIG_LOOKASIDE option takes two arguments that determine
```

** the default size of lookaside memory on each [database connection].
** The first argument is the
** size of each lookaside buffer slot and the second is the number of
** slots allocated to each database connection.)^ ^(SQLITE_CONFIG_LOOKASIDE
** sets the default lookaside size. The [SQLITE_DBCONFIG_LOOKASIDE]
** option to [sqlite3_db_config()] can be used to change the lookaside
** configuration on individual connections.)^ </dd>
**
** [[SQLITE_CONFIG_PCACHE2]] <dt>SQLITE_CONFIG_PCACHE2</dt>
** <dd> ^(The SQLITE_CONFIG_PCACHE2 option takes a single argument which is
** a pointer to an [sqlite3_pcache_methods2] object. This object specifies
** the interface to a custom page cache implementation.)^
** ^SQLite makes a copy of the [sqlite3_pcache_methods2] object.</dd>
**
** [[SQLITE_CONFIG_GETPCACHE2]] <dt>SQLITE_CONFIG_GETPCACHE2</dt>
** <dd> ^(The SQLITE_CONFIG_GETPCACHE2 option takes a single argument which
** is a pointer to an [sqlite3_pcache_methods2] object. SQLite copies of
** the current page cache implementation into that object.)^ </dd>
**
** [[SQLITE_CONFIG_LOG]] <dt>SQLITE_CONFIG_LOG</dt>
** <dd> The SQLITE_CONFIG_LOG option is used to configure the SQLite
** global [error log].
** (^The SQLITE_CONFIG_LOG option takes two arguments: a pointer to a
** function with a call signature of void(*)(void*,int,const char*),
** and a pointer to void. ^If the function pointer is not NULL, it is
** invoked by [sqlite3_log()] to process each logging event. ^If the
** function pointer is NULL, the [sqlite3_log()] interface becomes a no-op.
** ^The void pointer that is the second argument to SQLITE_CONFIG_LOG is
** passed through as the first parameter to the application-defined logger
** function whenever that function is invoked. ^The second parameter to
** the logger function is a copy of the first parameter to the corresponding
** [sqlite3_log()] call and is intended to be a [result code] or an
** [extended result code]. ^The third parameter passed to the logger is
** log message after formatting via [sqlite3_snprintf()].
** The SQLite logging interface is not reentrant; the logger function
** supplied by the application must not invoke any SQLite interface.
** In a multi-threaded application, the application-defined logger
** function must be threadsafe. </dd>
**
** [[SQLITE_CONFIG_URI]] <dt>SQLITE_CONFIG_URI
** <dd>^(The SQLITE_CONFIG_URI option takes a single argument of type int.
** If non-zero, then URI handling is globally enabled. If the parameter is zero,
** then URI handling is globally disabled.)^ ^If URI handling is globally
** enabled, all filenames passed to [sqlite3_open()], [sqlite3_open_v2()],
** [sqlite3_open16()] or
** specified as part of [ATTACH] commands are interpreted as URIs, regardless
** of whether or not the [SQLITE_OPEN_URI] flag is set when the database
** connection is opened. ^If it is globally disabled, filenames are

** only interpreted as URIs if the SQLITE_OPEN_URI flag is set when the
** database connection is opened. ^(By default, URI handling is globally
** disabled. The default value may be changed by compiling with the
** [SQLITE_USE_URI] symbol defined.)^
**
** [[SQLITE_CONFIG_COVERING_INDEX_SCAN]] <dt>SQLITE_CONFIG_COVERING_INDEX_SCAN
** <dd>^The SQLITE_CONFIG_COVERING_INDEX_SCAN option takes a single integer
** argument which is interpreted as a boolean in order to enable or disable
** the use of covering indices for full table scans in the query optimizer.
** ^The default setting is determined
** by the [SQLITE_ALLOW_COVERING_INDEX_SCAN] compile-time option, or is "on"
** if that compile-time option is omitted.
** The ability to disable the use of covering indices for full table scans
** is because some incorrectly coded legacy applications might malfunction
** when the optimization is enabled. Providing the ability to
** disable the optimization allows the older, buggy application code to work
** without change even with newer versions of SQLite.
**
** [[SQLITE_CONFIG_PCACHE]] [[SQLITE_CONFIG_GETPCACHE]]
** <dt>SQLITE_CONFIG_PCACHE and SQLITE_CONFIG_GETPCACHE
** <dd> These options are obsolete and should not be used by new code.
** They are retained for backwards compatibility but are now no-ops.
** </dd>
**
** [[SQLITE_CONFIG_SQLLOG]]
** <dt>SQLITE_CONFIG_SQLLOG
** <dd>This option is only available if sqlite is compiled with the
** [SQLITE_ENABLE_SQLLOG] pre-processor macro defined. The first argument should
** be a pointer to a function of type void(*)(void*,sqlite3*,const char*, int).
** The second should be of type (void*). The callback is invoked by the library
** in three separate circumstances, identified by the value passed as the
** fourth parameter. If the fourth parameter is 0, then the database connection
** passed as the second argument has just been opened. The third argument
** points to a buffer containing the name of the main database file. If the
** fourth parameter is 1, then the SQL statement that the third parameter
** points to has just been executed. Or, if the fourth parameter is 2, then
** the connection being passed as the second parameter is being closed. The
** third parameter is passed NULL In this case. An example of using this
** configuration option can be seen in the "test_sqllog.c" source file in
** the canonical SQLite source tree.</dd>
**
** [[SQLITE_CONFIG_MMAP_SIZE]]
** <dt>SQLITE_CONFIG_MMAP_SIZE
** <dd>^SQLITE_CONFIG_MMAP_SIZE takes two 64-bit integer (sqlite3_int64) values
** that are the default mmap size limit (the default setting for
** [PRAGMA mmap_size]) and the maximum allowed mmap size limit.
** ^The default setting can be overridden by each database connection using
** either the [PRAGMA mmap_size] command, or by using the

** [SQLITE_FCNTL_MMAP_SIZE] file control. ^(The maximum allowed mmap size
** will be silently truncated if necessary so that it does not exceed the
** compile-time maximum mmap size set by the
** [SQLITE_MAX_MMAP_SIZE] compile-time option.)^
** ^If either argument to this option is negative, then that argument is
** changed to its compile-time default.
**
** [[SQLITE_CONFIG_WIN32_HEAPSIZE]]
** <dt>SQLITE_CONFIG_WIN32_HEAPSIZE
** <dd>^The SQLITE_CONFIG_WIN32_HEAPSIZE option is only available if SQLite is
** compiled for Windows with the [SQLITE_WIN32_MALLOC] pre-processor macro
** defined. ^SQLITE_CONFIG_WIN32_HEAPSIZE takes a 32-bit unsigned integer value
** that specifies the maximum size of the created heap.
**
** [[SQLITE_CONFIG_PCACHE_HDRSZ]]
** <dt>SQLITE_CONFIG_PCACHE_HDRSZ
** <dd>^The SQLITE_CONFIG_PCACHE_HDRSZ option takes a single parameter which
** is a pointer to an integer and writes into that integer the number of extra
** bytes per page required for each page in [SQLITE_CONFIG_PAGECACHE].
** The amount of extra space required can change depending on the compiler,
** target platform, and SQLite version.
**
** [[SQLITE_CONFIG_PMASZ]]
** <dt>SQLITE_CONFIG_PMASZ
** <dd>^The SQLITE_CONFIG_PMASZ option takes a single parameter which
** is an unsigned integer and sets the "Minimum PMA Size" for the multithreaded
** sorter to that integer. The default minimum PMA Size is set by the
** [SQLITE_SORTER_PMASZ] compile-time option. New threads are launched
** to help with sort operations when multithreaded sorting
** is enabled (using the [PRAGMA threads] command) and the amount of content
** to be sorted exceeds the page size times the minimum of the
** [PRAGMA cache_size] setting and this value.
**
** [[SQLITE_CONFIG_STMTJRNL_SPILL]]
** <dt>SQLITE_CONFIG_STMTJRNL_SPILL
** <dd>^The SQLITE_CONFIG_STMTJRNL_SPILL option takes a single parameter which
** becomes the [statement journal] spill-to-disk threshold.
** [Statement journals] are held in memory until their size (in bytes)
** exceeds this threshold, at which point they are written to disk.
** Or if the threshold is -1, statement journals are always held
** exclusively in memory.
** Since many statement journals never become large, setting the spill
** threshold to a value such as 64KiB can greatly reduce the amount of
** I/O required to support statement rollback.
** The default value for this setting is controlled by the
** [SQLITE_STMTJRNL_SPILL] compile-time option.
**
** [[SQLITE_CONFIG_SORTERREF_SIZE]]

** <dt>SQLITE_CONFIG_SORTERREF_SIZE
** <dd>The SQLITE_CONFIG_SORTERREF_SIZE option accepts a single parameter
** of type (int) - the new value of the sorter-reference size threshold.
** Usually, when SQLite uses an external sort to order records according
** to an ORDER BY clause, all fields required by the caller are present in the
** sorted records. However, if SQLite determines based on the declared type
** of a table column that its values are likely to be very large - larger
** than the configured sorter-reference size threshold - then a reference
** is stored in each sorted record and the required column values loaded
** from the database as records are returned in sorted order. The default
** value for this option is to never use this optimization. Specifying a
** negative value for this option restores the default behaviour.
** This option is only available if SQLite is compiled with the
** [SQLITE_ENABLE_SORTER_REFERENCES] compile-time option.
**
** [[SQLITE_CONFIG_MEMDB_MAXSIZE]]
** <dt>SQLITE_CONFIG_MEMDB_MAXSIZE
** <dd>The SQLITE_CONFIG_MEMDB_MAXSIZE option accepts a single parameter
** [sqlite3_int64] parameter which is the default maximum size for an in-memory
** database created using [sqlite3_deserialize()]. This default maximum
** size can be adjusted up or down for individual databases using the
** [SQLITE_FCNTL_SIZE_LIMIT] [sqlite3_file_control|file-control]. If this
** configuration setting is never used, then the default maximum is determined
** by the [SQLITE_MEMDB_DEFAULT_MAXSIZE] compile-time option. If that
** compile-time option is not set, then the default maximum is 1073741824.
** </dl>
*/

Found in path(s):
* /opt/cola/permits/1460468423_1667577396.9698634/0/sqlite-amalgamation-3390400-1-zip/sqlite-amalgamation-3390400/sqlite3.h
No license file was found, but licenses were detected in source scan.

/*
** CAPI3REF: Configuration Options
** KEYWORDS: {configuration option}
**
** These constants are the available integer configuration options that
** can be passed as the first argument to the [sqlite3_config()] interface.
**
** New configuration options may be added in future releases of SQLite.
** Existing configuration options might be discontinued. Applications
** should check the return code from [sqlite3_config()] to make sure that
** the call worked. The [sqlite3_config()] interface will return a
** non-zero [error code] if a discontinued or unsupported configuration option
** is invoked.
**
** <dl>

** [[SQLITE_CONFIG_SINGLETHREAD]] <dt>SQLITE_CONFIG_SINGLETHREAD</dt>
** <dd>There are no arguments to this option. ^This option sets the
** [threading mode] to Single-thread. In other words, it disables
** all mutexing and puts SQLite into a mode where it can only be used
** by a single thread.   ^If SQLite is compiled with
** the [SQLITE_THREADSAFE | SQLITE_THREADSAFE=0] compile-time option then
** it is not possible to change the [threading mode] from its default
** value of Single-thread and so [sqlite3_config()] will return
** [SQLITE_ERROR] if called with the SQLITE_CONFIG_SINGLETHREAD
** configuration option.</dd>
**
** [[SQLITE_CONFIG_MULTITHREAD]] <dt>SQLITE_CONFIG_MULTITHREAD</dt>
** <dd>There are no arguments to this option. ^This option sets the
** [threading mode] to Multi-thread. In other words, it disables
** mutexing on [database connection] and [prepared statement] objects.
** The application is responsible for serializing access to
** [database connections] and [prepared statements]. But other mutexes
** are enabled so that SQLite will be safe to use in a multi-threaded
** environment as long as no two threads attempt to use the same
** [database connection] at the same time. ^If SQLite is compiled with
** the [SQLITE_THREADSAFE | SQLITE_THREADSAFE=0] compile-time option then
** it is not possible to set the Multi-thread [threading mode] and
** [sqlite3_config()] will return [SQLITE_ERROR] if called with the
** SQLITE_CONFIG_MULTITHREAD configuration option.</dd>
**
** [[SQLITE_CONFIG_SERIALIZED]] <dt>SQLITE_CONFIG_SERIALIZED</dt>
** <dd>There are no arguments to this option. ^This option sets the
** [threading mode] to Serialized. In other words, this option enables
** all mutexes including the recursive
** mutexes on [database connection] and [prepared statement] objects.
** In this mode (which is the default when SQLite is compiled with
** [SQLITE_THREADSAFE=1]) the SQLite library will itself serialize access
** to [database connections] and [prepared statements] so that the
** application is free to use the same [database connection] or the
** same [prepared statement] in different threads at the same time.
** ^If SQLite is compiled with
** the [SQLITE_THREADSAFE | SQLITE_THREADSAFE=0] compile-time option then
** it is not possible to set the Serialized [threading mode] and
** [sqlite3_config()] will return [SQLITE_ERROR] if called with the
** SQLITE_CONFIG_SERIALIZED configuration option.</dd>
**
** [[SQLITE_CONFIG_MALLOC]] <dt>SQLITE_CONFIG_MALLOC</dt>
** <dd> ^(The SQLITE_CONFIG_MALLOC option takes a single argument which is
** a pointer to an instance of the [sqlite3_mem_methods] structure.
** The argument specifies
** alternative low-level memory allocation routines to be used in place of
** the memory allocation routines built into SQLite.)^ ^SQLite makes
** its own private copy of the content of the [sqlite3_mem_methods] structure

** before the [sqlite3_config()] call returns.</dd>
**
** [[SQLITE_CONFIG_GETMALLOC]] <dt>SQLITE_CONFIG_GETMALLOC</dt>
** <dd> ^(The SQLITE_CONFIG_GETMALLOC option takes a single argument which
** is a pointer to an instance of the [sqlite3_mem_methods] structure.
** The [sqlite3_mem_methods]
** structure is filled with the currently defined memory allocation routines.)^
** This option can be used to overload the default memory allocation
** routines with a wrapper that simulations memory allocation failure or
** tracks memory usage, for example. </dd>
**
** [[SQLITE_CONFIG_SMALL_MALLOC]] <dt>SQLITE_CONFIG_SMALL_MALLOC</dt>
** <dd> ^The SQLITE_CONFIG_SMALL_MALLOC option takes single argument of
** type int, interpreted as a boolean, which if true provides a hint to
** SQLite that it should avoid large memory allocations if possible.
** SQLite will run faster if it is free to make large memory allocations,
** but some application might prefer to run slower in exchange for
** guarantees about memory fragmentation that are possible if large
** allocations are avoided. This hint is normally off.
** </dd>
**
** [[SQLITE_CONFIG_MEMSTATUS]] <dt>SQLITE_CONFIG_MEMSTATUS</dt>
** <dd> ^The SQLITE_CONFIG_MEMSTATUS option takes single argument of type int,
** interpreted as a boolean, which enables or disables the collection of
** memory allocation statistics. ^(When memory allocation statistics are
** disabled, the following SQLite interfaces become non-operational:
**
**   [sqlite3_hard_heap_limit64()]
**   [sqlite3_memory_used()]
**   [sqlite3_memory_highwater()]
**   [sqlite3_soft_heap_limit64()]
**   [sqlite3_status64()]
**   )^
** ^Memory allocation statistics are enabled by default unless SQLite is
** compiled with [SQLITE_DEFAULT_MEMSTATUS]=0 in which case memory
** allocation statistics are disabled by default.
** </dd>
**
** [[SQLITE_CONFIG_SCRATCH]] <dt>SQLITE_CONFIG_SCRATCH</dt>
** <dd> The SQLITE_CONFIG_SCRATCH option is no longer used.
** </dd>
**
** [[SQLITE_CONFIG_PAGECACHE]] <dt>SQLITE_CONFIG_PAGECACHE</dt>
** <dd> ^The SQLITE_CONFIG_PAGECACHE option specifies a memory pool
** that SQLite can use for the database page cache with the default page
** cache implementation.
** This configuration option is a no-op if an application-defined page
** cache implementation is loaded using the [SQLITE_CONFIG_PCACHE2].

** ^There are three arguments to SQLITE_CONFIG_PAGECACHE: A pointer to
** 8-byte aligned memory (pMem), the size of each page cache line (sz),
** and the number of cache lines (N).
** The sz argument should be the size of the largest database page
** (a power of two between 512 and 65536) plus some extra bytes for each
** page header. ^The number of extra bytes needed by the page header
** can be determined using [SQLITE_CONFIG_PCACHE_HDRSZ].
** ^It is harmless, apart from the wasted memory,
** for the sz parameter to be larger than necessary. The pMem
** argument must be either a NULL pointer or a pointer to an 8-byte
** aligned block of memory of at least sz*N bytes, otherwise
** subsequent behavior is undefined.
** ^When pMem is not NULL, SQLite will strive to use the memory provided
** to satisfy page cache needs, falling back to [sqlite3_malloc()] if
** a page cache line is larger than sz bytes or if all of the pMem buffer
** is exhausted.
** ^If pMem is NULL and N is non-zero, then each database connection
** does an initial bulk allocation for page cache memory
** from [sqlite3_malloc()] sufficient for N cache lines if N is positive or
** of -1024*N bytes if N is negative, . ^If additional
** page cache memory is needed beyond what is provided by the initial
** allocation, then SQLite goes to [sqlite3_malloc()] separately for each
** additional cache line. </dd>
**
** [[SQLITE_CONFIG_HEAP]] <dt>SQLITE_CONFIG_HEAP</dt>
** <dd> ^The SQLITE_CONFIG_HEAP option specifies a static memory buffer
** that SQLite will use for all of its dynamic memory allocation needs
** beyond those provided for by [SQLITE_CONFIG_PAGECACHE].
** ^The SQLITE_CONFIG_HEAP option is only available if SQLite is compiled
** with either [SQLITE_ENABLE_MEMSYS3] or [SQLITE_ENABLE_MEMSYS5] and returns
** [SQLITE_ERROR] if invoked otherwise.
** ^There are three arguments to SQLITE_CONFIG_HEAP:
** An 8-byte aligned pointer to the memory,
** the number of bytes in the memory buffer, and the minimum allocation size.
** ^If the first pointer (the memory pointer) is NULL, then SQLite reverts
** to using its default memory allocator (the system malloc() implementation),
** undoing any prior invocation of [SQLITE_CONFIG_MALLOC]. ^If the
** memory pointer is not NULL then the alternative memory
** allocator is engaged to handle all of SQLites memory allocation needs.
** The first pointer (the memory pointer) must be aligned to an 8-byte
** boundary or subsequent behavior of SQLite will be undefined.
** The minimum allocation size is capped at 2**12. Reasonable values
** for the minimum allocation size are 2**5 through 2**8.</dd>
**
** [[SQLITE_CONFIG_MUTEX]] <dt>SQLITE_CONFIG_MUTEX</dt>
** <dd> ^(The SQLITE_CONFIG_MUTEX option takes a single argument which is a
** pointer to an instance of the [sqlite3_mutex_methods] structure.
** The argument specifies alternative low-level mutex routines to be used

** in place the mutex routines built into SQLite.)^ ^SQLite makes a copy of
** the content of the [sqlite3_mutex_methods] structure before the call to
** [sqlite3_config()] returns. ^If SQLite is compiled with
** the [SQLITE_THREADSAFE | SQLITE_THREADSAFE=0] compile-time option then
** the entire mutexing subsystem is omitted from the build and hence calls to
** [sqlite3_config()] with the SQLITE_CONFIG_MUTEX configuration option will
** return [SQLITE_ERROR].</dd>
**
** [[SQLITE_CONFIG_GETMUTEX]] <dt>SQLITE_CONFIG_GETMUTEX</dt>
** <dd> ^(The SQLITE_CONFIG_GETMUTEX option takes a single argument which
** is a pointer to an instance of the [sqlite3_mutex_methods] structure. The
** [sqlite3_mutex_methods]
** structure is filled with the currently defined mutex routines.)^
** This option can be used to overload the default mutex allocation
** routines with a wrapper used to track mutex usage for performance
** profiling or testing, for example.   ^If SQLite is compiled with
** the [SQLITE_THREADSAFE | SQLITE_THREADSAFE=0] compile-time option then
** the entire mutexing subsystem is omitted from the build and hence calls to
** [sqlite3_config()] with the SQLITE_CONFIG_GETMUTEX configuration option will
** return [SQLITE_ERROR].</dd>
**
** [[SQLITE_CONFIG_LOOKASIDE]] <dt>SQLITE_CONFIG_LOOKASIDE</dt>
** <dd> ^(The SQLITE_CONFIG_LOOKASIDE option takes two arguments that determine
** the default size of lookaside memory on each [database connection].
** The first argument is the
** size of each lookaside buffer slot and the second is the number of
** slots allocated to each database connection.)^ ^(SQLITE_CONFIG_LOOKASIDE
** sets the default lookaside size. The [SQLITE_DBCONFIG_LOOKASIDE]
** option to [sqlite3_db_config()] can be used to change the lookaside
** configuration on individual connections.)^ </dd>
**
** [[SQLITE_CONFIG_PCACHE2]] <dt>SQLITE_CONFIG_PCACHE2</dt>
** <dd> ^(The SQLITE_CONFIG_PCACHE2 option takes a single argument which is
** a pointer to an [sqlite3_pcache_methods2] object. This object specifies
** the interface to a custom page cache implementation.)^
** ^SQLite makes a copy of the [sqlite3_pcache_methods2] object.</dd>
**
** [[SQLITE_CONFIG_GETPCACHE2]] <dt>SQLITE_CONFIG_GETPCACHE2</dt>
** <dd> ^(The SQLITE_CONFIG_GETPCACHE2 option takes a single argument which
** is a pointer to an [sqlite3_pcache_methods2] object. SQLite copies of
** the current page cache implementation into that object.)^ </dd>
**
** [[SQLITE_CONFIG_LOG]] <dt>SQLITE_CONFIG_LOG</dt>
** <dd> The SQLITE_CONFIG_LOG option is used to configure the SQLite
** global [error log].
** (^The SQLITE_CONFIG_LOG option takes two arguments: a pointer to a
** function with a call signature of void(*)(void*,int,const char*),
** and a pointer to void. ^If the function pointer is not NULL, it is

** invoked by [sqlite3_log()] to process each logging event. ^If the
** function pointer is NULL, the [sqlite3_log()] interface becomes a no-op.
** ^The void pointer that is the second argument to SQLITE_CONFIG_LOG is
** passed through as the first parameter to the application-defined logger
** function whenever that function is invoked. ^The second parameter to
** the logger function is a copy of the first parameter to the corresponding
** [sqlite3_log()] call and is intended to be a [result code] or an
** [extended result code]. ^The third parameter passed to the logger is
** log message after formatting via [sqlite3_snprintf()].
** The SQLite logging interface is not reentrant; the logger function
** supplied by the application must not invoke any SQLite interface.
** In a multi-threaded application, the application-defined logger
** function must be threadsafe. </dd>
**
** [[SQLITE_CONFIG_URI]] <dt>SQLITE_CONFIG_URI
** <dd>^(The SQLITE_CONFIG_URI option takes a single argument of type int.
** If non-zero, then URI handling is globally enabled. If the parameter is zero,
** then URI handling is globally disabled.)^ ^If URI handling is globally
** enabled, all filenames passed to [sqlite3_open()], [sqlite3_open_v2()],
** [sqlite3_open16()] or
** specified as part of [ATTACH] commands are interpreted as URIs, regardless
** of whether or not the [SQLITE_OPEN_URI] flag is set when the database
** connection is opened. ^If it is globally disabled, filenames are
** only interpreted as URIs if the SQLITE_OPEN_URI flag is set when the
** database connection is opened. ^(By default, URI handling is globally
** disabled. The default value may be changed by compiling with the
** [SQLITE_USE_URI] symbol defined.)^
**
** [[SQLITE_CONFIG_COVERING_INDEX_SCAN]] <dt>SQLITE_CONFIG_COVERING_INDEX_SCAN
** <dd>^The SQLITE_CONFIG_COVERING_INDEX_SCAN option takes a single integer
** argument which is interpreted as a boolean in order to enable or disable
** the use of covering indices for full table scans in the query optimizer.
** ^The default setting is determined
** by the [SQLITE_ALLOW_COVERING_INDEX_SCAN] compile-time option, or is "on"
** if that compile-time option is omitted.
** The ability to disable the use of covering indices for full table scans
** is because some incorrectly coded legacy applications might malfunction
** when the optimization is enabled. Providing the ability to
** disable the optimization allows the older, buggy application code to work
** without change even with newer versions of SQLite.
**
** [[SQLITE_CONFIG_PCACHE]] [[SQLITE_CONFIG_GETPCACHE]]
** <dt>SQLITE_CONFIG_PCACHE and SQLITE_CONFIG_GETPCACHE
** <dd> These options are obsolete and should not be used by new code.
** They are retained for backwards compatibility but are now no-ops.
** </dd>
**
** [[SQLITE_CONFIG_SQLLOG]]

** <dt>SQLITE_CONFIG_SQLLOG
** <dd>This option is only available if sqlite is compiled with the
** [SQLITE_ENABLE_SQLLOG] pre-processor macro defined. The first argument should
** be a pointer to a function of type void(*)(void*,sqlite3*,const char*, int).
** The second should be of type (void*). The callback is invoked by the library
** in three separate circumstances, identified by the value passed as the
** fourth parameter. If the fourth parameter is 0, then the database connection
** passed as the second argument has just been opened. The third argument
** points to a buffer containing the name of the main database file. If the
** fourth parameter is 1, then the SQL statement that the third parameter
** points to has just been executed. Or, if the fourth parameter is 2, then
** the connection being passed as the second parameter is being closed. The
** third parameter is passed NULL In this case. An example of using this
** configuration option can be seen in the "test_sqllog.c" source file in
** the canonical SQLite source tree.</dd>
**
** [[SQLITE_CONFIG_MMAP_SIZE]]
** <dt>SQLITE_CONFIG_MMAP_SIZE
** <dd>^SQLITE_CONFIG_MMAP_SIZE takes two 64-bit integer (sqlite3_int64) values
** that are the default mmap size limit (the default setting for
** [PRAGMA mmap_size]) and the maximum allowed mmap size limit.
** ^The default setting can be overridden by each database connection using
** either the [PRAGMA mmap_size] command, or by using the
** [SQLITE_FCNTL_MMAP_SIZE] file control. ^(The maximum allowed mmap size
** will be silently truncated if necessary so that it does not exceed the
** compile-time maximum mmap size set by the
** [SQLITE_MAX_MMAP_SIZE] compile-time option.)^
** ^If either argument to this option is negative, then that argument is
** changed to its compile-time default.
**
** [[SQLITE_CONFIG_WIN32_HEAPSIZE]]
** <dt>SQLITE_CONFIG_WIN32_HEAPSIZE
** <dd>^The SQLITE_CONFIG_WIN32_HEAPSIZE option is only available if SQLite is
** compiled for Windows with the [SQLITE_WIN32_MALLOC] pre-processor macro
** defined. ^SQLITE_CONFIG_WIN32_HEAPSIZE takes a 32-bit unsigned integer value
** that specifies the maximum size of the created heap.
**
** [[SQLITE_CONFIG_PCACHE_HDRSZ]]
** <dt>SQLITE_CONFIG_PCACHE_HDRSZ
** <dd>^The SQLITE_CONFIG_PCACHE_HDRSZ option takes a single parameter which
** is a pointer to an integer and writes into that integer the number of extra
** bytes per page required for each page in [SQLITE_CONFIG_PAGECACHE].
** The amount of extra space required can change depending on the compiler,
** target platform, and SQLite version.
**
** [[SQLITE_CONFIG_PMASZ]]
** <dt>SQLITE_CONFIG_PMASZ
** <dd>^The SQLITE_CONFIG_PMASZ option takes a single parameter which

** is an unsigned integer and sets the "Minimum PMA Size" for the multithreaded
** sorter to that integer. The default minimum PMA Size is set by the
** [SQLITE_SORTER_PMASZ] compile-time option. New threads are launched
** to help with sort operations when multithreaded sorting
** is enabled (using the [PRAGMA threads] command) and the amount of content
** to be sorted exceeds the page size times the minimum of the
** [PRAGMA cache_size] setting and this value.
**
** [[SQLITE_CONFIG_STMTJRNL_SPILL]]
** <dt>SQLITE_CONFIG_STMTJRNL_SPILL
** <dd>^The SQLITE_CONFIG_STMTJRNL_SPILL option takes a single parameter which
** becomes the [statement journal] spill-to-disk threshold.
** [Statement journals] are held in memory until their size (in bytes)
** exceeds this threshold, at which point they are written to disk.
** Or if the threshold is -1, statement journals are always held
** exclusively in memory.
** Since many statement journals never become large, setting the spill
** threshold to a value such as 64KiB can greatly reduce the amount of
** I/O required to support statement rollback.
** The default value for this setting is controlled by the
** [SQLITE_STMTJRNL_SPILL] compile-time option.
**
** [[SQLITE_CONFIG_SORTERREF_SIZE]]
** <dt>SQLITE_CONFIG_SORTERREF_SIZE
** <dd>The SQLITE_CONFIG_SORTERREF_SIZE option accepts a single parameter
** of type (int) - the new value of the sorter-reference size threshold.
** Usually, when SQLite uses an external sort to order records according
** to an ORDER BY clause, all fields required by the caller are present in the
** sorted records. However, if SQLite determines based on the declared type
** of a table column that its values are likely to be very large - larger
** than the configured sorter-reference size threshold - then a reference
** is stored in each sorted record and the required column values loaded
** from the database as records are returned in sorted order. The default
** value for this option is to never use this optimization. Specifying a
** negative value for this option restores the default behaviour.
** This option is only available if SQLite is compiled with the
** [SQLITE_ENABLE_SORTER_REFERENCES] compile-time option.
**
** [[SQLITE_CONFIG_MEMDB_MAXSIZE]]
** <dt>SQLITE_CONFIG_MEMDB_MAXSIZE
** <dd>The SQLITE_CONFIG_MEMDB_MAXSIZE option accepts a single parameter
** [sqlite3_int64] parameter which is the default maximum size for an in-memory
** database created using [sqlite3_deserialize()]. This default maximum
** size can be adjusted up or down for individual databases using the
** [SQLITE_FCNTL_SIZE_LIMIT] [sqlite3_file_control|file-control]. If this
** configuration setting is never used, then the default maximum is determined
** by the [SQLITE_MEMDB_DEFAULT_MAXSIZE] compile-time option. If that
** compile-time option is not set, then the default maximum is 1073741824.

```
** </dl>
*/
/*
** The "printf" code that follows dates from the 1980's.  It is in
** the public domain.
**
**************************************************************************
**
** This file contains code for a set of "printf"-like routines.  These
** routines format strings much like the printf() from the standard C
** library, though the implementation here has enhancements to support
** SQLite.
*/
/*
** 2004 May 22
**
** The author disclaims copyright to this source code.  In place of
** a legal notice, here is a blessing:
**
**    May you do good and not evil.
**    May you find forgiveness for yourself and forgive others.
**    May you share freely, never taking more than you give.
**
**************************************************************************
**
** This file contains the VFS implementation for unix-like operating systems
** include Linux, MacOSX, *BSD, QNX, VxWorks, AIX, HPUX, and others.
**
** There are actually several different VFS implementations in this file.
** The differences are in the way that file locking is done.  The default
** implementation uses Posix Advisory Locks.  Alternative implementations
** use flock(), dot-files, various proprietary locking schemas, or simply
** skip locking all together.
**
** This source file is organized into divisions where the logic for various
** subfunctions is contained within the appropriate division.  PLEASE
** KEEP THE STRUCTURE OF THIS FILE INTACT.  New code should be placed
** in the correct division and should be clearly labeled.
**
** The layout of divisions is as follows:
**
**   *  General-purpose declarations and utility functions.
**   *  Unique file ID logic used by VxWorks.
**   *  Various locking primitive implementations (all except proxy locking):
**      + for Posix Advisory Locks
**      + for no-op locks
**      + for dot-file locks
**      + for flock() locking
```

```
**      + for named semaphore locks (VxWorks only)
**      + for AFP filesystem locks (MacOSX only)
**    *  sqlite3_file methods not associated with locking.
**    *  Definitions of sqlite3_io_methods objects for all locking
**       methods plus "finder" functions for each locking method.
**    *  sqlite3_vfs method implementations.
**    *  Locking primitives for the proxy uber-locking-method. (MacOSX only)
**    *  Definitions of sqlite3_vfs objects for all locking methods
**       plus implementations of sqlite3_os_init() and sqlite3_os_end().
*/
/*
** Return a pointer to the "temporary page" buffer held internally
** by the pager.  This is a buffer that is big enough to hold the
** entire content of a database page.  This buffer is used internally
** during rollback and will be overwritten whenever a rollback
** occurs.  But other modules are free to use it too, as long as
** no rollbacks are happening.
*/
```

Found in path(s):
* /opt/cola/permits/1460468423_1667577396.9698634/0/sqlite-amalgamation-3390400-1-zip/sqlite-amalgamation-3390400/sqlite3.c

1.396 libidn 2.3.2

1.396.1 Available under license :

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1.398 xlsxwriter 1.3.7

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-- vile: txtmode file-encoding=utf-8
Upstream source https://invisible-island.net/ncurses/ncurses-examples.html

Current ncurses maintainer: Thomas Dickey <dickey@invisible-island.net>

Files: *
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Calling this script install-sh is preferred over install.sh, to prevent
`make' implicit rules from creating a file called install from it
when there is no Makefile.

This script is compatible with the BSD install script, but was written
from scratch. It can only install one file at a time, a restriction
shared with many OS's install programs.

On Debian systems, the complete text of the GNU General
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-- vile: txtmode file-encoding=utf-8
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-- vile:txtmode fc=72
-- $Id: COPYING,v 1.9 2020/02/08 13:34:12 tom Exp $

1.404 vim 7.4

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That's all there is to it!
uganda.txt   For Vim version 8.2. Last change: 2020 Jan 08

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Note:

- If you are happy with Vim, please express that by reading the rest of this file and consider helping needy children in Uganda.

- If you want to support further Vim development consider becoming a |sponsor|. The money goes to Uganda anyway.

- According to Richard Stallman the Vim license is GNU GPL compatible.

A few minor changes have been made since he checked it, but that should not make a difference.

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==

Kibaale Children's Centre *kcc* *Kibaale* *charity*

Kibaale Children's Centre (KCC) is located in Kibaale, a small town in the south of Uganda, near Tanzania, in East Africa. The area is known as Rakai District. The population is mostly farmers. Although people are poor, there is enough food. But this district is suffering from AIDS more than any other part of the world. Some say that it started there. Estimations are that 10 to 30% of the Ugandans are infected with HIV. Because parents die, there are many orphans. In this district about 60,000 children have lost one or both parents, out of a population of 350,000. And this is still continuing.

The children need a lot of help. The KCC is working hard to provide the needy with food, medical care and education. Food and medical care to keep them healthy now, and education so that they can take care of themselves in the future. KCC works on a Christian base, but help is given to children of any religion.

The key to solving the problems in this area is education. This has been neglected in the past years with president Idi Amin and the following civil wars. Now that the government is stable again, the children and parents have to learn how to take care of themselves and how to avoid infections. There is also help for people who are ill and hungry, but the primary goal is to prevent people from getting ill and to teach them how to grow healthy food.

Most of the orphans are living in an extended family. An uncle or older sister is taking care of them. Because these families are big and the income (if any) is low, a child is lucky if it gets healthy food. Clothes, medical care and schooling is beyond its reach. To help these needy children, a sponsorship program was put into place. A child can be financially adopted. For a few dollars a month KCC sees to it that the child gets indispensable items, is healthy, goes to school and KCC takes care of anything else that needs to be done for the child and the family that supports it.

Besides helping the child directly, the environment where the child grows up needs to be improved. KCC helps schools to improve their teaching methods. There is a demonstration school at the centre and teacher trainings are given. Health workers are being trained, hygiene education is carried out and households are stimulated to build a proper latrine. I helped setting up a production site for cement slabs. These are used to build a good latrine. They are sold below cost price.

There is a small clinic at the project, which provides children and their family with medical help. When needed, transport to a hospital is offered. Immunization programs are carried out and help is provided when an epidemic is breaking out (measles and cholera have been a problem).

donate

Summer 1994 to summer 1995 I spent a whole year at the centre, working as a volunteer. I have helped to expand the centre and worked in the area of water and sanitation. I learned that the help that the KCC provides really helps. When I came back to Holland, I wanted to continue supporting KCC. To do this I'm raising funds and organizing the sponsorship program. Please consider one of these possibilities:

1. Sponsor a child in primary school: 17 euro a month (or more).
2. Sponsor a child in secondary school: 25 euro a month (or more).
3. Sponsor the clinic: Any amount a month or quarter
4. A one-time donation

Compared with other organizations that do child sponsorship the amounts are very low. This is because the money goes directly to the centre. Less than 5% is used for administration. This is possible because this is a small organization that works with volunteers. If you would like to sponsor a child, you should have the intention to do this for at least one year.

How do you know that the money will be spent right? First of all you have my personal guarantee as the author of Vim. I trust the people that are working at the centre, I know them personally. Furthermore, the centre has been co-sponsored and inspected by World Vision, Save the Children Fund and is now under the supervision of Pacific Academy Outreach Society. The centre is visited about once a year to check the progress (at our own cost). I have visited the centre myself many times, starting in 1993. The visit reports are on the ICCF web site.

If you have any further questions, send me e-mail: <Bram@vim.org>.

The address of the centre is:

Kibaale Children's Centre
p.o. box 1658
Masaka, Uganda, East Africa

Sending money: *iccf-donations*

Check the ICCF web site for the latest information! See |iccf| for the URL.

USA: The methods mentioned below can be used.
Sending a check to the Nehemiah Group Outreach Society (NGOS)
is no longer possible, unfortunately. We are looking for
another way to get you an IRS tax receipt.
For sponsoring a child contact KCF in Canada (see below). US
checks can be sent to them to lower banking costs.

Canada: Contact Kibaale Children's Fund (KCF) in Surrey, Canada. They
take care of the Canadian sponsors for the children in
Kibaale. KCF forwards 100% of the money to the project in
Uganda. You can send them a one time donation directly.
Please send me a note so that I know what has been donated
because of Vim. Ask KCF for information about sponsorship.
Kibaale Children's Fund c/o Pacific Academy
10238-168 Street
Surrey, B.C. V4N 1Z4
Canada
Phone: 604-581-5353
If you make a donation to Kibaale Children's Fund (KCF) you
will receive a tax receipt which can be submitted with your
tax return.

Holland: Transfer to the account of "Stichting ICCF Holland" in Lisse.
This will allow for tax deduction if you live in Holland.
Postbank, nr. 4548774
IBAN: NL95 INGB 0004 5487 74

Germany: It is possible to make donations that allow for a tax return.
Check the ICCF web site for the latest information:
http://iccf-holland.org/germany.html

World: Use a postal money order. That should be possible from any
country, mostly from the post office. Use this name (which is
in my passport): "Abraham Moolenaar". Use Euro for the
currency if possible.

Europe: Use a bank transfer if possible. Your bank should have a form
that you can use for this. See "Others" below for the swift
code and IBAN number.
Any other method should work. Ask for information about
sponsorship.

Credit Card: You can use PayPal to send money with a Credit card. This is
the most widely used Internet based payment system. It's

really simple to use. Use this link to find more info:
https://www.paypal.com/en_US/mrb/pal=XAC62PML3GF8Q
The e-mail address for sending the money to is:
Bram@iccf-holland.org
For amounts above 400 Euro ($500) sending a check is
preferred.

Others: Transfer to one of these accounts if possible:
Postbank, account 4548774
Swift code: INGB NL 2A
IBAN: NL95 INGB 0004 5487 74
under the name "stichting ICCF Holland", Lisse
If that doesn't work:
Rabobank Lisse, account 3765.05.117
Swift code: RABO NL 2U
under the name "Bram Moolenaar", Lisse
Otherwise, send a check in euro or US dollars to the address
below. Minimal amount: $70 (my bank does not accept smaller
amounts for foreign check, sorry)

Address to send checks to:
Bram Moolenaar
Finsterruetihof 1
8134 Adliswil
Switzerland

This address is expected to be valid for a long time.

vim:tw=78:ts=8:noet:ft=help:norl:
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1.405 slf4j 2.0.3

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* /opt/cola/permits/1437119475_1672035874.4301648/0/slf4j-api-2-0-3-sources-jar/org/slf4j/helpers/Util.java
* /opt/cola/permits/1437119475_1672035874.4301648/0/slf4j-api-2-0-3-sources-jar/org/slf4j/helpers/MessageFormatter.java
* /opt/cola/permits/1437119475_1672035874.4301648/0/slf4j-api-2-0-3-sources-jar/org/slf4j/LoggerFactory.java
* /opt/cola/permits/1437119475_1672035874.4301648/0/slf4j-api-2-0-3-sources-jar/org/slf4j/spi/MarkerFactoryBinder.java
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* /opt/cola/permits/1437119475_1672035874.4301648/0/slf4j-api-2-0-3-sources-jar/org/slf4j/helpers/BasicMarkerFactory.java
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jar/org/slf4j/helpers/NOPLogger.java
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* /opt/cola/permits/1437119475_1672035874.4301648/0/slf4j-api-2-0-3-sources-jar/org/slf4j/helpers/SubstituteLogger.java
* /opt/cola/permits/1437119475_1672035874.4301648/0/slf4j-api-2-0-3-sources-jar/org/slf4j/spi/LoggerFactoryBinder.java
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* /opt/cola/permits/1437119475_1672035874.4301648/0/slf4j-api-2-0-3-sources-jar/org/slf4j/helpers/NamedLoggerBase.java
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* /opt/cola/permits/1437119475_1672035874.4301648/0/slf4j-api-2-0-3-sources-jar/org/slf4j/Logger.java
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* /opt/cola/permits/1437119475_1672035874.4301648/0/slf4j-api-2-0-3-sources-jar/org/slf4j/spi/LoggingEventBuilder.java

1.406 packaging 23.0

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- javaee_web_services_1_2.xsd
- javaee_web_services_client_1_2.xsd
- javaee_6.xsd
- javaee_web_services_1_3.xsd
- javaee_web_services_client_1_3.xsd
- jsp_2_2.xsd
- web-app_3_0.xsd

- web-common_3_0.xsd
- web-fragment_3_0.xsd
- javaee_7.xsd
- javaee_web_services_1_4.xsd
- javaee_web_services_client_1_4.xsd
- jsp_2_3.xsd
- web-app_3_1.xsd
- web-common_3_1.xsd
- web-fragment_3_1.xsd
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- jsp_2_2.xsd
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1.408 openssl 1.0.2u

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1.410 kexec-tools 2.0.11

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Ty Coon, President of Vice

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1.412 commons-beanutils 1.9.4

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Markus Kuhn -- 2007-05-26 (Unicode 5.0)

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1.421 commons-logging 1.2

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* /opt/cola/permits/1135840457_1613613080.13/0/commons-logging-1-1-sources-9-jar/org/apache/commons/logging/impl/Log4JLogger.java
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1.422 pcre 8.44

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1.423 screen 4.1.0-0.27.20120314git3c2946.el7_9

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1.424 bzip2 1.0.8

1.425 jackson-databind 2.13.4.2

1.425.1 Available under license :

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1.429 lsof 4.89

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1.431 apache-http-server 2.4.56

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```
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*
*/
```

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For the server\util_md5.c component:

```
/*********************************************************************
* NCSA HTTPd Server
* Software Development Group
```

```
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* University of Illinois at Urbana-Champaign
* 605 E. Springfield, Champaign, IL 61820
* httpd@ncsa.uiuc.edu
*
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For the test\zb.c component:

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     ===============

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   Written by Adam Twiss (adam@zeus.co.uk). March 1996

Thanks to the following people for their input:
 Mike Belshe (mbelshe@netscape.com)
 Michael Campanella (campanella@stevms.enet.dec.com)

*/
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
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<meta content="text/html; charset=UTF-8" http-equiv="Content-Type" />
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XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
X
          This file is generated from xml source: DO NOT EDIT
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
X
    -->
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<link href="./style/css/manual.css" rel="stylesheet" media="all" type="text/css" title="Main stylesheet" />
<link href="./style/css/manual-loose-100pc.css" rel="alternate stylesheet" media="all" type="text/css" title="No Sidebar - Default font size" />
<link href="./style/css/manual-print.css" rel="stylesheet" media="print" type="text/css" /><link rel="stylesheet" type="text/css" href="./style/css/prettify.css" />
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<link href="./images/favicon.ico" rel="shortcut icon" /></head>
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var comments_shortname = 'httpd';
var comments_identifier = 'http://httpd.apache.org/docs/2.4/license.html';
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  if (w.location.hostname.toLowerCase() == "httpd.apache.org") {
    d.write(' <\/div>');
    var s = d.createElement('script');
    s.type = 'text/javascript';
    s.async = true;
    s.src = 'https://comments.apache.org/show_comments.lua?site=' + comments_shortname + '&page=' +
comments_identifier;
    (d.getElementsByTagName('head')[0] || d.getElementsByTagName('body')[0]).appendChild(s);
  }
  else {
    d.write(' Comments are disabled for this page at the moment.<\/div>');
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1.432 packaging 21.3

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1.433 python 3.10.8

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Python was created in the early 1990s by Guido van Rossum at Stichting
Mathematisch Centrum (CWI, see https://www.cwi.nl) in the Netherlands
as a successor of a language called ABC. Guido remains Python's
principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for
National Research Initiatives (CNRI, see https://www.cnri.reston.va.us)
in Reston, Virginia where he released several versions of the
software.

In May 2000, Guido and the Python core development team moved to
BeOpen.com to form the BeOpen PythonLabs team. In October of the same
year, the PythonLabs team moved to Digital Creations, which became
Zope Corporation. In 2001, the Python Software Foundation (PSF, see
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All Python releases are Open Source (see https://opensource.org for

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Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
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1.435 linux-kernel 3.10.0-1

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1.436 mpdecimal 2.5.1

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1.437 fastjsonschema 2.16.2

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1.438 pickleshare 0.7.5

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1.439 libxml2 2.9.10

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1.440 apr-util 1.6.1

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1.442 commons-daemon 1.3.3

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1.443 jackson-jr-stree 2.13.4

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1.444 ecj 3.26.0

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*   Stephan Herrmann - Contribution for
*   bug 384380 - False positive on a "Potential null pointer access" after a continue
*   Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
**********/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/InvocationSite.java
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*
* Contributors:
*   wharley@bea.com - derived base class from BatchMessagerImpl
*
**********/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/apt/dispatch/BaseMessagerImpl.java
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* Contributors:
*   Stephan Herrmann - initial API and implementation
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/InferenceFailureException.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/ReductionResult.java
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*   Lars Vogel <Lars.Vogel@vogella.com> - Contributions for
*   Bug 473178
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/ConstraintFormula.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/ConstraintExceptionFormula.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/flow/ExceptionInferenceFlowContext.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/classfmt/ComponentInfoWithTypeAnnotation.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/CompactConstructorDeclaration.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/TextBlock.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/messages.properties
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/antadapter/messages.properties
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/batch/messages.properties
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/problem/messages.properties
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* Contributors:
*    wharley@bea.com - initial API and implementation
*    IBM Corporation - fix for 342470
*    IBM Corporation - fix for 342598
*    IBM Corporation - Java 8 support
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/apt/model/TypeParameterElementImpl.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/RequiresStatement.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/StackMapFrame.java
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* Contributors:
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*     Stephan Herrmann - Contribution for
*        Bug 432977 - [1.8][null] Incorrect 'type is not visible' compiler error
*        Bug 446434 - [1.8][null] Enable interned captures also when analysing null type annotations
*******************************************************************************/
/* Taking the binding of QTR as an example, there could be different annotatable components, but we come in a
with a single binding, e.g:
      @T Z;                           type => Z  annotations => [[@T]]
      @T Y.@T Z                           type => Z  annotations => [[@T][@T]]
      @T X.@T Y.@T Z                          type => Z  annotations => [[@T][@T][@T]]
      java.lang.@T X.@T Y.@T Z                    type => Z  annotations => [[][][@T][@T][@T]]
      in all these cases the incoming type binding is for Z, but annotations are for different levels. We need to align their
layout for proper attribution.
    */
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/AnnotatableTypeSystem.java
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*     IBM Corporation - initial API and implementation
*     Stephan Herrmann  - Contribution for bug 295551
*     Jesper S Moller   - Contributions for
*         Bug 405066 - [1.8][compiler][codegen] Implement code generation infrastructure for JSR335
*     Frits Jalvingh    - contributions for bug 533830.
*     Red Hat Inc.      - add module-info Javadoc support
*******************************************************************************/
```

Found in path(s):

* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/CompilationUnitDeclaration.java
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*     IBM Corporation - initial API and implementation
*     IBM Corporation - added the following constants
*         NonStaticAccessToStaticField
*         NonStaticAccessToStaticMethod
*         Task
*         ExpressionShouldBeAVariable
*         AssignmentHasNoEffect
*     IBM Corporation - added the following constants
*         TooManySyntheticArgumentSlots
*         TooManyArrayDimensions
*         TooManyBytesForStringConstant
*         TooManyMethods
*         TooManyFields
*         NonBlankFinalLocalAssignment
*         ObjectCannotHaveSuperTypes
*         MissingSemiColon
*         InvalidParenthesizedExpression
*         EnclosingInstanceInConstructorCall
*         BytecodeExceeds64KLimitForConstructor
*         IncompatibleReturnTypeForNonInheritedInterfaceMethod
*         UnusedPrivateMethod
*         UnusedPrivateConstructor
*         UnusedPrivateType
*         UnusedPrivateField
*         IncompatibleExceptionInThrowsClauseForNonInheritedInterfaceMethod
*         InvalidExplicitConstructorCall
*     IBM Corporation - added the following constants
*         PossibleAccidentalBooleanAssignment
*         SuperfluousSemicolon
*         IndirectAccessToStaticField
*         IndirectAccessToStaticMethod
*         IndirectAccessToStaticType
*         BooleanMethodThrowingException
```

```
 *      UnnecessaryCast
 *      UnnecessaryArgumentCast
 *      UnnecessaryInstanceof
 *      FinallyMustCompleteNormally
 *      UnusedMethodDeclaredThrownException
 *      UnusedConstructorDeclaredThrownException
 *      InvalidCatchBlockSequence
 *      UnqualifiedFieldAccess
 *  IBM Corporation - added the following constants
 *      Javadoc
 *      JavadocUnexpectedTag
 *      JavadocMissingParamTag
 *      JavadocMissingParamName
 *      JavadocDuplicateParamName
 *      JavadocInvalidParamName
 *      JavadocMissingReturnTag
 *      JavadocDuplicateReturnTag
 *      JavadocMissingThrowsTag
 *      JavadocMissingThrowsClassName
 *      JavadocInvalidThrowsClass
 *      JavadocDuplicateThrowsClassName
 *      JavadocInvalidThrowsClassName
 *      JavadocMissingSeeReference
 *      JavadocInvalidSeeReference
 *      JavadocInvalidSeeHref
 *      JavadocInvalidSeeArgs
 *      JavadocMissing
 *      JavadocInvalidTag
 *      JavadocMessagePrefix
 *      EmptyControlFlowStatement
 *  IBM Corporation - added the following constants
 *      IllegalUsageOfQualifiedTypeReference
 *      InvalidDigit
 *  IBM Corporation - added the following constants
 *      ParameterAssignment
 *      FallthroughCase
 *  IBM Corporation - added the following constants
 *              UnusedLabel
 *              UnnecessaryNLSTag
 *              LocalVariableMayBeNull
 *              EnumConstantsCannotBeSurroundedByParenthesis
 *              JavadocMissingIdentifier
 *              JavadocNonStaticTypeFromStaticInvocation
 *              RawTypeReference
 *              NoAdditionalBoundAfterTypeVariable
 *              UnsafeGenericArrayForVarargs
 *              IllegalAccessFromTypeVariable
 *              AnnotationValueMustBeArrayInitializer
```

```
*                       InvalidEncoding
*                       CannotReadSource
*                       EnumStaticFieldInInInitializerContext
*                       ExternalProblemNotFixable
*                       ExternalProblemFixable
*    IBM Corporation - added the following constants
*                       AnnotationValueMustBeAnEnumConstant
*                       OverridingMethodWithoutSuperInvocation
*                       MethodMustOverrideOrImplement
*                       TypeHidingTypeParameterFromType
*                       TypeHidingTypeParameterFromMethod
*                       TypeHidingType
*    IBM Corporation - added the following constants
*        NullLocalVariableReference
*        PotentialNullLocalVariableReference
*        RedundantNullCheckOnNullLocalVariable
*         NullLocalVariableComparisonYieldsFalse
*         RedundantLocalVariableNullAssignment
*         NullLocalVariableInstanceofYieldsFalse
*         RedundantNullCheckOnNonNullLocalVariable
*         NonNullLocalVariableComparisonYieldsFalse
*    IBM Corporation - added the following constants
*                       InvalidUsageOfTypeParametersForAnnotationDeclaration
*                       InvalidUsageOfTypeParametersForEnumDeclaration
*    IBM Corporation - added the following constants
*        RedundantSuperinterface
*  Benjamin Muskalla - added the following constants
*       MissingSynchronizedModifierInInheritedMethod
*  Stephan Herrmann  - added the following constants
*       UnusedObjectAllocation
*       PotentiallyUnclosedCloseable
*       PotentiallyUnclosedCloseableAtExit
*       UnclosedCloseable
*       UnclosedCloseableAtExit
*       ExplicitlyClosedAutoCloseable
*          RequiredNonNullButProvidedNull
*        RequiredNonNullButProvidedPotentialNull
*        RequiredNonNullButProvidedUnknown
*        NullAnnotationNameMustBeQualified
*        IllegalReturnNullityRedefinition
*        IllegalRedefinitionToNonNullParameter
*        IllegalDefinitionToNonNullParameter
*        ParameterLackingNonNullAnnotation
*        ParameterLackingNullableAnnotation
*        PotentialNullMessageSendReference
*        RedundantNullCheckOnNonNullMessageSend
*        CannotImplementIncompatibleNullness
*        RedundantNullAnnotation
```

* RedundantNullDefaultAnnotation
* RedundantNullDefaultAnnotationPackage
* RedundantNullDefaultAnnotationType
* RedundantNullDefaultAnnotationMethod
* ContradictoryNullAnnotations
* IllegalAnnotationForBaseType
* RedundantNullCheckOnSpecdNonNullLocalVariable
* SpecdNonNullLocalVariableComparisonYieldsFalse
* RequiredNonNullButProvidedSpecdNullable
* MissingDefaultCase
* MissingEnumConstantCaseDespiteDefault
* UninitializedLocalVariableHintMissingDefault
* UninitializedBlankFinalFieldHintMissingDefault
* ShouldReturnValueHintMissingDefault
* IllegalModifierForInterfaceDefaultMethod
* InheritedDefaultMethodConflictsWithOtherInherited
* ConflictingNullAnnotations
* ConflictingInheritedNullAnnotations
* UnsafeElementTypeConversion
* ArrayReferencePotentialNullReference
* DereferencingNullableExpression
* NullityMismatchingTypeAnnotation
* NullityMismatchingTypeAnnotationSuperHint
* NullityUncheckedTypeAnnotationDetail
* NullityUncheckedTypeAnnotationDetailSuperHint
* NullableFieldReference
* UninitializedNonNullField
* UninitializedNonNullFieldHintMissingDefault
* NonNullMessageSendComparisonYieldsFalse
* RedundantNullCheckOnNonNullSpecdField
* NonNullSpecdFieldComparisonYieldsFalse
* NonNullExpressionComparisonYieldsFalse
* RedundantNullCheckOnNonNullExpression
* ReferenceExpressionParameterNullityMismatch
* ReferenceExpressionParameterNullityUnchecked
* ReferenceExpressionReturnNullRedef
* ReferenceExpressionReturnNullRedefUnchecked
* DuplicateInheritedDefaultMethods
* SuperAccessCannotBypassDirectSuper
* SuperCallCannotBypassOverride
* ConflictingNullAnnotations
* ConflictingInheritedNullAnnotations
* UnsafeElementTypeConversion
* PotentialNullUnboxing
* NullUnboxing
* NullExpressionReference
* PotentialNullExpressionReference
* RedundantNullCheckAgainstNonNullType

```
*       NullAnnotationUnsupportedLocation
*       NullAnnotationUnsupportedLocationAtType
*       NullityMismatchTypeArgument
*       ContradictoryNullAnnotationsOnBound
*       UnsafeNullnessCast
*       ContradictoryNullAnnotationsInferred
*       NonNullDefaultDetailIsNotEvaluated
*       NullNotCompatibleToFreeTypeVariable
*       NullityMismatchAgainstFreeTypeVariable
*       ImplicitObjectBoundNoNullDefault
*       IllegalParameterNullityRedefinition
*       ContradictoryNullAnnotationsInferredFunctionType
*       IllegalReturnNullityRedefinitionFreeTypeVariable
*       UnlikelyCollectionMethodArgumentType
*       UnlikelyEqualsArgumentType
*     Jesper S Moller  - added the following constants
*       TargetTypeNotAFunctionalInterface
*       OuterLocalMustBeEffectivelyFinal
*       IllegalModifiersForPackage
*       DuplicateAnnotationNotMarkedRepeatable
*       DisallowedTargetForContainerAnnotation
*       RepeatedAnnotationWithContainerAnnotation
*       ContainingAnnotationMustHaveValue
*       ContainingAnnotationHasNonDefaultMembers
*       ContainingAnnotationHasWrongValueType
*        ContainingAnnotationHasShorterRetention
*       RepeatableAnnotationHasTargets
*       RepeatableAnnotationTargetMismatch
*       RepeatableAnnotationIsDocumented
*       RepeatableAnnotationIsInherited
*       RepeatableAnnotationWithRepeatingContainerAnnotation
*       VarLocalMultipleDeclarators
*       VarLocalCannotBeArray
*       VarLocalReferencesItself
*       VarLocalWithoutInitizalier
*       VarLocalInitializedToNull
*       VarLocalCannotBeArrayInitalizers
*       VarLocalCannotBeLambda
*       VarLocalCannotBeMethodReference
*       VarIsReserved
*       VarIsReservedInFuture
*       VarIsNotAllowedHere
**********************************************************************************/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
jar/org/eclipse/jdt/core/compiler/IProblem.java
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* Contributors:
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*     Erling Ellingsen -  patch for bug 125570
*     Stephan Herrmann - Contribution for
*         Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*         Bug 434570 - Generic type mismatch for parametrized class annotation attribute with inner class
*     Sebastian Zarnekow - Contribution for
*         Bug 544921 - [performance] Poor performance with large source files
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/CompilationUnitScope.java
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*     Stephan Herrmann - Contributions for
*         bug 332637 - Dead Code detection removing code that isn't dead
*         bug 391517 - java.lang.VerifyError on code that runs correctly in Eclipse 3.7 and eclipse 3.6
*         bug 394768 - [compiler][resource] Incorrect resource leak warning when creating stream in conditional
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/flow/ConditionalFlowInfo.java

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* Contributors:
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*     Stephan Herrmann - Contribution for
*        bug 392862 - [1.8][compiler][null] Evaluate null annotations on array types
*        bug 395002 - Self bound generic class doesn't resolve bounds properly for wildcards for certain parametrisation.
*        bug 392384 - [1.8][compiler][null] Restore nullness info from type annotations in class files
*        Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*        Bug 415291 - [1.8][null] differentiate type incompatibilities due to null annotations
*        Bug 415850 - [1.8] Ensure RunJDTCoreTests can cope with null annotations enabled
*        Bug 416176 - [1.8][compiler][null] null type annotations cause grief on type variables
*        Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*        Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*        Bug 425460 - [1.8] [inference] Type not inferred on stream.toArray
*        Bug 426792 - [1.8][inference][impl] generify new type inference engine
*        Bug 428019 - [1.8][compiler] Type inference failure with nested generic invocation.
*        Bug 438458 - [1.8][null] clean up handling of null type annotations wrt type variables
*        Bug 440759 - [1.8][null] @NonNullByDefault should never affect wildcards and uses of a type variable
*        Bug 441693 - [1.8][null] Bogus warning for type argument annotated with @NonNull
*     Jesper S Møller - Contributions for bug 381345 : [1.8] Take care of the Java 8 major version
*        Bug 527554 - [18.3] Compiler support for JEP 286 Local-Variable Type
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/ArrayBinding.java
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```
*
* Contributors:
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*     Stephan Herrmann - Contributions for
*         bug 349326 - [1.7] new warning for missing try-with-resources
*         bug 186342 - [compiler][null] Using annotations for null checking
*         bug 365519 - editorial cleanup after bug 186342 and bug 365387
*         bug 368546 - [compiler][resource] Avoid remaining false positives found when compiling the Eclipse SDK
*         bug 382353 - [1.8][compiler] Implementation property modifiers should be accepted on default methods.
*         bug 383368 - [compiler][null] syntactic null analysis for field references
*         Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*         Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*         Bug 416176 - [1.8][compiler][null] null type annotations cause grief on type variables
*         Bug 438012 - [1.8][null] Bogus Warning: The nullness annotation is redundant with a default that applies to this
location
*         Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*         Bug 466713 - Null Annotations: NullPointerException using <int @Nullable []> as Type Param
*     Jesper S Moller <jesper@selskabet.org> - Contributions for
*         bug 378674 - "The method can be declared as static" is wrong
**********************************************************************************/
```

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/classfmt/MethodInfoWithAnnotations.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/IBinaryAnnotation.java
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*   Stephan Herrmann - Contribution for
*   Bug 427438 - [1.8][compiler] NPE at
org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
**********/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
jar/org/eclipse/jdt/internal/compiler/ast/ExpressionContext.java
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*   bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
jar/org/eclipse/jdt/internal/compiler/flow/SwitchFlowContext.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
jar/org/eclipse/jdt/internal/compiler/ast/BreakStatement.java
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*   Stephan Herrmann - Contribution for
*   bug 395002 - Self bound generic class doesn't resolve bounds properly for wildcards for certain parametrisation.
*   Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*   Bug 438458 - [1.8][null] clean up handling of null type annotations wrt type variables
***/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/BaseTypeBinding.java
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*   Bug 428811 - [1.8][compiler] Type witness unnecessarily required
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/JavadocModuleReference.java
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*        bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*        bug 402993 - [null] Follow up of bug 401088: Missing warning about redundant null check
*        Bug 453483 - [compiler][null][loop] Improve null analysis for loops
*        Bug 421035 - [resource] False alarm of resource leak warning when casting a closeable in its assignment
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Found in path(s):
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* Contributors:
*     IBM Corporation - initial API and implementation
*     Luiz-Otavio Zorzella <zorzella at gmail dot com> - Improve CamelCase algorithm
*     Gábor Kövesdán - Contribution for Bug 350000 - [content assist] Include non-prefix matches in auto-complete suggestions
*     Stefan Xenos <sxenos@gmail.com> (Google) - Bug 501283 - Lots of hash collisions during indexing
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-

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*   bug 365662 - [compiler][null] warn on contradictory and redundant null annotations
*   bug 401030 - [1.8][null] Null analysis support for lambda methods.
*   Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*   Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
**********/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/LocalTypeBinding.java
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*   bug 292478 - Report potentially null across variable assignment
*   bug 332637 - Dead Code detection removing code that isn't dead
*   bug 394768 - [compiler][resource] Incorrect resource leak warning when creating stream in conditional
*   Bug 411964 - [1.8][null] leverage null type annotation in foreach statement
*   Bug 421035 - [resource] False alarm of resource leak warning when casting a closeable in its assignment
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*   Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*   Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/SingleTypeReference.java
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*            bug 185682 - Increment/decrement operators mark local variables as read
*        bug 186342 - [compiler][null] Using annotations for null checking
*        bug 365519 - editorial cleanup after bug 186342 and bug 365387
*        bug 368546 - [compiler][resource] Avoid remaining false positives found when compiling the Eclipse SDK
*        bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*        Bug 414380 - [compiler][internal] QualifiedNameReference#indexOfFirstFieldBinding does not point to the first
field
*        Bug 458396 - NPE in CodeStream.invoke()
*     Jesper S Moller - Contributions for
*        bug 382721 - [1.8][compiler] Effectively final variables needs special treatment
*        bug 331649 - [compiler][null] consider null annotations for fields
*        bug 383368 - [compiler][null] syntactic null analysis for field references
*        bug 402993 - [null] Follow up of bug 401088: Missing warning about redundant null check
*     Jesper S Moller <jesper@selskabet.org> - Contributions for
*        bug 378674 - "The method can be declared as static" is wrong
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*    IBM Corporation - Fix for bug 341494
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*    IBM Corporation - Fix for bug 328575
*    IBM Corporation - Java 8 support
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*          bug 349326 - [1.7] new warning for missing try-with-resources
*          bug 359362 - FUP of bug 349326: Resource leak on non-Closeable resource
*       bug 186342 - [compiler][null] Using annotations for null checking
*       bug 358903 - Filter practically unimportant resource leak warnings
*       bug 400421 - [compiler] Null analysis for fields does not take @com.google.inject.Inject into account
*       bug 382069 - [null] Make the null analysis consider JUnit's assertNotNull similarly to assertions
*       Bug 410218 - Optional warning for arguments of "unexpected" types to Map#get(Object),
Collection#remove(Object) et al.
*     Jesper S Moller <jesper@selskabet.org> -  Contributions for
*       Bug 412153 - [1.8][compiler] Check validity of annotations which may be repeatable
*     Ulrich Grave <ulrich.grave@gmx.de> - Contributions for
*                         bug 386692 - Missing "unused" warning on "autowired" fields
*     Pierre-Yves B. <pyvesdev@gmail.com> - Contribution for
*                         bug 542520 - [JUnit 5] Warning The method xxx from the type X is never used locally is shown
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*   bug 349326 - [1.7] new warning for missing try-with-resources
*   bug 359334 - Analysis for resource leak warnings does not consider exceptions as method exit points
*   bug 358903 - Filter practically unimportant resource leak warnings
*   bug 368546 - [compiler][resource] Avoid remaining false positives found when compiling the Eclipse SDK
*   bug 370639 - [compiler][resource] restore the default for resource leak warnings
*   bug 388996 - [compiler][resource] Incorrect 'potential resource leak'
*   bug 379784 - [compiler] "Method can be static" is not getting reported
*   bug 394768 - [compiler][resource] Incorrect resource leak warning when creating stream in conditional
*   bug 404649 - [1.8][compiler] detect illegal reference to indirect or redundant super
*   Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*   Bug 371614 - [compiler][resource] Wrong "resource leak" problem on return/throw inside while loop
*   Bug 421035 - [resource] False alarm of resource leak warning when casting a closeable in its assignment
*   Bug 444964 - [1.7+][resource] False resource leak warning (try-with-resources for ByteArrayOutputStream - return inside for loop)
*   Bug 396575 - [compiler][resources] Incorrect Errors/Warnings check for potential resource leak when surrounding with try-catch
*   Jesper S Moller <jesper@selskabet.org> - Contributions for
*   bug 378674 - "The method can be declared as static" is wrong
*   Keigo Imai - Contribution for bug 388903 - Cannot extend inner class as an anonymous class when it extends the outer class
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*   bug 185682 - Increment/decrement operators mark local variables as read
*   bug 331649 - [compiler][null] consider null annotations for fields
*   bug 383368 - [compiler][null] syntactic null analysis for field references
*   Bug 412203 - [compiler] Internal compiler error: java.lang.IllegalArgumentException: info cannot be null
*   Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*   Bug 458396 - NPE in CodeStream.invoke()
*   Jesper S Moller - Contributions for
*   Bug 378674 - "The method can be declared as static" is wrong
*   Robert Roth <robert.roth.off@gmail.com> - Contributions for
*   Bug 361039 - NPE in FieldReference.optimizedBooleanConstant
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/tool/ArchiveFileObject.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/tool/Util.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/apt/util/ArchiveFileObject.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/tool/Archive.java
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*   Bug 440687 - [compiler][batch][null] improve command line option for external annotations
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredOpensStatement.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredModuleStatement.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredUsesStatement.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/util/HashtableOfModule.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredExport.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/ExportsStatement.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredProvidesStatement.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredTypeReference.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredExportsStatement.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredPackageVisibilityStatement.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredModuleReference.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredRequiresStatement.java
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*   Jesper Steen Moller - Contributions for:

```
*         Bug 412149: [1.8][compiler] Emit repeated annotations into the designated container
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```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/SingleMemberAnnotation.java
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*     Patrick Wienands <pwienands@abit.de> - Contribution for bug 393749
*     Stephan Herrmann - Contribution for
*         bug 331649 - [compiler][null] consider null annotations for fields
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/Clinit.java
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*     Benjamin Muskalla - Contribution for bug 239066
*     Stephan Herrmann - Contribution for
*          bug 382347 - [1.8][compiler] Compiler accepts incorrect default method inheritance
*       bug 388954 - [1.8][compiler] detect default methods in class files
*       bug 388281 - [compiler][null] inheritance of null annotations as an option
*       bug 388739 - [1.8][compiler] consider default methods when detecting whether a class needs to be declared abstract
*       bug 390883 - [1.8][compiler] Unable to override default method
*       bug 401796 - [1.8][compiler] don't treat default methods as overriding an independent inherited abstract method
*       bug 395681 - [compiler] Improve simulation of javac6 behavior from bug 317719 after fixing bug 388795
*       bug 406928 - computation of inherited methods seems damaged (affecting @Overrides)
*       bug 409473 - [compiler] JDT cannot compile against JRE 1.8
*       Bug 420080 - [1.8] Overridden Default method is reported as duplicated
*******************************************************************************/
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/MethodVerifier.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/BranchStatement.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/JavadocAllocationExpression.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/ProblemPackageBinding.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/JavadocMessageSend.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/CaseStatement.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/ParserBasicInformation.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/classfmt/ClassFormatException.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/ConflictedParser.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/diagnose/DiagnoseParser.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/QualifiedTypeReference.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/TerminalTokens.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/core/compiler/CategorizedProblem.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredStatement.java

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*     Stephan Herrmann - Contribution for bug 186342 - [compiler][null] Using annotations for null checking
*     Jesper Steen Moeller - Contribution for bug 406973 - [compiler] Parse MethodParameters attribute
*     Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*         Bug 407191 - [1.8] Binary access support for type annotations
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/classfmt/MethodInfo.java
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*     Stephan Herrmann <stephan@cs.tu-berlin.de> - Contributions for
*         Bug 328281 - visibility leaks not detected when analyzing unused field in private class
*         Bug 300576 - NPE Computing type hierarchy when compliance doesn't match libraries
*         Bug 354536 - compiling package-info.java still depends on the order of compilation units
*         Bug 349326 - [1.7] new warning for missing try-with-resources
*         Bug 358903 - Filter practically unimportant resource leak warnings
*       Bug 395977 - [compiler][resource] Resource leak warning behavior possibly incorrect for anonymous inner class
*       Bug 395002 - Self bound generic class doesn't resolve bounds properly for wildcards for certain parametrisation.
*       Bug 416176 - [1.8][compiler][null] null type annotations cause grief on type variables
*       Bug 427199 - [1.8][resource] avoid resource leak warnings on Streams that have no resource
*       Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
```

```
*       Bug 434570 - Generic type mismatch for parametrized class annotation attribute with inner class
*       Bug 444024 - [1.8][compiler][null] Type mismatch error in annotation generics assignment which happens
"sometimes"
*       Bug 459967 - [null] compiler should know about nullness of special methods like MyEnum.valueOf()
*        Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                       Bug 415821 - [1.8][compiler] CLASS_EXTENDS target type annotation missing for anonymous
classes
*     het@google.com - Bug 456986 - Bogus error when annotation processor generates annotation type
*     Lars Vogel <Lars.Vogel@vogella.com> - Contributions for
*          Bug 473178
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
jar/org/eclipse/jdt/internal/compiler/lookup/ClassScope.java
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*           bug 343713 - [compiler] bogus line number in constructor of inner class in 1.5 compliance
*           bug 349326 - [1.7] new warning for missing try-with-resources
*       bug 186342 - [compiler][null] Using annotations for null checking
*       bug 361407 - Resource leak warning when resource is assigned to a field outside of constructor
*       bug 368546 - [compiler][resource] Avoid remaining false positives found when compiling the Eclipse SDK
*       bug 383690 - [compiler] location of error re uninitialized final field should be aligned
*       bug 331649 - [compiler][null] consider null annotations for fields
*       bug 383368 - [compiler][null] syntactic null analysis for field references
*       bug 400421 - [compiler] Null analysis for fields does not take @com.google.inject.Inject into account
*       Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*       Bug 416176 - [1.8][compiler][null] null type annotations cause grief on type variables
*       Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*       Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                       Bug 415399 - [1.8][compiler] Type annotations on constructor results dropped by the code
generator
*     Ulrich Grave <ulrich.grave@gmx.de> - Contributions for
*                         bug 386692 - Missing "unused" warning on "autowired" fields
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/ConstructorDeclaration.java
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*     Stephan Herrmann - Contributions for
*        bug 319201 - [null] no warning when unboxing SingleNameReference causes NPE
*        bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*        bug 403086 - [compiler][null] include the effect of 'assert' in syntactic null analysis for fields
*        bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred checking
*******************************************************************************/
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*       bug 411098 - [compiler][resource] Invalid Resource Leak Warning using ternary operator inside try-with-resource
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/FakedTrackingVariable.java
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*       bug 349326 - [1.7] new warning for missing try-with-resources
*       bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*       bug 395002 - Self bound generic class doesn't resolve bounds properly for wildcards for certain parametrisation.
*       bug 392384 - [1.8][compiler][null] Restore nullness info from type annotations in class files
*       Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*       Bug 415291 - [1.8][null] differentiate type incompatibilities due to null annotations
*       Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*       Bug 412076 - [compiler] @NonNullByDefault doesn't work for varargs parameter when in generic interface
*       Bug 403216 - [1.8][null] TypeReference#captureTypeAnnotations treats type annotations as type argument annotations
*       Bug 415850 - [1.8] Ensure RunJDTCoreTests can cope with null annotations enabled
*       Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
```

```
*       Bug 416175 - [1.8][compiler][null] NPE with a code snippet that used null annotations on wildcards
*       Bug 416174 - [1.8][compiler][null] Bogus name clash error with null annotations
*       Bug 416176 - [1.8][compiler][null] null type annotations cause grief on type variables
*       Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*       Bug 423504 - [1.8] Implement "18.5.3 Functional Interface Parameterization Inference"
*       Bug 425278 - [1.8][compiler] Suspect error: The target type of this expression is not a well formed parameterized
type due to bound(s) mismatch
*       Bug 425798 - [1.8][compiler] Another NPE in ConstraintTypeFormula.reduceSubType
*       Bug 425156 - [1.8] Lambda as an argument is flagged with incompatible error
*       Bug 426563 - [1.8] AIOOBE when method with error invoked with lambda expression as argument
*       Bug 426792 - [1.8][inference][impl] generify new type inference engine
*       Bug 428294 - [1.8][compiler] Type mismatch: cannot convert from List<Object> to Collection<Object[]>
*       Bug 427199 - [1.8][resource] avoid resource leak warnings on Streams that have no resource
*       Bug 416182 - [1.8][compiler][null] Contradictory null annotations not rejected
*       Bug 438458 - [1.8][null] clean up handling of null type annotations wrt type variables
*       Bug 438179 - [1.8][null] 'Contradictory null annotations' error on type variable with explicit null-annotation.
*       Bug 441693 - [1.8][null] Bogus warning for type argument annotated with @NonNull
*       Bug 446434 - [1.8][null] Enable interned captures also when analysing null type annotations
*       Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*       Bug 456508 - Unexpected RHS PolyTypeBinding for: <code-snippet>
*       Bug 390064 - [compiler][resource] Resource leak warning missing when extending parameterized class
*     Jesper S Møller  - Contributions for bug 381345 : [1.8] Take care of the Java 8 major version
*       Bug 527554 - [18.3] Compiler support for JEP 286 Local-Variable Type
********************************************************************************/

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jar/org/eclipse/jdt/internal/compiler/lookup/ParameterizedTypeBinding.java
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jar/org/eclipse/jdt/internal/compiler/util/SortedCharArrays.java
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*     Stephan Herrmann - Contribution for
*        bug 349326 - [1.7] new warning for missing try-with-resources
*        bug 370930 - NonNull annotation not considered for enhanced for loops
*        bug 365859 - [compiler][null] distinguish warnings based on flow analysis vs. null annotations
*        bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*        bug 393719 - [compiler] inconsistent warnings on iteration variables
*        Bug 411964 - [1.8][null] leverage null type annotation in foreach statement
*        Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*        Bug 453483 - [compiler][null][loop] Improve null analysis for loops
*        Bug 415790 - [compiler][resource]Incorrect potential resource leak warning in for loop with close in try/catch
*     Jesper S Moller -  Contribution for
*        bug 401853 - Eclipse Java compiler creates invalid bytecode (java.lang.VerifyError)
*                           bug 527554 - [18.3] Compiler support for JEP 286 Local-Variable Type
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
jar/org/eclipse/jdt/internal/compiler/ast/ForeachStatement.java
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*   Stephan Herrmann - Contribution for
*   Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
**********/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/ArrayQualifiedTypeReference.java
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*   Stephan Herrmann - Contributions for
*   bug 359334 - Analysis for resource leak warnings does not consider exceptions as method exit points
*   bug 368546 - [compiler][resource] Avoid remaining false positives found when compiling the Eclipse SDK
*   bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*   Bug 429430 - [1.8] Lambdas and method reference infer wrong exception type with generics (RuntimeException instead of IOException)
**********/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/ThrowStatement.java
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/ImplicitNullAnnotationVerifier.java
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*     Stephan Herrmann <stephan@cs.tu-berlin.de> - Contributions for
*         bug 185682 - Increment/decrement operators mark local variables as read
*         bug 392862 - [1.8][compiler][null] Evaluate null annotations on array types
*         bug 331649 - [compiler][null] consider null annotations for fields
*         bug 383368 - [compiler][null] syntactic null analysis for field references
*         bug 392384 - [1.8][compiler][null] Restore nullness info from type annotations in class files
*         Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*         Bug 411964 - [1.8][null] leverage null type annotation in foreach statement
*         Bug 407414 - [compiler][null] Incorrect warning on a primitive type being null
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/Reference.java
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*     Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*         bug 407191 - [1.8] Binary access support for type annotations
```

```
*     Stephan Herrmann - Contribution for
*       Bug 440474 - [null] textual encoding of external null annotations
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/IBinaryType.java
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*     Stephan Herrmann - Contributions for
*       bug 186342 - [compiler][null] Using annotations for null checking
*       bug 365519 - editorial cleanup after bug 186342 and bug 365387
*       Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*       Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*       Bug 435570 - [1.8][null] @NonNullByDefault illegally tries to affect "throws E"
*       Bug 438012 - [1.8][null] Bogus Warning: The nullness annotation is redundant with a default that applies to this location
*       Bug 466713 - Null Annotations: NullPointerException using <int @Nullable []> as Type Param
*       Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                       Bug 409246 - [1.8][compiler] Type annotations on catch parameters not handled properly
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/Argument.java
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*     Lars Vogel <Lars.Vogel@vogella.com> - Contributions for
*          Bug 473178
**********************************************************************************/
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/classfmt/ExternalAnnotationProvider.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/DoubleLiteral.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/NumberLiteral.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/LongLiteral.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/flow/InitializationFlowContext.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/IntLiteral.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/FloatLiteral.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/IntLiteralMinValue.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/InferenceContext.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/LongLiteralMinValue.java
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*          bug 319201 - [null] no warning when unboxing SingleNameReference causes NPE
*          bug 349326 - [1.7] new warning for missing try-with-resources
*       bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*       bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred
checking
*       Bug 415790 - [compiler][resource]Incorrect potential resource leak warning in for loop with close in try/catch
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/WhileStatement.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/ForStatement.java
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*   IBM Corporation - Fix for bug 328575
*   het@google.com - Bug 415274 - Annotation processing throws a NPE in getElementsAnnotatedWith()
**********/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/apt/dispatch/RoundEnvImpl.java
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*     Stephan Herrmann - Contribution for
*        Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*        Bug 429384 - [1.8][null] implement conformance rules for null-annotated lower / upper type bounds
*        Bug 441797 - [1.8] synchronize type annotations on capture and its wildcard
*        Bug 456497 - [1.8][null] during inference nullness from target type is lost against weaker hint from applicability
analysis
*        Bug 456924 - StackOverflowError during compilation
*        Bug 462790 - [null] NPE in Expression.computeConversion()
*     Jesper S Møller - Contributions for bug 381345 : [1.8] Take care of the Java 8 major version
*        Bug 527554 - [18.3] Compiler support for JEP 286 Local-Variable Type
*********************************************************************************/
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/CaptureBinding.java
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*       bug 317046 - Exception during debugging when hover mouse over a field
*       bug 395002 - Self bound generic class doesn't resolve bounds properly for wildcards for certain parametrisation.
*       bug 392862 - [1.8][compiler][null] Evaluate null annotations on array types
*       bug 392384 - [1.8][compiler][null] Restore nullness info from type annotations in class files
*       Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*       Bug 415291 - [1.8][null] differentiate type incompatibilities due to null annotations
*       Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*       Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*       Bug 423504 - [1.8] Implement "18.5.3 Functional Interface Parameterization Inference"
*       Bug 424712 - [1.8][compiler] NPE in TypeBinding.isProvablyDistinctTypeArgument
*       Bug 426792 - [1.8][inference][impl] generify new type inference engine
*       Bug 426764 - [1.8] Presence of conditional expression as method argument confuses compiler
*       Bug 423505 - [1.8] Implement "18.5.4 More Specific Method Inference"
*       Bug 427626 - [1.8] StackOverflow while typing new ArrayList<String>().toArray( and asking for code completion
```

```
*       Bug 428019 - [1.8][compiler] Type inference failure with nested generic invocation.
*       Bug 435962 - [RC2] StackOverFlowError when building
*       Bug 438458 - [1.8][null] clean up handling of null type annotations wrt type variables
*       Bug 440759 - [1.8][null] @NonNullByDefault should never affect wildcards and uses of a type variable
*       Bug 441693 - [1.8][null] Bogus warning for type argument annotated with @NonNull
*       Bug 446434 - [1.8][null] Enable interned captures also when analysing null type annotations
*     Jesper S Moller <jesper@selskabet.org> -  Contributions for
*       bug 382701 - [1.8][compiler] Implement semantic analysis of Lambda expressions & Reference expression
*       bug 527554 - [18.3] Compiler support for JEP 286 Local-Variable Type
*
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/TypeBinding.java
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*     Stephan Herrmann - Contributions for
*           bug 319201 - [null] no warning when unboxing SingleNameReference causes NPE
*           bug 349326 - [1.7] new warning for missing try-with-resources
*       bug 265744 - Enum switch should warn about missing default
*       bug 374605 - Unreasonable warning for enum-based switch statements
*       bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*******************************************************************************/
```

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*     Tom Tromey - patch for readTable(String) as described in http://bugs.eclipse.org/bugs/show_bug.cgi?id=32196
*     Stephan Herrmann - Contributions for
*       bug 366003 - CCE in ASTNode.resolveAnnotations(ASTNode.java:639)
*       bug 374605 - Unreasonable warning for enum-based switch statements
*       bug 393719 - [compiler] inconsistent warnings on iteration variables
*       bug 382353 - [1.8][compiler] Implementation property modifiers should be accepted on default methods.
*       bug 383973 - [1.8][compiler] syntax recovery in the presence of default methods
*       bug 401035 - [1.8] A few tests have started failing recently
*     Jesper S Moller - Contributions for
*       bug 382701 - [1.8][compiler] Implement semantic analysis of Lambda expressions & Reference expression
*       bug 399695 - [1.8][compiler] [1.8][compiler] migrate parser to other syntax for default methods
*       bug 384567 - [1.5][compiler] Compiler accepts illegal modifiers on package declaration
*       bug 393192 - Incomplete type hierarchy with > 10 annotations
*       bug 527554 - [18.3] Compiler support for JEP 286 Local-Variable Type
*       Andy Clement - Contributions for
*                      Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's
work)
*                      Bug 409250 - [1.8][compiler] Various loose ends in 308 code generation
*                      Bug 415821 - [1.8][compiler] CLASS_EXTENDS target type annotation missing for anonymous
classes
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*    tyeung@bea.com - initial API and implementation
*    olivier_thomann@ca.ibm.com - add hashCode() and equals(..) methods
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/EnumConstantSignature.java
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*     Stephan Herrmann - Contribution for
*       Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/JavadocImplicitTypeReference.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/ElementValuePair.java

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*     Stephan Herrmann - Contribution for
*        Bug 440687 - [compiler][batch][null] improve command line option for external annotations
*     Lars Vogel <Lars.Vogel@vogella.com> - Contributions for
*          Bug 473178
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/batch/ClasspathDirectory.java
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*     Perry James - nullStatus method improvement (165346)
*     Stephan Herrmann - Contribution for
*        bug 383368 - [compiler][null] syntactic null analysis for field references
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/OperatorExpression.java
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*         bug 186342 - [compiler][null] Using annotations for null checking
*         bug 367203 - [compiler][null] detect assigning null to nonnull argument
*         bug 365519 - editorial cleanup after bug 186342 and bug 365387
*         bug 365531 - [compiler][null] investigate alternative strategy for internally encoding nullness defaults
*         bug 382353 - [1.8][compiler] Implementation property modifiers should be accepted on default methods.
*         bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*         bug 388281 - [compiler][null] inheritance of null annotations as an option
*         bug 401030 - [1.8][null] Null analysis support for lambda methods.
*         Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*         Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*         Bug 403216 - [1.8][null] TypeReference#captureTypeAnnotations treats type annotations as type argument
annotations
*         Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*         Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*         Bug 435570 - [1.8][null] @NonNullByDefault illegally tries to affect "throws E"
*         Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*         Bug 466713 - Null Annotations: NullPointerException using <int @Nullable []> as Type Param
********************************************************************************/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
jar/org/eclipse/jdt/internal/compiler/ast/AbstractMethodDeclaration.java
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*     Stephan Herrmann - Contribution for
*       Bug 458396 - NPE in CodeStream.invoke()
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*     Stephan Herrmann - Contributions for
*         bug 292478 - Report potentially null across variable assignment
*         bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*         bug 392862 - [1.8][compiler][null] Evaluate null annotations on array types
*         bug 331649 - [compiler][null] consider null annotations for fields
*         bug 383368 - [compiler][null] syntactic null analysis for field references
*         bug 400761 - [compiler][null] null may be return as boolean without a diagnostic
*         bug 402993 - [null] Follow up of bug 401088: Missing warning about redundant null check
*         bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred checking
*         Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*         Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*         Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*         Bug 426792 - [1.8][inference][impl] generify new type inference engine
*         Bug 423505 - [1.8] Implement "18.5.4 More Specific Method Inference"
*         Bug 427438 - [1.8][compiler] NPE at org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
*         Bug 426996 - [1.8][inference] try to avoid method Expression.unresolve()?
*         Bug 428274 - [1.8] [compiler] Cannot cast from Number to double
*         Bug 428352 - [1.8][compiler] Resolution errors don't always surface
*         Bug 452788 - [1.8][compiler] Type not correctly inferred in lambda expression
*     Lars Vogel <Lars.Vogel@vogella.com> - Contributions for
*         Bug 473178
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/Expression.java
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*          bug 337868 - [compiler][model] incomplete support for package-info.java when using SearchableEnvironment
*       bug 186342 - [compiler][null] Using annotations for null checking
*       bug 365531 - [compiler][null] investigate alternative strategy for internally encoding nullness defaults
*       bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*       bug 392862 - [1.8][compiler][null] Evaluate null annotations on array types
*       bug 392384 - [1.8][compiler][null] Restore nullness info from type annotations in class files
*       Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*       Bug 415291 - [1.8][null] differentiate type incompatibilities due to null annotations
*       Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*       Bug 415850 - [1.8] Ensure RunJDTCoreTests can cope with null annotations enabled
*       Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*       Bug 416183 - [1.8][compiler][null] Overload resolution fails with null annotations
*       Bug 416307 - [1.8][compiler][null] subclass with type parameter substitution confuses null checking
*       Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*       Bug 416190 - [1.8][null] detect incompatible overrides due to null type annotations
*       Bug 424624 - [1.8][null] if a static-object with annotation @NonNull is used, a warning is shown
*       Bug 438458 - [1.8][null] clean up handling of null type annotations wrt type variables
*       Bug 439516 - [1.8][null] NonNullByDefault wrongly applied to implicit type bound of binary type
*       Bug 434602 - Possible error with inferred null annotations leading to contradictory null annotations
*       Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*       Bug 453475 - [1.8][null] Contradictory null annotations (4.5 M3 edition)
*       Bug 457079 - Regression: type inference
*       Bug 440477 - [null] Infrastructure for feeding external annotations into compilation
*       Bug 455180 - IllegalStateException in AnnotatableTypeSystem.getRawType
*       Bug 470467 - [null] Nullness of special Enum methods not detected from .class file
**********************************************************************************/

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*   Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*   Bug 427438 - [1.8][compiler] NPE at
org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
**********/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
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*   Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*   Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's
work)
*   Bug 409247 - [1.8][compiler] Verify error with code allocating multidimensional array
*   Bug 409517 - [1.8][compiler] Type annotation problems on more elaborate array references
*   Bug 409250 - [1.8][compiler] Various loose ends in 308 code generation
**********/

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*   Stephan Herrmann <stephan@cs.tu-berlin.de> - Contributions for
*   bug 319201 - [null] no warning when unboxing SingleNameReference causes NPE
*   bug 292478 - Report potentially null across variable assignment
*   bug 335093 - [compiler][null] minimal hook for future null annotation support
*   bug 349326 - [1.7] new warning for missing try-with-resources
*   bug 186342 - [compiler][null] Using annotations for null checking
*   bug 358903 - Filter practically unimportant resource leak warnings
*   bug 370639 - [compiler][resource] restore the default for resource leak warnings
*   bug 365859 - [compiler][null] distinguish warnings based on flow analysis vs. null annotations
*   bug 388996 - [compiler][resource] Incorrect 'potential resource leak'
*   bug 394768 - [compiler][resource] Incorrect resource leak warning when creating stream in conditional
*   bug 395002 - Self bound generic class doesn't resolve bounds properly for wildcards for certain parametrisation.
*   bug 383368 - [compiler][null] syntactic null analysis for field references
*   bug 400761 - [compiler][null] null may be return as boolean without a diagnostic
*   Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*   Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*   Bug 427438 - [1.8][compiler] NPE at
org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
*   Bug 430150 - [1.8][null] stricter checking against type variables
*   Bug 453483 - [compiler][null][loop] Improve null analysis for loops
*   Jesper S Moller - Contributions for
*   Bug 378674 - "The method can be declared as static" is wrong
*   Bug 527554 - [18.3] Compiler support for JEP 286 Local-Variable Type
*   Bug 529556 - [18.3] Add content assist support for 'var' as a type
*   Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*   Bug 409250 - [1.8][compiler] Various loose ends in 308 code generation
*   Bug 426616 - [1.8][compiler] Type Annotations, multiple problems
**********/

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*                 (originally in org.eclipse.jdt.apt.core)
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*       bug 382701 - [1.8][compiler] Implement semantic analysis of Lambda expressions & Reference expression
*                    Bug 384687 - [1.8] Wildcard type arguments should be rejected for lambda and reference expressions
*       Bug 416885 - [1.8][compiler]IncompatibleClassChange error (edit)
*    Stephan Herrmann - Contribution for
*       bug 402028 - [1.8][compiler] null analysis for reference expressions
*       bug 404649 - [1.8][compiler] detect illegal reference to indirect or redundant super via I.super.m() syntax
*       Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*       Bug 415850 - [1.8] Ensure RunJDTCoreTests can cope with null annotations enabled
*       Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*       Bug 423504 - [1.8] Implement "18.5.3 Functional Interface Parameterization Inference"
```

* Bug 424637 - [1.8][compiler][null] AIOOB in ReferenceExpression.resolveType with a method reference to Files::walk
* Bug 424415 - [1.8][compiler] Eventual resolution of ReferenceExpression is not seen to be happening.
* Bug 424403 - [1.8][compiler] Generic method call with method reference argument fails to resolve properly.
* Bug 427196 - [1.8][compiler] Compiler error for method reference to overloaded method
* Bug 427438 - [1.8][compiler] NPE at org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
* Bug 428264 - [1.8] method reference of generic class causes problems (wrong inference result or NPE)
* Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
* Bug 426537 - [1.8][inference] Eclipse compiler thinks I<? super J> is compatible with I<J<?>> - raw type J involved
* Bug 435570 - [1.8][null] @NonNullByDefault illegally tries to affect "throws E"
* Bug 435689 - [1.8][inference] Type inference not occurring with lambda expression and method reference
* Bug 438383 - [1.8][null] Bogus warning: Null type safety at method return type
* Bug 434483 - [1.8][compiler][inference] Type inference not picked up with method reference
* Bug 441734 - [1.8][inference] Generic method with nested parameterized type argument fails on method reference
* Bug 438945 - [1.8] NullPointerException InferenceContext18.checkExpression in java 8 with generics, primitives, and overloading
* Bug 452788 - [1.8][compiler] Type not correctly inferred in lambda expression
* Bug 448709 - [1.8][null] ensure we don't infer types that violate null constraints on a type parameter's bound
* Bug 459967 - [null] compiler should know about nullness of special methods like MyEnum.valueOf()
* Bug 466713 - Null Annotations: NullPointerException using <int @Nullable []> as Type Param
* Bug 470542 - NullPointerException in ReferenceExpression.isPotentiallyCompatibleWith (962)
* Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contribution for
* Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's work)
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*          bug 185682 - Increment/decrement operators mark local variables as read
*          bug 349326 - [1.7] new warning for missing try-with-resources
*       bug 186342 - [compiler][null] Using annotations for null checking
*       bug 365859 - [compiler][null] distinguish warnings based on flow analysis vs. null annotations
*       bug 331649 - [compiler][null] consider null annotations for fields
*       Bug 466308 - [hovering] Javadoc header for parameter is wrong with annotation-based null analysis
*     Jesper S Møller <jesper@selskabet.org> -  Contributions for
*       Bug 527554 - [18.3] Compiler support for JEP 286 Local-Variable Type
*
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Found in path(s):
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*          Bug 407191 - [1.8] Binary access support for type annotations
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*     Stephan Herrmann - Contributions for
*          bug 319201 - [null] no warning when unboxing SingleNameReference causes NPE
*          bug 349326 - [1.7] new warning for missing try-with-resources
*       bug 186342 - [compiler][null] Using annotations for null checking
*       bug 368546 - [compiler][resource] Avoid remaining false positives found when compiling the Eclipse SDK
*       bug 370639 - [compiler][resource] restore the default for resource leak warnings
*       bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*       bug 388996 - [compiler][resource] Incorrect 'potential resource leak'
*       bug 395977 - [compiler][resource] Resource leak warning behavior possibly incorrect for anonymous inner class
*       bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred checking
*       Bug 415850 - [1.8] Ensure RunJDTCoreTests can cope with null annotations enabled
*       Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*       Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*       Bug 416267 - NPE in QualifiedAllocationExpression.resolveType
*       Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*       Bug 424415 - [1.8][compiler] Eventual resolution of ReferenceExpression is not seen to be happening.
*       Bug 427438 - [1.8][compiler] NPE at org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
*     Jesper S Moller <jesper@selskabet.org> - Contributions for
*       bug 378674 - "The method can be declared as static" is wrong
*     Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                     Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's work)
*                     Bug 409245 - [1.8][compiler] Type annotations dropped when call is routed through a synthetic bridge method
*     Till Brychcy - Contributions for
*          bug 413460 - NonNullByDefault is not inherited to Constructors when accessed via Class File
*******************************************************************************/
```

Found in path(s):

* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/QualifiedAllocationExpression.java
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*   Stephan Herrmann - Contributions for
*   bug 349326 - [1.7] new warning for missing try-with-resources
*   bug 186342 - [compiler][null] Using annotations for null checking
*   bug 364890 - BinaryTypeBinding should use char constants from Util
*   bug 365387 - [compiler][null] bug 186342: Issues to follow up post review and verification.
*   bug 358903 - Filter practically unimportant resource leak warnings
*   bug 365531 - [compiler][null] investigate alternative strategy for internally encoding nullness defaults
*   bug 388800 - [1.8][compiler] detect default methods in class files
*   bug 388281 - [compiler][null] inheritance of null annotations as an option
*   bug 331649 - [compiler][null] consider null annotations for fields
*   bug 392384 - [1.8][compiler][null] Restore nullness info from type annotations in class files
*   Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*   Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*   Bug 415850 - [1.8] Ensure RunJDTCoreTests can cope with null annotations enabled
*   Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*   Bug 427199 - [1.8][resource] avoid resource leak warnings on Streams that have no resource
*   Bug 392245 - [1.8][compiler][null] Define whether / how @NonNullByDefault applies to TYPE_USE locations
*   Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*   Bug 390889 - [1.8][compiler] Evaluate options to support 1.7- projects against 1.8 JRE.
*   Bug 438458 - [1.8][null] clean up handling of null type annotations wrt type variables
*   Bug 439516 - [1.8][null] NonNullByDefault wrongly applied to implicit type bound of binary type
*   Bug 434602 - Possible error with inferred null annotations leading to contradictory null annotations
*   Bug 440477 - [null] Infrastructure for feeding external annotations into compilation
*   Bug 441693 - [1.8][null] Bogus warning for type argument annotated with @NonNull
*   Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*   Bug 453475 - [1.8][null] Contradictory null annotations (4.5 M3 edition)
*   Bug 454182 - Internal compiler error when using 1.8 compliance for simple project
*   Bug 470467 - [null] Nullness of special Enum methods not detected from .class file
*   Bug 447661 - [1.8][null] Incorrect 'expression needs unchecked conversion' warning
*   Jesper Steen Moller - Contributions for
*   Bug 412150 [1.8] [compiler] Enable reflected parameter names during annotation processing
*   Bug 412153 - [1.8][compiler] Check validity of annotations which may be repeatable

```
*    Sebastian Zarnekow - Contributions for
*        bug 544921 - [performance] Poor performance with large source files
*    Alexander Lehmann - Contributions for
*        bug 566258 - Intermittent NPE in APT RoundDispatcher
*******************************************************************************/
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/BinaryTypeBinding.java
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*     Benjamin Muskalla - Contribution for bug 239066
*     Stephan Herrmann  - Contributions for
*          bug 236385 - [compiler] Warn for potential programming problem if an object is created but not used
*          bug 295551 - Add option to automatically promote all warnings to errors
*          bug 349326 - [1.7] new warning for missing try-with-resources
*        bug 186342 - [compiler][null] Using annotations for null checking
```

```
*       bug 370639 - [compiler][resource] restore the default for resource leak warnings
*       bug 366063 - Compiler should not add synthetic @NonNull annotations
*       bug 374605 - Unreasonable warning for enum-based switch statements
*       bug 388281 - [compiler][null] inheritance of null annotations as an option
*       bug 381443 - [compiler][null] Allow parameter widening from @NonNull to unannotated
*       bug 383368 - [compiler][null] syntactic null analysis for field references
*       Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*       Bug 410218 - Optional warning for arguments of "unexpected" types to Map#get(Object),
Collection#remove(Object) et al.
*     Jesper Steen Moller - Contributions for
*       bug 404146 - [1.7][compiler] nested try-catch-finally-blocks leads to unrunnable Java byte code
*       bug 407297 - [1.8][compiler] Control generation of parameter names by option
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Found in path(s):
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* Contributors:
*    wharley@bea.com - initial API and implementation
*    IBM Corporation - fix for 342598
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/apt/dispatch/BaseProcessingEnvImpl.java
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* Contributors:
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*     Stephan Herrmann - Contributions for
*         bug 366003 - CCE in ASTNode.resolveAnnotations(ASTNode.java:639)
*         bug 383973 - [1.8][compiler] syntax recovery in the presence of default methods
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredType.java
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*     Stephan Herrmann - Contributions for
*         bug 186342 - [compiler][null] Using annotations for null checking
*         bug 331649 - [compiler][null] consider null annotations for fields
*         bug 383368 - [compiler][null] syntactic null analysis for field references
```

```
*       bug 382069 - [null] Make the null analysis consider JUnit's assertNotNull similarly to assertions
*       bug 403086 - [compiler][null] include the effect of 'assert' in syntactic null analysis for fields
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/EqualExpression.java
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*       bug 349326 - [1.7] new warning for missing try-with-resources
*       bug 186342 - [compiler][null] Using annotations for null checking
*       bug 365519 - editorial cleanup after bug 186342 and bug 365387
*       bug 358903 - Filter practically unimportant resource leak warnings
*       bug 365531 - [compiler][null] investigate alternative strategy for internally encoding nullness defaults
*       bug 388281 - [compiler][null] inheritance of null annotations as an option
*       bug 395002 - Self bound generic class doesn't resolve bounds properly for wildcards for certain parametrisation.
```

```
*       bug 392862 - [1.8][compiler][null] Evaluate null annotations on array types
*       bug 400421 - [compiler] Null analysis for fields does not take @com.google.inject.Inject into account
*       bug 382069 - [null] Make the null analysis consider JUnit's assertNotNull similarly to assertions
*       bug 392384 - [1.8][compiler][null] Restore nullness info from type annotations in class files
*       Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*       Bug 415291 - [1.8][null] differentiate type incompatibilities due to null annotations
*       Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*       Bug 416176 - [1.8][compiler][null] null type annotations cause grief on type variables
*       Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*       Bug 423504 - [1.8] Implement "18.5.3 Functional Interface Parameterization Inference"
*       Bug 426792 - [1.8][inference][impl] generify new type inference engine
*       Bug 428019 - [1.8][compiler] Type inference failure with nested generic invocation.
*       Bug 427199 - [1.8][resource] avoid resource leak warnings on Streams that have no resource
*       Bug 418743 - [1.8][null] contradictory annotations on invocation of generic method not reported
*       Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*       Bug 431581 - Eclipse compiles what it should not
*       Bug 440759 - [1.8][null] @NonNullByDefault should never affect wildcards and uses of a type variable
*       Bug 452788 - [1.8][compiler] Type not correctly inferred in lambda expression
*       Bug 446442 - [1.8] merge null annotations from super methods
*       Bug 456532 - [1.8][null] ReferenceBinding.appendNullAnnotation() includes phantom annotations in error
messages
*       Bug 410218 - Optional warning for arguments of "unexpected" types to Map#get(Object),
Collection#remove(Object) et al.
*     Jesper S Moller - Contributions for
*       bug 382701 - [1.8][compiler] Implement semantic analysis of Lambda expressions & Reference expression
*       bug 412153 - [1.8][compiler] Check validity of annotations which may be repeatable
*       bug 527554 - [18.3] Compiler support for JEP 286 Local-Variable Type
*     Ulrich Grave <ulrich.grave@gmx.de> - Contributions for
*                         bug 386692 - Missing "unused" warning on "autowired" fields
*     Pierre-Yves B. <pyvesdev@gmail.com> - Contribution for
*                         bug 542520 - [JUnit 5] Warning The method xxx from the type X is never used locally is shown
when using MethodSource
*     Sebastian Zarnekow - Contributions for
*       bug 544921 - [performance] Poor performance with large source files
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*   Igor Fedorenko - extracted from ElementsImpl
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*         Bug 407191 - [1.8] Binary access support for type annotations
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*    wharley@bea.com - initial API and implementation
*    IBM Corporation - fix for 342598
*    IBM Corporation - Java 8 support
*    het@google.com - Bug 427943 - The method
org.eclipse.jdt.internal.compiler.apt.model.Factory.getPrimitiveType does not throw IllegalArgumentException
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*       Bug 429813 - [1.8][dom ast] IMethodBinding#getJavaElement() should return IMethod for lambda
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*   bug 319201 - [null] no warning when unboxing SingleNameReference causes NPE
*   bug 403086 - [compiler][null] include the effect of 'assert' in syntactic null analysis for fields
*   bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred checking
*   Bug 422796 - [compiler][null] boxed boolean reported as potentially null after null test in lazy disjunction
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*   bug 392384 - [1.8][compiler][null] Restore nullness info from type annotations in class files
*   Bug 416174 - [1.8][compiler][null] Bogus name clash error with null annotations
*   Bug 416176 - [1.8][compiler][null] null type annotations cause grief on type variables
*   Bug 423504 - [1.8] Implement "18.5.3 Functional Interface Parameterization Inference"
*   Bug 425783 - An internal error occurred during: "Requesting Java AST from selection". java.lang.StackOverflowError
*   Bug 438458 - [1.8][null] clean up handling of null type annotations wrt type variables
*   Bug 441693 - [1.8][null] Bogus warning for type argument annotated with @NonNull
**********/

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*     Jesper S Moller - Contributions for
*       bug 382701 - [1.8][compiler] Implement semantic analysis of Lambda expressions & Reference expression
*       bug 382721 - [1.8][compiler] Effectively final variables needs special treatment
*       Bug 416885 - [1.8][compiler]IncompatibleClassChange error (edit)
*     Stephan Herrmann - Contribution for
*       bug 401030 - [1.8][null] Null analysis support for lambda methods.
*       Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*       Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*       Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*       Bug 423504 - [1.8] Implement "18.5.3 Functional Interface Parameterization Inference"
*       Bug 425142 - [1.8][compiler] NPE in ConstraintTypeFormula.reduceSubType
*       Bug 425153 - [1.8] Having wildcard allows incompatible types in a lambda expression
*       Bug 424205 - [1.8] Cannot infer type for diamond type with lambda on method invocation
*       Bug 425798 - [1.8][compiler] Another NPE in ConstraintTypeFormula.reduceSubType
*       Bug 425156 - [1.8] Lambda as an argument is flagged with incompatible error
*       Bug 424403 - [1.8][compiler] Generic method call with method reference argument fails to resolve properly.
*       Bug 426563 - [1.8] AIOOBE when method with error invoked with lambda expression as argument
*       Bug 420525 - [1.8] [compiler] Incorrect error "The type Integer does not define sum(Object, Object) that is
applicable here"
*       Bug 427438 - [1.8][compiler] NPE at
org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
*       Bug 428294 - [1.8][compiler] Type mismatch: cannot convert from List<Object> to Collection<Object[]>
*       Bug 428786 - [1.8][compiler] Inference needs to compute the "ground target type" when reducing a lambda
compatibility constraint
*       Bug 428980 - [1.8][null] simple expression as lambda body doesn't leverage null annotation on argument
*       Bug 429430 - [1.8] Lambdas and method reference infer wrong exception type with generics (RuntimeException
instead of IOException)
*       Bug 432110 - [1.8][compiler] nested lambda type incorrectly inferred vs javac
*       Bug 438458 - [1.8][null] clean up handling of null type annotations wrt type variables
*       Bug 441693 - [1.8][null] Bogus warning for type argument annotated with @NonNull
*       Bug 452788 - [1.8][compiler] Type not correctly inferred in lambda expression
*       Bug 453483 - [compiler][null][loop] Improve null analysis for loops
*       Bug 455723 - Nonnull argument not correctly inferred in loop
*       Bug 463728 - [1.8][compiler][inference] Ternary operator in lambda derives wrong type
```

```
*     Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                     Bug 405104 - [1.8][compiler][codegen] Implement support for serializeable lambdas
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/LambdaExpression.java
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*       bug 319201 - [null] no warning when unboxing SingleNameReference causes NPE
*       bug 186342 - [compiler][null] Using annotations for null checking
*       bug 361407 - Resource leak warning when resource is assigned to a field outside of constructor
*       bug 370639 - [compiler][resource] restore the default for resource leak warnings
*       bug 388996 - [compiler][resource] Incorrect 'potential resource leak'
*       bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred checking
*       Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*       Bug 424710 - [1.8][compiler] CCE in SingleNameReference.localVariableBinding
*       Bug 425152 - [1.8] [compiler] Lambda Expression not resolved but flow analyzed leading to NPE.
*       Bug 424205 - [1.8] Cannot infer type for diamond type with lambda on method invocation
*       Bug 424415 - [1.8][compiler] Eventual resolution of ReferenceExpression is not seen to be happening.
*       Bug 426366 - [1.8][compiler] Type inference doesn't handle multiple candidate target types in outer overload context
*       Bug 426290 - [1.8][compiler] Inference + overloading => wrong method resolution ?
*       Bug 427483 - [Java 8] Variables in lambdas sometimes can't be resolved
*       Bug 427438 - [1.8][compiler] NPE at org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
*       Bug 428352 - [1.8][compiler] Resolution errors don't always surface
*       Bug 452788 - [1.8][compiler] Type not correctly inferred in lambda expression
*       Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                     Bug 409245 - [1.8][compiler] Type annotations dropped when call is routed through a synthetic bridge method
*******************************************************************************/
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Found in path(s):

* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/ExplicitConstructorCall.java
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*     Stephan Herrmann - Contributions for
*          bug 236385 - [compiler] Warn for potential programming problem if an object is created but not used
*          bug 319201 - [null] no warning when unboxing SingleNameReference causes NPE
*          bug 349326 - [1.7] new warning for missing try-with-resources
*       bug 186342 - [compiler][null] Using annotations for null checking
*       bug 358903 - Filter practically unimportant resource leak warnings
*       bug 368546 - [compiler][resource] Avoid remaining false positives found when compiling the Eclipse SDK
*       bug 370639 - [compiler][resource] restore the default for resource leak warnings
*       bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*       bug 388996 - [compiler][resource] Incorrect 'potential resource leak'
*       bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred checking
*       Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*       Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*       Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*       Bug 424727 - [compiler][null] NullPointerException in nullAnnotationUnsupportedLocation(ProblemReporter.java:5708)
*       Bug 424710 - [1.8][compiler] CCE in SingleNameReference.localVariableBinding
*       Bug 425152 - [1.8] [compiler] Lambda Expression not resolved but flow analyzed leading to NPE.
*       Bug 424205 - [1.8] Cannot infer type for diamond type with lambda on method invocation
*       Bug 424415 - [1.8][compiler] Eventual resolution of ReferenceExpression is not seen to be happening.
*       Bug 426366 - [1.8][compiler] Type inference doesn't handle multiple candidate target types in outer overload context
*       Bug 426290 - [1.8][compiler] Inference + overloading => wrong method resolution ?
*       Bug 426764 - [1.8] Presence of conditional expression as method argument confuses compiler
*       Bug 424930 - [1.8][compiler] Regression: "Cannot infer type arguments" error from compiler.
*       Bug 427483 - [Java 8] Variables in lambdas sometimes can't be resolved
*       Bug 427438 - [1.8][compiler] NPE at org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
*       Bug 426996 - [1.8][inference] try to avoid method Expression.unresolve()?
*       Bug 428352 - [1.8][compiler] Resolution errors don't always surface
*       Bug 429203 - [1.8][compiler] NPE in AllocationExpression.binding
```

* Bug 429430 - [1.8] Lambdas and method reference infer wrong exception type with generics (RuntimeException instead of IOException)
* Bug 434297 - [1.8] NPE in LamdaExpression.analyseCode with lamda expression nested in a conditional expression
* Bug 452788 - [1.8][compiler] Type not correctly inferred in lambda expression
* Bug 448709 - [1.8][null] ensure we don't infer types that violate null constraints on a type parameter's bound
* Jesper S Moller <jesper@selskabet.org> - Contributions for
* bug 378674 - "The method can be declared as static" is wrong
* Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
* Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's work)
* Bug 409245 - [1.8][compiler] Type annotations dropped when call is routed through a synthetic bridge method
* Till Brychcy - Contributions for
* bug 413460 - NonNullByDefault is not inherited to Constructors when accessed via Class File
* Lars Vogel <Lars.Vogel@vogella.com> - Contributions for
* Bug 473178
**********/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/AllocationExpression.java
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*     Stephan Herrmann - Contribution for
*       Bug 423504 - [1.8] Implement "18.5.3 Functional Interface Parameterization Inference"
*       Bug 426676 - [1.8][compiler] Wrong generic method type inferred from lambda expression
*       Bug 426542 - [1.8] Most specific method not picked when one method has intersection type as type parameter
*       Bug 428019 - [1.8][compiler] Type inference failure with nested generic invocation.
*     Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                       Bug 405104 - [1.8][compiler][codegen] Implement support for serializeable lambdas
*     Jesper S Møller - Contributions for bug 381345 : [1.8] Take care of the Java 8 major version
*                       Bug 527554 - [18.3] Compiler support for JEP 286 Local-Variable Type
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/IntersectionTypeBinding18.java
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*       Bug 360328 - [compiler][null] detect null problems in nested code (local class inside a loop)
*       Bug 388630 - @NonNull diagnostics at line 0
```

* Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
* Bug 416176 - [1.8][compiler][null] null type annotations cause grief on type variables
* Bug 424727 - [compiler][null] NullPointerException in nullAnnotationUnsupportedLocation(ProblemReporter.java:5708)
* Bug 457210 - [1.8][compiler][null] Wrong Nullness errors given on full build build but not on incremental build?
* Keigo Imai - Contribution for bug 388903 - Cannot extend inner class as an anonymous class when it extends the outer class
* Pierre-Yves B. <pyvesdev@gmail.com> - Contributions for
* Bug 542520 - [JUnit 5] Warning The method xxx from the type X is never used locally is shown when using MethodSource
* Bug 546084 - Using Junit 5s MethodSource leads to ClassCastException
**********/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/TypeDeclaration.java
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* Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's work)
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/UsesStatement.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/OpensStatement.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/tool/EclipseCompilerRequestor.java
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*   Carmi Grushko - Bug 465048 - Binding is null for class literals in synchronized blocks
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*        bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*        bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred checking
*        Bug 417758 - [1.8][null] Null safety compromise during array creation.
*        Bug 427163 - [1.8][null] bogus error "Contradictory null specification" on varags
*     Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                        Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's work)
*                        Bug 409247 - [1.8][compiler] Verify error with code allocating multidimensional array
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*    wharley@bea.com - initial API and implementation
*    philippe.marschall@netcetera.ch - Fix for 338370
*    IBM Corporation - Fix for validating relative name
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Found in path(s):
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/apt/dispatch/RoundDispatcher.java
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*   bug 185682 - Increment/decrement operators mark local variables as read
*   bug 331649 - [compiler][null] consider null annotations for fields
*   Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*   Bug 447088 - [null] @Nullable on fully qualified field type is ignored
*   Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*   Bug 458396 - NPE in CodeStream.invoke()
*   Bug 446217 - [null] @NonNullByDefault in package-info.java causes bogus "null type safety" warning
*   Till Brychcy - Contribution for
*   bug 467094 - [1.8][null] TYPE_USE NullAnnotations of array contents are applied to field.
**/

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*   bug 335093 - [compiler][null] minimal hook for future null annotation support
*   bug 349326 - [1.7] new warning for missing try-with-resources
*   bug 186342 - [compiler][null] Using annotations for null checking
*   bug 365983 - [compiler][null] AIOOB with null annotation analysis and varargs
*   bug 368546 - [compiler][resource] Avoid remaining false positives found when compiling the Eclipse SDK
*   bug 370930 - NonNull annotation not considered for enhanced for loops
*   bug 365859 - [compiler][null] distinguish warnings based on flow analysis vs. null annotations
*   bug 392862 - [1.8][compiler][null] Evaluate null annotations on array types
*   bug 331649 - [compiler][null] consider null annotations for fields
*   bug 383368 - [compiler][null] syntactic null analysis for field references
*   Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*   Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*   Bug 415291 - [1.8][null] differentiate type incompatibilities due to null annotations
*   Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*   Bug 416307 - [1.8][compiler][null] subclass with type parameter substitution confuses null checking
*   Bug 417758 - [1.8][null] Null safety compromise during array creation.
*   Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*   Bug 424415 - [1.8][compiler] Eventual resolution of ReferenceExpression is not seen to be happening.
*   Bug 418537 - [1.8][null] Fix null type annotation analysis for poly conditional expressions
*   Bug 428352 - [1.8][compiler] Resolution errors don't always surface
*   Bug 429430 - [1.8] Lambdas and method reference infer wrong exception type with generics (RuntimeException instead of IOException)
*   Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*   Bug 453483 - [compiler][null][loop] Improve null analysis for loops
*   Bug 455723 - Nonnull argument not correctly inferred in loop
*   Andy Clement - Contributions for
*   Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's work)
*   Bug 409250 - [1.8][compiler] Various loose ends in 308 code generation
**********/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/Statement.java
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*   bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/flow/LabelFlowContext.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/util/SimpleSetOfCharArray.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/CachedIndexEntry.java
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*   Stephan Herrmann - Contribution for
*   Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/UnionTypeReference.java

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*    wharley@bea.com - initial API and implementation
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*   bug 186342 - [compiler][null] Using annotations for null checking
*   bug 365519 - editorial cleanup after bug 186342 and bug 365387
*   bug 365531 - [compiler][null] investigate alternative strategy for internally encoding nullness defaults
**/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/PackageBinding.java
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*   Stephan Herrmann - contributions for
*   bug 336428 - [compiler][null] bogus warning "redundant null check" in condition of do {} while() loop
*   bug 186342 - [compiler][null] Using annotations for null checking
*   bug 365519 - editorial cleanup after bug 186342 and bug 365387
*   bug 368546 - [compiler][resource] Avoid remaining false positives found when compiling the Eclipse SDK
*   bug 365859 - [compiler][null] distinguish warnings based on flow analysis vs. null annotations
*   bug 385626 - @NonNull fails across loop boundaries
*   bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*   bug 376263 - Bogus "Potential null pointer access" warning
*   bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred checking
*   bug 406384 - Internal error with I20130413
*   Bug 415413 - [compiler][null] NullpointerException in Null Analysis caused by interaction of LoopingFlowContext and FinallyFlowContext
*   Bug 453483 - [compiler][null][loop] Improve null analysis for loops
*   Bug 455557 - [jdt] NPE LoopingFlowContext.recordNullReference
*   Bug 455723 - Nonnull argument not correctly inferred in loop
*   Bug 415790 - [compiler][resource]Incorrect potential resource leak warning in for loop with close in try/catch
*   Bug 421035 - [resource] False alarm of resource leak warning when casting a closeable in its assignment
*   Jesper S Moller - contributions for

* bug 404657 - [1.8][compiler] Analysis for effectively final variables fails to consider loops
**********/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/flow/LoopingFlowContext.java
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* tyeung@bea.com - initial API and implementation
* IBM Corporation - fix for bug 342757
* Stephan Herrmann - Contribution for bug 186342 - [compiler][null] Using annotations for null checking
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/classfmt/MethodInfoWithParameterAnnotations.java
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*   IBM Corporation - initial API and implementation
*   David Foerster - patch for toUpperCase as described in https://bugs.eclipse.org/bugs/show_bug.cgi?id=153125
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*     Stephan Herrmann - Contribution for
*       Bug 438458 - [1.8][null] clean up handling of null type annotations wrt type variables
*******************************************************************************/
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/VoidTypeBinding.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/NullTypeBinding.java
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*         bug 186342 - [compiler][null] Using annotations for null checking
*       bug 387612 - Unreachable catch block...exception is never thrown from the try
*       bug 395002 - Self bound generic class doesn't resolve bounds properly for wildcards for certain parametrisation.
*       bug 401456 - Code compiles from javac/intellij, but fails from eclipse
*       bug 401271 - StackOverflowError when searching for a methods references
*       bug 405706 - Eclipse compiler fails to give compiler error when return type is a inferred generic
*       Bug 408441 - Type mismatch using Arrays.asList with 3 or more implementations of an interface with the
interface type as the last parameter
*       Bug 413958 - Function override returning inherited Generic Type
*       Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*       Bug 416183 - [1.8][compiler][null] Overload resolution fails with null annotations
*       Bug 416176 - [1.8][compiler][null] null type annotations cause grief on type variables
*       Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*       Bug 424710 - [1.8][compiler] CCE in SingleNameReference.localVariableBinding
*       Bug 424205 - [1.8] Cannot infer type for diamond type with lambda on method invocation
*       Bug 424415 - [1.8][compiler] Eventual resolution of ReferenceExpression is not seen to be happening.
*       Bug 426366 - [1.8][compiler] Type inference doesn't handle multiple candidate target types in outer overload
context
*       Bug 426290 - [1.8][compiler] Inference + overloading => wrong method resolution ?
*       Bug 426589 - [1.8][compiler] Compiler error with generic method/constructor invocation as vargs argument
*       Bug 426590 - [1.8][compiler] Compiler error with tenary operator
*       Bug 426764 - [1.8] Presence of conditional expression as method argument confuses compiler
*       Bug 426998 - [1.8][compiler] method(java.lang.Class, java.lang.String) not applicable for the arguments
(java.lang.Class, java.lang.String)
```

```
*       Bug 423505 - [1.8] Implement "18.5.4 More Specific Method Inference"
*       Bug 427196 - [1.8][compiler] Compiler error for method reference to overloaded method
*       Bug 427483 - [Java 8] Variables in lambdas sometimes can't be resolved
*       Bug 427728 - [1.8] Type Inference rejects calls requiring boxing/unboxing
*       Bug 427218 - [1.8][compiler] Verify error varargs + inference
*       Bug 426836 - [1.8] special handling for return type in references to method getClass()?
*       Bug 427628 - [1.8] regression : The method * is ambiguous for the type *
*       Bug 428352 - [1.8][compiler] Resolution errors don't always surface
*       Bug 428366 - [1.8] [compiler] The method valueAt(ObservableList<Object>, int) is ambiguous for the type
Bindings
*       Bug 424728 - [1.8][null] Unexpected error: The nullness annotation 'XXXX' is not applicable at this location
*       Bug 428811 - [1.8][compiler] Type witness unnecessarily required
*       Bug 429424 - [1.8][inference] Problem inferring type of method's parameter
*       Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*       Bug 434570 - Generic type mismatch for parametrized class annotation attribute with inner class
*       Bug 434483 - [1.8][compiler][inference] Type inference not picked up with method reference
*       Bug 441734 - [1.8][inference] Generic method with nested parameterized type argument fails on method reference
*       Bug 452194 - Code no longer compiles in 4.4.1, but with confusing error
*       Bug 452788 - [1.8][compiler] Type not correctly inferred in lambda expression
*       Bug 456236 - [1.8][null] Cannot infer type when constructor argument is annotated with @Nullable
*       Bug 437072 - [compiler][null] Null analysis emits possibly incorrect warning for new int[][] despite
@NonNullByDefault
*       Bug 462083 - [1.8][inference] Java 8 generic return type mismatch with interface involving type parameter.
*     Jesper S Moller - Contributions for
*       Bug 378674 - "The method can be declared as static" is wrong
*        Bug 405066 - [1.8][compiler][codegen] Implement code generation infrastructure for JSR335
*     Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                       Bug 405104 - [1.8][compiler][codegen] Implement support for serializeable lambdas
*     Pierre-Yves B. <pyvesdev@gmail.com> - Contributions for
*                         Bug 559618 - No compiler warning for import from same package
*                         Bug 560630 - No warning on unused import on class from same package
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/AccessRestriction.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/FalseLiteral.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/classfmt/ClassFileStruct.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/IDependent.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/util/HashtableOfIntValues.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/util/SimpleLookupTable.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/problem/ShouldNotImplement.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/InnerEmulationDependency.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/PrefixExpression.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/IDebugRequestor.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/FloatCache.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/ImportConflictBinding.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/ExtendedStringLiteral.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/Label.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/AnnotationHolder.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/classfmt/InnerClassInfo.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/PostfixExpression.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/JavadocArrayQualifiedTypeReference.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/util/HashtableOfLong.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/ProblemFieldBinding.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-

jar/org/eclipse/jdt/internal/compiler/ast/JavadocSingleNameReference.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/IntegerCache.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/ObjectCache.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/SyntheticArgumentBinding.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/MagicLiteral.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/ParameterizedFieldBinding.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/util/HashtableOfObjectToIntArray.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/LongCache.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/CaseLabel.java
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*   Jesper S Moller - Contributions for
*   Bug 405066 - [1.8][compiler][codegen] Implement code generation infrastructure for JSR335
*   Bug 406982 - [1.8][compiler] Generation of MethodParameters Attribute in classfile
*   Bug 416885 - [1.8][compiler]IncompatibleClassChange error (edit)
*   Bug 412153 - [1.8][compiler] Check validity of annotations which may be repeatable
*   Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*   Bug 405104 - [1.8][compiler][codegen] Implement support for serializeable lambdas
*   Bug 439889 - [1.8][compiler] [lambda] Deserializing lambda fails with IllegalArgumentException: "Invalid lambda deserialization"
***/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/ConstantPool.java
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*   bug 331649 - [compiler][null] consider null annotations for fields
*   Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*   Bug 458396 - NPE in CodeStream.invoke()
**********/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/VariableBinding.java
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*   Stephan Herrmann - contributions for
*   bug 337868 - [compiler][model] incomplete support for package-info.java when using SearchableEnvironment
*   bug 186342 - [compiler][null] Using annotations for null checking
**********/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/Compiler.java
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*   Stephan Herrmann - Contributions for
*   bug 186342 - [compiler][null] Using annotations for null checking
*   bug 365519 - editorial cleanup after bug 186342 and bug 365387
*   Bug 434570 - Generic type mismatch for parametrized class annotation attribute with inner class
**/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/MemberValuePair.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/IBinaryNestedType.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/IGenericType.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/ISourceField.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/IGenericField.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/ISourceMethod.java
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*       Bug 405066 - [1.8][compiler][codegen] Implement code generation infrastructure for JSR335
*       Bug 406982 - [1.8][compiler] Generation of MethodParameters Attribute in classfile
*     Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                       Bug 405104 - [1.8][compiler][codegen] Implement support for serializeable lambdas
*******************************************************************************/
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*   bug 186342 - [compiler][null] Using annotations for null checking
*   bug 365519 - editorial cleanup after bug 186342 and bug 365387
*   bug 388281 - [compiler][null] inheritance of null annotations as an option

* bug 388795 - [compiler] detection of name clash depends on order of super interfaces
* bug 388739 - [1.8][compiler] consider default methods when detecting whether a class needs to be declared abstract
* bug 390883 - [1.8][compiler] Unable to override default method
* bug 395002 - Self bound generic class doesn't resolve bounds properly for wildcards for certain parametrisation.
* bug 401246 - [1.8][compiler] abstract class method should now trump conflicting default methods
* bug 401796 - [1.8][compiler] don't treat default methods as overriding an independent inherited abstract method
* bug 403867 - [1.8][compiler] Suspect error about duplicate default methods
* bug 391376 - [1.8] check interaction of default methods with bridge methods and generics
* bug 395681 - [compiler] Improve simulation of javac6 behavior from bug 317719 after fixing bug 388795
* bug 409473 - [compiler] JDT cannot compile against JRE 1.8
* Bug 420080 - [1.8] Overridden Default method is reported as duplicated
* Bug 404690 - [1.8][compiler] revisit bridge generation after VM bug is fixed
* Bug 410325 - [1.7][compiler] Generified method override different between javac and eclipse compiler
* Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
* Bug 390889 - [1.8][compiler] Evaluate options to support 1.7- projects against 1.8 JRE.
* Bug 440773 - [1.8][null]DefaultLocation.RETURN_TYPE erroneously affects method parameters in @NonNullByDefault
* Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
* Bug 446442 - [1.8] merge null annotations from super methods
**********/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/MethodVerifier15.java
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*   Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*   Bug 433478 - [compiler][null] NPE in ReferenceBinding.isCompatibleWith
***/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredInitializer.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/MemberTypeBinding.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/problem/ProblemSeverities.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/util/SuffixConstants.java

* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/SourceTypeCollisionException.java
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*     Stephan Herrmann  - Contributions for
*          bug 236385 - [compiler] Warn for potential programming problem if an object is created but not used
*          bug 338303 - Warning about Redundant assignment conflicts with definite assignment
*       bug 349326 - [1.7] new warning for missing try-with-resources
*       bug 186342 - [compiler][null] Using annotations for null checking
*       bug 365519 - editorial cleanup after bug 186342 and bug 365387
*       bug 365662 - [compiler][null] warn on contradictory and redundant null annotations
*       bug 365531 - [compiler][null] investigate alternative strategy for internally encoding nullness defaults
*       bug 365859 - [compiler][null] distinguish warnings based on flow analysis vs. null annotations
*       bug 374605 - Unreasonable warning for enum-based switch statements
*       bug 382353 - [1.8][compiler] Implementation property modifiers should be accepted on default methods.
*       bug 382347 - [1.8][compiler] Compiler accepts incorrect default method inheritance
*       bug 388281 - [compiler][null] inheritance of null annotations as an option
*       bug 376053 - [compiler][resource] Strange potential resource leak problems
*       bug 381443 - [compiler][null] Allow parameter widening from @NonNull to unannotated
*       bug 393719 - [compiler] inconsistent warnings on iteration variables
*       bug 392862 - [1.8][compiler][null] Evaluate null annotations on array types
*       bug 388739 - [1.8][compiler] consider default methods when detecting whether a class needs to be declared abstract
*       bug 331649 - [compiler][null] consider null annotations for fields
*       bug 382789 - [compiler][null] warn when syntactically-nonnull expression is compared against null
*       bug 376590 - Private fields with @Inject are ignored by unused field validation
*       bug 400761 - [compiler][null] null may be return as boolean without a diagnostic
*       bug 402028 - [1.8][compiler] null analysis for reference expressions
*       bug 401796 - [1.8][compiler] don't treat default methods as overriding an independent inherited abstract method
*       bug 404649 - [1.8][compiler] detect illegal reference to indirect or redundant super
*       bug 392384 - [1.8][compiler][null] Restore nullness info from type annotations in class files
*       Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*       Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*       Bug 415291 - [1.8][null] differentiate type incompatibilities due to null annotations
*       Bug 415850 - [1.8] Ensure RunJDTCoreTests can cope with null annotations enabled
```

* Bug 414380 - [compiler][internal] QualifiedNameReference#indexOfFirstFieldBinding does not point to the first field
* Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
* Bug 416307 - [1.8][compiler][null] subclass with type parameter substitution confuses null checking
* Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
* Bug 424637 - [1.8][compiler][null] AIOOB in ReferenceExpression.resolveType with a method reference to Files::walk
* Bug 428294 - [1.8][compiler] Type mismatch: cannot convert from List<Object> to Collection<Object[]>
* Bug 428366 - [1.8] [compiler] The method valueAt(ObservableList<Object>, int) is ambiguous for the type Bindings
* Bug 416190 - [1.8][null] detect incompatible overrides due to null type annotations
* Bug 392245 - [1.8][compiler][null] Define whether / how @NonNullByDefault applies to TYPE_USE locations
* Bug 390889 - [1.8][compiler] Evaluate options to support 1.7- projects against 1.8 JRE.
* Bug 430150 - [1.8][null] stricter checking against type variables
* Bug 434600 - Incorrect null analysis error reporting on type parameters
* Bug 439516 - [1.8][null] NonNullByDefault wrongly applied to implicit type bound of binary type
* Bug 438467 - [compiler][null] Better error position for "The method _ cannot implement the corresponding method _ due to incompatible nullness constraints"
* Bug 439298 - [null] "Missing code implementation in the compiler" when using @NonNullByDefault in package-info.java
* Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
* Bug 446442 - [1.8] merge null annotations from super methods
* Bug 455723 - Nonnull argument not correctly inferred in loop
* Bug 458361 - [1.8][null] reconciler throws NPE in ProblemReporter.illegalReturnRedefinition()
* Bug 459967 - [null] compiler should know about nullness of special methods like MyEnum.valueOf()
* Bug 461878 - [1.7][1.8][compiler][null] ECJ compiler does not allow to use null annotations on annotations
* Bug 410218 - Optional warning for arguments of "unexpected" types to Map#get(Object), Collection#remove(Object) et al.
* Jesper S Moller <jesper@selskabet.org> - Contributions for
* bug 382701 - [1.8][compiler] Implement semantic analysis of Lambda expressions & Reference expression
* bug 382721 - [1.8][compiler] Effectively final variables needs special treatment
* bug 384567 - [1.5][compiler] Compiler accepts illegal modifiers on package declaration
* bug 412153 - [1.8][compiler] Check validity of annotations which may be repeatable
* bug 412151 - [1.8][compiler] Check repeating annotation's collection type
* bug 419209 - [1.8] Repeating container annotations should be rejected in the presence of annotation it contains
* Bug 429384 - [1.8][null] implement conformance rules for null-annotated lower / upper type bounds
* Bug 416182 - [1.8][compiler][null] Contradictory null annotations not rejected
* bug 527554 - [18.3] Compiler support for JEP 286 Local-Variable Type
* Ulrich Grave <ulrich.grave@gmx.de> - Contributions for
* bug 386692 - Missing "unused" warning on "autowired" fields
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*   Nick Teryaev - fix for bug (https://bugs.eclipse.org/bugs/show_bug.cgi?id=40752)
*   Stephan Herrmann - Contributions for
*   bug 319201 - [null] no warning when unboxing SingleNameReference causes NPE
*   bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*   bug 395002 - Self bound generic class doesn't resolve bounds properly for wildcards for certain parametrisation.
*   bug 383368 - [compiler][null] syntactic null analysis for field references
*   bug 401017 - [compiler][null] casted reference to @Nullable field lacks a warning
*   bug 400761 - [compiler][null] null may be return as boolean without a diagnostic
*   Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*   Bug 416307 - [1.8][compiler][null] subclass with type parameter substitution confuses null checking
*   Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*   Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*   Bug 427438 - [1.8][compiler] NPE at org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
*   Bug 430150 - [1.8][null] stricter checking against type variables
*   Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*   Bug 407414 - [compiler][null] Incorrect warning on a primitive type being null
*   Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for

* Bug 415541 - [1.8][compiler] Type annotations in the body of static initializer get dropped
***/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/CastExpression.java
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* Stephan Herrmann - Contribution for
* Bug 440477 - [null] Infrastructure for feeding external annotations into compilation
* Bug 440687 - [compiler][batch][null] improve command line option for external annotations
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/batch/ClasspathJar.java
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* Stephan Herrmann - Contributions for
* bug 319201 - [null] no warning when unboxing SingleNameReference causes NPE
* bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
* bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred checking
* Bug 415790 - [compiler][resource]Incorrect potential resource leak warning in for loop with close in try/catch

***/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/DoStatement.java
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*   Stephan Herrmann - Contributions for
*   bug 186342 - [compiler][null] Using annotations for null checking
*   bug 365519 - editorial cleanup after bug 186342 and bug 365387
*   bug 368546 - [compiler][resource] Avoid remaining false positives found when compiling the Eclipse SDK
*   bug 365859 - [compiler][null] distinguish warnings based on flow analysis vs. null annotations
*   bug 385626 - @NonNull fails across loop boundaries
*   bug 388996 - [compiler][resource] Incorrect 'potential resource leak'
*   bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred checking
*   Bug 453483 - [compiler][null][loop] Improve null analysis for loops
*   Bug 455723 - Nonnull argument not correctly inferred in loop
*   Jesper S Moller - Contributions for
*   bug 404657 - [1.8][compiler] Analysis for effectively final variables fails to consider loops
***/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/flow/FinallyFlowContext.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/impl/ByteConstant.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/AccessRuleSet.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/impl/DoubleConstant.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/impl/FloatConstant.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/impl/CharConstant.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/impl/StringConstant.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/impl/BooleanConstant.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/impl/LongConstant.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/util/HashtableOfObject.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/JavadocArgumentExpression.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/impl/ShortConstant.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/impl/IntConstant.java
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*   Dennis Hendriks - initial API and implementation
*   IBM Corporation - Contribution for bug 188796

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*   Stephan Herrmann - Contribution for
*   Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*   Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*   Bug 409236 - [1.8][compiler] Type annotations on intersection cast types dropped by code generator
***/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/IntersectionCastTypeReference.java
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*        bug 365531 - [compiler][null] investigate alternative strategy for internally encoding nullness defaults
*        Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*        Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*     Jesper Steen Moller - Contributions for
*        Bug 412150 [1.8] [compiler] Enable reflected parameter names during annotation processing
*******************************************************************************/
```

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/Binding.java
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*   Stephan Herrmann - Contribution for
*   Bug 365992 - [builder] [null] Change of nullness for a parameter doesn't trigger a build for the files that call the method
*   Bug 440477 - [null] Infrastructure for feeding external annotations into compilation
*   Bug 440687 - [compiler][batch][null] improve command line option for external annotations
*   Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*   bug 407191 - [1.8] Binary access support for type annotations
***/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/classfmt/ClassFileReader.java
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*         Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/JavadocQualifiedTypeReference.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/JavadocSingleTypeReference.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/AbstractCommentParser.java
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*     Lars Vogel <Lars.Vogel@vogella.com> - Contributions for
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/BoundSet.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/ImportBinding.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ASTVisitor.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/JavadocTagConstants.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/MissingTypeBinding.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/JavadocParser.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/ImportReference.java

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*     Genady Beriozkin - added support for reporting assignment with no effect
*     Stephan Herrmann <stephan@cs.tu-berlin.de> - Contributions for
*       bug 319201 - [null] no warning when unboxing SingleNameReference causes NPE
```

```
*       bug 292478 - Report potentially null across variable assignment
*         bug 335093 - [compiler][null] minimal hook for future null annotation support
*         bug 349326 - [1.7] new warning for missing try-with-resources
*       bug 186342 - [compiler][null] Using annotations for null checking
*       bug 358903 - Filter practically unimportant resource leak warnings
*       bug 370639 - [compiler][resource] restore the default for resource leak warnings
*       bug 365859 - [compiler][null] distinguish warnings based on flow analysis vs. null annotations
*       bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*       bug 388996 - [compiler][resource] Incorrect 'potential resource leak'
*       bug 394768 - [compiler][resource] Incorrect resource leak warning when creating stream in conditional
*       bug 395002 - Self bound generic class doesn't resolve bounds properly for wildcards for certain parametrisation.
*       bug 331649 - [compiler][null] consider null annotations for fields
*       bug 383368 - [compiler][null] syntactic null analysis for field references
*       bug 402993 - [null] Follow up of bug 401088: Missing warning about redundant null check
*       bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred
checking
*       Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*       Bug 427438 - [1.8][compiler] NPE at
org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
*       Bug 453483 - [compiler][null][loop] Improve null analysis for loops
*       Bug 407414 - [compiler][null] Incorrect warning on a primitive type being null
*********************************************************************************/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
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*     Jesper S Moller - Bug 392671
*         NPE with a method with explicit this and a following incomplete parameter
*********************************************************************************/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/classfmt/AnnotationMethodInfoWithAnnotations.java
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*  Stephan Herrmann - Contribution for
*       bug 400710 - [1.8][compiler] synthetic access to default method generates wrong code
*       Bug 459967 - [null] compiler should know about nullness of special methods like MyEnum.valueOf()
*       Bug 470467 - [null] Nullness of special Enum methods not detected from .class file
*     Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                       Bug 405104 - [1.8][compiler][codegen] Implement support for serializeable lambdas
*******************************************************************************/
```

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/SyntheticMethodBinding.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/apt/model/ElementImpl.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ClassFilePool.java
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* Contributors:
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*   Stephen Herrmann <stephan@cs.tu-berlin.de> - Contributions for
*   bug 133125 - [compiler][null] need to report the null status of expressions and analyze them simultaneously
*   bug 292478 - Report potentially null across variable assignment
*   bug 324178 - [null] ConditionalExpression.nullStatus(..) doesn't take into account the analysis of condition itself
*   bug 354554 - [null] conditional with redundant condition yields weak error message
*   bug 349326 - [1.7] new warning for missing try-with-resources
*   bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*   bug 383368 - [compiler][null] syntactic null analysis for field references
*   bug 400761 - [compiler][null] null may be return as boolean without a diagnostic
*   Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*   Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*   Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*   Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*   Bug 426078 - [1.8] VerifyError when conditional expression passed as an argument
*   Bug 427438 - [1.8][compiler] NPE at org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
*   Bug 418537 - [1.8][null] Fix null type annotation analysis for poly conditional expressions
*   Bug 428352 - [1.8][compiler] Resolution errors don't always surface
*   Bug 407414 - [compiler][null] Incorrect warning on a primitive type being null
***/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-

jar/org/eclipse/jdt/internal/compiler/ast/ConditionalExpression.java
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*     Stephan Herrmann - Contributions for
*        bug 186342 - [compiler][null] Using annotations for null checking
*        bug 395002 - Self bound generic class doesn't resolve bounds properly for wildcards for certain parametrisation.
*        Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*        bug 413958 - Function override returning inherited Generic Type
*        Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*        Bug 424710 - [1.8][compiler] CCE in SingleNameReference.localVariableBinding
*        Bug 423505 - [1.8] Implement "18.5.4 More Specific Method Inference"
*        Bug 427438 - [1.8][compiler] NPE at
org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
*        Bug 418743 - [1.8][null] contradictory annotations on invocation of generic method not reported
*        Bug 416182 - [1.8][compiler][null] Contradictory null annotations not rejected
*        Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*        Bug 434602 - Possible error with inferred null annotations leading to contradictory null annotations
*        Bug 434483 - [1.8][compiler][inference] Type inference not picked up with method reference
*        Bug 446442 - [1.8] merge null annotations from super methods
*        Bug 457079 - Regression: type inference
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
jar/org/eclipse/jdt/internal/compiler/lookup/ParameterizedGenericMethodBinding.java
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*        Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*        Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*******************************************************************************/
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/Javadoc.java
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*     Jesper S Moller - Contributions for
*       bug 382701 - [1.8][compiler] Implement semantic analysis of Lambda expressions & Reference expression
*       Bug 405066 - [1.8][compiler][codegen] Implement code generation infrastructure for JSR335
*     Stephan Herrmann - Contribution for
*       Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*       Bug 423504 - [1.8] Implement "18.5.3 Functional Interface Parameterization Inference"
*       Bug 425142 - [1.8][compiler] NPE in ConstraintTypeFormula.reduceSubType
*       Bug 425153 - [1.8] Having wildcard allows incompatible types in a lambda expression
*       Bug 425156 - [1.8] Lambda as an argument is flagged with incompatible error
*       Bug 424403 - [1.8][compiler] Generic method call with method reference argument fails to resolve properly.
*       Bug 427438 - [1.8][compiler] NPE at
org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
*       Bug 428352 - [1.8][compiler] Resolution errors don't always surface
*       Bug 446442 - [1.8] merge null annotations from super methods
*     Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                       Bug 405104 - [1.8][compiler][codegen] Implement support for serializeable lambdas
*******************************************************************************/
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/FunctionalExpression.java
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*        bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*        bug 383368 - [compiler][null] syntactic null analysis for field references
*        bug 402993 - [null] Follow up of bug 401088: Missing warning about redundant null check
*     Jesper S Moller - Contributions for
*        bug 382721 - [1.8][compiler] Effectively final variables needs special treatment
*******************************************************************************/
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/CompoundAssignment.java
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*        Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                        Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's work)
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/AnnotationContext.java
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*     Stephan Herrmann - Contribution for bug 186342 - [compiler][null] Using annotations for null checking
*     Jesper S Moller  -. Contribution for bug 400830: [1.8][formatter] Code formatter for Java 8
*******************************************************************************/
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/Scanner.java
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* Contributors:
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*     Stephan Herrmann - Contributions for
*          bug 358827 - [1.7] exception analysis for t-w-r spoils null analysis
*       bug 186342 - [compiler][null] Using annotations for null checking
*       bug 368546 - [compiler][resource] Avoid remaining false positives found when compiling the Eclipse SDK
*       bug 365859 - [compiler][null] distinguish warnings based on flow analysis vs. null annotations
*       bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*       bug 383368 - [compiler][null] syntactic null analysis for field references
*       bug 402993 - [null] Follow up of bug 401088: Missing warning about redundant null check
*       bug 403086 - [compiler][null] include the effect of 'assert' in syntactic null analysis for fields
*       bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred checking
*       Bug 453483 - [compiler][null][loop] Improve null analysis for loops
*       Bug 455723 - Nonnull argument not correctly inferred in loop
*       Bug 415790 - [compiler][resource]Incorrect potential resource leak warning in for loop with close in try/catch
*       Bug 446691 - [1.8][null][compiler] NullPointerException in SingleNameReference.analyseCode
*******************************************************************************/
```

Found in path(s):
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*       Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                     Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's work)
*                     Bug 409246 - [1.8][compiler] Type annotations on catch parameters not handled properly
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/MultiCatchExceptionLabel.java
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*     Stephan Herrmann - Contribution for
*       bug 400710 - [1.8][compiler] synthetic access to default method generates wrong code
*       bug 391376 - [1.8] check interaction of default methods with bridge methods and generics
*       bug 421543 - [1.8][compiler] Compiler fails to recognize default method being turned into abstract by subtytpe
*     Jesper S Moller - Contributions for
*       Bug 405066 - [1.8][compiler][codegen] Implement code generation infrastructure for JSR335
*     Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
```

```
*                    Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's
work)
*                    Bug 409247 - [1.8][compiler] Verify error with code allocating multidimensional array
*                    Bug 409236 - [1.8][compiler] Type annotations on intersection cast types dropped by code
generator
*                    Bug 409250 - [1.8][compiler] Various loose ends in 308 code generation
*                    Bug 405104 - [1.8][compiler][codegen] Implement support for serializeable lambdas
*                    Bug 449467 - [1.8][compiler] Invalid lambda deserialization with anonymous class
*       Olivier Tardieu (tardieu@us.ibm.com) - Contributions for
*                    Bug 442418 - $deserializeLambda$ off-by-one error when deserializing the captured arguments of
a lambda that also capture this
*******************************************************************************/
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/CodeStream.java
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*        bug 331649 - [compiler][null] consider null annotations for fields
*        bug 383368 - [compiler][null] syntactic null analysis for field references
*     Jesper S Moller - Contributions for
*        Bug 378674 - "The method can be declared as static" is wrong
*******************************************************************************/
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/ThisReference.java
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*   bug 382701 - [1.8][compiler] Implement semantic analysis of Lambda expressions & Reference expression
*   Stephan Herrmann - Contribution for
*   bug 404649 - [1.8][compiler] detect illegal reference to indirect or redundant super
*   Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*   Bug 416182 - [1.8][compiler][null] Contradictory null annotations not rejected
**********/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/ProblemReasons.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/apt/model/PrimitiveTypeImpl.java
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*   IBM Corporation - fix for 342598, 382590
*   Jean-Marie Henaff <jmhenaff@google.com> (Google) - Bug 481555
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/apt/model/TypesImpl.java
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*     Stephan Herrmann - Contribution for bug 349326 - [1.7] new warning for missing try-with-resources
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/CharArrayCache.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/util/HashSetOfInt.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/core/compiler/InvalidInputException.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/BranchLabel.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/util/ObjectVector.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/VerificationTypeInfo.java
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*   Karen Moore - fix for https://bugs.eclipse.org/bugs/show_bug.cgi?id=207411
*   Stephan Herrmann <stephan@cs.tu-berlin.de> - Contributions for
*   bug 185682 - Increment/decrement operators mark local variables as read
*   bug 186342 - [compiler][null] Using annotations for null checking
*   bug 365519 - editorial cleanup after bug 186342 and bug 365387
*   bug 374605 - Unreasonable warning for enum-based switch statements
*   bug 384870 - [compiler] @Deprecated annotation not detected if preceded by other annotation
*   bug 393719 - [compiler] inconsistent warnings on iteration variables
*   Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*   Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.

```
*       Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*       Bug 424742 - [1.8] NPE in LambdaExpression.isCompatibleWith
*       Bug 424710 - [1.8][compiler] CCE in SingleNameReference.localVariableBinding
*       Bug 424205 - [1.8] Cannot infer type for diamond type with lambda on method invocation
*       Bug 424415 - [1.8][compiler] Eventual resolution of ReferenceExpression is not seen to be happening.
*       Bug 426366 - [1.8][compiler] Type inference doesn't handle multiple candidate target types in outer overload
context
*       Bug 427282 - [1.8][compiler] AIOOB (-1) at
org.eclipse.jdt.internal.compiler.ClassFile.traverse(ClassFile.java:6209)
*       Bug 427483 - [Java 8] Variables in lambdas sometimes can't be resolved
*       Bug 428352 - [1.8][compiler] Resolution errors don't always surface
*       Bug 427163 - [1.8][null] bogus error "Contradictory null specification" on varags
*       Bug 432348 - [1.8] Internal compiler error (NPE) after upgrade to 1.8
*       Bug 440143 - [1.8][null] one more case of contradictory null annotations regarding type variables
*       Bug 441693 - [1.8][null] Bogus warning for type argument annotated with @NonNull
*       Bug 434483 - [1.8][compiler][inference] Type inference not picked up with method reference
*       Bug 446442 - [1.8] merge null annotations from super methods
*       Bug 437072 - [compiler][null] Null analysis emits possibly incorrect warning for new int[][] despite
@NonNullByDefault
*     Jesper S Moller - Contributions for
*       bug 382721 - [1.8][compiler] Effectively final variables needs special treatment
*       bug 412153 - [1.8][compiler] Check validity of annotations which may be repeatable
*       bug 412153 - [1.8][compiler] Check validity of annotations which may be repeatable
*       bug 412149 - [1.8][compiler] Emit repeated annotations into the designated container
*       bug 419209 - [1.8] Repeating container annotations should be rejected in the presence of annotation it contains
*     Till Brychcy - Contributions for
*               bug 467094 - [1.8][null] TYPE_USE NullAnnotations of array contents are applied to field.
*******************************************************************************/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
jar/org/eclipse/jdt/internal/compiler/ast/ASTNode.java
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*
* Contributors:
*     IBM Corporation - initial API and implementation
*     Stephan Herrmann - Contributions for
*               bug 319201 - [null] no warning when unboxing SingleNameReference causes NPE
```

```
*           bug 349326 - [1.7] new warning for missing try-with-resources
*           bug 360328 - [compiler][null] detect null problems in nested code (local class inside a loop)
*       bug 186342 - [compiler][null] Using annotations for null checking
*       bug 365835 - [compiler][null] inconsistent error reporting.
*       bug 365519 - editorial cleanup after bug 186342 and bug 365387
*       bug 358903 - Filter practically unimportant resource leak warnings
*       bug 368546 - [compiler][resource] Avoid remaining false positives found when compiling the Eclipse SDK
*       bug 370639 - [compiler][resource] restore the default for resource leak warnings
*       bug 365859 - [compiler][null] distinguish warnings based on flow analysis vs. null annotations
*       bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*       bug 388996 - [compiler][resource] Incorrect 'potential resource leak'
*       bug 394768 - [compiler][resource] Incorrect resource leak warning when creating stream in conditional
*       bug 383368 - [compiler][null] syntactic null analysis for field references
*       bug 400761 - [compiler][null] null may be return as boolean without a diagnostic
*       bug 401030 - [1.8][null] Null analysis support for lambda methods.
*       Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*       Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*       Bug 416307 - [1.8][compiler][null] subclass with type parameter substitution confuses null checking
*       Bug 417758 - [1.8][null] Null safety compromise during array creation.
*       Bug 427438 - [1.8][compiler] NPE at
org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
*       Bug 430150 - [1.8][null] stricter checking against type variables
*       Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*       Bug 452788 - [1.8][compiler] Type not correctly inferred in lambda expression
*       Bug 453483 - [compiler][null][loop] Improve null analysis for loops
*       Bug 455723 - Nonnull argument not correctly inferred in loop
*     Jesper S Moller - Contributions for
*       bug 382701 - [1.8][compiler] Implement semantic analysis of Lambda expressions & Reference expression
**********************************************************************************/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
jar/org/eclipse/jdt/internal/compiler/ast/ReturnStatement.java
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*
* Contributors:
*    tyeung@bea.com - initial API and implementation
*    olivier_thomann@ca.ibm.com - add hashCode() and equals(..) methods
```

**********/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/classfmt/AnnotationInfo.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/classfmt/ElementValuePairInfo.java
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* Contributors:
*   Stefan Xenos <sxenos@gmail.com> (Google) - initial API and implementation
**********/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/classfmt/ExternalAnnotationDecorator.java
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* Contributors:
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*   Stephan Herrmann - Contributions for
*   bug 349326 - [1.7] new warning for missing try-with-resources
*   bug 368546 - [compiler][resource] Avoid remaining false positives found when compiling the Eclipse SDK
*   bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*   bug 383368 - [compiler][null] syntactic null analysis for field references
*   bug 402993 - [null] Follow up of bug 401088: Missing warning about redundant null check
*   Bug 440282 - [resource] Resource leak detection false negative with empty finally block
**********/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/Block.java
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*     Stephan Herrmann - Contribution for
*        Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*        Bug 435570 - [1.8][null] @NonNullByDefault illegally tries to affect "throws E"
*        Bug 466713 - Null Annotations: NullPointerException using <int @Nullable []> as Type Param
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/ArrayTypeReference.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/batch/ClasspathJrt.java
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* Contributors:
*    wharley@bea.com - initial API and implementation
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/apt/model/PackageElementImpl.java
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*         bug 349326 - [1.7] new warning for missing try-with-resources
*         bug 358903 - Filter practically unimportant resource leak warnings
*         bug 381445 - [compiler][resource] Can the resource leak check be made aware of Closeables.closeQuietly?
*         bug 400421 - [compiler] Null analysis for fields does not take @com.google.inject.Inject into account
*         bug 382069 - [null] Make the null analysis consider JUnit's assertNotNull similarly to assertions
*         Bug 405569 - Resource leak check false positive when using DbUtils.closeQuietly
*         Bug 427199 - [1.8][resource] avoid resource leak warnings on Streams that have no resource
*         Bug 425183 - [1.8][inference] make CaptureBinding18 safe
*         Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*         Bug 410218 - Optional warning for arguments of "unexpected" types to Map#get(Object),
Collection#remove(Object) et al.
*     Jesper S Moller - Contributions for
*         Bug 405066 - [1.8][compiler][codegen] Implement code generation infrastructure for JSR335
*         Bug 412153 - [1.8][compiler] Check validity of annotations which may be repeatable
*         bug 527554 - [18.3] Compiler support for JEP 286 Local-Variable Type
```

```
*    Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                     Bug 405104 - [1.8][compiler][codegen] Implement support for serializeable lambdas
*    Ulrich Grave <ulrich.grave@gmx.de> - Contributions for
*                     bug 386692 - Missing "unused" warning on "autowired" fields
*    Pierre-Yves B. <pyvesdev@gmail.com> - Contribution for
*                     bug 542520 - [JUnit 5] Warning The method xxx from the type X is never used locally is shown
when using MethodSource
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/TypeConstants.java
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*     Stephan Herrmann - Contributions for
*       bug 342671 - ClassCastException: org.eclipse.jdt.internal.compiler.lookup.SourceTypeBinding cannot be cast to
org.eclipse.jdt.internal.compiler.lookup.ArrayBinding
*       bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*       Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*       Bug 416181 - [1.8][compiler][null] Invalid assignment is not rejected by the compiler
*       Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*       Bug 434600 - Incorrect null analysis error reporting on type parameters
*       Bug 435570 - [1.8][null] @NonNullByDefault illegally tries to affect "throws E"
*       Bug 456508 - Unexpected RHS PolyTypeBinding for: <code-snippet>
*       Bug 466713 - Null Annotations: NullPointerException using <int @Nullable []> as Type Param
*       Andy Clement - Contributions for
*                     Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's
work)
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/ParameterizedQualifiedTypeReference.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/tool/EclipseFileObject.java
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*   bug 395002 - Self bound generic class doesn't resolve bounds properly for wildcards for certain parametrisation.
*   bug 331649 - [compiler][null] consider null annotations for fields
*   bug 400761 - [compiler][null] null may be return as boolean without a diagnostic
*   Bug 427438 - [1.8][compiler] NPE at org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
*   Bug 429403 - [1.8][null] null mismatch from type arguments is not reported at field initializer
*   Bug 453483 - [compiler][null][loop] Improve null analysis for loops
*   Bug 458396 - NPE in CodeStream.invoke()
*   Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*   Bug 409250 - [1.8][compiler] Various loose ends in 308 code generation
***/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-

jar/org/eclipse/jdt/internal/compiler/ast/FieldDeclaration.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/tool/EclipseFileManager.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/codegen/StackMapFrameCodeStream.java
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*     Jesper S Moller - Contributions for
*       Bug 405066 - [1.8][compiler][codegen] Implement code generation infrastructure for JSR335
*       Bug 406982 - [1.8][compiler] Generation of MethodParameters Attribute in classfile
*       Bug 416885 - [1.8][compiler]IncompatibleClassChange error (edit)
*       Bug 412149 - [1.8][compiler] Emit repeated annotations into the designated container
*     Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                       Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's work)
*                       Bug 409236 - [1.8][compiler] Type annotations on intersection cast types dropped by code generator
```

* Bug 409246 - [1.8][compiler] Type annotations on catch parameters not handled properly
* Bug 415541 - [1.8][compiler] Type annotations in the body of static initializer get dropped
* Bug 415399 - [1.8][compiler] Type annotations on constructor results dropped by the code generator
* Bug 415470 - [1.8][compiler] Type annotations on class declaration go vanishing
* Bug 405104 - [1.8][compiler][codegen] Implement support for serializeable lambdas
* Bug 434556 - Broken class file generated for incorrect annotation usage
* Bug 442416 - $deserializeLambda$ missing cases for nested lambdas
*   Stephan Herrmann - Contribution for
*   Bug 438458 - [1.8][null] clean up handling of null type annotations wrt type variables
*   Olivier Tardieu tardieu@us.ibm.com - Contributions for
*   Bug 442416 - $deserializeLambda$ missing cases for nested lambdas
**********/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ClassFile.java
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```
* Contributors:
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*     Stephan Herrmann - Contribution for
*         bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*         bug 392862 - [1.8][compiler][null] Evaluate null annotations on array types
*         bug 392384 - [1.8][compiler][null] Restore nullness info from type annotations in class files
*         Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*         Bug 415850 - [1.8] Ensure RunJDTCoreTests can cope with null annotations enabled
*         Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*         Bug 427163 - [1.8][null] bogus error "Contradictory null specification" on varags
*         Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*         Bug 434570 - Generic type mismatch for parametrized class annotation attribute with inner class
*         Bug 434600 - Incorrect null analysis error reporting on type parameters
*         Bug 439516 - [1.8][null] NonNullByDefault wrongly applied to implicit type bound of binary type
*         Bug 438458 - [1.8][null] clean up handling of null type annotations wrt type variables
*         Bug 435570 - [1.8][null] @NonNullByDefault illegally tries to affect "throws E"
*         Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*         Bug 437072 - [compiler][null] Null analysis emits possibly incorrect warning for new int[][] despite
@NonNullByDefault
*         Bug 466713 - Null Annotations: NullPointerException using <int @Nullable []> as Type Param
*         Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                         Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's
work)
*                         Bug 409236 - [1.8][compiler] Type annotations on intersection cast types dropped by code
generator
*                         Bug 415399 - [1.8][compiler] Type annotations on constructor results dropped by the code
generator
*       Jesper S Møller <jesper@selskabet.org> -  Contributions for
*                         bug 527554 - [18.3] Compiler support for JEP 286 Local-Variable Type
*                         bug 529556 - [18.3] Add content assist support for 'var' as a type
*
**********************************************************************************/

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* Nick Teryaev - fix for bug (https://bugs.eclipse.org/bugs/show_bug.cgi?id=40752)
* Stephan Herrmann - Contributions for
* bug 319201 - [null] no warning when unboxing SingleNameReference causes NPE
* bug 349326 - [1.7] new warning for missing try-with-resources
* bug 186342 - [compiler][null] Using annotations for null checking
* bug 358903 - Filter practically unimportant resource leak warnings
* bug 370639 - [compiler][resource] restore the default for resource leak warnings
* bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
* bug 388996 - [compiler][resource] Incorrect 'potential resource leak'
* bug 379784 - [compiler] "Method can be static" is not getting reported
* bug 379834 - Wrong "method can be static" in presence of qualified super and different staticness of nested super class.
* bug 388281 - [compiler][null] inheritance of null annotations as an option
* bug 392862 - [1.8][compiler][null] Evaluate null annotations on array types
* bug 394768 - [compiler][resource] Incorrect resource leak warning when creating stream in conditional
* bug 381445 - [compiler][resource] Can the resource leak check be made aware of Closeables.closeQuietly?
* bug 331649 - [compiler][null] consider null annotations for fields
* bug 383368 - [compiler][null] syntactic null analysis for field references
* bug 382069 - [null] Make the null analysis consider JUnit's assertNotNull similarly to assertions
* bug 382350 - [1.8][compiler] Unable to invoke inherited default method via I.super.m() syntax
* bug 404649 - [1.8][compiler] detect illegal reference to indirect or redundant super
* bug 403086 - [compiler][null] include the effect of 'assert' in syntactic null analysis for fields
* bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred checking
* Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
* Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
* Bug 405569 - Resource leak check false positive when using DbUtils.closeQuietly
* Bug 411964 - [1.8][null] leverage null type annotation in foreach statement
* Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
* Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
* Bug 423504 - [1.8] Implement "18.5.3 Functional Interface Parameterization Inference"
* Bug 424710 - [1.8][compiler] CCE in SingleNameReference.localVariableBinding
* Bug 425152 - [1.8] [compiler] Lambda Expression not resolved but flow analyzed leading to NPE.
* Bug 424205 - [1.8] Cannot infer type for diamond type with lambda on method invocation
* Bug 424415 - [1.8][compiler] Eventual resolution of ReferenceExpression is not seen to be happening.
* Bug 426366 - [1.8][compiler] Type inference doesn't handle multiple candidate target types in outer overload context
* Bug 426290 - [1.8][compiler] Inference + overloading => wrong method resolution ?
* Bug 427483 - [Java 8] Variables in lambdas sometimes can't be resolved
* Bug 427438 - [1.8][compiler] NPE at org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
* Bug 426996 - [1.8][inference] try to avoid method Expression.unresolve()?
* Bug 428352 - [1.8][compiler] Resolution errors don't always surface
* Bug 429430 - [1.8] Lambdas and method reference infer wrong exception type with generics (RuntimeException instead of IOException)
* Bug 441734 - [1.8][inference] Generic method with nested parameterized type argument fails on method reference

```
*       Bug 452788 - [1.8][compiler] Type not correctly inferred in lambda expression
*       Bug 456487 - [1.8][null] @Nullable type variant of @NonNull-constrained type parameter causes grief
*       Bug 407414 - [compiler][null] Incorrect warning on a primitive type being null
*       Bug 472618 - [compiler][null] assertNotNull vs. Assert.assertNotNull
*       Bug 470958 - [1.8] Unable to convert lambda
*       Bug 410218 - Optional warning for arguments of "unexpected" types to Map#get(Object),
Collection#remove(Object) et al.
*     Jesper S Moller - Contributions for
*       Bug 378674 - "The method can be declared as static" is wrong
*       Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                       Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's
work)
*                       Bug 409245 - [1.8][compiler] Type annotations dropped when call is routed through a synthetic
bridge method
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/MessageSend.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/InferenceSubstitution.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/classfmt/TypeAnnotationWalker.java
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*          bug 325755 - [compiler] wrong initialization state after conditional expression
*          bug 320170 - [compiler] [null] Whitebox issues in null analysis
*          bug 292478 - Report potentially null across variable assignment
*          bug 332637 - Dead Code detection removing code that isn't dead
*          bug 341499 - [compiler][null] allocate extra bits in all methods of UnconditionalFlowInfo
*          bug 349326 - [1.7] new warning for missing try-with-resources
*       bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*       bug 386181 - [compiler][null] wrong transition in UnconditionalFlowInfo.mergedWith()
*       bug 394768 - [compiler][resource] Incorrect resource leak warning when creating stream in conditional
*       Bug 453483 - [compiler][null][loop] Improve null analysis for loops
*       Bug 454031 - [compiler][null][loop] bug in null analysis; wrong "dead code" detection
*       Bug 421035 - [resource] False alarm of resource leak warning when casting a closeable in its assignment
**********************************************************************************/
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/flow/UnconditionalFlowInfo.java
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*     IBM Corporation - initial API and implementation
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*       bug 349326 - [1.7] new warning for missing try-with-resources
*       bug 374605 - Unreasonable warning for enum-based switch statements
*       bug 382353 - [1.8][compiler] Implementation property modifiers should be accepted on default methods.
*       bug 382354 - [1.8][compiler] Compiler silent on conflicting modifier
*       bug 401030 - [1.8][null] Null analysis support for lambda methods.
*       Bug 416176 - [1.8][compiler][null] null type annotations cause grief on type variables
*       Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*     Jesper S Moller - Contributions for
*       bug 382701 - [1.8][compiler] Implement semantic analysis of Lambda expressions & Reference expression
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/MethodScope.java
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*       Bug 452788 - [1.8][compiler] Type not correctly inferred in lambda expression
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/IPolyExpression.java
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*   bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*   bug 392862 - [1.8][compiler][null] Evaluate null annotations on array types
*   bug 383368 - [compiler][null] syntactic null analysis for field references
*   bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred checking
***/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/ArrayReference.java
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*          bug 332637 - Dead Code detection removing code that isn't dead
*          bug 358827 - [1.7] exception analysis for t-w-r spoils null analysis
*          bug 349326 - [1.7] new warning for missing try-with-resources
*          bug 359334 - Analysis for resource leak warnings does not consider exceptions as method exit points
*       bug 358903 - Filter practically unimportant resource leak warnings
*       bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*       bug 388996 - [compiler][resource] Incorrect 'potential resource leak'
*       bug 401088 - [compiler][null] Wrong warning "Redundant null check" inside nested try statement
*       bug 401092 - [compiler][null] Wrong warning "Redundant null check" in outer catch of nested try
*       bug 402993 - [null] Follow up of bug 401088: Missing warning about redundant null check
*       bug 384380 - False positive on a ?? Potential null pointer access ?? after a continue
*       Bug 415790 - [compiler][resource]Incorrect potential resource leak warning in for loop with close in try/catch
*       Bug 371614 - [compiler][resource] Wrong "resource leak" problem on return/throw inside while loop
*       Bug 444964 - [1.7+][resource] False resource leak warning (try-with-resources for ByteArrayOutputStream - return inside for loop)
*     Jesper Steen Moller - Contributions for
*       bug 404146 - [1.7][compiler] nested try-catch-finally-blocks leads to unrunnable Java byte code
*     Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                     Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's work)
*
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/TryStatement.java
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*         bug 349326 - [1.7] new warning for missing try-with-resources
*         bug 392384 - [1.8][compiler][null] Restore nullness info from type annotations in class files
*         Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*         Bug 467032 - TYPE_USE Null Annotations: IllegalStateException with annotated arrays of Enum when accessed via BinaryTypeBinding
*******************************************************************************/
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/UnresolvedReferenceBinding.java
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*         bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/CombinedBinaryExpression.java
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*           bug 349326 - [1.7] new warning for missing try-with-resources
*           bug 359362 - FUP of bug 349326: Resource leak on non-Closeable resource
*       bug 358903 - Filter practically unimportant resource leak warnings
*       Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*       Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*       Bug 423504 - [1.8] Implement "18.5.3 Functional Interface Parameterization Inference"
*       Bug 426676 - [1.8][compiler] Wrong generic method type inferred from lambda expression
*       Bug 427411 - [1.8][generics] JDT reports type mismatch when using method that returns generic type
*       Bug 428019 - [1.8][compiler] Type inference failure with nested generic invocation.
*       Bug 435962 - [RC2] StackOverFlowError when building
*       Bug 438458 - [1.8][null] clean up handling of null type annotations wrt type variables
*       Bug 440759 - [1.8][null] @NonNullByDefault should never affect wildcards and uses of a type variable
*       Bug 441693 - [1.8][null] Bogus warning for type argument annotated with @NonNull
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/BinaryModuleBinding.java
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*   bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*   bug 388281 - [compiler][null] inheritance of null annotations as an option
*   Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099

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*   Bug 365662 - [compiler][null] warn on contradictory and redundant null annotations
*   Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*   Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*   Keigo Imai - Contribution for bug 388903 - Cannot extend inner class as an anonymous class when it extends the outer class
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*     Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*         Bug 407191 - [1.8] Binary access support for type annotations
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*   bug 392384 - [1.8][compiler][null] Restore nullness info from type annotations in class files
*   Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*   Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*   Bug 415543 - [1.8][compiler] Incorrect bound index in RuntimeInvisibleTypeAnnotations attribute
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*        bug 331649 - [compiler][null] consider null annotations for fields
*        Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*        Bug 426996 - [1.8][inference] try to avoid method Expression.unresolve()?
*     Jesper S Moller - Contributions for
*       bug 382721 - [1.8][compiler] Effectively final variables needs special treatment
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*    Jesper Steen Moller - Bug 412150 [1.8] [compiler] Enable reflected parameter names during annotation processing
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*         bug 186342 - [compiler][null] Using annotations for null checking
*         bug 367203 - [compiler][null] detect assigning null to nonnull argument
*         bug 365519 - editorial cleanup after bug 186342 and bug 365387
*         bug 365662 - [compiler][null] warn on contradictory and redundant null annotations
*         bug 365531 - [compiler][null] investigate alternative strategy for internally encoding nullness defaults
*         bug 388281 - [compiler][null] inheritance of null annotations as an option
*         Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*         Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
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*         Bug 425152 - [1.8] [compiler] Lambda Expression not resolved but flow analyzed leading to NPE.
*         Bug 423505 - [1.8] Implement "18.5.4 More Specific Method Inference"
*         Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*         Bug 438012 - [1.8][null] Bogus Warning: The nullness annotation is redundant with a default that applies to this
location
*         Bug 440759 - [1.8][null] @NonNullByDefault should never affect wildcards and uses of a type variable
*         Bug 443347 - [1.8][null] @NonNullByDefault should not affect constructor arguments of an anonymous
instantiation
*         Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*         Bug 466713 - Null Annotations: NullPointerException using <int @Nullable []> as Type Param
*         Bug 456584 - [1.8][null] Bogus warning for return type variable's @NonNull annotation being 'redundant'
*         Bug 471611 - Error on hover on call to generic method with null annotation
*     Jesper Steen Moller - Contributions for
*         Bug 412150 [1.8] [compiler] Enable reflected parameter names during annotation processing
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/MethodBinding.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/apt/dispatch/BaseAnnotationProcessorManager.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/ProvidesStatement.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/INameEnvironmentExtension.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/IMultiModuleEntry.java
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*     Stephan Herrmann - Contributions for
*       bug 342671 - ClassCastException: org.eclipse.jdt.internal.compiler.lookup.SourceTypeBinding cannot be cast to
org.eclipse.jdt.internal.compiler.lookup.ArrayBinding
*       Bug 420894 - ClassCastException in DefaultBindingResolver.resolveType(Type)
*       bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*       Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*       Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*       Bug 434600 - Incorrect null analysis error reporting on type parameters
*       Bug 435570 - [1.8][null] @NonNullByDefault illegally tries to affect "throws E"
*       Bug 456508 - Unexpected RHS PolyTypeBinding for: <code-snippet>
*       Bug 466713 - Null Annotations: NullPointerException using <int @Nullable []> as Type Param
*       Andy Clement - Contributions for
*                       Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's
work)
*********************************************************************************/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
jar/org/eclipse/jdt/internal/compiler/ast/ParameterizedSingleTypeReference.java
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*          bug 319201 - [null] no warning when unboxing SingleNameReference causes NPE
*          bug 349326 - [1.7] new warning for missing try-with-resources
*       bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
```

* bug 383368 - [compiler][null] syntactic null analysis for field references
* bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred checking
**********/

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/IfStatement.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/diagnose/LexStream.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/NormalAnnotation.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/ModuleReferenceImpl.java
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*         bug 383368 - [compiler][null] syntactic null analysis for field references
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/NullLiteral.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/apt/util/Archive.java
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*       bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
*       bug 383368 - [compiler][null] syntactic null analysis for field references
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/BinaryExpression.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredModule.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/ModuleReference.java
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*         bug 368546 - [compiler][resource] Avoid remaining false positives found when compiling the Eclipse SDK
*         bug 370639 - [compiler][resource] restore the default for resource leak warnings
*         bug 388996 - [compiler][resource] Incorrect 'potential resource leak'
*         Bug 417758 - [1.8][null] Null safety compromise during array creation.
*         Bug 427438 - [1.8][compiler] NPE at
org.eclipse.jdt.internal.compiler.ast.ConditionalExpression.generateCode(ConditionalExpression.java:280)
*         Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*         Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                         Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's
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*          Bug 407191 - [1.8] Binary access support for type annotations
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*        bug 328281 - visibility leaks not detected when analyzing unused field in private class
*        bug 382353 - [1.8][compiler] Implementation property modifiers should be accepted on default methods.
*******************************************************************************/
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*        bug 186342 - [compiler][null] Using annotations for null checking
*        bug 365662 - [compiler][null] warn on contradictory and redundant null annotations
*        bug 331649 - [compiler][null] consider null annotations for fields
*        Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*        Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*        Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*        Bug 415850 - [1.8] Ensure RunJDTCoreTests can cope with null annotations enabled
*        Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*        Bug 424728 - [1.8][null] Unexpected error: The nullness annotation 'XXXX' is not applicable at this location
*        Bug 392245 - [1.8][compiler][null] Define whether / how @NonNullByDefault applies to TYPE_USE locations
*        Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*        Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*        Bug 457210 - [1.8][compiler][null] Wrong Nullness errors given on full build build but not on incremental build?
*        Bug 469584 - ClassCastException in Annotation.detectStandardAnnotation (320)
*        Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                        Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's work)
*                        Bug 409517 - [1.8][compiler] Type annotation problems on more elaborate array references
*                        Bug 415397 - [1.8][compiler] Type Annotations on wildcard type argument dropped
*                        Bug 414384 - [1.8] type annotation on abbreviated inner class is not marked as inner type
*      Jesper S Moller <jesper@selskabet.org> -  Contributions for
*                        Bug 412153 - [1.8][compiler] Check validity of annotations which may be repeatable
*                        Bug 412151 - [1.8][compiler] Check repeating annotation's collection type
*                        Bug 412149 - [1.8][compiler] Emit repeated annotations into the designated container
*                        Bug 419209 - [1.8] Repeating container annotations should be rejected in the presence of annotation it contains
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*        bug 328281 - visibility leaks not detected when analyzing unused field in private class
*        bug 349326 - [1.7] new warning for missing try-with-resources
*        bug 186342 - [compiler][null] Using annotations for null checking
*        bug 365836 - [compiler][null] Incomplete propagation of null defaults.
*        bug 365519 - editorial cleanup after bug 186342 and bug 365387
*        bug 365662 - [compiler][null] warn on contradictory and redundant null annotations
*        bug 365531 - [compiler][null] investigate alternative strategy for internally encoding nullness defaults
*        bug 366063 - Compiler should not add synthetic @NonNull annotations
*        bug 384663 - Package Based Annotation Compilation Error in JDT 3.8/4.2 (works in 3.7.2)
*        bug 386356 - Type mismatch error with annotations and generics
*        bug 388281 - [compiler][null] inheritance of null annotations as an option
```

```
*       bug 331649 - [compiler][null] consider null annotations for fields
*       bug 380896 - [compiler][null] Enum constants not recognised as being NonNull.
*       bug 391376 - [1.8] check interaction of default methods with bridge methods and generics
*       Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*       Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*       Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*       Bug 415850 - [1.8] Ensure RunJDTCoreTests can cope with null annotations enabled
*       Bug 416172 - [1.8][compiler][null] null type annotation not evaluated on method return type
*       Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*       Bug 426048 - [1.8] NPE in TypeVariableBinding.internalBoundCheck when parentheses are not balanced
*       Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*       Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*       Bug 432348 - [1.8] Internal compiler error (NPE) after upgrade to 1.8
*       Bug 438458 - [1.8][null] clean up handling of null type annotations wrt type variables
*       Bug 435570 - [1.8][null] @NonNullByDefault illegally tries to affect "throws E"
*       Bug 441693 - [1.8][null] Bogus warning for type argument annotated with @NonNull
*       Bug 435805 - [1.8][compiler][null] Java 8 compiler does not recognize declaration style null annotations
*       Bug 457210 - [1.8][compiler][null] Wrong Nullness errors given on full build build but not on incremental build?
*       Bug 461250 - ArrayIndexOutOfBoundsException in SourceTypeBinding.fields
*       Bug 466713 - Null Annotations: NullPointerException using <int @Nullable []> as Type Param
*     Jesper S Moller <jesper@selskabet.org> -  Contributions for
*       Bug 412153 - [1.8][compiler] Check validity of annotations which may be repeatable
*     Till Brychcy - Contributions for
*          bug 415269 - NonNullByDefault is not always inherited to nested classes
*     Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*                    Bug 405104 - [1.8][compiler][codegen] Implement support for serializeable lambdas
*     Sebastian Zarnekow - Contributions for
*       bug 544921 - [performance] Poor performance with large source files
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/IRecordComponent.java
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*    IBM Corporation - fix for 342936
*    Kenneth Olson - Contribution for bug 188796 - [jsr199] Using JSR199 to extend ECJ
*    Dennis Hendriks - Contribution for bug 188796 - [jsr199] Using JSR199 to extend ECJ
*    Frits Jalvingh  - fix for bug 533830.
*******************************************************************************/
```

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/tool/EclipseCompilerImpl.java
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* Contributors:
*        Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*         Bug 407191 - [1.8] Binary access support for type annotations
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-

jar/org/eclipse/jdt/internal/compiler/env/IBinaryTypeAnnotation.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
jar/org/eclipse/jdt/internal/compiler/classfmt/FieldInfoWithTypeAnnotation.java
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* Contributors:
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*     Till Brychcy - Contributions for
*                         Bug 467482 - TYPE_USE null annotations: Incorrect "Redundant null check"-warning
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
jar/org/eclipse/jdt/internal/compiler/ast/NullAnnotationMatching.java
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*        Bug 186342 - [compiler][null] Using annotations for null checking
*        Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-
jar/org/eclipse/jdt/internal/compiler/lookup/MostSpecificExceptionMethodBinding.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/CompilationResult.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredElement.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredUnit.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/parser/RecoveredField.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/AnnotationMethodDeclaration.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/batch/ClasspathLocation.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/ICompilationUnit.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/NameEnvironmentAnswer.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/ClassLiteralAccess.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/INameEnvironment.java
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*     IBM Corporation - initial API and implementation
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*        bug 382350 - [1.8][compiler] Unable to invoke inherited default method via I.super.m() syntax
*        bug 404649 - [1.8][compiler] detect illegal reference to indirect or redundant super
*     Jesper S Moller <jesper@selskabet.org> - Contributions for
*        bug 378674 - "The method can be declared as static" is wrong
**********************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/QualifiedThisReference.java
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*        bug 382350 - [1.8][compiler] Unable to invoke inherited default method via I.super.m() syntax
*        bug 404649 - [1.8][compiler] detect illegal reference to indirect or redundant super
*        bug 404728 - [1.8]NPE on QualifiedSuperReference error
**********************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/QualifiedSuperReference.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/util/HashtableOfInteger.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/flow/FieldInitsFakingFlowContext.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/IBinaryModule.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/env/IUpdatableModule.java
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*    wharley@bea.com - initial API and implementation
*    IBM Corporation - fix for 342598
*    IBM Corporation - Java 8 support
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Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/apt/model/ArrayTypeImpl.java
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*         bug 186342 - [compiler][null] Using annotations for null checking
*         bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*         bug 392384 - [1.8][compiler][null] Restore nullness info from type annotations in class files
*         Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*         Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*         Bug 425152 - [1.8] [compiler] Lambda Expression not resolved but flow analyzed leading to NPE.
*         Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/ParameterizedMethodBinding.java
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*         bug 319201 - [null] no warning when unboxing SingleNameReference causes NPE
*         bug 383368 - [compiler][null] syntactic null analysis for field references
*         bug 403086 - [compiler][null] include the effect of 'assert' in syntactic null analysis for fields
*         bug 403147 - [compiler][null] FUP of bug 400761: consolidate interaction between unboxing, NPE, and deferred checking
*         Bug 422796 - [compiler][null] boxed boolean reported as potentially null after null test in lazy disjunction
*******************************************************************************/
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-

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*     Tom Tromey - Contribution for bug 159641
*     Benjamin Muskalla - Contribution for bug 239066
*     Stephan Herrmann  - Contributions for
*          bug 236385 - [compiler] Warn for potential programming problem if an object is created but not used
*          bug 295551 - Add option to automatically promote all warnings to errors
*          bug 359721 - [options] add command line option for new warning token "resource"
*       bug 365208 - [compiler][batch] command line options for annotation based null analysis
*       bug 374605 - Unreasonable warning for enum-based switch statements
*       bug 375366 - ECJ ignores unusedParameterIncludeDocCommentReference unless enableJavadoc option is set
*       bug 388281 - [compiler][null] inheritance of null annotations as an option
*       bug 381443 - [compiler][null] Allow parameter widening from @NonNull to unannotated
*       Bug 440477 - [null] Infrastructure for feeding external annotations into compilation
*       Bug 440687 - [compiler][batch][null] improve command line option for external annotations
*       Bug 408815 - [batch][null] Add CLI option for
COMPILER_PB_SYNTACTIC_NULL_ANALYSIS_FOR_FIELDS
*     Jesper S Moller   - Contributions for
*       bug 407297 - [1.8][compiler] Control generation of parameter names by option
*    Mat Booth - Contribution for bug 405176
*    Frits Jalvingh - fix for bug 533830.
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*   Bug 440474 - [null] textual encoding of external null annotations
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/apt/model/NameImpl.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/tool/JrtFileSystem.java
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*     Jesper Steen Moeller - Contributions for:
*         Bug 407297: [1.8][compiler] Control generation of parameter names by option
*******************************************************************************/
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*         bug 383368 - [compiler][null] syntactic null analysis for field references
*         bug 403086 - [compiler][null] include the effect of 'assert' in syntactic null analysis for fields
*******************************************************************************/
```

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/UnaryExpression.java
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*     Stephan Herrmann - Contribution for
*        Bug 434602 - Possible error with inferred null annotations leading to contradictory null annotations
*        Bug 456497 - [1.8][null] during inference nullness from target type is lost against weaker hint from applicability analysis
*        Bug 456487 - [1.8][null] @Nullable type variant of @NonNull-constrained type parameter causes grief
*     Till Brychcy - Contribution for
*        Bug 473713 - [1.8][null] Type mismatch: cannot convert from @NonNull A1 to @NonNull A1
*******************************************************************************/
/* Cache the derived type, tagging it as a derivative of both the key type and the naked type.
    E.g: int @NonNull [] would be tagged as a derived type of both int and int []. This is not
    needed for correctness, but for annotated object reuse. We provide two alternate ways to
    annotate a type:

    Taking parameterized types as an example, a call to getParamaterizedType can be made with annotations
    to create @NonNull List<@NonNull String> in one stroke. Or a parameterized type can be created first
    and then annotated via getAnnotatedType. In the former case, the tables get looked up with List as
    the key, in the latter with List<String> as the key.

    Binary vs source, substitutions, annotation re-attribution from SE7 locations etc trigger these
    alternate code paths. Unless care is exercised, we will end up with duplicate objects (that share
    the same TypeBinding.id => correctness is not an issue, but memory wastage is)
 */
```

Found in path(s):
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/lookup/TypeSystem.java
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*   Bug 407191 - [1.8] Binary access support for type annotations
**/

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*   Jesper S Moller - Contributions for
*   Bug 405066 - [1.8][compiler][codegen] Implement code generation infrastructure for JSR335
*   Bug 406973 - [compiler] Parse MethodParameters attribute
*   Andy Clement - Contributions for
*   Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's work)
***/

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*   Andy Clement (GoPivotal, Inc) aclement@gopivotal.com - Contributions for
*   Bug 415397 - [1.8][compiler] Type Annotations on wildcard type argument dropped
*   Stephan Herrmann - Contribution for
*   Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*   Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*   Bug 429958 - [1.8][null] evaluate new DefaultLocation attribute of @NonNullByDefault
*   Bug 440462 - [null][compiler]NPE in EJC for erroneous null annotations
*   Bug 441693 - [1.8][null] Bogus warning for type argument annotated with @NonNull
**********/

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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/ast/Wildcard.java
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*       bug 345305 - [compiler][null] Compiler misidentifies a case of "variable can only be null"
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/util/GenericXMLWriter.java
* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/util/ManifestAnalyzer.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/problem/DefaultProblem.java
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* /opt/cola/permits/1430636762_1664535907.3671625/0/ecj-3-26-0-sources-3-jar/org/eclipse/jdt/internal/compiler/impl/ITypeRequestor.java
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*        bug 383368 - [compiler][null] syntactic null analysis for field references
*        Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*        Bug 416307 - [1.8][compiler][null] subclass with type parameter substitution confuses null checking
*        Bug 392099 - [1.8][compiler][null] Apply null annotation on types for null analysis
*        Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*        Bug 392238 - [1.8][compiler][null] Detect semantically invalid null type annotations
*        Bug 435570 - [1.8][null] @NonNullByDefault illegally tries to affect "throws E"
*        Bug 466713 - Null Annotations: NullPointerException using <int @Nullable []> as Type Param
*        Andy Clement - Contributions for
*                       Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's work)
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*          bug 349326 - [1.7] new warning for missing try-with-resources
*       bug 186342 - [compiler][null] Using annotations for null checking
*       bug 370639 - [compiler][resource] restore the default for resource leak warnings
*       bug 265744 - Enum switch should warn about missing default
*       bug 374605 - Unreasonable warning for enum-based switch statements
*       bug 381443 - [compiler][null] Allow parameter widening from @NonNull to unannotated
*       Bug 441208 - [1.8][null]SuppressWarnings("null") does not suppress / marked Unnecessary
*       Bug 410218 - Optional warning for arguments of "unexpected" types to Map#get(Object),
Collection#remove(Object) et al.
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*       bug 292478 - Report potentially null across variable assignment,
*       bug 185682 - Increment/decrement operators mark local variables as read
*       bug 331649 - [compiler][null] consider null annotations for fields
*       bug 383368 - [compiler][null] syntactic null analysis for field references
*       Bug 412203 - [compiler] Internal compiler error: java.lang.IllegalArgumentException: info cannot be null
*       Bug 458396 - NPE in CodeStream.invoke()
*       Bug 407414 - [compiler][null] Incorrect warning on a primitive type being null
```

```
*     Jesper S Moller - <jesper@selskabet.org>   - Contributions for
*           bug 382721 - [1.8][compiler] Effectively final variables needs special treatment
*       bug 378674 - "The method can be declared as static" is wrong
*       bug 404657 - [1.8][compiler] Analysis for effectively final variables fails to consider loops
*       bug 527554 - [18.3] Compiler support for JEP 286 Local-Variable Type
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*           bug 282152 - [1.5][compiler] Generics code rejected by Eclipse but accepted by javac
*           bug 349326 - [1.7] new warning for missing try-with-resources
*           bug 359362 - FUP of bug 349326: Resource leak on non-Closeable resource
*       bug 358903 - Filter practically unimportant resource leak warnings
*       bug 395002 - Self bound generic class doesn't resolve bounds properly for wildcards for certain parametrisation.
*       bug 392384 - [1.8][compiler][null] Restore nullness info from type annotations in class files
*       Bug 415043 - [1.8][null] Follow-up re null type annotations after bug 392099
*       Bug 417295 - [1.8[[null] Massage type annotated null analysis to gel well with deep encoded type bindings.
*       Bug 400874 - [1.8][compiler] Inference infrastructure should evolve to meet JLS8 18.x (Part G of JSR335 spec)
*       Bug 426792 - [1.8][inference][impl] generify new type inference engine
*       Bug 428019 - [1.8][compiler] Type inference failure with nested generic invocation.
*       Bug 429384 - [1.8][null] implement conformance rules for null-annotated lower / upper type bounds
*       Bug 431269 - [1.8][compiler][null] StackOverflow in nullAnnotatedReadableName
*       Bug 431408 - Java 8 (1.8) generics bug
*       Bug 435962 - [RC2] StackOverFlowError when building
*       Bug 438458 - [1.8][null] clean up handling of null type annotations wrt type variables
*       Bug 438250 - [1.8][null] NPE trying to report bogus null annotation conflict
*       Bug 438179 - [1.8][null] 'Contradictory null annotations' error on type variable with explicit null-annotation.
*       Bug 440143 - [1.8][null] one more case of contradictory null annotations regarding type variables
*       Bug 440759 - [1.8][null] @NonNullByDefault should never affect wildcards and uses of a type variable
*       Bug 441693 - [1.8][null] Bogus warning for type argument annotated with @NonNull
*       Bug 456497 - [1.8][null] during inference nullness from target type is lost against weaker hint from applicability analysis
```

* Bug 456459 - Discrepancy between Eclipse compiler and javac - Enums, interfaces, and generics
* Bug 456487 - [1.8][null] @Nullable type variant of @NonNull-constrained type parameter causes grief
* Bug 462790 - [null] NPE in Expression.computeConversion()
* Bug 456532 - [1.8][null] ReferenceBinding.appendNullAnnotation() includes phantom annotations in error messages
* Jesper S Møller <jesper@selskabet.org> - Contributions for bug 381345 : [1.8] Take care of the Java 8 major version
* Bug 527554 - [18.3] Compiler support for JEP 286 Local-Variable Type
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* Bug 383624 - [1.8][compiler] Revive code generation support for type annotations (from Olivier's work)
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* Bug 392384 - [1.8][compiler][null] Restore nullness info from type annotations in class files
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This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

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If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

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1.447 glibc 2.32

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@item
Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

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1.455 resteasy-jax-rs 2.2.1.GA

1.456 papermill 2.3.4

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1.457 ethtool 5.8

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1.459 markupsafe 2.1.1

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[metadata]
name = MarkupSafe

```
version = attr: markupsafe.__version__
url = https://palletsprojects.com/p/markupsafe/
project_urls =
 Donate = https://palletsprojects.com/donate
 Documentation = https://markupsafe.palletsprojects.com/
 Changes = https://markupsafe.palletsprojects.com/changes/
 Source Code = https://github.com/pallets/markupsafe/
 Issue Tracker = https://github.com/pallets/markupsafe/issues/
 Twitter = https://twitter.com/PalletsTeam
 Chat = https://discord.gg/pallets
license = BSD-3-Clause
license_files = LICENSE.rst
author = Armin Ronacher
author_email = armin.ronacher@active-4.com
maintainer = Pallets
maintainer_email = contact@palletsprojects.com
description = Safely add untrusted strings to HTML/XML markup.
long_description = file: README.rst
long_description_content_type = text/x-rst
classifiers =
 Development Status :: 5 - Production/Stable
 Environment :: Web Environment
 Intended Audience :: Developers
 License :: OSI Approved :: BSD License
 Operating System :: OS Independent
 Programming Language :: Python
 Topic :: Internet :: WWW/HTTP :: Dynamic Content
 Topic :: Text Processing :: Markup :: HTML

[options]
packages = find:
package_dir = = src
include_package_data = True
python_requires = >= 3.7

[options.packages.find]
where = src

[tool:pytest]
testpaths = tests
filterwarnings =
 error

[coverage:run]
branch = True
source =
 markupsafe
 tests
```

```
[coverage:paths]
source =
 src
 */site-packages

[flake8]
select = B, E, F, W, B9, ISC
ignore =
 E203
 E501
 E722
 W503
max-line-length = 80

[mypy]
files = src/markupsafe
python_version = 3.7
show_error_codes = True
disallow_subclassing_any = True
disallow_untyped_calls = True
disallow_untyped_defs = True
disallow_incomplete_defs = True
no_implicit_optional = True
local_partial_types = True
no_implicit_reexport = True
strict_equality = True
warn_redundant_casts = True
warn_unused_configs = True
warn_unused_ignores = True
warn_return_any = True
warn_unreachable = True

[egg_info]
tag_build =
tag_date = 0
```

Found in path(s):
* /opt/cola/permits/1288546271_1649055323.54/0/markupsafe-2-1-1-tar-gz/MarkupSafe-2.1.1/setup.cfg
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```
Metadata-Version: 2.1
Name: MarkupSafe
Version: 2.1.1
Summary: Safely add untrusted strings to HTML/XML markup.
Home-page: https://palletsprojects.com/p/markupsafe/
Author: Armin Ronacher
Author-email: armin.ronacher@active-4.com
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Classifier: Programming Language :: Python
Classifier: Topic :: Internet :: WWW/HTTP :: Dynamic Content
Classifier: Topic :: Text Processing :: Markup :: HTML
Requires-Python: >=3.7
Description-Content-Type: text/x-rst
License-File: LICENSE.rst

MarkupSafe
==========

MarkupSafe implements a text object that escapes characters so it is
safe to use in HTML and XML. Characters that have special meanings are
replaced so that they display as the actual characters. This mitigates
injection attacks, meaning untrusted user input can safely be displayed
on a page.

Installing

Install and update using `pip`_:

.. code-block:: text

  pip install -U MarkupSafe

.. _pip: https://pip.pypa.io/en/stable/getting-started/

Examples

.. code-block:: pycon

  >>> from markupsafe import Markup, escape

  >>> # escape replaces special characters and wraps in Markup
  >>> escape("<script>alert(document.cookie);</script>")
  Markup('<script>alert(document.cookie);</script>')

  >>> # wrap in Markup to mark text "safe" and prevent escaping
  >>> Markup("Hello")
  Markup('hello')

  >>> escape(Markup("Hello"))
  Markup('hello')

  >>> # Markup is a str subclass
  >>> # methods and operators escape their arguments
  >>> template = Markup("Hello {name}")
  >>> template.format(name='"World"')
  Markup('Hello "World"')

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1.460 squashfs-tools 4.3

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1.462 elfutils 0.180

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The End

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core/src/java/org/apache/lucene/util/compress/LZ4.java is a Java implementation of the LZ4 (https://github.com/lz4/lz4/tree/dev/lib) compression format for Lucene's DataInput/DataOutput abstractions.

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analysis/common/src/resources/org/apache/lucene/analysis/ro/stopwords.txt,
analysis/common/src/resources/org/apache/lucene/analysis/bg/stopwords.txt,
analysis/common/src/resources/org/apache/lucene/analysis/hi/stopwords.txt,
analysis/common/src/resources/org/apache/lucene/analysis/bn/stopwords.txt
See http://members.unine.ch/jacques.savoy/clef/index.html.

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analysis/common/src/java/org/apache/lucene/analysis/de/GermanLightStemmer.java
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analysis/common/src/java/org/apache/lucene/analysis/es/SpanishLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/fi/FinnishLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/fr/FrenchLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/fr/FrenchMinimalStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/hu/HungarianLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/it/ItalianLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/pt/PortugueseLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/ru/RussianLightStemmer.java
analysis/common/src/java/org/apache/lucene/analysis/sv/SwedishLightStemmer.java

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1.466 pure-eval 0.2.2

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1.467 ojdbc8 12.2.0.1

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Found in path(s):
* /opt/cola/permits/1604924332_1679462148.5001574/0/jersey-core-1-13-sources-1-jar/com/sun/jersey/core/util/Base64.java
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* holder.
*/
/**
   * Obtain a {@link Closing} of the jar file.
   * <p>
   * For most platforms the format for the zip or jar follows the form of
   * the <a href="http://docs.sun.com/source/819-0913/author/jar.html#jarprotocol"jar protcol.</a></p>
   * <ul>
   *   <li><code>jar:file:///tmp/fishfingers.zip!/example.txt</code></li>
   *   <li><code>zip:http://www.example.com/fishfingers.zip!/example.txt</code></li>
   * </ul>
   * <p>
   * On versions of the WebLogic application server a proprietary format is
   * supported of the following form, which assumes a zip file located on
   * the local file system:
   * </p>
   * <ul>
   *   <li><code>zip:/tmp/fishfingers.zip!/example.txt</code></li>
   *   <li><code>zip:d:/tempfishfingers.zip!/example.txt</code></li>
   * </ul>
   * <p>
   * This method will first attempt to create a {@link Closing} as follows:
   * <pre>
   *   new Closing(new URL(jarUrlString).openStream());
   * </pre>
   * if that fails with a {@link MalformedURLException} then the method will
   * attempt to create a {@link Closing} instance as follows:
   * <pre>
   *  return new Closing(new FileInputStream(
   *      UriComponent.decode(jarUrlString, UriComponent.Type.PATH)));
   * </pre>
   *
   * @param jarUrlString the raw scheme specific part of a URI minus the jar
   *        entry
   * @return a {@link Closing}.
   * @throws IOException if there is an error opening the stream.
   */
```

Found in path(s):

* /opt/cola/permits/1604924332_1679462148.5001574/0/jersey-core-1-13-sources-1-jar/com/sun/jersey/core/spi/scanning/uri/JarZipSchemeScanner.java

1.471 commons-dbcp 9.0.74

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1.472 jaxb2-reflection 2.1.13

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```
// NO WARRANTY!  This class is in the public domain.
/**
* Default implementation of the Attributes interface.
*
* <blockquote>
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* Public Domain, and comes with <strong>NO WARRANTY</strong>.</em>
* </blockquote>
*
* <p>This class provides a default implementation of the SAX2
* {@link org.xml.sax.Attributes Attributes} interface, with the
* addition of manipulators so that the list can be modified or
* reused.</p>
*
* <p>There are two typical uses of this class:</p>
*
* <ol>
* <li>to take a persistent snapshot of an Attributes object
*  in a {@link org.xml.sax.ContentHandler#startElement startElement} event; or</li>
```

```
* <li>to construct or modify an Attributes object in a SAX2 driver or filter.</li>
* </ol>
*
* <p>This class replaces the now-deprecated SAX1 {@link
* org.xml.sax.helpers.AttributeListImpl AttributeListImpl}
* class; in addition to supporting the updated Attributes
* interface rather than the deprecated {@link org.xml.sax.AttributeList
* AttributeList} interface, it also includes a much more efficient
* implementation using a single array rather than a set of Vectors.</p>
*
* @since SAX 2.0
* @author David Megginson,
*         <a href="mailto:sax@megginson.com">sax@megginson.com</a>
* @version 2.0
*/
```

Found in path(s):
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/impl/parser/state/AttributesImpl.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/tools/jxc/gen/config/AttributesImpl.java
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* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/readers/DOMCatalogParser.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/CatalogManager.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/tools/ResolvingParser.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-

jar/com/sun/org/apache/xml/internal/resolver/readers/SAXParserHandler.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/CatalogEntry.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/readers/TR9401CatalogReader.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/readers/OASISXMLCatalogReader.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/tools/ResolvingXMLFilter.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/helpers/Namespaces.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/tools/CatalogResolver.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/helpers/Debug.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/Resolver.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/readers/XCatalogReader.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/readers/TextCatalogReader.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/tools/ResolvingXMLReader.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/readers/CatalogReader.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/readers/SAXCatalogParser.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/CatalogException.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/helpers/BootstrapResolver.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/helpers/FileURL.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/helpers/PublicId.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/readers/DOMCatalogReader.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/readers/SAXCatalogReader.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/org/apache/xml/internal/resolver/readers/ExtendedXMLCatalogReader.java
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```
/**
  * Checks if the ID/IDREF semantics is associated with this
  * datatype.
  *
  * <p>
```

```
 * This method is introduced to support the RELAX NG DTD
 * compatibility spec. (Of course it's always free to use
 * this method for other purposes.)
 *
 * <p>
 * If you are implementing a datatype library and have no idea about
 * the "RELAX NG DTD compatibility" thing, just return
 * <code>ID_TYPE_NULL</code> is fine.
 *
 * @return
 *  If this datatype doesn't have any ID/IDREF semantics,
 *  it returns {@link #ID_TYPE_NULL}. If it has such a semantics
 *  (for example, XSD:ID, XSD:IDREF and comp:ID type), then
 *  it returns {@link #ID_TYPE_ID}, {@link #ID_TYPE_IDREF} or
 *  {@link #ID_TYPE_IDREFS}.
 */
```

Found in path(s):
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/org/relaxng/datatype/Datatype.java
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* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/XSContentType.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/XSDeclaration.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/XSElementDecl.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/XSAttContainer.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/XSTerm.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/visitor/XSContentTypeVisitor.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/impl/SimpleTypeImpl.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/impl/Ref.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/impl/FacetImpl.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-

jar/com/sun/xml/xsom/impl/util/SchemaWriter.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/visitor/XSWildcardFunction.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/util/SimpleTypeSet.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/impl/ModelGroupDeclImpl.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/impl/EmptyImpl.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/impl/RestrictionSimpleTypeImpl.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/XSParticle.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/XSRestrictionSimpleType.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/xml/xsom/visitor/XSWildcardVisitor.java
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* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JAnnotationStringValue.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/writer/FileCodeWriter.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JFieldVar.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JGenerable.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JTypeVar.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/util/MS1252Encoder.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JJavaName.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JAnnotationValue.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JAssignment.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JGenerifiable.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JOp.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/fmt/JTextFile.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/writer/PrologCodeWriter.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JMethod.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JPackage.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JType.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JForLoop.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JResourceFile.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/writer/ProgressCodeWriter.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/fmt/JStaticJavaFile.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JCodeModel.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JBlock.java

* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JAnnotationArrayMember.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JTypeWildcard.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JMods.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/package-info.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JContinue.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JThrow.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JStatement.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JBreak.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JAnnotationUse.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JClass.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JArrayClass.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JDeclaration.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JPrimitiveType.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JWhileLoop.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JExpr.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JEnumConstant.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/ClassType.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JClassAlreadyExistsException.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JInvocation.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/util/UnicodeEscapeWriter.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/writer/ZipCodeWriter.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/writer/FilterCodeWriter.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JDefinedClass.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JNarrowedClass.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JCast.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JDoLoop.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JAnnotatable.java

* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JCase.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JDirectClass.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/fmt/JBinaryFile.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JAssignmentTarget.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JCommentPart.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JReturn.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JClassContainer.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JCatchBlock.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JConditional.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/util/ClassNameComparator.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JMod.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/util/EncoderFactory.java
* /opt/cola/permits/1539587146_1674458751.98498/0/jaxb-xjc-2-1-13-sources-jar/com/sun/codemodel/JNullType.java
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/**
* Represents OASIS Open Catalog files.
*
* <p>This class implements the semantics of OASIS Open Catalog files
* (defined by
* <a href="http://www.oasis-open.org/html/a401.htm">OASIS Technical
* Resolution 9401:1997 (Amendment 2 to TR 9401)</a>).</p>
```

*
* The primary purpose of the Catalog is to associate resources in the
* document with local system identifiers. Some entities
* (document types, XML entities, and notations) have names and all of them
* can have either public or system identifiers or both. (In XML, only a
* notation can have a public identifier without a system identifier, but
* the methods implemented in this class obey the Catalog semantics
* from the SGML
* days when system identifiers were optional.)
*
* The system identifiers returned by the resolution methods in this
* class are valid, i.e. usable by, and in fact constructed by, the
* <tt>java.net.URL</tt> class. Unfortunately, this class seems to behave in
* somewhat non-standard ways and the system identifiers returned may
* not be directly usable in a browser or filesystem context.
*
* This class recognizes all of the Catalog entries defined in
* TR9401:1997:
*
*
* BASE
* changes the base URI for resolving relative system identifiers. The
* initial base URI is the URI of the location of the catalog (which is,
* in turn, relative to the location of the current working directory
* at startup, as returned by the <tt>user.dir</tt> system property).
* CATALOG
* processes other catalog files. An included catalog occurs logically
* at the end of the including catalog.
* DELEGATE_PUBLIC
* specifies alternate catalogs for some public identifiers. The delegated
* catalogs are not loaded until they are needed, but they are cached
* once loaded.
* DELEGATE_SYSTEM
* specifies alternate catalogs for some system identifiers. The delegated
* catalogs are not loaded until they are needed, but they are cached
* once loaded.
* DELEGATE_URI
* specifies alternate catalogs for some URIs. The delegated
* catalogs are not loaded until they are needed, but they are cached
* once loaded.
* REWRITE_SYSTEM
* specifies alternate prefix for a system identifier.
* REWRITE_URI
* specifies alternate prefix for a URI.
* SYSTEM_SUFFIX
* maps any system identifier that ends with a particular suffix to another
* system identifier.
* URI_SUFFIX

* maps any URI that ends with a particular suffix to another URI.
* DOCTYPE
* associates the names of root elements with URIs. (In other words, an XML
* processor might infer the doctype of an XML document that does not include
* a doctype declaration by looking for the DOCTYPE entry in the
* catalog which matches the name of the root element of the document.)
* DOCUMENT
* provides a default document.
* DTDDECL
* recognized and silently ignored. Not relevant for XML.
* ENTITY
* associates entity names with URIs.
* LINKTYPE
* recognized and silently ignored. Not relevant for XML.
* NOTATION
* associates notation names with URIs.
* OVERRIDE
* changes the override behavior. Initial behavior is set by the
* system property <tt>xml.catalog.override</tt>. The default initial
* behavior is 'YES', that is, entries in the catalog override
* system identifiers specified in the document.
* PUBLIC
* maps a public identifier to a system identifier.
* SGMLDECL
* recognized and silently ignored. Not relevant for XML.
* SYSTEM
* maps a system identifier to another system identifier.
* URI
* maps a URI to another URI.
*
*
* Note that BASE entries are treated as described by RFC2396. In
* particular, this has the counter-intuitive property that after a BASE
* entry identifing "http://example.com/a/b/c" as the base URI,
* the relative URI "foo" is resolved to the absolute URI
* "http://example.com/a/b/foo". You must provide the trailing slash if
* you do not want the final component of the path to be discarded as a
* filename would in a URI for a resource: "http://example.com/a/b/c/".
*
*
* Note that subordinate catalogs (all catalogs except the first,
* including CATALOG and DELEGATE* catalogs) are only loaded if and when
* they are required.
*
* This class relies on classes which implement the CatalogReader
* interface to actually load catalog files. This allows the catalog
* semantics to be implemented for TR9401 text-based catalogs, XML
* catalogs, or any number of other storage formats.

```
*
* <p>Additional catalogs may also be loaded with the
* {@link #parseCatalog} method.</p>
* </dd>
* </dl>
*
* <p><b>Change Log:</b></p>
* <dl>
* <dt>2.0</dt>
* <dd><p>Rewrite to use CatalogReaders.</p></dd>
* <dt>1.1</dt>
* <dd><p>Allow quoted components in <tt>xml.catalog.files</tt>
* so that URLs containing colons can be used on Unix.
* The string passed to <tt>xml.catalog.files</tt> can now have the form:</p>
* <pre>
* unquoted-path-with-no-sep-chars:"double-quoted path with or without sep chars":'single-quoted path with or
without sep chars'
* </pre>
* <p>(Where ":" is the separater character in this example.)</p>
* <p>If an unquoted path contains an embedded double or single quote
* character, no special processig is performed on that character. No
* path can contain separater characters, double, and single quotes
* simultaneously.</p>
* <p>Fix bug in calculation of BASE entries: if
* a catalog contains multiple BASE entries, each is relative to the preceding
* base, not the default base URI of the catalog.</p>
* </dd>
* <dt>1.0.1</dt>
* <dd><p>Fixed a bug in the calculation of the list of subordinate catalogs.
* This bug caused an infinite loop where parsing would alternately process
* two catalogs indefinitely.</p>
* </dd>
* </dl>
*
* @see CatalogReader
* @see CatalogEntry
*
* @author Norman Walsh
* <a href="mailto:Norman.Walsh@Sun.COM">Norman.Walsh@Sun.COM</a>
*
* @version 1.0
*
* <p>Derived from public domain code originally published by Arbortext,
* Inc.</p>
*/

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jar/com/sun/org/apache/xml/internal/resolver/Catalog.java
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1.473 jline-terminal-jna 3.21.0

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* /opt/cola/permits/1337889589_1654234513.477234/0/jline-terminal-jna-3-21-0-sources-1-jar/org/jline/terminal/impl/jna/linux/CLibrary.java
* /opt/cola/permits/1337889589_1654234513.477234/0/jline-terminal-jna-3-21-0-sources-1-jar/org/jline/terminal/impl/jna/freebsd/FreeBsdNativePty.java
* /opt/cola/permits/1337889589_1654234513.477234/0/jline-terminal-jna-3-21-0-sources-1-jar/org/jline/terminal/impl/jna/linux/LinuxNativePty.java
* /opt/cola/permits/1337889589_1654234513.477234/0/jline-terminal-jna-3-21-0-sources-1-jar/org/jline/terminal/impl/jna/JnaSupportImpl.java
* /opt/cola/permits/1337889589_1654234513.477234/0/jline-terminal-jna-3-21-0-sources-1-jar/org/jline/terminal/impl/jna/solaris/SolarisNativePty.java
* /opt/cola/permits/1337889589_1654234513.477234/0/jline-terminal-jna-3-21-0-sources-1-jar/org/jline/terminal/impl/jna/osx/CLibrary.java
* /opt/cola/permits/1337889589_1654234513.477234/0/jline-terminal-jna-3-21-0-sources-1-jar/org/jline/terminal/impl/jna/osx/OsXNativePty.java
* /opt/cola/permits/1337889589_1654234513.477234/0/jline-terminal-jna-3-21-0-sources-1-jar/org/jline/terminal/impl/jna/win/JnaWinSysTerminal.java
* /opt/cola/permits/1337889589_1654234513.477234/0/jline-terminal-jna-3-21-0-sources-1-jar/org/jline/terminal/impl/jna/solaris/CLibrary.java
* /opt/cola/permits/1337889589_1654234513.477234/0/jline-terminal-jna-3-21-0-sources-1-jar/org/jline/terminal/impl/jna/JnaNativePty.java

1.474 xerces-j 2.12.2

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1.477 jsr250-api 1.0

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1.479 protobuf-java 3.19.6

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Manifest-Version: 1.0
Automatic-Module-Name: com.google.protobuf
Bnd-LastModified: 1664485905970
Build-Jdk: 1.8.0_181-google-v7
Built-By: mkruskal
Bundle-Description: Core Protocol Buffers library. Protocol Buffers are
a way of encoding structured data in an efficient yet extensible for
mat.
Bundle-DocURL: https://developers.google.com/protocol-buffers/
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Bundle-ManifestVersion: 2
Bundle-Name: Protocol Buffers [Core]
Bundle-SymbolicName: com.google.protobuf
Bundle-Version: 3.19.6
Created-By: Apache Maven Bundle Plugin
Export-Package: com.google.protobuf;version="3.19.6"
Import-Package: sun.misc;resolution:=optional,com.google.protobuf;versio
n="[3.19,4)"
Require-Capability: osgi.ee;filter:="(&(osgi.ee=JavaSE)(version=1.7))"
Tool: Bnd-3.0.0.201509101326

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* /opt/cola/permits/1444789790_1666041710.804059/0/protobuf-java-3-19-6-jar/META-INF/MANIFEST.MF
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1.480 openssl 1.1.1u

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The End

1.481 httpcomponents-client 4.5.7

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* /opt/cola/permits/1337889429_1654234511.1966925/0/jline-remote-telnet-3-21-0-sources-jar/org/jline/builtins/telnet/ConnectionListener.java

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1.487 icu 42

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## Commands to generate dependency files
GEN_DEPS.c= $(CC) -E -MM $(DEFS) $(CPPFLAGS)
GEN_DEPS.cc= $(CXX) -E -MM $(DEFS) $(CPPFLAGS)

## Flags for position independent code
SHAREDLIBCFLAGS = -fPIC
SHAREDLIBCXXFLAGS = -fPIC
SHAREDLIBCPPFLAGS = -DPIC

## Additional flags when building libraries and with threads
THREADSCPPFLAGS = -D_REENTRANT
LIBCPPFLAGS =

## Compiler switch to embed a runtime search path
LD_RPATH=
LD_RPATH_PRE= -Wl,-rpath,

## Compiler switch to embed a library name
LD_SONAME = -Wl,-soname -Wl,$(notdir $(MIDDLE_SO_TARGET))

## Shared library options
LD_SOOPTIONS= -Wl,-Bsymbolic

## Shared object suffix
SO = so
## Non-shared intermediate object suffix
STATIC_O = ao

## Compilation rules
%.$(STATIC_O): $(srcdir)/%.c
 $(COMPILE.c) $(STATICCPPFLAGS) $(STATICCFLAGS) -o $@ $<
%.o: $(srcdir)/%.c
 $(COMPILE.c) $(DYNAMICCPPFLAGS) $(DYNAMICCFLAGS) -o $@ $<

%.$(STATIC_O): $(srcdir)/%.cpp
 $(COMPILE.cc) $(STATICCPPFLAGS) $(STATICCXXFLAGS) -o $@ $<
%.o: $(srcdir)/%.cpp
 $(COMPILE.cc) $(DYNAMICCPPFLAGS) $(DYNAMICCXXFLAGS) -o $@ $<
```

```
## Dependency rules
%.d: $(srcdir)/%.c
 @echo "generating dependency information for $<"
 @$(SHELL) -ec '$(GEN_DEPS.c) $< \
  | sed '\''s/\($*\)\.o[ :]*/\1.o $@ : /g'\'' > $@; \
  [ -s $@ ] || rm -f $@'

%.d: $(srcdir)/%.cpp
 @echo "generating dependency information for $<"
 @$(SHELL) -ec '$(GEN_DEPS.cc) $< \
  | sed '\''s/\($*\)\.o[ :]*/\1.o $@ : /g'\'' > $@; \
  [ -s $@ ] || rm -f $@'

## Versioned libraries rules

%.$(SO).$(SO_TARGET_VERSION_MAJOR): %.$(SO).$(SO_TARGET_VERSION)
 $(RM) $@ && ln -s ${<F} $@
%.$(SO): %.$(SO).$(SO_TARGET_VERSION_MAJOR)
 $(RM) $@ && ln -s ${*F}.$(SO).$(SO_TARGET_VERSION) $@

##  Bind internal references

# LDflags that pkgdata will use
BIR_LDFLAGS= -Wl,-Bsymbolic

# Dependencies [i.e. map files] for the final library
BIR_DEPS=

## Remove shared library 's'
STATIC_PREFIX_WHEN_USED =
STATIC_PREFIX =

## End BSD-specific setup
```

1.488 sed 4.8

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1.491 plotly 5.8.0

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1.492 circuitbreaker 1.4.0

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* /opt/cola/permits/1573637413_1677160434.22152/0/fabfuel-circuitbreaker-1-4-0-0-g89f4eba-tar-gz/fabfuel-circuitbreaker-c99afad/LICENSE.rst
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"""

```
Python Circuit Breaker
"""
from setuptools import setup


def readme():
  with open('README.rst') as f:
     return f.read()


dependencies = ["typing; python_version < '3.5'", "monotonic; python_version < '3.0'"]

setup(
  name='circuitbreaker',
  version='1.4.0',
  url='https://github.com/fabfuel/circuitbreaker',
  download_url='https://github.com/fabfuel/circuitbreaker/archive/1.3.1.tar.gz',
  license='BSD-3-Clause',
  author='Fabian Fuelling',
  author_email='pypi@fabfuel.de',
  description='Python Circuit Breaker pattern implementation',
  long_description=readme(),
  py_modules=['circuitbreaker'],
  include_package_data=True,
  zip_safe=False,
  platforms='any',
  install_requires=dependencies,
  classifiers=[
     'Intended Audience :: Developers',
     'License :: OSI Approved :: BSD License',
     'Operating System :: POSIX',
     'Operating System :: MacOS',
     'Operating System :: Unix',
     'Programming Language :: Python',
     'Programming Language :: Python :: 2',
     'Programming Language :: Python :: 3',
  ]
)
```

Found in path(s):
* /opt/cola/permits/1573637413_1677160434.22152/0/fabfuel-circuitbreaker-1-4-0-0-g89f4eba-tar-gz/fabfuel-circuitbreaker-c99afad/setup.py

1.493 libnss-nisplus 1.3+git0+116219e215-r0

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<signature of Ty Coon>, 1 April 1990
Ty Coon, President of Vice

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1.494 jupyterlab-plotly 5.8.0

1.494.1 Available under license :

No license file was found, but licenses were detected in source scan.

define("jupyterlab-plotly",["@jupyter-widgets/base"],(t=>(()=>{var e={486:function(t,e,r){var n;t=r.nmd(t),function(){var i,a="Expected a function",o="__lodash_hash_undefined__",s="__lodash_placeholder__",l=32,c=128,u=1/0,f=9007199254740991,h=NaN,p=4294967295,d=[["ary",c],["bind",1],["bindKey",2],["curry",8],["curryRight",16],["flip",512],["partial",l],["partialRight",64],["rearg",256]],g="[object Arguments]",v="[object Array]",m="[object Boolean]",y="[object Date]",x="[object Error]",b="[object Function]",_="[object GeneratorFunction]",w="[object Map]",T="[object Number]",k="[object Object]",A="[object Promise]",M="[object RegExp]",S="[object Set]",E="[object String]",L="[object Symbol]",C="[object WeakMap]",P="[object ArrayBuffer]",I="[object DataView]",O="[object Float32Array]",z="[object Float64Array]",D="[object Int8Array]",R="[object Int16Array]",F="[object Int32Array]",B="[object Uint8Array]",N="[object Uint8ClampedArray]",j="[object Uint16Array]",U="[object Uint32Array]",V=/\b__p \+= '';/g,q=/\b(__p \+=) '' \+/g,H=/(__e\(.*?\)|\b__t\)) \+\n'';/g,G=/&(?:amp|lt|gt|quot|#39);/g,Y=/[&<>"']/g,W=RegExp(G.source),X=RegExp(Y.source),Z=/<%-([\s\S]+?)%>/g,J=/<%([\s\S]+?)%>/g,K=/<%=([\s\S]+?)%>/g,Q=/\.|\[(?:[^[\]]*|(["'])(?:(?!\1)[^\\]|\\.)*?\1)\]/,$=/^\w*$/,tt=/[^.[\]]+|\[(?:(-?\d+(?:\.\d+)?)|(["'])((?:(?!\2)[^\\]|\\.)*?)\2)\]|(?=(?:\.|\[\])(?:\.|\[\]|$))/g,et=/[\\^$.*+?()[\]{}|]/g,rt=RegExp(et.source),nt=/^\s+/,it=/\s/,at=/\{(?:\n\/* \[wrapped with .+\] *\/)?\n?/,ot=/\{\n\/* \[wrapped with (.+)\] */,st=/,? & /,lt=/[^\x00-\x2f\x3a-\x40\x5b-\x60\x7b-\x7f]+/g,ct=/[()=,{}\[\]\/\s]/,ut=/\\(\\)?/g,ft=/\$\{([^\\}]*(?:\\.[^\\}]*)*)\}/g,ht=/\w*$/,pt=/^[-+]0x[0-9a-

```
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D|LL|M|RE|S|T|VE))?",Nt="(?:"+Mt+"|"+Ct+")?",jt="[\\ufe0e\\ufe0f]?",Ut=jt+Nt+"(?:\\u200d(?:"+[Pt,It,Ot].join("|"
)+")"+jt+Nt+")*",Vt="(?:"+["[\\u2700-\\u27bf]",It,Ot].join("|")+")"+Ut,qt="(?:"+[Pt+Mt+"?",Mt,It,Ot,"[\\ud800-
\\udfff]"].join("|")+")",Ht=RegExp("['’]","g"),Gt=RegExp(Mt,"g"),Yt=RegExp(Ct+"(?="+Ct+")|"+qt+Ut,"g"),Wt=R
egExp([zt+"?"+Et+"+"+Ft+"(?="+[At,zt,"$"].join("|")+")",Rt+"+"+Bt+"(?="+[At,zt+Dt,"$"].join("|")+")",zt+"?"+Dt
+"+"+Ft,zt+"+"+Bt,"\\d*(?:1ST|2ND|3RD|(?![123])\\dTH)(?=\\b|[a-
z_])","\\d*(?:1st|2nd|3rd|(?![123])\\dth)(?=\\b|[A-Z_])",St,Vt].join("|"),"g"),Xt=RegExp("[\\u200d\\ud800-
\\udfff"+_t+"\\ufe0e\\ufe0f]"),Zt=/[a-z][A-Z]|[A-Z]{2}[a-z]|[0-9][a-zA-Z]|[a-zA-Z][0-9]|[^a-zA-Z0-9
]/,Jt=["Array","Buffer","DataView","Date","Error","Float32Array","Float64Array","Function","Int8Array","Int16A
rray","Int32Array","Map","Math","Object","Promise","RegExp","Set","String","Symbol","TypeError","Uint8Array
","Uint8ClampedArray","Uint16Array","Uint32Array","WeakMap","_","clearTimeout","isFinite","parseInt","setTi
meout"],Kt=-
1,Qt={};Qt[O]=Qt[z]=Qt[D]=Qt[R]=Qt[F]=Qt[B]=Qt[N]=Qt[j]=Qt[U]=!0,Qt[g]=Qt[v]=Qt[P]=Qt[m]=Qt[I]=Qt[y]=
Qt[x]=Qt[b]=Qt[w]=Qt[T]=Qt[k]=Qt[M]=Qt[S]=Qt[E]=Qt[C]=!1;var
$t={};$t[g]=$t[v]=$t[P]=$t[I]=$t[m]=$t[y]=$t[O]=$t[z]=$t[D]=$t[R]=$t[F]=$t[w]=$t[T]=$t[k]=$t[M]=$t[S]=$t[E]
=$t[L]=$t[B]=$t[N]=$t[j]=$t[U]=!0,$t[x]=$t[b]=$t[C]=!1;var
te={"\\":"\\","'":"'","\n":"n","\r":"r","\u2028":"u2028","\u2029":"u2029"},ee=parseFloat,re=parseInt,ne="object"==t
ypeof r.g&&r.g&&r.g.Object===Object&&r.g,ie="object"==typeof
self&&self&&self.Object===Object&&self,ae=ne||ie||Function("return
this")(),oe=e&&!e.nodeType&&e,se=oe&&t&&!t.nodeType&&t,le=se&&se.exports===oe,ce=le&&ne.process,ue
=function(){try{return
se&&se.require&&se.require("util").types||ce&&ce.binding&&ce.binding("util")}catch(t){}}(),fe=ue&&ue.isArray
Buffer,he=ue&&ue.isDate,pe=ue&&ue.isMap,de=ue&&ue.isRegExp,ge=ue&&ue.isSet,ve=ue&&ue.isTypedArray;
function me(t,e,r){switch(r.length){case 0:return t.call(e);case 1:return t.call(e,r[0]);case 2:return
t.call(e,r[0],r[1]);case 3:return t.call(e,r[0],r[1],r[2])}return t.apply(e,r)}function ye(t,e,r,n){for(var i=-
1,a=null==t?0:t.length;++i<a;){var o=t[i];e(n,o,r(o),t)}return n}function xe(t,e){for(var r=-
1,n=null==t?0:t.length;++r<n&&!1!==e(t[r],r,t););return t}function be(t,e){for(var r=null==t?0:t.length;r--
&&!1!==e(t[r],r,t););return t}function _e(t,e){for(var r=-
1,n=null==t?0:t.length;++r<n;)if(!e(t[r],r,t))return!1;return!0}function we(t,e){for(var r=-
1,n=null==t?0:t.length,i=0,a=[];++r<n;){var o=t[r];e(o,r,t)&&(a[i++]=o)}return a}function
Te(t,e){return!(null==t||!t.length)&&Oe(t,e,0)>-1}function ke(t,e,r){for(var n=-
1,i=null==t?0:t.length;++n<i;)if(r(e,t[n]))return!0;return!1}function Ae(t,e){for(var r=-
1,n=null==t?0:t.length,i=Array(n);++r<n;)i[r]=e(t[r],r,t);return i}function Me(t,e){for(var r=-
1,n=e.length,i=t.length;++r<n;)t[i+r]=e[r];return t}function Se(t,e,r,n){var i=-
1,a=null==t?0:t.length;for(n&&a&&(r=t[++i]);++i<a;)r=e(r,t[i],i,t);return r}function Ee(t,e,r,n){var
i=null==t?0:t.length;for(n&&i&&(r=t[--i]);i--;)r=e(r,t[i],i,t);return r}function Le(t,e){for(var r=-
1,n=null==t?0:t.length;++r<n;)if(e(t[r],r,t))return!0;return!1}var Ce=Fe("length");function Pe(t,e,r){var n;return
r(t,(function(t,r,i){if(e(t,r,i))return n=r,!1})),n}function Ie(t,e,r,n){for(var i=t.length,a=r+(n?1:-1);n?a--
:++a<i;)if(e(t[a],a,t))return a;return-1}function Oe(t,e,r){return e==e?function(t,e,r){for(var n=r-
1,i=t.length;++n<i;)if(t[n]===e)return n;return-1}(t,e,r):Ie(t,De,r)}function ze(t,e,r,n){for(var i=r-
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1,a=t.length;++i<a;)if(n(t[i],e))return i;return-1}function De(t){return t!=t}function Re(t,e){var r=null==t?0:t.length;return r?je(t,e)/r:h}function Fe(t){return function(e){return null==e?i:e[t]}}function Be(t){return function(e){return null==t?i:t[e]}}function Ne(t,e,r,n,i){return i(t,(function(t,i,a){r=n?(n=!1,t):e(r,t,i,a)})),r}function je(t,e){for(var r,n=-1,a=t.length;++n<a;){var o=e(t[n]);o!==i&&(r=r===i?o:r+o)}return r}function Ue(t,e){for(var r=-1,n=Array(t);++r<t;)n[r]=e(r);return n}function Ve(t){return t?t.slice(0,or(t)+1).replace(nt,""):t}function qe(t){return function(e){return t(e)}}function He(t,e){return Ae(e,(function(e){return t[e]}))}function Ge(t,e){return t.has(e)}function Ye(t,e){for(var r=-1,n=t.length;++r<n&&Oe(e,t[r],0)>-1;);return r}function We(t,e){for(var r=t.length;r--&&Oe(e,t[r],0)>-1;);return r}function Xe(t,e){for(var r=t.length,n=0;r--;)t[r]===e&&++n;return n}var Ze=Be({À:"A",Á:"A",Â:"A",Ã:"A",Ä:"A",Å:"A",à:"a",á:"a",â:"a",ã:"a",ä:"a",å:"a",Ç:"C",ç:"c",Ð:"D",ð:"d",È:"E",É:"E",Ê:"E",Ë:"E",è:"e",é:"e",ê:"e",ë:"e",Ì:"I",Í:"I",Î:"I",Ï:"I",ì:"i",í:"i",î:"i",ï:"i",Ñ:"N",ñ:"n",Ò:"O",Ó:"O",Ô:"O",Õ:"O",Ö:"O",Ø:"O",ò:"o",ó:"o",ô:"o",õ:"o",ö:"o",ø:"o",Ù:"U",Ú:"U",Û:"U",Ü:"U",ù:"u",ú:"u",û:"u",ü:"u",Ý:"Y",ý:"y",ÿ:"y",Æ:"Ae",æ:"ae",Þ:"Th",þ:"th",ß:"ss",:"A",:"A",:"A",:"a",:"a",:"a",:"C",:"C",:"C",:"C",:"c",:"c",:"c",:"c",:"D",:"D",:"d",:"d",:"E",:"E",:"E",:"E",:"e",:"e",:"e",:"e",:"G",:"G",:"G",:"G",:"g",:"g",:"g",:"g",:"H",:"H",:"h",:"h",:"I",:"I",:"I",:"I",:"i",:"i",:"i",:"i",:"J",:"j",:"K",:"k",:"k",:"L",:"L",:"L",:"L",:"L",:"l",:"l",:"l",:"l",:"N",:"N",:"N",:"N",:"n",:"n",:"n",:"n",:"O",:"O",:"O",:"o",:"o",:"o",:"R",:"R",:"R",:"r",:"r",:"r",:"S",:"S",:"S",Š:"S",:"s",:"s",:"s",š:"s",:"T",:"T",:"T",:"t",:"t",:"t",:"U",:"U",:"U",:"U",:"U",:"U",:"u",:"u",:"u",:"u",:"u",:"u",:"W",:"w",:"Y",:"y",Ÿ:"Y",:"Z",:"Z",Ž:"Z",:"z",:"z",ž:"z",:"IJ",:"ij",Œ:"Oe",œ:"oe",:"'n",:"s"}),Je=Be({"&":"&","<":"<",">":">",'"':""","'":"'"});function Ke(t){return"\\"+te[t]}function Qe(t){return Xt.test(t)}function $e(t){var e=-1,r=Array(t.size);return t.forEach((function(t,n){r[++e]=[n,t]})),r}function tr(t,e){return function(r){return t(e(r))}}function er(t,e){for(var r=-1,n=t.length,i=0,a=[];++r<n;){var o=t[r];o!==e&&o!==s||(t[r]=s,a[i++]=r)}return a}function rr(t){var e=-1,r=Array(t.size);return t.forEach((function(t){r[++e]=t})),r}function nr(t){var e=-1,r=Array(t.size);return t.forEach((function(t){r[++e]=[t,t]})),r}function ir(t){return Qe(t)?function(t){for(var e=Yt.lastIndex=0;Yt.test(t);)++e;return e}(t):Ce(t)}function ar(t){return Qe(t)?function(t){return t.match(Yt)||[]}(t):function(t){return t.split("")}(t)}function or(t){for(var e=t.length;e--&&it.test(t.charAt(e)););return e}var sr=Be({"&":"&","<":"<",">":">",""":'"',"'":"'"}),lr=function t(e){var r,n=(e=null==e?ae:lr.defaults(ae.Object(),e,lr.pick(ae,Jt))).Array,it=e.Date,_t=e.Error,wt=e.Function,Tt=e.Math,kt=e.Object,At=e.RegExp,Mt=e.String,St=e.TypeError,Et=n.prototype,Lt=wt.prototype,Ct=kt.prototype,Pt=e["__core-js_shared__"],It=Lt.toString,Ot=Ct.hasOwnProperty,zt=0,Dt=(r=/[^.]+$/.exec(Pt&&Pt.keys&&Pt.keys.IE_PROTO||""))?"Symbol(src)_1."+r:"",Rt=Ct.toString,Ft=It.call(kt),Bt=ae._,Nt=At("^"+It.call(Ot).replace(et,"\\$&").replace(/hasOwnProperty|(function).*?(?=\\()| for .+?(?=\\])/g,"$1.*?")+"$"),jt=le?e.Buffer:i,Ut=e.Symbol,Vt=e.Uint8Array,qt=jt?jt.allocUnsafe:i,Yt=tr(kt.getPrototypeOf,kt),Xt=kt.create,te=Ct.propertyIsEnumerable,ne=Et.splice,ie=Ut?Ut.isConcatSpreadable:i,oe=Ut?Ut.iterator:i,se=Ut?Ut.toStringTag:i,ce=function(){try{var t=ca(kt,"defineProperty");return t({},"",{}),t}catch(t){}}(),ue=e.clearTimeout!==ae.clearTimeout&&e.clearTimeout,Ce=it&&it.now!==ae.Date.now&&it.now,Be=e.setTimeout!==ae.setTimeout&&e.setTimeout,cr=Tt.ceil,ur=Tt.floor,fr=kt.getOwnPropertySymbols,hr=jt?jt.isBuffer:i,pr=e.isFinite,dr=Et.join,gr=tr(kt.keys,kt),vr=Tt.max,mr=Tt.min,yr=it.now,xr=e.parseInt,br=Tt.random,_r=Et.reverse,wr=ca(e,"DataView"),Tr=ca(e,"Map"),kr=ca(e,"Promise"),Ar=ca(e,"Set"),Mr=ca(e,"WeakMap"),Sr=ca(kt,"create"),Er=Mr&&new Mr,Lr={},Cr=Ba(wr),Pr=Ba(Tr),Ir=Ba(kr),Or=Ba(Ar),zr=Ba(Mr),Dr=Ut?Ut.prototype:i,Rr=Dr?Dr.valueOf:i,Fr=Dr?Dr.toString:i;function Br(t){if(rs(t)&&!Go(t)&&!(t instanceof Vr)){if(t instanceof Ur)return t;if(Ot.call(t,"__wrapped__"))return Na(t)}return new Ur(t)}var Nr=function(){function t(){}return function(e){if(!es(e))return{};if(Xt)return Xt(e);t.prototype=e;var r=new t;return t.prototype=i,r}}();function jr(){}function Ur(t,e){this.__wrapped__=t,this.__actions__=[],this.__chain__=!!e,this.__index__=0,this.__values__=i}function Vr(t){this.__wrapped__=t,this.__actions__=[],this.__dir__=1,this.__filtered__=!1,this.__iteratees__=[],this.__takeCount__=p,this.__views__=[]}function qr(t){var e=-1,r=null==t?0:t.length;for(this.clear();++e<r;){var n=t[e];this.set(n[0],n[1])}}function Hr(t){var e=-1,r=null==t?0:t.length;for(this.clear();++e<r;){var

n=t[e];this.set(n[0],n[1])}}function Gr(t){var e=-1,r=null==t?0:t.length;for(this.clear();++e<r;){var n=t[e];this.set(n[0],n[1])}}function Yr(t){var e=-1,r=null==t?0:t.length;for(this.__data__=new Gr;++e<r;)this.add(t[e])}function Wr(t){var e=this.__data__=new Hr(t);this.size=e.size}function Xr(t,e){var r=Go(t),n=!r&&Ho(t),i=!r&&!n&&Zo(t),a=!r&&!n&&!i&&us(t),o=r||n||i||a,s=o?Ue(t.length,Mt):[],l=s.length;for(var c in t)!e&&!Ot.call(t,c)||o&&("length"==c||i&&("offset"==c||"parent"==c)||a&&("buffer"==c||"byteLength"==c||"byteOffset"==c)||va(c,l))||s.push(c);return s}function Zr(t){var e=t.length;return e?t[Yn(0,e-1)]:i}function Jr(t,e){return Oa(Si(t),on(e,0,t.length))}function Kr(t){return Oa(Si(t))}function Qr(t,e,r){(r!==i&&!Uo(t[e],r)||r===i&&!(e in t))&&nn(t,e,r)}function $r(t,e,r){var n=t[e];Ot.call(t,e)&&Uo(n,r)&&(r!==i||e in t)||nn(t,e,r)}function tn(t,e){for(var r=t.length;r--;)if(Uo(t[r][0],e))return r;return-1}function en(t,e,r,n){return fn(t,(function(t,i,a){e(n,t,r(t),a)})),n}function rn(t,e){return t&&Ei(e,Is(e),t)}function nn(t,e,r){"__proto__"==e&&ce?ce(t,e,{configurable:!0,enumerable:!0,value:r,writable:!0}):t[e]=r}function an(t,e){for(var r=-1,a=e.length,o=n(a),s=null==t;++r<a;)o[r]=s?i:Ss(t,e[r]);return o}function on(t,e,r){return t==t&&(r!==i&&(t=t<=r?t:r),e!==i&&(t=t>=e?t:e)),t}function sn(t,e,r,n,a,o){var s,l=1&e,c=2&e,u=4&e;if(r&&(s=a?r(t,n,a,o):r(t)),s!==i)return s;if(!es(t))return t;var f=Go(t);if(f){if(s=function(t){var e=t.length,r=new t.constructor(e);return e&&"string"==typeof t[0]&&Ot.call(t,"index")&&(r.index=t.index,r.input=t.input),r}(t),!l)return Si(t,s)}else{var h=ha(t),p=h==b||h==_;if(Zo(t))return _i(t,l);if(h==k||h==g||p&&!a){if(s=c||p?{}:da(t),!l)return c?function(t,e){return Ei(t,fa(t),e)}(t,function(t,e){return t&&Ei(e,Os(e),t)}(s,t)):function(t,e){return Ei(t,ua(t),e)}(t,rn(s,t))}else{if(!$t[h])return a?t:{};s=function(t,e,r){var n,i=t.constructor;switch(e){case P:return wi(t);case m:case y:return new i(+t);case I:return function(t,e){var r=e?wi(t.buffer):t.buffer;return new t.constructor(r,t.byteOffset,t.byteLength)}(t,r);case O:case z:case D:case R:case F:case B:case N:case j:case U:return Ti(t,r);case w:return new i;case T:case E:return new i(t);case M:return function(t){var e=new t.constructor(t.source,ht.exec(t));return e.lastIndex=t.lastIndex,e}(t);case S:return new i;case L:return n=t,Rr?kt(Rr.call(n)):{}}}(t,h,l)}}o||(o=new Wr);var d=o.get(t);if(d)return d;o.set(t,s),ss(t)?t.forEach((function(n){s.add(sn(n,e,r,n,t,o))})):ns(t)&&t.forEach((function(n,i){s.set(i,sn(n,e,r,i,t,o))}));var v=f?i:(u?c?ra:ea:c?Os:Is)(t);return xe(v||t,(function(n,i){v&&(n=t[i=n]),$r(s,i,sn(n,e,r,i,t,o))})),s}function ln(t,e,r){var n=r.length;if(null==t)return!n;for(t=kt(t);n--;){var a=r[n],o=e[a],s=t[a];if(s===i&&!(a in t)||!o(s))return!1}return!0}function cn(t,e,r){if("function"!=typeof t)throw new St(a);return La((function(){t.apply(i,r)}),e)}function un(t,e,r,n){var i=-1,a=Te,o=!0,s=t.length,l=[],c=e.length;if(!s)return l;r&&(e=Ae(e,qe(r))),n?(a=ke,o=!1):e.length>=200&&(a=Ge,o=!1,e=new Yr(e));t:for(;++i<s;){var u=t[i],f=null==r?u:r(u);if(u=n||0!==u?u:0,o&&f==f){for(var h=c;h--;)if(e[h]===f)continue t;l.push(u)}else a(e,f,n)||l.push(u)}return l}Br.templateSettings={escape:Z,evaluate:J,interpolate:K,variable:"",imports:{_:Br}},Br.prototype=jr.prototype,Br.prototype.constructor=Br,Ur.prototype=Nr(jr.prototype),Ur.prototype.constructor=Ur,Vr.prototype=Nr(jr.prototype),Vr.prototype.constructor=Vr,qr.prototype.clear=function(){this.__data__=Sr?Sr(null):{},this.size=0},qr.prototype.delete=function(t){var e=this.has(t)&&delete this.__data__[t];return this.size-=e?1:0,e},qr.prototype.get=function(t){var e=this.__data__;if(Sr){var r=e[t];return r===o?i:r}return Ot.call(e,t)?e[t]:i},qr.prototype.has=function(t){var e=this.__data__;return Sr?e[t]!==i:Ot.call(e,t)},qr.prototype.set=function(t,e){var r=this.__data__;return this.size+=this.has(t)?0:1,r[t]=Sr&&e===i?o:e,this},Hr.prototype.clear=function(){this.__data__=[],this.size=0},Hr.prototype.delete=function(t){var e=this.__data__,r=tn(e,t);return!(r<0||(r==e.length-1?e.pop():ne.call(e,r,1),--this.size,0))},Hr.prototype.get=function(t){var e=this.__data__,r=tn(e,t);return r<0?i:e[r][1]},Hr.prototype.has=function(t){return tn(this.__data__,t)>-1},Hr.prototype.set=function(t,e){var r=this.__data__,n=tn(r,t);return n<0?(++this.size,r.push([t,e])):r[n][1]=e,this},Gr.prototype.clear=function(){this.size=0,this.__data__={hash:new qr,map:new(Tr||Hr),string:new qr}},Gr.prototype.delete=function(t){var e=sa(this,t).delete(t);return this.size-=e?1:0,e},Gr.prototype.get=function(t){return sa(this,t).get(t)},Gr.prototype.has=function(t){return

sa(this,t).has(t)},Gr.prototype.set=function(t,e){var r=sa(this,t),n=r.size;return
r.set(t,e),this.size+=r.size==n?0:1,this},Yr.prototype.add=Yr.prototype.push=function(t){return
this.__data__.set(t,o),this},Yr.prototype.has=function(t){return
this.__data__.has(t)},Wr.prototype.clear=function(){this.__data__=new
Hr,this.size=0},Wr.prototype.delete=function(t){var e=this.__data__,r=e.delete(t);return
this.size=e.size,r},Wr.prototype.get=function(t){return this.__data__.get(t)},Wr.prototype.has=function(t){return
this.__data__.has(t)},Wr.prototype.set=function(t,e){var r=this.__data__;if(r instanceof Hr){var
n=r.__data__;if(!Tr||n.length<199)return n.push([t,e]),this.size=++r.size,this;r=this.__data__=new Gr(n)}return
r.set(t,e),this.size=r.size,this};var fn=Pi(xn),hn=Pi(bn,!0);function pn(t,e){var r=!0;return fn(t,(function(t,n,i){return
r=!!e(t,n,i)})),r}function dn(t,e,r){for(var n=-1,a=t.length;++n<a;){var
o=t[n],s=e(o);if(null!=s&&(l===i?s==s&&!cs(s):r(s,l)))var l=s,c=o}return c}function gn(t,e){var r=[];return
fn(t,(function(t,n,i){e(t,n,i)&&r.push(t)})),r}function vn(t,e,r,n,i){var a=-
1,o=t.length;for(r||(r=ga),i||(i=[]);++a<o;){var s=t[a];e>0&&r(s)?e>1?vn(s,e-1,r,n,i):Me(i,s):n||(i[i.length]=s)}return
i}var mn=Ii(),yn=Ii(!0);function xn(t,e){return t&&mn(t,e,Is)}function bn(t,e){return t&&yn(t,e,Is)}function
_n(t,e){return we(e,(function(e){return Qo(t[e])}))}function wn(t,e){for(var
r=0,n=(e=mi(e,t)).length;null!=t&&r<n;)t=t[Fa(e[r++])];return r&&r==n?t:i}function Tn(t,e,r){var n=e(t);return
Go(t)?n:Me(n,r(t))}function kn(t){return null==t?t===i?"[object Undefined]":"[object Null]":se&&se in
kt(t)?function(t){var e=Ot.call(t,se),r=t[se];try{t[se]=i;var n=!0}catch(t){}var a=Rt.call(t);return
n&&(e?t[se]=r:delete t[se]),a}(t):function(t){return Rt.call(t)}(t)}function An(t,e){return t>e}function
Mn(t,e){return null!=t&&Ot.call(t,e)}function Sn(t,e){return null!=t&&e in kt(t)}function En(t,e,r){for(var
a=r?ke:Te,o=t[0].length,s=t.length,l=s,c=n(s),u=1/0,f=[];l--;){var
h=t[l];l&&e&&(h=Ae(h,qe(e))),u=mr(h.length,u),c[l]=!r&&(e||o>=120&&h.length>=120)?new
Yr(l&&h):i}h=t[0];var p=-1,d=c[0];t:for(;++p<o&&f.length<u;){var
g=h[p],v=e?e(g):g;if(g=r||0!==g?g:0,!(d?Ge(d,v):a(f,v,r))){for(l=s;--l;){var
m=c[l];if(!(m?Ge(m,v):a(t[l],v,r)))continue t}d&&d.push(v),f.push(g)}}return f}function Ln(t,e,r){var
n=null==(t=Aa(t,e=mi(e,t)))?t:t[Fa(Ja(e))];return null==n?i:me(n,t,r)}function Cn(t){return
rs(t)&&kn(t)==g}function Pn(t,e,r,n,a){return
t===e||(null==t||null==e||!rs(t)&&!rs(e)?t!=t&&e!=e:function(t,e,r,n,a,o){var
s=Go(t),l=Go(e),c=s?v:ha(t),u=l?v:ha(e),f=(c=c==g?k:c)==k,h=(u=u==g?k:u)==k,p=c==u;if(p&&Zo(t)){if(!Zo(e))r
eturn!1;s=!0,f=!1}if(p&&!f)return o||(o=new Wr),s||us(t)?$i(t,e,r,n,a,o):function(t,e,r,n,i,a,o){switch(r){case
I:if(t.byteLength!=e.byteLength||t.byteOffset!=e.byteOffset)return!1;t=t.buffer,e=e.buffer;case
P:return!(t.byteLength!=e.byteLength||!a(new Vt(t),new Vt(e)));case m:case y:case T:return Uo(+t,+e);case x:return
t.name==e.name&&t.message==e.message;case M:case E:return t==e+"";case w:var s=$e;case S:var
l=1&n;if(s||(s=rr),t.size!=e.size&&!l)return!1;var c=o.get(t);if(c)return c==e;n|=2,o.set(t,e);var
u=$i(s(t),s(e),n,i,a,o);return o.delete(t),u;case L:if(Rr)return
Rr.call(t)==Rr.call(e)}return!1}(t,e,c,r,n,a,o);if(!(1&r)){var
d=f&&Ot.call(t,"__wrapped__"),b=h&&Ot.call(e,"__wrapped__");if(d||b){var
=d?t.value():t,A=b?e.value():e;return o||(o=new Wr),a(,A,r,n,o)}}return!!p&&(o||(o=new
Wr),function(t,e,r,n,a,o){var s=1&r,l=ea(t),c=l.length;if(c!=ea(e).length&&!s)return!1;for(var u=c;u--;){var
f=l[u];if(!(s?f in e:Ot.call(e,f)))return!1}var h=o.get(t),p=o.get(e);if(h&&p)return h==e&&p==t;var
d=!0;o.set(t,e),o.set(e,t);for(var g=s;++u<c;){var v=t[f=l[u]],m=e[f];if(n)var
y=s?n(m,v,f,e,t,o):n(v,m,f,t,e,o);if(!(y===i?v===m||a(v,m,r,n,o):y)){d=!1;break}g||(g="constructor"==f)}if(d&&!g)
{var x=t.constructor,b=e.constructor;x==b||!("constructor"in t)||!("constructor"in e)||"function"==typeof x&&x
instanceof x&&"function"==typeof b&&b instanceof b||(d=!1)}return
o.delete(t),o.delete(e),d}(t,e,r,n,a,o))}(t,e,r,n,Pn,a))}function In(t,e,r,n){var
a=r.length,o=a,s=!n;if(null==t)return!o;for(t=kt(t);a--;){var l=r[a];if(s&&l[2]?l[1]!==t[l[0]]:!(l[0]in
t))return!1}for(;++a<o;){var c=(l=r[a])[0],u=t[c],f=l[1];if(s&&l[2]){if(u===i&&!(c in t))return!1}else{var h=new
Wr;if(n)var p=n(u,f,c,t,e,h);if(!(p===i?Pn(f,u,3,n,h):p))return!1}}return!0}function

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On(t){return!(!es(t)||(e=t,Dt&&Dt in e))&&(Qo(t)?Nt:gt).test(Ba(t));var e}function zn(t){return"function"==typeof t?t:null==t?il:"object"==typeof t?Go(t)?Nn(t[0],t[1]):Bn(t):pl(t)}function Dn(t){if(!_a(t))return gr(t);var e=[];for(var r in kt(t))Ot.call(t,r)&&"constructor"!=r&&e.push(r);return e}function Rn(t,e){return t<e}function Fn(t,e){var r=-1,i=Wo(t)?n(t.length):[];return fn(t,(function(t,n,a){i[++r]=e(t,n,a)})),i}function Bn(t){var e=la(t);return 1==e.length&&e[0][2]?Ta(e[0][0],e[0][1]):function(r){return r===t||In(r,t,e)}}function Nn(t,e){return ya(t)&&wa(e)?Ta(Fa(t),e):function(r){var n=Ss(r,t);return n===i&&n===e?Es(r,t):Pn(e,n,3)}}function jn(t,e,r,n,a){t!==e&&mn(e,(function(o,s){if(a||(a=new Wr),es(o))!function(t,e,r,n,a,o,s){var l=Sa(t,r),c=Sa(e,r),u=s.get(c);if(u)Qr(t,r,u);else{var f=o?o(l,c,r+"",t,e,s):i,h=f===i;if(h){var p=Go(c),d=!p&&Zo(c),g=!p&&!d&&us(c);f=c,p||d||g?Go(l)?f=l:Xo(l)?f=Si(l):d?(h=!1,f=_i(c,!0)):g?(h=!1,f=Ti(c,!0)):f=[]:as(c)||Ho(c)?(f=l,Ho(l)?f=ys(l):es(l)&&!Qo(l)||(f=da(c))):h=!1}h&&(s.set(c,f),a(f,c,n,o,s),s.delete(c)),Qr(t,r,f)}}(t,e,s,r,jn,n,a);else{var l=n?n(Sa(t,s),o,s+"",t,e,a):i;l===i&&(l=o),Qr(t,s,l)}}),Os)}function Un(t,e){var r=t.length;if(r)return va(e+=e<0?r:0,r)?t[e]:i}function Vn(t,e,r){e=e.length?Ae(e,(function(t){return Go(t)?function(e){return wn(e,1===t.length?t[0]:t)}:t})):[il];var n=-1;return e=Ae(e,qe(oa())),function(t,e){var n=t.length;for(t.sort((function(t,e){return function(t,e,r){for(var n=-1,i=t.criteria,a=e.criteria,o=i.length,s=r.length;++n<o;){var l=ki(i[n],a[n]);if(l)return n>=s?l:l*("desc"==r[n]?-1:1)}return t.index-e.index}(t,e,r)}));n--;)t[n]=t[n].value;return t}(Fn(t,(function(t,r,i){return{criteria:Ae(e,(function(e){return e(t)})),index:++n,value:t}})))}function qn(t,e,r){for(var n=-1,i=e.length,a={};++n<i;){var o=e[n],s=wn(t,o);r(s,o)&&Kn(a,mi(o,t),s)}return a}function Hn(t,e,r,n){var i=n?ze:Oe,a=-1,o=e.length,s=t;for(t===e&&(e=Si(e)),r&&(s=Ae(t,qe(r)));++a<o;)for(var l=0,c=e[a],u=r?r(c):c;(l=i(s,u,l,n))>-1;)s!==t&&ne.call(s,l,1),ne.call(t,l,1);return t}function Gn(t,e){for(var r=t?e.length:0,n=r-1;r--;){var i=e[r];if(r==n||i!==a){var a=i;va(i)?ne.call(t,i,1):ci(t,i)}}return t}function Yn(t,e){return t+ur(br()*(e-t+1))}function Wn(t,e){var r="";if(!t||e<1||e>f)return r;do{e%2&&(r+=t),(e=ur(e/2))&&(t+=t)}while(e);return r}function Xn(t,e){return Ca(ka(t,e,il),t+"")}function Zn(t){return Zr(Us(t))}function Jn(t,e){var r=Us(t);return Oa(r,on(e,0,r.length))}function Kn(t,e,r,n){if(!es(t))return t;for(var a=-1,o=(e=mi(e,t)).length,s=o-1,l=t;null!=l&&++a<o;){var c=Fa(e[a]),u=r;if("__proto__"===c||"constructor"===c||"prototype"===c)return t;if(a!=s){var f=l[c];(u=n?n(f,c,l):i)===i&&(u=es(f)?f:va(e[a+1])?[]:{})}$r(l,c,u),l=l[c]}return t}var Qn=Er?function(t,e){return Er.set(t,e),t}:il,$n=ce?function(t,e){return ce(t,"toString",{configurable:!0,enumerable:!1,value:el(e),writable:!0})}:il;function ti(t){return Oa(Us(t))}function ei(t,e,r){var i=-1,a=t.length;e<0&&(e=-e>a?0:a+e),(r=r>a?a:r)<0&&(r+=a),a=e>r?0:r-e>>>0,e>>>=0;for(var o=n(a);++i<a;)o[i]=t[i+e];return o}function ri(t,e){var r;return fn(t,(function(t,n,i){return!(r=e(t,n,i))})),!!r}function ni(t,e,r){var n=0,i=null==t?n:t.length;if("number"==typeof e&&e==e&&i<=2147483647){for(;n<i;){var a=n+i>>>1,o=t[a];null!==o&&!cs(o)&&(r?o<=e:o<e)?n=a+1:i=a}return i}return ii(t,e,il,r)}function ii(t,e,r,n){var a=0,o=null==t?0:t.length;if(0===o)return 0;for(var s=(e=r(e))!=e,l=null===e,c=cs(e),u=e===i;a<o;){var f=ur((a+o)/2),h=r(t[f]),p=h!==i,d=null===h,g=h==h,v=cs(h);if(s)var m=n||g;else m=u?g&&(n||p):l?g&&p&&(n||!d):c?g&&p&&!d&&(n||!v):!d&&!v&&(n?h<=e:h<e);m?a=f+1:o=f}return mr(o,4294967294)}function ai(t,e){for(var r=-1,n=t.length,i=0,a=[];++r<n;){var o=t[r],s=e?e(o):o;if(!r||!Uo(s,l)){var l=s;a[i++]=0===o?0:o}}return a}function oi(t){return"number"==typeof t?t:cs(t)?h:+t}function si(t){if("string"==typeof t)return t;if(Go(t))return Ae(t,si)+"";if(cs(t))return Fr?Fr.call(t):"";var e=t+"";return"0"==e&&1/t==-1/0?"-0":e}function li(t,e,r){var n=-1,i=Te,a=t.length,o=!0,s=[],l=s;if(r)o=!1,i=ke;else if(a>=200){var c=e?null:Wi(t);if(c)return rr(c);o=!1,i=Ge,l=new Yr}else l=e?[]:s;t:for(;++n<a;){var u=t[n],f=e?e(u):u;if(u=r||0!==u?u:0,o&&f===f){for(var h=l.length;h--;)if(l[h]===f)continue t;e&&l.push(f),s.push(u)}else i(l,f,r)||(l!==s&&l.push(f),s.push(u))}return s}function ci(t,e){return null==(t=Aa(t,e=mi(e,t)))||delete t[Fa(Ja(e))]}function ui(t,e,r,n){return Kn(t,e,r(wn(t,e)),n)}function fi(t,e,r,n){for(var i=t.length,a=n?i:-1;(n?a--:++a<i)&&e(t[a],a,t););return r?ei(t,n?0:a,n?a+1:i):ei(t,n?a+1:0,n?i:a)}function hi(t,e){var r=t;return r instanceof Vr&&(r=r.value()),Se(e,(function(t,e){return e.func.apply(e.thisArg,Me([t],e.args))}),r)}function pi(t,e,r){var i=t.length;if(i<2)return i?li(t[0]):[];for(var a=-1,o=n(i);++a<i;)for(var s=t[a],l=-
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1;++l<i;)l!=a&&(o[a]=un(o[a]||s,t[l],e,r));return li(vn(o,1),e,r)}function di(t,e,r){for(var n=-1,a=t.length,o=e.length,s={};++n<a;){var l=n<o?e[n]:i;r(s,t[n],l)}return s}function gi(t){return Xo(t)?t:[]}function vi(t){return"function"==typeof t?t:il}function mi(t,e){return Go(t)?t:ya(t,e)?[t]:Ra(xs(t))}var yi=Xn;function xi(t,e,r){var n=t.length;return r=r===i?n:r,!e&&r>=n?t:ei(t,e,r)}var bi=ue||function(t){return ae.clearTimeout(t)};function _i(t,e){if(e)return t.slice();var r=t.length,n=qt?qt(r):new t.constructor(r);return t.copy(n),n}function wi(t){var e=new t.constructor(t.byteLength);return new Vt(e).set(new Vt(t)),e}function Ti(t,e){var r=e?wi(t.buffer):t.buffer;return new t.constructor(r,t.byteOffset,t.length)}function ki(t,e){if(t!==e){var r=t!==i,n=null===t,a=t==t,o=cs(t),s=e!==i,l=null===e,c=e==e,u=cs(e);if(!l&&!u&&!o&&t>e||o&&s&&c&&!l&&!u||n&&s&&c||!r&&c||!a)return 1;if(!n&&!o&&!u&&t<e||u&&r&&a&&!n&&!o||l&&r&&a||!s&&a||!c)return-1}return 0}function Ai(t,e,r,i){for(var a=-1,o=t.length,s=r.length,l=-1,c=e.length,u=vr(o-s,0),f=n(c+u),h=!i;++l<c;)f[l]=e[l];for(;++a<s;)(h||a<o)&&(f[r[a]]=t[a]);for(;u--;)f[l++]=t[a++];return f}function Mi(t,e,r,i){for(var a=-1,o=t.length,s=-1,l=r.length,c=-1,u=e.length,f=vr(o-l,0),h=n(f+u),p=!i;++a<f;)h[a]=t[a];for(var d=a;++c<u;)h[d+c]=e[c];for(;++s<l;)(p||a<o)&&(h[d+r[s]]=t[a++]);return h}function Si(t,e){var r=-1,i=t.length;for(e||(e=n(i));++r<i;)e[r]=t[r];return e}function Ei(t,e,r,n){var a=!r;r||(r={});for(var o=-1,s=e.length;++o<s;){var l=e[o],c=n?n(r[l],t[l],l,r,t):i;c===i&&(c=t[l]),a?nn(r,l,c):$r(r,l,c)}return r}function Li(t,e){return function(r,n){var i=Go(r)?ye:en,a=e?e():{};return i(r,t,oa(n,2),a)}}function Ci(t){return Xn((function(e,r){var n=-1,a=r.length,o=a>1?r[a-1]:i,s=a>2?r[2]:i;for(o=t.length>3&&"function"==typeof o?(a--,o):i,s&&ma(r[0],r[1],s)&&(o=a<3?i:o,a=1),e=kt(e);++n<a;){var l=r[n];l&&t(e,l,n,o)}return e}))}function Pi(t,e){return function(r,n){if(null==r)return r;if(!Wo(r))return t(r,n);for(var i=r.length,a=e?i:-1,o=kt(r);(e?a--:++a<i)&&!1!==n(o[a],a,o););return r}}function Ii(t){return function(e,r,n){for(var i=-1,a=kt(e),o=n(e),s=o.length;s--;){var l=o[t?s:++i];if(!1===r(a[l],l,a))break}return e}}function Oi(t){return function(e){var r=Qe(e=xs(e))?ar(e):i,n=r?r[0]:e.charAt(0),a=r?xi(r,1).join(""):e.slice(1);return n[t]()+a}}function zi(t){return function(e){return Se(Qs(Hs(e).replace(Ht,"")),t,"")}}function Di(t){return function(){var e=arguments;switch(e.length){case 0:return new t;case 1:return new t(e[0]);case 2:return new t(e[0],e[1]);case 3:return new t(e[0],e[1],e[2]);case 4:return new t(e[0],e[1],e[2],e[3]);case 5:return new t(e[0],e[1],e[2],e[3],e[4]);case 6:return new t(e[0],e[1],e[2],e[3],e[4],e[5]);case 7:return new t(e[0],e[1],e[2],e[3],e[4],e[5],e[6])}var r=Nr(t.prototype),n=t.apply(r,e);return es(n)?n:r}}function Ri(t){return function(e,r,n){var a=kt(e);if(!Wo(e)){var o=oa(r,3);e=Is(e),r=function(t){return o(a[t],t,a)}}var s=t(e,r,n);return s>-1?a[o?e[s]:s]:i}}function Fi(t){return ta((function(e){var r=e.length,n=r,o=Ur.prototype.thru;for(t&&e.reverse();n--;){var s=e[n];if("function"!=typeof s)throw new St(a);if(o&&!l&&"wrapper"==ia(s))var l=new Ur([],!0)}for(n=l?n:r;++n<r;){var c=ia(s=e[n]),u="wrapper"==c?na(s):i;l=u&&xa(u[0])&&424==u[1]&&!u[4].length&&1==u[9]?l[ia(u[0])].apply(l,u[3]):1==s.length&&xa(s)?l[c]():l.thru(s)}return function(){var t=arguments,n=t[0];if(l&&1==t.length&&Go(n))return l.plant(n).value();for(var i=0,a=r?e[i].apply(this,t):n;++i<r;)a=e[i].call(this,a);return a}}))}function Bi(t,e,r,a,o,s,l,u,f,h){var p=e&c,d=1&e,g=2&e,v=24&e,m=512&e,y=g?i:Di(t);return function i(){for(var c=arguments.length,x=n(c),b=c;b--;)x[b]=arguments[b];if(v)var _=aa(i),w=Xe(x,_);if(a&&(x=Ai(x,a,o,v)),s&&(x=Mi(x,s,l,v)),c-=w,v&&c<h){var T=er(x,_);return Gi(t,e,Bi,i.placeholder,r,x,T,u,f,h-c)}var k=d?r:this,A=g?k[t]:t;return c=x.length,u?x=Ma(x,u):m&&c>1&&x.reverse(),p&&f<c&&(x.length=f),this&&this!==ae&&this instanceof i&&(A=y||Di(A)),A.apply(k,x)}}function Ni(t,e){return function(r,n){return function(t,e,r,n){return xn(t,(function(t,i,a){e(n,r(t),i,a)})),n}(r,t,e(n),{})}}function ji(t,e){return function(r,n){var a;if(r===i&&n===i)return e;if(r!==i&&(a=r),n!==i){if(a===i)return n;"string"==typeof r||"string"==typeof n?(r=si(r),n=si(n)):(r=oi(r),n=oi(n)),a=t(r,n)}return a}}function Ui(t){return ta((function(e){return e=Ae(e,qe(oa())),Xn((function(r){var n=this;return t(e,(function(t){return me(t,n,r)}))}))}))}function Vi(t,e){var r=(e=e===i?" ":si(e)).length;if(r<2)return r?Wn(e,t):e;var n=Wn(e,cr(t/ir(e)));return Qe(e)?xi(ar(n),0,t).join(""):n.slice(0,t)}function qi(t){return function(e,r,a){return a&&"number"!=typeof a&&ma(e,r,a)&&(r=a=i),e=ds(e),r===i?(r=e,e=0):r=ds(r),function(t,e,r,i){for(var a=-1,o=vr(cr((e-t)/(r||1)),0),s=n(o);o--;)s[i?o:++a]=t,t+=r;return s}(e,r,a=a===i?e<r?1:-1:ds(a),t)}}function Hi(t){return

function(e,r){return"string"==typeof e&&"string"==typeof r||(e=ms(e),r=ms(r)),t(e,r)}}function Gi(t,e,r,n,a,o,s,c,u,f){var h=8&e;e|=h?l:64,4&(e&=~(h?64:l))||(e&=-4);var p=[t,e,a,h?o:i,h?s:i,h?i:o,h?i:s,c,u,f],d=r.apply(i,p);return xa(t)&&Ea(d,p),d.placeholder=n,Pa(d,t,e)}function Yi(t){var e=Tt[t];return function(t,r){if(t=ms(t),(r=null==r?0:mr(gs(r),292))&&pr(t)){var n=(xs(t)+"e").split("e");return+((n=(xs(e(n[0]+"e"+(+n[1]+r)))+"e").split("e"))[0]+"e"+(+n[1]-r))}return e(t)}}var Wi=Ar&&1/rr(new Ar([,-0]))[1]==u?function(t){return new Ar(t)}:cl;function Xi(t){return function(e){var r=ha(e);return r==w?$e(e):r==S?nr(e):function(t,e){return Ae(e,(function(e){return[e,t[e]]}))}(e,t(e))}}function Zi(t,e,r,o,u,f,h,p){var d=2&e;if(!d&&"function"!=typeof t)throw new St(a);var g=o?o.length:0;if(g||(e&=-97,o=u=i),h=h===i?h:vr(gs(h),0),p=p===i?p:gs(p),g-=u?u.length:0,64&e){var v=o,m=u;o=u=i}var y=d?i:na(t),x=[t,e,r,o,u,v,m,f,h,p];if(y&&function(t,e){var r=t[1],n=e[1],i=r|n,a=i<131,o=n==c&&8==r||n==c&&256==r&&t[7].length<=e[8]||384==n&&e[7].length<=e[8]&&8==r;if(!a&&!o)return t;1&n&&(t[2]=e[2],i|=1&r?0:4);var l=e[3];if(l){var u=t[3];t[3]=u?Ai(u,l,e[4]):l,t[4]=u?er(t[3],s):e[4]}(l=e[5])&&(u=t[5],t[5]=u?Mi(u,l,e[6]):l,t[6]=u?er(t[5],s):e[6]),(l=e[7])&&(t[7]=l),n&c&&(t[8]=null==t[8]?e[8]:mr(t[8],e[8])),null==t[9]&&(t[9]=e[9]),t[0]=e[0],t[1]=i}(x,y),t=x[0],e=x[1],r=x[2],o=x[3],u=x[4],!(p=x[9]=x[9]===i?d?0:t.length:vr(x[9]-g,0))&&24&e&&(e&=-25),e&&1!=e)b=8==e||16==e?function(t,e,r){var a=Di(t);return function o(){for(var s=arguments.length,l=n(s),c=s,u=aa(o);c--;)l[c]=arguments[c];var f=s<3&&l[0]!==u&&l[s-1]!==u?[]:er(l,u);return(s-=f.length)<r?Gi(t,e,Bi,o.placeholder,i,l,f,i,i,r-s):me(this&&this!==ae&&this instanceof o?a:t,this,l)}}(t,e,p):e!=l&&33!=e||u.length?Bi.apply(i,x):function(t,e,r,i){var a=1&e,o=Di(t);return function e(){for(var s=-1,l=arguments.length,c=-1,u=i.length,f=n(u+l),h=this&&this!==ae&&this instanceof e?o:t;++c<u;)f[c]=i[c];for(;l--;)f[c++]=arguments[++s];return me(h,a?r:this,f)}}(t,e,r,o);else var b=function(t,e,r){var n=1&e,i=Di(t);return function e(){return(this&&this!==ae&&this instanceof e?i:t).apply(n?r:this,arguments)}}(t,e,r);return Pa((y?Qn:Ea)(b,x),t,e)}function Ji(t,e,r,n){return t===i||Uo(t,Ct[r])&&!Ot.call(n,r)?e:t}function Ki(t,e,r,n,a,o){return es(t)&&es(e)&&(o.set(e,t),jn(t,e,i,Ki,o),o.delete(e)),t}function Qi(t){return as(t)?i:t}function $i(t,e,r,n,a,o){var s=1&r,l=t.length,c=e.length;if(l!=c&&!(s&&c>l))return!1;var u=o.get(t),f=o.get(e);if(u&&f)return u==e&&f==t;var h=-1,p=!0,d=2&r?new Yr:i;for(o.set(t,e),o.set(e,t);++h<l;){var g=t[h],v=e[h];if(n)var m=s?n(v,g,h,e,t,o):n(g,v,h,t,e,o);if(m!==i){if(m)continue;p=!1;break}if(d){if(!Le(e,(function(t,e){if(!Ge(d,e)&&(g===t||a(g,t,r,n,o)))return d.push(e)}))){p=!1;break}}else if(g!==v&&!a(g,v,r,n,o)){p=!1;break}}return o.delete(t),o.delete(e),p}function ta(t){return Ca(ka(t,i,Ga),t+"")}function ea(t){return Tn(t,Is,ua)}function ra(t){return Tn(t,Os,fa)}var na=Er?function(t){return Er.get(t)}:cl;function ia(t){for(var e=t.name+"",r=Lr[e],n=Ot.call(Lr,e)?r.length:0;n--;){var i=r[n],a=i.func;if(null==a||a==t)return i.name}return e}function aa(t){return(Ot.call(Br,"placeholder")?Br:t).placeholder}function oa(){var t=Br.iteratee||al;return t=t===al?zn:t,arguments.length?t(arguments[0],arguments[1]):t}function sa(t,e){var r,n,i=t.__data__;return("string"==(n=typeof(r=e))||"number"==n||"symbol"==n||"boolean"==n?"__proto__"!==r:null===r)?i["string"==typeof e?"string":"hash"]:i.map}function la(t){for(var e=Is(t),r=e.length;r--;){var n=e[r],i=t[n];e[r]=[n,i,wa(i)]}return e}function ca(t,e){var r=function(t,e){return null==t?i:t[e]}(t,e);return On(r)?r:i}var ua=fr?function(t){return null==t?[]:(t=kt(t),we(fr(t),(function(e){return te.call(t,e)})))}:vl,fa=fr?function(t){for(var e=[];t;)Me(e,ua(t)),t=Yt(t);return e}:vl,ha=kn;function pa(t,e,r){for(var n=-1,i=(e=mi(e,t)).length,a=!1;++n<i;){var o=Fa(e[n]);if(!(a=null!=t&&r(t,o)))break;t=t[o]}return a||++n!=i?a:!!(i=null==t?0:t.length)&&ts(i)&&va(o,i)&&(Go(t)||Ho(t))}function da(t){return"function"!=typeof t.constructor||_a(t)?{}:Nr(Yt(t))}function ga(t){return Go(t)||Ho(t)||!!(ie&&t&&t[ie])}function va(t,e){var r=typeof t;return!!(e=null==e?f:e)&&("number"==r||"symbol"!=r&&mt.test(t))&&t>-1&&t%1==0&&t<e}function ma(t,e,r){if(!es(r))return!1;var n=typeof e;return!!("number"==n?Wo(r)&&va(e,r.length):"string"==n&&e in r)&&Uo(r[e],t)}function ya(t,e){if(Go(t))return!1;var r=typeof t;return!("number"!=r&&"symbol"!=r&&"boolean"!=r&&null!=t&&!cs(t))||$.test(t)||!Q.test(t)||null!=e&&t in kt(e)}function xa(t){var e=ia(t),r=Br[e];if("function"!=typeof r||!(e in Vr.prototype))return!1;if(t===r)return!0;var n=na(r);return!!n&&t===n[0]}(wr&&ha(new wr(new ArrayBuffer(1)))!=I||Tr&&ha(new

Tr)!=w||kr&&ha(kr.resolve())!=A||Ar&&ha(new Ar)!=S||Mr&&ha(new Mr)!=C)&&(ha=function(t){var e=kn(t),r=e==k?t.constructor:i,n=r?Ba(r):"";if(n)switch(n){case Cr:return I;case Pr:return w;case Ir:return A;case Or:return S;case zr:return C}return e});var ba=Pt?Qo:ml;function _a(t){var e=t&&t.constructor;return t===("function"==typeof e&&e.prototype||Ct)}function wa(t){return t==t&&!es(t)}function Ta(t,e){return function(r){return null!=r&&r[t]===e&&(e!==i||t in kt(r))}}function ka(t,e,r){return e=vr(e===i?t.length-1:e,0),function(){for(var i=arguments,a=-1,o=vr(i.length-e,0),s=n(o);++a<o;)s[a]=i[e+a];a=-1;for(var l=n(e+1);++a<e;)l[a]=i[a];return l[e]=r(s),me(t,this,l)}}function Aa(t,e){return e.length<2?t:wn(t,ei(e,0,-1))}function Ma(t,e){for(var r=t.length,n=mr(e.length,r),a=Si(t);n--;){var o=e[n];t[n]=va(o,r)?a[o]:i}return t}function Sa(t,e){if(("constructor"!==e||"function"!=typeof t[e])&&"__proto__"!=e)return t[e]}var Ea=Ia(Qn),La=Be||function(t,e){return ae.setTimeout(t,e)},Ca=Ia($n);function Pa(t,e,r){var n=e+"";return Ca(t,function(t,e){var r=e.length;if(!r)return t;var n=r-1;return e[n]=(r>1?"& ":"")+e[n],e=e.join(r>2?", ":" "),t.replace(at,"{\n/* [wrapped with "+e+"] */\n")}(n,function(t,e){return xe(d,(function(r){var n="_."+r[0];e&r[1]&&!Te(t,n)&&t.push(n)})),t.sort()}(function(t){var e=t.match(ot);return e?e[1].split(st):[]}(n),r)))}function Ia(t){var e=0,r=0;return function(){var n=yr(),a=16-(n-r);if(r=n,a>0){if(++e>=800)return arguments[0]}else e=0;return t.apply(i,arguments)}}function Oa(t,e){var r=-1,n=t.length,a=n-1;for(e=e===i?n:e;++r<e;){var o=Yn(r,a),s=t[o];t[o]=t[r],t[r]=s}return t.length=e,t}var za,Da,Ra=(za=Do((function(t){var e=[];return 46===t.charCodeAt(0)&&e.push(""),t.replace(tt,(function(t,r,n,i){e.push(n?i.replace(ut,"$1"):r||t)})),e}),(function(t){return 500===Da.size&&Da.clear(),t})),Da=za.cache,za);function Fa(t){if("string"==typeof t||cs(t))return t;var e=t+"";return"0"==e&&1/t==-1/0?"-0":e}function Ba(t){if(null!=t){try{return It.call(t)}catch(t){}try{return t+""}catch(t){}}return""}function Na(t){if(t instanceof Vr)return t.clone();var e=new Ur(t.__wrapped__,t.__chain__);return e.__actions__=Si(t.__actions__),e.__index__=t.__index__,e.__values__=t.__values__,e}var ja=Xn((function(t,e){return Xo(t)?un(t,vn(e,1,Xo,!0)):[]})),Ua=Xn((function(t,e){var r=Ja(e);return Xo(r)&&(r=i),Xo(t)?un(t,vn(e,1,Xo,!0),oa(r,2)):[]})),Va=Xn((function(t,e){var r=Ja(e);return Xo(r)&&(r=i),Xo(t)?un(t,vn(e,1,Xo,!0),i,r):[]}));function qa(t,e,r){var n=null==t?0:t.length;if(!n)return-1;var i=null==r?0:gs(r);return i<0&&(i=vr(n+i,0)),Ie(t,oa(e,3),i)}function Ha(t,e,r){var n=null==t?0:t.length;if(!n)return-1;var a=n-1;return r!==i&&(a=gs(r),a=r<0?vr(n+a,0):mr(a,n-1)),Ie(t,oa(e,3),a,!0)}function Ga(t){return null!=t&&t.length?vn(t,1):[]}function Ya(t){return t&&t.length?t[0]:i}var Wa=Xn((function(t){var e=Ae(t,gi);return e.length&&e[0]===t[0]?En(e):[]})),Xa=Xn((function(t){var e=Ja(t),r=Ae(t,gi);return e===Ja(r)?e=i:r.pop(),r.length&&r[0]===t[0]?En(r,oa(e,2)):[]})),Za=Xn((function(t){var e=Ja(t),r=Ae(t,gi);return(e="function"==typeof e?e:i)&&r.pop(),r.length&&r[0]===t[0]?En(r,i,e):[]}));function Ja(t){var e=null==t?0:t.length;return e?t[e-1]:i}var Ka=Xn(Qa);function Qa(t,e){return t&&t.length&&e&&e.length?Hn(t,e):t}var $a=ta((function(t,e){var r=null==t?0:t.length,n=an(t,e);return Gn(t,Ae(e,(function(t){return va(t,r)?+t:t})).sort(ki)),n}));function to(t){return null==t?t:_r.call(t)}var eo=Xn((function(t){return li(vn(t,1,Xo,!0))})),ro=Xn((function(t){var e=Ja(t);return Xo(e)&&(e=i),li(vn(t,1,Xo,!0),oa(e,2))})),no=Xn((function(t){var e=Ja(t);return e="function"==typeof e?e:i,li(vn(t,1,Xo,!0),i,e)}));function io(t){if(!t||!t.length)return[];var e=0;return t=we(t,(function(t){if(Xo(t))return e=vr(t.length,e),!0})),Ue(e,(function(e){return Ae(t,Fe(e))}))}function ao(t,e){if(!t||!t.length)return[];var r=io(t);return null==e?r:Ae(r,(function(t){return me(e,i,t)}))}var oo=Xn((function(t,e){return Xo(t)?un(t,e):[]})),so=Xn((function(t){return pi(we(t,Xo))})),lo=Xn((function(t){var e=Ja(t);return Xo(e)&&(e=i),pi(we(t,Xo),oa(e,2))})),co=Xn((function(t){var e=Ja(t);return e="function"==typeof e?e:i,pi(we(t,Xo),i,e)})),uo=Xn(io),fo=Xn((function(t){var e=t.length,r=e>1?t[e-1]:i;return r="function"==typeof r?(t.pop(),r):i,ao(t,r)}));function ho(t){var e=Br(t);return e.__chain__=!0,e}function po(t,e){return e(t)}var go=ta((function(t){var e=t.length,r=e?t[0]:0,n=this.__wrapped__,a=function(e){return an(e,t)};return!(e>1||this.__actions__.length)&&n instanceof Vr&&va(r)?((n=n.slice(r,+r+(e?1:0))).__actions__.push({func:po,args:[a],thisArg:i}),new Ur(n,this.__chain__).thru((function(t){return

e&&!t.length&&t.push(i),t}))):this.thru(a)})),vo=Li((function(t,e,r){Ot.call(t,r)?++t[r]:nn(t,r,1)})),mo=Ri(qa),yo=Ri(Ha);function xo(t,e){return(Go(t)?xe:fn)(t,oa(e,3))}function bo(t,e){return(Go(t)?be:hn)(t,oa(e,3))}var _o=Li((function(t,e,r){Ot.call(t,r)?t[r].push(e):nn(t,r,[e])})),wo=Xn((function(t,e,r){var i=-1,a="function"==typeof e,o=Wo(t)?n(t.length):[];return fn(t,(function(t){o[++i]=a?me(e,t,r):Ln(t,e,r)})),o})),To=Li((function(t,e,r){nn(t,r,e)}));function ko(t,e){return(Go(t)?Ae:Fn)(t,oa(e,3))}var Ao=Li((function(t,e,r){t[r?0:1].push(e)}),(function(){return[[],[]]})),Mo=Xn((function(t,e){if(null==t)return[];var r=e.length;return r>1&&ma(t,e[0],e[1])?e=[]:r>2&&ma(e[0],e[1],e[2])&&(e=[e[0]]),Vn(t,vn(e,1),[])})),So=Ce||function(){return ae.Date.now()};function Eo(t,e,r){return e=r?i:e,e=t&&null==e?t.length:e,Zi(t,c,i,i,i,e)}function Lo(t,e){var r;if("function"!=typeof e)throw new St(a);return t=gs(t),function(){return--t>0&&(r=e.apply(this,arguments)),t<=1&&(e=i),r}}var Co=Xn((function(t,e,r){var n=1;if(r.length){var i=er(r,aa(Co));n|=l}return Zi(t,n,e,r,i)})),Po=Xn((function(t,e,r){var n=3;if(r.length){var i=er(r,aa(Po));n|=l}return Zi(e,n,t,r,i)}));function Io(t,e,r){var n,o,s,l,c,u,f=0,h=!1,p=!1,d=!0;if("function"!=typeof t)throw new St(a);function g(e){var r=n,a=o;return n=o=i,f=e,l=t.apply(a,r)}function v(t){return f=t,c=La(y,e),h?g(t):l}function m(t){var r=t-u;return u===i||r>=e||r<0||p&&t-f>=s}function y(){var t=So();if(m(t))return x(t);c=La(y,function(t){var r=e-(t-u);return p?mr(r,s-(t-f)):r}(t))}function x(t){return c=i,d&&n?g(t):(n=o=i,l)}function b(){var t=So(),r=m(t);if(n=arguments,o=this,u=t,r){if(c===i)return v(u);if(p)return bi(c),c=La(y,e),g(u)}return c===i&&(c=La(y,e)),l}return e=ms(e)||0,es(r)&&(h=!!r.leading,s=(p="maxWait"in r)?vr(ms(r.maxWait)||0,e):s,d="trailing"in r?!!r.trailing:d),b.cancel=function(){c!==i&&bi(c),f=0,n=u=o=c=i},b.flush=function(){return c===i?l:x(So())},b}var Oo=Xn((function(t,e){return cn(t,1,e)})),zo=Xn((function(t,e,r){return cn(t,ms(e)||0,r)}));function Do(t,e){if("function"!=typeof t||null!=e&&"function"!=typeof e)throw new St(a);var r=function(){var n=arguments,i=e?e.apply(this,n):n[0],a=r.cache;if(a.has(i))return a.get(i);var o=t.apply(this,n);return r.cache=a.set(i,o)||a,o};return r.cache=new(Do.Cache||Gr),r}function Ro(t){if("function"!=typeof t)throw new St(a);return function(){var e=arguments;switch(e.length){case 0:return!t.call(this);case 1:return!t.call(this,e[0]);case 2:return!t.call(this,e[0],e[1]);case 3:return!t.call(this,e[0],e[1],e[2])}return!t.apply(this,e)}}Do.Cache=Gr;var Fo=yi((function(t,e){var r=(e=1==e.length&&Go(e[0])?Ae(e[0],qe(oa())):Ae(vn(e,1),qe(oa()))).length;return Xn((function(n){for(var i=-1,a=mr(n.length,r);++i<a;)n[i]=e[i].call(this,n[i]);return me(t,this,n)}))})),Bo=Xn((function(t,e){var r=er(e,aa(Bo));return Zi(t,l,i,e,r)})),No=Xn((function(t,e){var r=er(e,aa(No));return Zi(t,64,i,e,r)})),jo=ta((function(t,e){return Zi(t,256,i,i,i,e)}));function Uo(t,e){return t===e||t!=t&&e!=e}var Vo=Hi(An),qo=Hi((function(t,e){return t>=e})),Ho=Cn(function(){return arguments}())?Cn:function(t){return rs(t)&&Ot.call(t,"callee")&&!te.call(t,"callee")},Go=n.isArray,Yo=fe?qe(fe):function(t){return rs(t)&&kn(t)==P};function Wo(t){return null!=t&&ts(t.length)&&!Qo(t)}function Xo(t){return rs(t)&&Wo(t)}var Zo=hr||ml,Jo=he?qe(he):function(t){return rs(t)&&kn(t)==y};function Ko(t){if(!rs(t))return!1;var e=kn(t);return e==x||"[object DOMException]"==e||"string"==typeof t.message&&"string"==typeof t.name&&!as(t)}function Qo(t){if(!es(t))return!1;var e=kn(t);return e==b||e==_||"[object AsyncFunction]"==e||"[object Proxy]"==e}function $o(t){return"number"==typeof t&&t==gs(t)}function ts(t){return"number"==typeof t&&t>-1&&t%1==0&&t<=f}function es(t){var e=typeof t;return null!=t&&("object"==e||"function"==e)}function rs(t){return null!=t&&"object"==typeof t}var ns=pe?qe(pe):function(t){return rs(t)&&ha(t)==w};function is(t){return"number"==typeof t||rs(t)&&kn(t)==T}function as(t){if(!rs(t)||kn(t)!=k)return!1;var e=Yt(t);if(null===e)return!0;var r=Ot.call(e,"constructor")&&e.constructor;return"function"==typeof r&&r instanceof r&&It.call(r)==Ft}var os=de?qe(de):function(t){return rs(t)&&kn(t)==M},ss=ge?qe(ge):function(t){return rs(t)&&ha(t)==S};function ls(t){return"string"==typeof t||!Go(t)&&rs(t)&&kn(t)==E}function cs(t){return"symbol"==typeof t||rs(t)&&kn(t)==L}var us=ve?qe(ve):function(t){return rs(t)&&ts(t.length)&&!!Qt[kn(t)]},fs=Hi(Rn),hs=Hi((function(t,e){return t<=e}));function ps(t){if(!t)return[];if(Wo(t))return ls(t)?ar(t):Si(t);if(oe&&t[oe])return function(t){for(var

e,r=[];!(e=t.next()).done;)r.push(e.value);return r}(t[oe]());var e=ha(t);return(e==w?$e:e==S?rr:Us)(t)}function ds(t){return t?(t=ms(t))===u||t===-1/0?17976931348623157e292*(t<0?-1:1):t==t?t:0:0===t?t:0}function gs(t){var e=ds(t),r=e%1;return e==e?r?e-r:e:0}function vs(t){return t?on(gs(t),0,p):0}function ms(t){if("number"==typeof t)return t;if(cs(t))return h;if(es(t)){var e="function"==typeof t.valueOf?t.valueOf():t;t=es(e)?e+"":e}if("string"!=typeof t)return 0===t?t:+t;t=Ve(t);var r=dt.test(t);return r||vt.test(t)?re(t.slice(2),r?2:8):pt.test(t)?h:+t}function ys(t){return Ei(t,Os(t))}function xs(t){return null==t?"":si(t)}var bs=Ci((function(t,e){if(_a(e)||Wo(e))Ei(e,Is(e),t);else for(var r in e)Ot.call(e,r)&&$r(t,r,e[r])})),_s=Ci((function(t,e){Ei(e,Os(e),t)})),ws=Ci((function(t,e,r,n){Ei(e,Os(e),t,n)})),Ts=Ci((function(t,e,r,n){Ei(e,Is(e),t,n)})),ks=ta(an),As=Xn((function(t,e){t=kt(t);var r=-1,n=e.length,a=n>2?e[2]:i;for(a&&ma(e[0],e[1],a)&&(n=1);++r<n;)for(var o=e[r],s=Os(o),l=-1,c=s.length;++l<c;){var u=s[l],f=t[u];(f===i||Uo(f,Ct[u])&&!Ot.call(t,u))&&(t[u]=o[u])}return t})),Ms=Xn((function(t){return t.push(i,Ki),me(Ds,i,t)}));function Ss(t,e,r){var n=null==t?i:wn(t,e);return n===i?r:n}function Es(t,e){return null!=t&&pa(t,e,Sn)}var Ls=Ni((function(t,e,r){null!=e&&"function"!=typeof e.toString&&(e=Rt.call(e)),t[e]=r}),el(il)),Cs=Ni((function(t,e,r){null!=e&&"function"!=typeof e.toString&&(e=Rt.call(e)),Ot.call(t,e)?t[e].push(r):t[e]=[r]}),oa),Ps=Xn(Ln);function Is(t){return Wo(t)?Xr(t):Dn(t)}function Os(t){return Wo(t)?Xr(t,!0):function(t){if(!es(t))return function(t){var e=[];if(null!=t)for(var r in kt(t))e.push(r);return e}(t);var e=_a(t),r=[];for(var n in t)("constructor"!=n||!e&&Ot.call(t,n))&&r.push(n);return r}(t)}var zs=Ci((function(t,e,r){jn(t,e,r)})),Ds=Ci((function(t,e,r,n){jn(t,e,r,n)})),Rs=ta((function(t,e){var r={};if(null==t)return r;var n=!1;e=Ae(e,(function(e){return e=mi(e,t),n||(n=e.length>1),e})),Ei(t,ra(t),r),n&&(r=sn(r,7,Qi));for(var i=e.length;i--;)ci(r,e[i]);return r})),Fs=ta((function(t,e){return null==t?{}:function(t,e){return qn(t,e,(function(e,r){return Es(t,r)}))}(t,e)}));function Bs(t,e){if(null==t)return{};var r=Ae(ra(t),(function(t){return[t]}));return e=oa(e),qn(t,r,(function(t,r){return e(t,r[0])}))}var Ns=Xi(Is),js=Xi(Os);function Us(t){return null==t?[]:He(t,Is(t))}var Vs=zi((function(t,e,r){return e=e.toLowerCase(),t+(r?qs(e):e)}));function qs(t){return Ks(xs(t).toLowerCase())}function Hs(t){return(t=xs(t))&&t.replace(yt,Ze).replace(Gt,"")}var Gs=zi((function(t,e,r){return t+(r?"-":"")+e.toLowerCase()})),Ys=zi((function(t,e,r){return t+(r?" ":"")+e.toLowerCase()})),Ws=Oi("toLowerCase"),Xs=zi((function(t,e,r){return t+(r?"_":"")+e.toLowerCase()})),Zs=zi((function(t,e,r){return t+(r?" ":"")+Ks(e)})),Js=zi((function(t,e,r){return t+(r?" ":"")+e.toUpperCase()})),Ks=Oi("toUpperCase");function Qs(t,e,r){return t=xs(t),(e=r?i:e)===i?function(t){return Zt.test(t)}(t)?function(t){return t.match(Wt)||[]}(t):function(t){return t.match(lt)||[]}(t):t.match(e)||[]}var $s=Xn((function(t,e){try{return me(t,i,e)}catch(t){return Ko(t)?t:new _t(t)}})),tl=ta((function(t,e){return xe(e,(function(e){e=Fa(e),nn(t,e,Co(t[e],t))})),t}));function el(t){return function(){return t}}var rl=Fi(),nl=Fi(!0);function il(t){return t}function al(t){return zn("function"==typeof t?t:sn(t,1))}var ol=Xn((function(t,e){return function(r){return Ln(r,t,e)}})),sl=Xn((function(t,e){return function(r){return Ln(t,r,e)}}));function ll(t,e,r){var n=Is(e),i=_n(e,n);null!=r||es(e)&&(i.length||!n.length)||(r=e,e=t,t=this,i=_n(e,Is(e)));var a=!(es(r)&&"chain"in r&&!r.chain),o=Qo(t);return xe(i,(function(r){var n=e[r];t[r]=n,o&&(t.prototype[r]=function(){var e=this.__chain__;if(a||e){var r=t(this.__wrapped__),i=r.__actions__=Si(this.__actions__);return i.push({func:n,args:arguments,thisArg:t}),r.__chain__=e,r}return n.apply(t,Me([this.value()],arguments))})})),t}function cl(){}var ul=Ui(Ae),fl=Ui(_e),hl=Ui(Le);function pl(t){return ya(t)?Fe(Fa(t)):function(t){return function(e){return wn(e,t)}}(t)}var dl=qi(),gl=qi(!0);function vl(){return[]}function ml(){return!1}var yl,xl=ji((function(t,e){return t+e}),0),bl=Yi("ceil"),_l=ji((function(t,e){return t/e}),1),wl=Yi("floor"),Tl=ji((function(t,e){return t*e}),1),kl=Yi("round"),Al=ji((function(t,e){return t-e}),0);return Br.after=function(t,e){if("function"!=typeof e)throw new St(a);return t=gs(t),function(){if(--t<1)return e.apply(this,arguments)}},Br.ary=Eo,Br.assign=bs,Br.assignIn=_s,Br.assignInWith=ws,Br.assignWith=Ts,Br.at=ks,Br.before=Lo,Br.bind=Co,Br.bindAll=tl,Br.bindKey=Po,Br.castArray=function(){if(!arguments.length)return[];var

t=arguments[0];return Go(t)?t:[t]},Br.chain=ho,Br.chunk=function(t,e,r){e=(r?ma(t,e,r):e===i)?1:vr(gs(e),0);var a=null==t?0:t.length;if(!a||e<1)return[];for(var o=0,s=0,l=n(cr(a/e));o<a;)l[s++]=ei(t,o,o+=e);return l},Br.compact=function(t){for(var e=-1,r=null==t?0:t.length,n=0,i=[];++e<r;){var a=t[e];a&&(i[n++]=a)}return i},Br.concat=function(){var t=arguments.length;if(!t)return[];for(var e=n(t-1),r=arguments[0],i=t;i--;)e[i-1]=arguments[i];return Me(Go(r)?Si(r):[r],vn(e,1))},Br.cond=function(t){var e=null==t?0:t.length,r=oa();return t=e?Ae(t,(function(t){if("function"!=typeof t[1])throw new St(a);return[r(t[0]),t[1]]})):[],Xn((function(r){for(var n=-1;++n<e;){var i=t[n];if(me(i[0],this,r))return me(i[1],this,r)}}))},Br.conforms=function(t){return function(t){var e=Is(t);return function(r){return ln(r,t,e)}}(sn(t,1))},Br.constant=el,Br.countBy=vo,Br.create=function(t,e){var r=Nr(t);return null==e?r:rn(r,e)},Br.curry=function t(e,r,n){var a=Zi(e,8,i,i,i,i,i,r=n?i:r);return a.placeholder=t.placeholder,a},Br.curryRight=function t(e,r,n){var a=Zi(e,16,i,i,i,i,i,r=n?i:r);return a.placeholder=t.placeholder,a},Br.debounce=Io,Br.defaults=As,Br.defaultsDeep=Ms,Br.defer=Oo,Br.delay=zo,Br.difference=ja,Br.differenceBy=Ua,Br.differenceWith=Va,Br.drop=function(t,e,r){var n=null==t?0:t.length;return n?ei(t,(e=r||e===i?1:gs(e))<0?0:e,n):[]},Br.dropRight=function(t,e,r){var n=null==t?0:t.length;return n?ei(t,0,(e=n-(e=r||e===i?1:gs(e)))<0?0:e):[]},Br.dropRightWhile=function(t,e){return t&&t.length?fi(t,oa(e,3),!0,!0):[]},Br.dropWhile=function(t,e){return t&&t.length?fi(t,oa(e,3),!0):[]},Br.fill=function(t,e,r,n){var a=null==t?0:t.length;return a?(r&&"number"!=typeof r&&ma(t,e,r)&&(r=0,n=a),function(t,e,r,n){var a=t.length;for((r=gs(r))<0&&(r=-r>a?0:a+r),(n=n===i||n>a?a:gs(n))<0&&(n+=a),n=r>n?0:vs(n);r<n;)t[r++]=e;return t}(t,e,r,n)):[]},Br.filter=function(t,e){return(Go(t)?we:gn)(t,oa(e,3))},Br.flatMap=function(t,e){return vn(ko(t,e),1)},Br.flatMapDeep=function(t,e){return vn(ko(t,e),u)},Br.flatMapDepth=function(t,e,r){return r=r===i?1:gs(r),vn(ko(t,e),r)},Br.flatten=Ga,Br.flattenDeep=function(t){return null!=t&&t.length?vn(t,u):[]},Br.flattenDepth=function(t,e){return null!=t&&t.length?vn(t,e=e===i?1:gs(e)):[]},Br.flip=function(t){return Zi(t,512)},Br.flow=rl,Br.flowRight=nl,Br.fromPairs=function(t){for(var e=-1,r=null==t?0:t.length,n={};++e<r;){var i=t[e];n[i[0]]=i[1]}return n},Br.functions=function(t){return null==t?[]:_n(t,Is(t))},Br.functionsIn=function(t){return null==t?[]:_n(t,Os(t))},Br.groupBy=_o,Br.initial=function(t){return null!=t&&t.length?ei(t,0,-1):[]},Br.intersection=Wa,Br.intersectionBy=Xa,Br.intersectionWith=Za,Br.invert=Ls,Br.invertBy=Cs,Br.invokeMap=wo,Br.iteratee=al,Br.keyBy=To,Br.keys=Is,Br.keysIn=Os,Br.map=ko,Br.mapKeys=function(t,e){var r={};return e=oa(e,3),xn(t,(function(t,n,i){nn(r,e(t,n,i),t)})),r},Br.mapValues=function(t,e){var r={};return e=oa(e,3),xn(t,(function(t,n,i){nn(r,n,e(t,n,i))})),r},Br.matches=function(t){return Bn(sn(t,1))},Br.matchesProperty=function(t,e){return Nn(t,sn(e,1))},Br.memoize=Do,Br.merge=zs,Br.mergeWith=Ds,Br.method=ol,Br.methodOf=sl,Br.mixin=ll,Br.negate=Ro,Br.nthArg=function(t){return t=gs(t),Xn((function(e){return Un(e,t)}))},Br.omit=Rs,Br.omitBy=function(t,e){return Bs(t,Ro(oa(e)))},Br.once=function(t){return Lo(2,t)},Br.orderBy=function(t,e,r,n){return null==t?[]:(Go(e)||(e=null==e?[]:[e]),Go(r=n?i:r)||(r=null==r?[]:[r]),Vn(t,e,r))},Br.over=ul,Br.overArgs=Fo,Br.overEvery=fl,Br.overSome=hl,Br.partial=Bo,Br.partialRight=No,Br.partition=Ao,Br.pick=Fs,Br.pickBy=Bs,Br.property=pl,Br.propertyOf=function(t){return function(e){return null==t?i:wn(t,e)}},Br.pull=Ka,Br.pullAll=Qa,Br.pullAllBy=function(t,e,r){return t&&t.length&&e&&e.length?Hn(t,e,oa(r,2)):t},Br.pullAllWith=function(t,e,r){return t&&t.length&&e&&e.length?Hn(t,e,i,r):t},Br.pullAt=$a,Br.range=dl,Br.rangeRight=gl,Br.rearg=jo,Br.reject=function(t,e){return(Go(t)?we:gn)(t,Ro(oa(e,3)))},Br.remove=function(t,e){var r=[];if(!t||!t.length)return r;var n=-1,i=[],a=t.length;for(e=oa(e,3);++n<a;){var o=t[n];e(o,n,t)&&(r.push(o),i.push(n))}return Gn(t,i),r},Br.rest=function(t,e){if("function"!=typeof t)throw new St(a);return Xn(t,e=e===i?e:gs(e))},Br.reverse=to,Br.sampleSize=function(t,e,r){return e=(r?ma(t,e,r):e===i)?1:gs(e),(Go(t)?Jr:Jn)(t,e)},Br.set=function(t,e,r){return null==t?t:Kn(t,e,r)},Br.setWith=function(t,e,r,n){return n="function"==typeof

n?n:i,null==t?t:Kn(t,e,r,n)},Br.shuffle=function(t){return(Go(t)?Kr:ti)(t)},Br.slice=function(t,e,r){var n=null==t?0:t.length;return n?(r&&"number"!=typeof r&&ma(t,e,r)?(e=0,r=n):(e=null==e?0:gs(e),r=r===i?n:gs(r)),ei(t,e,r)):[]},Br.sortBy=Mo,Br.sortedUniq=function(t){return t&&t.length?ai(t):[]},Br.sortedUniqBy=function(t,e){return t&&t.length?ai(t,oa(e,2)):[]},Br.split=function(t,e,r){return r&&"number"!=typeof r&&ma(t,e,r)&&(e=r=i),(r=r===i?p:r>>>0)?(t=xs(t))&&("string"==typeof e||null!=e&&!os(e))&&!(e=si(e))&&Qe(t)?xi(ar(t),0,r):t.split(e,r):[]},Br.spread=function(t,e){if("function"!=typeof t)throw new St(a);return e=null==e?0:vr(gs(e),0),Xn((function(r){var n=r[e],i=xi(r,0,e);return n&&Me(i,n),me(t,this,i)}))},Br.tail=function(t){var e=null==t?0:t.length;return e?ei(t,1,e):[]},Br.take=function(t,e,r){return t&&t.length?ei(t,0,(e=r||e===i?1:gs(e))<0?0:e):[]},Br.takeRight=function(t,e,r){var n=null==t?0:t.length;return n?ei(t,(e=n-(e=r||e===i?1:gs(e)))<0?0:e,n):[]},Br.takeRightWhile=function(t,e){return t&&t.length?fi(t,oa(e,3),!1,!0):[]},Br.takeWhile=function(t,e){return t&&t.length?fi(t,oa(e,3)):[]},Br.tap=function(t,e){return e(t),t},Br.throttle=function(t,e,r){var n=!0,i=!0;if("function"!=typeof t)throw new St(a);return es(r)&&(n="leading"in r?!!r.leading:n,i="trailing"in r?!!r.trailing:i),Io(t,e,{leading:n,maxWait:e,trailing:i})},Br.thru=po,Br.toArray=ps,Br.toPairs=Ns,Br.toPairsIn=js,Br.toPath=function(t){return Go(t)?Ae(t,Fa):cs(t)?[t]:Si(Ra(xs(t)))},Br.toPlainObject=ys,Br.transform=function(t,e,r){var n=Go(t),i=n||Zo(t)||us(t);if(e=oa(e,4),null==r){var a=t&&t.constructor;r=i?n?new a:[]:es(t)&&Qo(a)?Nr(Yt(t)):{}}return(i?xe:xn)(t,(function(t,n,i){return e(r,t,n,i)})),r},Br.unary=function(t){return Eo(t,1)},Br.union=eo,Br.unionBy=ro,Br.unionWith=no,Br.uniq=function(t){return t&&t.length?li(t):[]},Br.uniqBy=function(t,e){return t&&t.length?li(t,oa(e,2)):[]},Br.uniqWith=function(t,e){return e="function"==typeof e?e:i,t&&t.length?li(t,i,e):[]},Br.unset=function(t,e){return null==t||ci(t,e)},Br.unzip=io,Br.unzipWith=ao,Br.update=function(t,e,r){return null==t?t:ui(t,e,vi(r))},Br.updateWith=function(t,e,r,n){return n="function"==typeof n?n:i,null==t?t:ui(t,e,vi(r),n)},Br.values=Us,Br.valuesIn=function(t){return null==t?[]:He(t,Os(t))},Br.without=oo,Br.words=Qs,Br.wrap=function(t,e){return Bo(vi(e),t)},Br.xor=so,Br.xorBy=lo,Br.xorWith=co,Br.zip=uo,Br.zipObject=function(t,e){return di(t||[],e||[],$r)},Br.zipObjectDeep=function(t,e){return di(t||[],e||[],Kn)},Br.zipWith=fo,Br.entries=Ns,Br.entriesIn=js,Br.extend=_s,Br.extendWith=ws,ll(Br,Br),Br.add=xl,Br.attempt=$s,Br.camelCase=Vs,Br.capitalize=qs,Br.ceil=bl,Br.clamp=function(t,e,r){return r===i&&(r=e,e=i),r!==i&&(r=(r=ms(r))==r?r:0),e!==i&&(e=(e=ms(e))==e?e:0),on(ms(t),e,r)},Br.clone=function(t){return sn(t,4)},Br.cloneDeep=function(t){return sn(t,5)},Br.cloneDeepWith=function(t,e){return sn(t,5,e="function"==typeof e?e:i)},Br.cloneWith=function(t,e){return sn(t,4,e="function"==typeof e?e:i)},Br.conformsTo=function(t,e){return null==e||ln(t,e,Is(e))},Br.deburr=Hs,Br.defaultTo=function(t,e){return null==t||t!=t?e:t},Br.divide=_l,Br.endsWith=function(t,e,r){t=xs(t),e=si(e);var n=t.length,a=r=r===i?n:on(gs(r),0,n);return(r-=e.length)>=0&&t.slice(r,a)==e},Br.eq=Uo,Br.escape=function(t){return(t=xs(t))&&X.test(t)?t.replace(Y,Je):t},Br.escapeRegExp=function(t){return(t=xs(t))&&rt.test(t)?t.replace(et,"\\$&"):t},Br.every=function(t,e,r){var n=Go(t)?_e:pn;return r&&ma(t,e,r)&&(e=i),n(t,oa(e,3))},Br.find=mo,Br.findIndex=qa,Br.findKey=function(t,e){return Pe(t,oa(e,3),xn)},Br.findLast=yo,Br.findLastIndex=Ha,Br.findLastKey=function(t,e){return Pe(t,oa(e,3),bn)},Br.floor=wl,Br.forEach=xo,Br.forEachRight=bo,Br.forIn=function(t,e){return null==t?t:mn(t,oa(e,3),Os)},Br.forInRight=function(t,e){return null==t?t:yn(t,oa(e,3),Os)},Br.forOwn=function(t,e){return t&&xn(t,oa(e,3))},Br.forOwnRight=function(t,e){return t&&bn(t,oa(e,3))},Br.get=Ss,Br.gt=Vo,Br.gte=qo,Br.has=function(t,e){return null!=t&&pa(t,e,Mn)},Br.hasIn=Es,Br.head=Ya,Br.identity=il,Br.includes=function(t,e,r,n){t=Wo(t)?t:Us(t),r=r&&!n?gs(r):0;var i=t.length;return r<0&&(r=vr(i+r,0)),ls(t)?r<=i&&t.indexOf(e,r)>-1:!!i&&Oe(t,e,r)>-

1},Br.indexOf=function(t,e,r){var n=null==t?0:t.length;if(!n)return-1;var i=null==r?0:gs(r);return i<0&&(i=vr(n+i,0)),Oe(t,e,i)},Br.inRange=function(t,e,r){return e=ds(e),r===i?(r=e,e=0):r=ds(r),function(t,e,r){return t>=mr(e,r)&&t<vr(e,r)}(t=ms(t),e,r)},Br.invoke=Ps,Br.isArguments=Ho,Br.isArray=Go,Br.isArrayBuffer=Yo,Br.isArrayLike=Wo,Br.isArrayLikeObject=Xo,Br.isBoolean=function(t){return!0===t||!1===t||rs(t)&&kn(t)==m},Br.isBuffer=Zo,Br.isDate=Jo,Br.isElement=function(t){return rs(t)&&1===t.nodeType&&!as(t)},Br.isEmpty=function(t){if(null==t)return!0;if(Wo(t)&&(Go(t)||"string"==typeof t||"function"==typeof t.splice||Zo(t)||us(t)||Ho(t)))return!t.length;var e=ha(t);if(e==w||e==S)return!t.size;if(_a(t))return!Dn(t).length;for(var r in t)if(Ot.call(t,r))return!1;return!0},Br.isEqual=function(t,e){return Pn(t,e)},Br.isEqualWith=function(t,e,r){var n=(r="function"==typeof r?r:i)?r(t,e):i;return n===i?Pn(t,e,i,r):!!n},Br.isError=Ko,Br.isFinite=function(t){return"number"==typeof t&&pr(t)},Br.isFunction=Qo,Br.isInteger=$o,Br.isLength=ts,Br.isMap=ns,Br.isMatch=function(t,e){return t===e||In(t,e,la(e))},Br.isMatchWith=function(t,e,r){return r="function"==typeof r?r:i,In(t,e,la(e),r)},Br.isNaN=function(t){return is(t)&&t!=+t},Br.isNative=function(t){if(ba(t))throw new _t("Unsupported core-js use. Try https://npms.io/search?q=ponyfill.");return On(t)},Br.isNil=function(t){return null==t},Br.isNull=function(t){return null===t},Br.isNumber=is,Br.isObject=es,Br.isObjectLike=rs,Br.isPlainObject=as,Br.isRegExp=os,Br.isSafeInteger=function(t){return $o(t)&&t>=-9007199254740991&&t<=f},Br.isSet=ss,Br.isString=ls,Br.isSymbol=cs,Br.isTypedArray=us,Br.isUndefined=function(t){return t===i},Br.isWeakMap=function(t){return rs(t)&&ha(t)==C},Br.isWeakSet=function(t){return rs(t)&&"[object WeakSet]"==kn(t)},Br.join=function(t,e){return null==t?"":dr.call(t,e)},Br.kebabCase=Gs,Br.last=Ja,Br.lastIndexOf=function(t,e,r){var n=null==t?0:t.length;if(!n)return-1;var a=n;return r!==i&&(a=(a=gs(r))<0?vr(n+a,0):mr(a,n-1)),e==e?function(t,e,r){for(var n=r+1;n--;)if(t[n]===e)return n;return n}(t,e,a):Ie(t,De,a,!0)},Br.lowerCase=Ys,Br.lowerFirst=Ws,Br.lt=fs,Br.lte=hs,Br.max=function(t){return t&&t.length?dn(t,il,An):i},Br.maxBy=function(t,e){return t&&t.length?dn(t,oa(e,2),An):i},Br.mean=function(t){return Re(t,il)},Br.meanBy=function(t,e){return Re(t,oa(e,2))},Br.min=function(t){return t&&t.length?dn(t,il,Rn):i},Br.minBy=function(t,e){return t&&t.length?dn(t,oa(e,2),Rn):i},Br.stubArray=vl,Br.stubFalse=ml,Br.stubObject=function(){return{}},Br.stubString=function(){return""},Br.stubTrue=function(){return!0},Br.multiply=Tl,Br.nth=function(t,e){return t&&t.length?Un(t,gs(e)):i},Br.noConflict=function(){return ae._===this&&(ae._=Bt),this},Br.noop=cl,Br.now=So,Br.pad=function(t,e,r){t=xs(t);var n=(e=gs(e))?ir(t):0;if(!e||n>=e)return t;var i=(e-n)/2;return Vi(ur(i),r)+t+Vi(cr(i),r)},Br.padEnd=function(t,e,r){t=xs(t);var n=(e=gs(e))?ir(t):0;return e&&n<e?t+Vi(e-n,r):t},Br.padStart=function(t,e,r){t=xs(t);var n=(e=gs(e))?ir(t):0;return e&&n<e?Vi(e-n,r)+t:t},Br.parseInt=function(t,e,r){return r||null==e?e=0:e&&(e=+e),xr(xs(t).replace(nt,""),e||0)},Br.random=function(t,e,r){if(r&&"boolean"!=typeof r&&ma(t,e,r)&&(e=r=i),r===i&&("boolean"==typeof e?(r=e,e=i):"boolean"==typeof t&&(r=t,t=i)),t===i&&e===i?(t=0,e=1):(t=ds(t),e===i?(e=t,t=0):e=ds(e)),t>e){var n=t;t=e,e=n}if(r||t%1||e%1){var a=br();return mr(t+a*(e-t+ee("1e-"+((a+"").length-1))),e)}return Yn(t,e)},Br.reduce=function(t,e,r){var n=Go(t)?Se:Ne,i=arguments.length<3;return n(t,oa(e,4),r,i,fn)},Br.reduceRight=function(t,e,r){var n=Go(t)?Ee:Ne,i=arguments.length<3;return n(t,oa(e,4),r,i,hn)},Br.repeat=function(t,e,r){return e=(r?ma(t,e,r):e===i)?1:gs(e),Wn(xs(t),e)},Br.replace=function(){var t=arguments,e=xs(t[0]);return t.length<3?e:e.replace(t[1],t[2])},Br.result=function(t,e,r){var n=-1,a=(e=mi(e,t)).length;for(a||(a=1,t=i);++n<a;){var o=null==t?i:t[Fa(e[n])];o===i&&(n=a,o=r),t=Qo(o)?o.call(t):o}return t},Br.round=kl,Br.runInContext=t,Br.sample=function(t){return(Go(t)?Zr:Zn)(t)},Br.size=function(t){if(null==t)return 0;if(Wo(t))return ls(t)?ir(t):t.length;var e=ha(t);return

e==w||e==S?t.size:Dn(t).length},Br.snakeCase=Xs,Br.some=function(t,e,r){var n=Go(t)?Le:ri;return r&&ma(t,e,r)&&(e=i),n(t,oa(e,3))},Br.sortedIndex=function(t,e){return ni(t,e)},Br.sortedIndexBy=function(t,e,r){return ii(t,e,oa(r,2))},Br.sortedIndexOf=function(t,e){var r=null==t?0:t.length;if(r){var n=ni(t,e);if(n<r&&Uo(t[n],e))return n}return-1},Br.sortedLastIndex=function(t,e){return ni(t,e,!0)},Br.sortedLastIndexBy=function(t,e,r){return ii(t,e,oa(r,2),!0)},Br.sortedLastIndexOf=function(t,e){if(null!=t&&t.length){var r=ni(t,e,!0)-1;if(Uo(t[r],e))return r}return-1},Br.startCase=Zs,Br.startsWith=function(t,e,r){return t=xs(t),r=null==r?0:on(gs(r),0,t.length),e=si(e),t.slice(r,r+e.length)==e},Br.subtract=Al,Br.sum=function(t){return t&&t.length?je(t,il):0},Br.sumBy=function(t,e){return t&&t.length?je(t,oa(e,2)):0},Br.template=function(t,e,r){var n=Br.templateSettings;r&&ma(t,e,r)&&(e=i),t=xs(t),e=ws({},e,n,Ji);var a,o,s=ws({},e.imports,n.imports,Ji),l=Is(s),c=He(s,l),u=0,f=e.interpolate||xt,h="__p += '";var p=At((e.escape||xt).source+"|"+f.source+"|"+(f===K?ft:xt).source+"|"+(e.evaluate||xt).source+"|$","g"),d="//# sourceURL="+(Ot.call(e,"sourceURL")?(e.sourceURL+"").replace(/\s/g," "):"lodash.templateSources["+ ++Kt+"]")+"\n";t.replace(p,(function(e,r,n,i,s,l){return n||(n=i),h+=t.slice(u,l).replace(bt,Ke),r&&(a=!0,h+="' +\n__e("+r+") +\n'"),s&&(o=!0,h+="';\n"+s+";\n__p += '"),n&&(h+="' +\n((__t = ("+n+")) == null ? '' : __t) +\n'"),u=l+e.length,e})),h+="';\n";var g=Ot.call(e,"variable")&&e.variable;if(g){if(ct.test(g))throw new _t("Invalid `variable` option passed into `_.template`")}else h="with (obj) {\n"+h+"\n}\n";h=(o?h.replace(V,""):h).replace(q,"$1").replace(H,"$1;"),h="function("+(g||"obj")+") {\n"+(g?"":"obj || (obj = {});\n")+"var __t, __p = ''"+(a?", __e = _.escape":"")+(o?", __j = Array.prototype.join;\nfunction print() { __p += __j.call(arguments, '') }\n":";\n")+h+"return __p\n}";var v=$s((function(){return wt(l,d+"return "+h).apply(i,c)}));if(v.source=h,Ko(v))throw v;return v},Br.times=function(t,e){if((t=gs(t))<1||t>f)return[];var r=p,n=mr(t,p);e=oa(e),t-=p;for(var i=Ue(n,e);++r<t;)e(r);return i},Br.toFinite=ds,Br.toInteger=gs,Br.toLength=vs,Br.toLower=function(t){return xs(t).toLowerCase()},Br.toNumber=ms,Br.toSafeInteger=function(t){return t?on(gs(t),-9007199254740991,f):0===t?t:0},Br.toString=xs,Br.toUpper=function(t){return xs(t).toUpperCase()},Br.trim=function(t,e,r){if((t=xs(t))&&(r||e===i))return Ve(t);if(!t||!(e=si(e)))return t;var n=ar(t),a=ar(e);return xi(n,Ye(n,a),We(n,a)+1).join("")},Br.trimEnd=function(t,e,r){if((t=xs(t))&&(r||e===i))return t.slice(0,or(t)+1);if(!t||!(e=si(e)))return t;var n=ar(t);return xi(n,0,We(n,ar(e))+1).join("")},Br.trimStart=function(t,e,r){if((t=xs(t))&&(r||e===i))return t.replace(nt,"");if(!t||!(e=si(e)))return t;var n=ar(t);return xi(n,Ye(n,ar(e))).join("")},Br.truncate=function(t,e){var r=30,n="...";if(es(e)){var a="separator"in e?e.separator:a;r="length"in e?gs(e.length):r,n="omission"in e?si(e.omission):n}var o=(t=xs(t)).length;if(Qe(t)){var s=ar(t);o=s.length}if(r>=o)return t;var l=r-ir(n);if(l<1)return n;var c=s?xi(s,0,l).join(""):t.slice(0,l);if(a===i)return c+n;if(s&&(l+=c.length-l),os(a)){if(t.slice(l).search(a)){var u,f=c;for(a.global||(a=At(a.source,xs(ht.exec(a))+"g")),a.lastIndex=0;u=a.exec(f);)var h=u.index;c=c.slice(0,h===i?l:h)}}else if(t.indexOf(si(a),l)!=l){var p=c.lastIndexOf(a);p>-1&&(c=c.slice(0,p))}return c+n},Br.unescape=function(t){return(t=xs(t))&&W.test(t)?t.replace(G,sr):t},Br.uniqueId=function(t){var e=++zt;return xs(t)+e},Br.upperCase=Js,Br.upperFirst=Ks,Br.each=xo,Br.eachRight=bo,Br.first=Ya,ll(Br,(yl={},xn(Br,(function(t,e){Ot.call(Br.prototype,e)||(yl[e]=t)})),yl),{chain:!1}),Br.VERSION="4.17.21",xe(["bind","bindKey","curry","curryRight","partial","partialRight"],(function(t){Br[t].placeholder=Br})),xe(["drop","take"],(function(t,e){Vr.prototype[t]=function(r){r=r===i?1:vr(gs(r),0);var n=this.__filtered__&&!e?new Vr(this):this.clone();return n.__filtered__?n.__takeCount__=mr(r,n.__takeCount__):n.__views__.push({size:mr(r,p),type:t+(n.__dir__<0?"Right":"")}),n},Vr.prototype[t+"Right"]=function(e){return this.reverse()[t](e).reverse()}})),xe(["filter","map","takeWhile"],(function(t,e){var r=e+1,n=1==r||3==r;Vr.prototype[t]=function(t){var e=this.clone();return e.__iteratees__.push({iteratee:oa(t,3),type:r}),e.__filtered__=e.__filtered__||n,e}})),xe(["head","last"],(function(t,e){var r="take"+(e?"Right":"");Vr.prototype[t]=function(){return

this[r](1).value()[0]}})),xe(["initial","tail"],(function(t,e){var
r="drop"+(e?"":"Right");Vr.prototype[t]=function(){return this.__filtered__?new
Vr(this):this[r](1)}})),Vr.prototype.compact=function(){return this.filter(il)},Vr.prototype.find=function(t){return
this.filter(t).head()},Vr.prototype.findLast=function(t){return
this.reverse().find(t)},Vr.prototype.invokeMap=Xn((function(t,e){return"function"==typeof t?new
Vr(this):this.map((function(r){return Ln(r,t,e)}))})),Vr.prototype.reject=function(t){return
this.filter(Ro(oa(t)))},Vr.prototype.slice=function(t,e){t=gs(t);var r=this;return r.__filtered__&&(t>0||e<0)?new
Vr(r):(t<0?r=r.takeRight(-t):t&&(r=r.drop(t)),e!==i&&(r=(e=gs(e))<0?r.dropRight(-e):r.take(e-
t)),r)},Vr.prototype.takeRightWhile=function(t){return
this.reverse().takeWhile(t).reverse()},Vr.prototype.toArray=function(){return
this.take(p)},xn(Vr.prototype,(function(t,e){var
r=/^(?:filter|find|map|reject)|While$/.test(e),n=/^(?:head|last)$/.test(e),a=Br[n?"take"+("last"==e?"Right":""):e],o=n||
/^find/.test(e);a&&(Br.prototype[e]=function(){var e=this.__wrapped__,s=n?[1]:arguments,l=e instanceof
Vr,c=s[0],u=l||Go(e),f=function(t){var e=a.apply(Br,Me([t],s));return n&&h?e[0]:e};u&&r&&"function"==typeof
c&&1!=c.length&&(l=u=!1);var
h=this.__chain__,p=!!this.__actions__.length,d=o&&!h,g=l&&!p;if(!o&&u){e=g?e:new Vr(this);var
v=t.apply(e,s);return v.__actions__.push({func:po,args:[f],thisArg:i}),new Ur(v,h)}return
d&&g?t.apply(this,s):(v=this.thru(f),d?n?v.value()[0]:v.value():v)})})),xe(["pop","push","shift","sort","splice","unsh
ift"],(function(t){var
e=Et[t],r=/^(?:push|sort|unshift)$/.test(t)?"tap":"thru",n=/^(?:pop|shift)$/.test(t);Br.prototype[t]=function(){var
t=arguments;if(n&&!this.__chain__){var i=this.value();return e.apply(Go(i)?i:[],t)}return this[r]((function(r){return
e.apply(Go(r)?r:[],t)}))}})),xn(Vr.prototype,(function(t,e){var r=Br[e];if(r){var
n=r.name+"";Ot.call(Lr,n)||(Lr[n]=[]),Lr[n].push({name:e,func:r})}})),Lr[Bi(i,2).name]=[{name:"wrapper",func:i}],
Vr.prototype.clone=function(){var t=new Vr(this.__wrapped__);return
t.__actions__=Si(this.__actions__),t.__dir__=this.__dir__,t.__filtered__=this.__filtered__,t.__iteratees__=Si(this.__
iteratees__),t.__takeCount__=this.__takeCount__,t.__views__=Si(this.__views__),t},Vr.prototype.reverse=function
(){if(this.__filtered__){var t=new Vr(this);t.__dir__=-1,t.__filtered__=!0}else(t=this.clone()).__dir__*=-1;return
t},Vr.prototype.value=function(){var
t=this.__wrapped__.value(),e=this.__dir__,r=Go(t),n=e<0,i=r?t.length:0,a=function(t,e,r){for(var n=-
1,i=r.length;++n<i;){var a=r[n],o=a.size;switch(a.type){case"drop":t+=o;break;case"dropRight":e-
=o;break;case"take":e=mr(e,t+o);break;case"takeRight":t=vr(t,e-
o)}}return{start:t,end:e}}(0,i,this.__views__),o=a.start,s=a.end,l=s-o,c=n?s:o-
1,u=this.__iteratees__,f=u.length,h=0,p=mr(l,this.__takeCount__);if(!r||!n&&i==l&&p==l)return
hi(t,this.__actions__);var d=[];t:for(;l--&&h<p;){for(var g=-1,v=t[c+=e];++g<f;){var
m=u[g],y=m.iteratee,x=m.type,b=y(v);if(2==x)v=b;else if(!b){if(1==x)continue t;break t}}d[h++]=v}return
d},Br.prototype.at=go,Br.prototype.chain=function(){return ho(this)},Br.prototype.commit=function(){return new
Ur(this.value(),this.__chain__)},Br.prototype.next=function(){this.__values__===i&&(this.__values__=ps(this.valu
e()));var
t=this.__index__>=this.__values__.length;return{done:t,value:t?i:this.__values__[this.__index__++]}},Br.prototype
.plant=function(t){for(var e,r=this;r instanceof jr;){var
n=Na(r);n.__index__=0,n.__values__=i,e?a.__wrapped__=n:e=n;var a=n;r=r.__wrapped__}return
a.__wrapped__=t,e},Br.prototype.reverse=function(){var t=this.__wrapped__;if(t instanceof Vr){var e=t;return
this.__actions__.length&&(e=new Vr(this)),(e=e.reverse()).__actions__.push({func:po,args:[to],thisArg:i}),new
Ur(e,this.__chain__)}return
this.thru(to)},Br.prototype.toJSON=Br.prototype.valueOf=Br.prototype.value=function(){return
hi(this.__wrapped__,this.__actions__)},Br.prototype.first=Br.prototype.head,oe&&(Br.prototype[oe]=function(){ret
urn this}),Br}();ae._=lr,(n=function(){return
lr}.call(e,r,e,t))===i||(t.exports=n)}.call(this)},478:(t,e,r)=>{t.exports=function t(e,r,n){function

i(o,s){if(!r[o]){if(!e[o]){if(a)return a(o,!0);var l=new Error("Cannot find module '"+o+"'");throw l.code="MODULE_NOT_FOUND",l}var c=r[o]={exports:{}};e[o][0].call(c.exports,(function(t){return i(e[o][1][t]||t)}),c,c.exports,t,e,r,n)}return r[o].exports}for(var a=void 0,o=0;o<n.length;o++)i(n[o]);return i}({1:[function(t,e,r){"use strict";var n=t("../src/lib"),i={"X,X div":'direction:ltr;font-family:"Open Sans",verdana,arial,sans-serif;margin:0;padding:0;',"X input,X button":'font-family:"Open Sans",verdana,arial,sans-serif;',"X input:focus,X button:focus":"outline:none;","X a":"text-decoration:none;","X a:hover":"text-decoration:none;","X .crisp":"shape-rendering:crispEdges;","X .user-select-none":"-webkit-user-select:none;-moz-user-select:none;-ms-user-select:none;-o-user-select:none;user-select:none;","X svg":"overflow:hidden;","X svg a":"fill:#447adb;","X svg a:hover":"fill:#3c6dc5;","X .main-svg":"position:absolute;top:0;left:0;pointer-events:none;","X .main-svg .draglayer":"pointer-events:all;","X .cursor-default":"cursor:default;","X .cursor-pointer":"cursor:pointer;","X .cursor-crosshair":"cursor:crosshair;","X .cursor-move":"cursor:move;","X .cursor-col-resize":"cursor:col-resize;","X .cursor-row-resize":"cursor:row-resize;","X .cursor-ns-resize":"cursor:ns-resize;","X .cursor-ew-resize":"cursor:ew-resize;","X .cursor-sw-resize":"cursor:sw-resize;","X .cursor-s-resize":"cursor:s-resize;","X .cursor-se-resize":"cursor:se-resize;","X .cursor-w-resize":"cursor:w-resize;","X .cursor-e-resize":"cursor:e-resize;","X .cursor-nw-resize":"cursor:nw-resize;","X .cursor-n-resize":"cursor:n-resize;","X .cursor-ne-resize":"cursor:ne-resize;","X .cursor-grab":"cursor:-webkit-grab;cursor:grab;","X .modebar":"position:absolute;top:2px;right:2px;","X .ease-bg":"-webkit-transition:background-color .3s ease 0s;-moz-transition:background-color .3s ease 0s;-ms-transition:background-color .3s ease 0s;-o-transition:background-color .3s ease 0s;transition:background-color .3s ease 0s;","X .modebar--hover>:not(.watermark)":"opacity:0;-webkit-transition:opacity .3s ease 0s;-moz-transition:opacity .3s ease 0s;-ms-transition:opacity .3s ease 0s;-o-transition:opacity .3s ease 0s;transition:opacity .3s ease 0s;","X:hover .modebar--hover .modebar-group":"opacity:1;","X .modebar-group":"float:left;display:inline-block;box-sizing:border-box;padding-left:8px;position:relative;vertical-align:middle;white-space:nowrap;","X .modebar-btn":"position:relative;font-size:16px;padding:3px 4px;height:22px;cursor:pointer;line-height:normal;box-sizing:border-box;","X .modebar-btn svg":"position:relative;top:2px;","X .modebar.vertical":"display:flex;flex-direction:column;flex-wrap:wrap;align-content:flex-end;max-height:100%;","X .modebar.vertical svg":"top:-1px;","X .modebar.vertical .modebar-group":"display:block;float:none;padding-left:0px;padding-bottom:8px;","X .modebar.vertical .modebar-group .modebar-btn":"display:block;text-align:center;","X [data-title]:before,X [data-title]:after":"position:absolute;-webkit-transform:translate3d(0, 0, 0);-moz-transform:translate3d(0, 0, 0);-ms-transform:translate3d(0, 0, 0);-o-transform:translate3d(0, 0, 0);transform:translate3d(0, 0, 0);display:none;opacity:0;z-index:1001;pointer-events:none;top:110%;right:50%;","X [data-title]:hover:before,X [data-title]:hover:after":"display:block;opacity:1;","X [data-title]:before":'content:"";position:absolute;background:rgba(0,0,0,0);border:6px solid rgba(0,0,0,0);z-index:1002;margin-top:-12px;border-bottom-color:#69738a;margin-right:-6px;',"X [data-title]:after":"content:attr(data-title);background:#69738a;color:#fff;padding:8px 10px;font-size:12px;line-height:12px;white-space:nowrap;margin-right:-18px;border-radius:2px;","X .vertical [data-title]:before,X .vertical [data-title]:after":"top:0%;right:200%;","X .vertical [data-title]:before":"border:6px solid rgba(0,0,0,0);border-left-color:#69738a;margin-top:8px;margin-right:-30px;","X .select-outline":"fill:none;stroke-width:1;shape-rendering:crispEdges;","X .select-outline-1":"stroke:#fff;","X .select-outline-2":"stroke:#000;stroke-dasharray:2px 2px;",Y:'font-family:"Open Sans",verdana,arial,sans-serif;position:fixed;top:50px;right:20px;z-index:10000;font-size:10pt;max-width:180px;',"Y p":"margin:0;","Y .notifier-note":"min-width:180px;max-width:250px;border:1px solid #fff;z-index:3000;margin:0;background-color:#8c97af;background-color:rgba(140,151,175,.9);color:#fff;padding:10px;overflow-wrap:break-word;word-wrap:break-word;-ms-hyphens:auto;-webkit-hyphens:auto;hyphens:auto;","Y .notifier-close":"color:#fff;opacity:.8;float:right;padding:0 5px;background:none;border:none;font-size:20px;font-weight:bold;line-height:20px;","Y .notifier-close:hover":"color:#444;text-decoration:none;cursor:pointer;"};for(var a in i){var o=a.replace(/^,/,"",").replace(/X/g,".js-plotly-plot .plotly").replace(/Y/g,".plotly-notifier");n.addStyleRule(o,i[a])}},{"../src/lib":503}],2:[function(t,e,r){"use

strict";e.exports=t("../src/transforms/aggregate")},{"../src/transforms/aggregate":1118}],3:[function(t,e,r){"use strict";e.exports=t("../src/traces/bar")},{"../src/traces/bar":656}],4:[function(t,e,r){"use strict";e.exports=t("../src/traces/barpolar")},{"../src/traces/barpolar":669}],5:[function(t,e,r){"use strict";e.exports=t("../src/traces/box")},{"../src/traces/box":679}],6:[function(t,e,r){"use strict";e.exports=t("../src/components/calendars")},{"../src/components/calendars":364}],7:[function(t,e,r){"use strict";e.exports=t("../src/traces/candlestick")},{"../src/traces/candlestick":688}],8:[function(t,e,r){"use strict";e.exports=t("../src/traces/carpet")},{"../src/traces/carpet":707}],9:[function(t,e,r){"use strict";e.exports=t("../src/traces/choropleth")},{"../src/traces/choropleth":721}],10:[function(t,e,r){"use strict";e.exports=t("../src/traces/choroplethmapbox")},{"../src/traces/choroplethmapbox":728}],11:[function(t,e,r){"use strict";e.exports=t("../src/traces/cone")},{"../src/traces/cone":734}],12:[function(t,e,r){"use strict";e.exports=t("../src/traces/contour")},{"../src/traces/contour":749}],13:[function(t,e,r){"use strict";e.exports=t("../src/traces/contourcarpet")},{"../src/traces/contourcarpet":760}],14:[function(t,e,r){"use strict";e.exports=t("../src/core")},{"../src/core":481}],15:[function(t,e,r){"use strict";e.exports=t("../src/traces/densitymapbox")},{"../src/traces/densitymapbox":768}],16:[function(t,e,r){"use strict";e.exports=t("../src/transforms/filter")},{"../src/transforms/filter":1119}],17:[function(t,e,r){"use strict";e.exports=t("../src/traces/funnel")},{"../src/traces/funnel":778}],18:[function(t,e,r){"use strict";e.exports=t("../src/traces/funnelarea")},{"../src/traces/funnelarea":787}],19:[function(t,e,r){"use strict";e.exports=t("../src/transforms/groupby")},{"../src/transforms/groupby":1120}],20:[function(t,e,r){"use strict";e.exports=t("../src/traces/heatmap")},{"../src/traces/heatmap":800}],21:[function(t,e,r){"use strict";e.exports=t("../src/traces/heatmapgl")},{"../src/traces/heatmapgl":811}],22:[function(t,e,r){"use strict";e.exports=t("../src/traces/histogram")},{"../src/traces/histogram":823}],23:[function(t,e,r){"use strict";e.exports=t("../src/traces/histogram2d")},{"../src/traces/histogram2d":829}],24:[function(t,e,r){"use strict";e.exports=t("../src/traces/histogram2dcontour")},{"../src/traces/histogram2dcontour":833}],25:[function(t,e,r){"use strict";e.exports=t("../src/traces/icicle")},{"../src/traces/icicle":839}],26:[function(t,e,r){"use strict";e.exports=t("../src/traces/image")},{"../src/traces/image":852}],27:[function(t,e,r){"use strict";var n=t("./core");n.register([t("./bar"),t("./box"),t("./heatmap"),t("./histogram"),t("./histogram2d"),t("./histogram2dcontour"),t("./contour"),t("./scatterternary"),t("./violin"),t("./funnel"),t("./waterfall"),t("./image"),t("./pie"),t("./sunburst"),t("./treemap"),t("./icicle"),t("./funnelarea"),t("./scatter3d"),t("./surface"),t("./isosurface"),t("./volume"),t("./mesh3d"),t("./cone"),t("./streamtube"),t("./scattergeo"),t("./choropleth"),t("./scattergl"),t("./splom"),t("./pointcloud"),t("./heatmapgl"),t("./parcoords"),t("./parcats"),t("./scattermapbox"),t("./choroplethmapbox"),t("./densitymapbox"),t("./sankey"),t("./indicator"),t("./table"),t("./carpet"),t("./scattercarpet"),t("./contourcarpet"),t("./ohlc"),t("./candlestick"),t("./scatterpolar"),t("./scatterpolargl"),t("./barpolar"),t("./scattersmith"),t("./aggregate"),t("./filter"),t("./groupby"),t("./sort"),t("./calendars")]),e.exports=n},{"./aggregate":2,"./bar":3,"./barpolar":4,"./box":5,"./calendars":6,"./candlestick":7,"./carpet":8,"./choropleth":9,"./choroplethmapbox":10,"./cone":11,"./contour":12,"./contourcarpet":13,"./core":14,"./densitymapbox":15,"./filter":16,"./funnel":17,"./funnelarea":18,"./groupby":19,"./heatmap":20,"./heatmapgl":21,"./histogram":22,"./histogram2d":23,"./histogram2dcontour":24,"./icicle":25,"./image":26,"./indicator":28,"./isosurface":29,"./mesh3d":30,"./ohlc":31,"./parcats":32,"./parcoords":33,"./pie":34,"./pointcloud":35,"./sankey":36,"./scatter3d":37,"./scattercarpet":38,"./scattergeo":39,"./scattergl":40,"./scattermapbox":41,"./scatterpolar":42,"./scatterpolargl":43,"./scattersmith":44,"./scatterternary":45,"./sort":46,"./splom":47,"./streamtube":48,"./sunburst":49,"./surface":50,"./table":51,"./treemap":52,"./violin":53,"./volume":54,"./waterfall":55}],28:[function(t,e,r){"use strict";e.exports=t("../src/traces/indicator")},{"../src/traces/indicator":860}],29:[function(t,e,r){"use strict";e.exports=t("../src/traces/isosurface")},{"../src/traces/isosurface":866}],30:[function(t,e,r){"use strict";e.exports=t("../src/traces/mesh3d")},{"../src/traces/mesh3d":871}],31:[function(t,e,r){"use strict";e.exports=t("../src/traces/ohlc")},{"../src/traces/ohlc":876}],32:[function(t,e,r){"use strict";e.exports=t("../src/traces/parcats")},{"../src/traces/parcats":885}],33:[function(t,e,r){"use strict";e.exports=t("../src/traces/parcoords")},{"../src/traces/parcoords":896}],34:[function(t,e,r){"use strict";e.exports=t("../src/traces/pie")},{"../src/traces/pie":907}],35:[function(t,e,r){"use strict";e.exports=t("../src/traces/pointcloud")},{"../src/traces/pointcloud":916}],36:[function(t,e,r){"use

strict";e.exports=t("../src/traces/sankey")},{"../src/traces/sankey":922}],37:[function(t,e,r){"use strict";e.exports=t("../src/traces/scatter3d")},{"../src/traces/scatter3d":960}],38:[function(t,e,r){"use strict";e.exports=t("../src/traces/scattercarpet")},{"../src/traces/scattercarpet":967}],39:[function(t,e,r){"use strict";e.exports=t("../src/traces/scattergeo")},{"../src/traces/scattergeo":975}],40:[function(t,e,r){"use strict";e.exports=t("../src/traces/scattergl")},{"../src/traces/scattergl":989}],41:[function(t,e,r){"use strict";e.exports=t("../src/traces/scattermapbox")},{"../src/traces/scattermapbox":999}],42:[function(t,e,r){"use strict";e.exports=t("../src/traces/scatterpolar")},{"../src/traces/scatterpolar":1007}],43:[function(t,e,r){"use strict";e.exports=t("../src/traces/scatterpolargl")},{"../src/traces/scatterpolargl":1015}],44:[function(t,e,r){"use strict";e.exports=t("../src/traces/scattersmith")},{"../src/traces/scattersmith":1022}],45:[function(t,e,r){"use strict";e.exports=t("../src/traces/scatterternary")},{"../src/traces/scatterternary":1030}],46:[function(t,e,r){"use strict";e.exports=t("../src/transforms/sort")},{"../src/transforms/sort":1122}],47:[function(t,e,r){"use strict";e.exports=t("../src/traces/splom")},{"../src/traces/splom":1040}],48:[function(t,e,r){"use strict";e.exports=t("../src/traces/streamtube")},{"../src/traces/streamtube":1048}],49:[function(t,e,r){"use strict";e.exports=t("../src/traces/sunburst")},{"../src/traces/sunburst":1056}],50:[function(t,e,r){"use strict";e.exports=t("../src/traces/surface")},{"../src/traces/surface":1065}],51:[function(t,e,r){"use strict";e.exports=t("../src/traces/table")},{"../src/traces/table":1073}],52:[function(t,e,r){"use strict";e.exports=t("../src/traces/treemap")},{"../src/traces/treemap":1084}],53:[function(t,e,r){"use strict";e.exports=t("../src/traces/violin")},{"../src/traces/violin":1097}],54:[function(t,e,r){"use strict";e.exports=t("../src/traces/volume")},{"../src/traces/volume":1105}],55:[function(t,e,r){"use strict";e.exports=t("../src/traces/waterfall")},{"../src/traces/waterfall":1113}],56:[function(t,e,r){var n,i;n=this,i=function(t,e,r,n,i){"use strict";function a(t){return t.target.depth}function o(t,e){return t.sourceLinks.length?t.depth:e-1}function s(t){return function(){return t}}i=i&&i.hasOwnProperty("default")?i.default:i;var l="function"==typeof Symbol&&"symbol"==typeof Symbol.iterator?function(t){return typeof t}:function(t){return t&&"function"==typeof Symbol&&t.constructor===Symbol&&t!==Symbol.prototype?"symbol":typeof t};function c(t,e){return f(t.source,e.source)||t.index-e.index}function u(t,e){return f(t.target,e.target)||t.index-e.index}function f(t,e){return t.partOfCycle===e.partOfCycle?t.y0-e.y0:"top"===t.circularLinkType||"bottom"===e.circularLinkType?-1:1}function h(t){return t.value}function p(t){return(t.y0+t.y1)/2}function d(t){return p(t.source)}function g(t){return p(t.target)}function v(t){return t.index}function m(t){return t.nodes}function y(t){return t.links}function x(t,e){var r=t.get(e);if(!r)throw new Error("missing: "+e);return r}function b(t,e){return e(t)}var _=25,w=10;function T(t,e,r){var n=0;if(null===r){for(var a=[],o=0;o<t.links.length;o++){var s=t.links[o],l=s.source.index,c=s.target.index;a[l]||(a[l]=[]),a[c]||(a[c]=[]),-1===a[l].indexOf(c)&&a[l].push(c)}var u=i(a);u.sort((function(t,e){return t.length-e.length}));var f={};for(o=0;o<u.length;o++){var h=u[o].slice(-2);f[h[0]]||(f[h[0]]={}),f[h[0]][h[1]]=!0}t.links.forEach((function(t){var e=t.target.index,r=t.source.index;e===r||f[r]&&f[r][e]?(t.circular=!0,t.circularLinkID=n,n+=1):t.circular=!1}))}else t.links.forEach((function(t){t.source[r]<t.target[r]?t.circular=!1:(t.circular=!0,t.circularLinkID=n,n+=1)}))}function k(t,e){var r=0,n=0;t.links.forEach((function(i){i.circular&&(i.source.circularLinkType||i.target.circularLinkType?i.circularLinkType=i.source.circularLinkType?i.source.circularLinkType:i.target.circularLinkType:i.circularLinkType=r<n?"top":"bottom","top"==i.circularLinkType?r+=1:n+=1,t.nodes.forEach((function(t){b(t,e)!=b(i.source,e)&&b(t,e)!=b(i.target,e)||(t.circularLinkType=i.circularLinkType)}))}))),t.links.forEach((function(t){t.circular&&(t.source.circularLinkType==t.target.circularLinkType&&(t.circularLinkType=t.source.circularLinkType),G(t,e)&&(t.circularLinkType=t.source.circularLinkType))}))}function A(t){var e=Math.abs(t.y1-t.y0),r=Math.abs(t.target.x0-t.source.x1);return Math.atan(r/e)}function M(t,e){var r=0;t.sourceLinks.forEach((function(t){r=t.circular&&!G(t,e)?r+1:r}));var n=0;return t.targetLinks.forEach((function(t){n=t.circular&&!G(t,e)?n+1:n})),r+n}function S(t){var e=t.source.sourceLinks,r=0;e.forEach((function(t){r=t.circular?r+1:r}));var n=t.target.targetLinks,i=0;return n.forEach((function(t){i=t.circular?i+1:i})),!(r>1||i>1)}function E(t,e,r){return t.sort(C),t.forEach((function(n,i){var a,o,s=0;if(G(n,r)&&S(n))n.circularPathData.verticalBuffer=s+n.width/2;else{for(var

l=0;l<i;l++)if(a=t[i],o=t[l],!(a.source.column<o.target.column||a.target.column>o.source.column)){var c=t[l].circularPathData.verticalBuffer+t[l].width/2+e;s=c>s?c:s}n.circularPathData.verticalBuffer=s+n.width/2}})),t}function L(t,r,i,a){var o=e.min(t.links,(function(t){return t.source.y0}));t.links.forEach((function(t){t.circular&&(t.circularPathData={})})),E(t.links.filter((function(t){return"top"==t.circularLinkType})),r,a),E(t.links.filter((function(t){return"bottom"==t.circularLinkType})),r,a),t.links.forEach((function(e){if(e.circular){if(e.circularPathData.arcRadius=e.width+w,e.circularPathData.leftNodeBuffer=5,e.circularPathData.rightNodeBuffer=5,e.circularPathData.sourceWidth=e.source.x1-e.source.x0,e.circularPathData.sourceX=e.source.x0+e.circularPathData.sourceWidth,e.circularPathData.targetX=e.target.x0,e.circularPathData.sourceY=e.y0,e.circularPathData.targetY=e.y1,G(e,a)&&S(e))e.circularPathData.leftSmallArcRadius=w+e.width/2,e.circularPathData.leftLargeArcRadius=w+e.width/2,e.circularPathData.rightSmallArcRadius=w+e.width/2,e.circularPathData.rightLargeArcRadius=w+e.width/2,"bottom"==e.circularLinkType?(e.circularPathData.verticalFullExtent=e.source.y1+_+e.circularPathData.verticalBuffer,e.circularPathData.verticalLeftInnerExtent=e.circularPathData.verticalFullExtent-e.circularPathData.leftLargeArcRadius,e.circularPathData.verticalRightInnerExtent=e.circularPathData.verticalFullExtent-e.circularPathData.rightLargeArcRadius):(e.circularPathData.verticalFullExtent=e.source.y0-_-e.circularPathData.verticalBuffer,e.circularPathData.verticalLeftInnerExtent=e.circularPathData.verticalFullExtent+e.circularPathData.leftLargeArcRadius,e.circularPathData.verticalRightInnerExtent=e.circularPathData.verticalFullExtent+e.circularPathData.rightLargeArcRadius);else{var s=e.source.column,l=e.circularLinkType,c=t.links.filter((function(t){return t.source.column==s&&t.circularLinkType==l}));"bottom"==e.circularLinkType?c.sort(I):c.sort(P);var u=0;c.forEach((function(t,n){t.circularLinkID==e.circularLinkID&&(e.circularPathData.leftSmallArcRadius=w+e.width/2+u,e.circularPathData.leftLargeArcRadius=w+e.width/2+n*r+u),u+=t.width})),s=e.target.column,c=t.links.filter((function(t){return t.target.column==s&&t.circularLinkType==l})),"bottom"==e.circularLinkType?c.sort(z):c.sort(O),u=0,c.forEach((function(t,n){t.circularLinkID==e.circularLinkID&&(e.circularPathData.rightSmallArcRadius=w+e.width/2+u,e.circularPathData.rightLargeArcRadius=w+e.width/2+n*r+u),u+=t.width})),"bottom"==e.circularLinkType?(e.circularPathData.verticalFullExtent=Math.max(i,e.source.y1,e.target.y1)+_+e.circularPathData.verticalBuffer,e.circularPathData.verticalLeftInnerExtent=e.circularPathData.verticalFullExtent-e.circularPathData.leftLargeArcRadius,e.circularPathData.verticalRightInnerExtent=e.circularPathData.verticalFullExtent-e.circularPathData.rightLargeArcRadius):(e.circularPathData.verticalFullExtent=o-_-e.circularPathData.verticalBuffer,e.circularPathData.verticalLeftInnerExtent=e.circularPathData.verticalFullExtent+e.circularPathData.leftLargeArcRadius,e.circularPathData.verticalRightInnerExtent=e.circularPathData.verticalFullExtent+e.circularPathData.rightLargeArcRadius)}e.circularPathData.leftInnerExtent=e.circularPathData.sourceX+e.circularPathData.leftNodeBuffer,e.circularPathData.rightInnerExtent=e.circularPathData.targetX-e.circularPathData.rightNodeBuffer,e.circularPathData.leftFullExtent=e.circularPathData.sourceX+e.circularPathData.leftLargeArcRadius+e.circularPathData.leftNodeBuffer,e.circularPathData.rightFullExtent=e.circularPathData.targetX-e.circularPathData.rightLargeArcRadius-e.circularPathData.rightNodeBuffer}if(e.circular)e.path=function(t){return"top"==t.circularLinkType?"M"+t.circularPathData.sourceX+" "+t.circularPathData.sourceY+" L"+t.circularPathData.leftInnerExtent+"
"+t.circularPathData.sourceY+" A"+t.circularPathData.leftLargeArcRadius+"
"+t.circularPathData.leftSmallArcRadius+" 0 0 0 "+t.circularPathData.leftFullExtent+"
"+(t.circularPathData.sourceY-t.circularPathData.leftSmallArcRadius)+" L"+t.circularPathData.leftFullExtent+"
"+t.circularPathData.verticalLeftInnerExtent+" A"+t.circularPathData.leftLargeArcRadius+"
"+t.circularPathData.leftLargeArcRadius+" 0 0 0 "+t.circularPathData.leftInnerExtent+"
"+t.circularPathData.verticalFullExtent+" L"+t.circularPathData.rightInnerExtent+"
"+t.circularPathData.verticalFullExtent+" A"+t.circularPathData.rightLargeArcRadius+"
"+t.circularPathData.rightLargeArcRadius+" 0 0 0 "+t.circularPathData.rightFullExtent+"
"+t.circularPathData.verticalRightInnerExtent+" L"+t.circularPathData.rightFullExtent+"

"+(t.circularPathData.targetY-t.circularPathData.rightSmallArcRadius)+"
A"+t.circularPathData.rightLargeArcRadius+" "+t.circularPathData.rightSmallArcRadius+" 0 0 0
"+t.circularPathData.rightInnerExtent+" "+t.circularPathData.targetY+" L"+t.circularPathData.targetX+"
"+t.circularPathData.targetY:"M"+t.circularPathData.sourceX+" "+t.circularPathData.sourceY+"
L"+t.circularPathData.leftInnerExtent+" "+t.circularPathData.sourceY+"
A"+t.circularPathData.leftLargeArcRadius+" "+t.circularPathData.leftSmallArcRadius+" 0 0 1
"+t.circularPathData.leftFullExtent+" "+(t.circularPathData.sourceY+t.circularPathData.leftSmallArcRadius)+"
L"+t.circularPathData.leftFullExtent+" "+t.circularPathData.verticalLeftInnerExtent+"
A"+t.circularPathData.leftLargeArcRadius+" "+t.circularPathData.leftLargeArcRadius+" 0 0 1
"+t.circularPathData.leftInnerExtent+" "+t.circularPathData.verticalFullExtent+"
L"+t.circularPathData.rightInnerExtent+" "+t.circularPathData.verticalFullExtent+"
A"+t.circularPathData.rightLargeArcRadius+" "+t.circularPathData.rightLargeArcRadius+" 0 0 1
"+t.circularPathData.rightFullExtent+" "+t.circularPathData.verticalRightInnerExtent+"
L"+t.circularPathData.rightFullExtent+" "+(t.circularPathData.targetY+t.circularPathData.rightSmallArcRadius)+"
A"+t.circularPathData.rightLargeArcRadius+" "+t.circularPathData.rightSmallArcRadius+" 0 0 1
"+t.circularPathData.rightInnerExtent+" "+t.circularPathData.targetY+" L"+t.circularPathData.targetX+"
"+t.circularPathData.targetY}(e);else{var f=n.linkHorizontal().source((function(t){return[t.source.x0+(t.source.x1-
t.source.x0),t.y0]})).target((function(t){return[t.target.x0,t.y1]}));e.path=f(e)}}))}function C(t,e){return
D(t)==D(e)?"bottom"==t.circularLinkType?I(t,e):P(t,e):D(e)-D(t)}function P(t,e){return t.y0-e.y0}function
I(t,e){return e.y0-t.y0}function O(t,e){return t.y1-e.y1}function z(t,e){return e.y1-t.y1}function D(t){return
t.target.column-t.source.column}function R(t){return t.target.x0-t.source.x1}function F(t,e){var
r=A(t),n=R(e)/Math.tan(r);return"up"==H(t)?t.y1+n:t.y1-n}function B(t,e){var
r=A(t),n=R(e)/Math.tan(r);return"up"==H(t)?t.y1-n:t.y1+n}function
N(t,e,r,n){t.links.forEach((function(i){if(!i.circular&&i.target.column-i.source.column>1){var
a=i.source.column+1,o=i.target.column-1,s=1,l=o-
a+1;for(s=1;a<=o;a++,s++)t.nodes.forEach((function(o){if(o.column==a){var c,u=s/(l+1),f=Math.pow(1-
u,3),h=3*u*Math.pow(1-u,2),p=3*Math.pow(u,2)*(1-u),d=Math.pow(u,3),g=f*i.y0+h*i.y0+p*i.y1+d*i.y1,v=g-
i.width/2,m=g+i.width/2;v>o.y0&&v<o.y1?(c=o.y1-v+10,c="bottom"==o.circularLinkType?c:-
c,o=j(o,c,e,r),t.nodes.forEach((function(t){var
i,a;b(t,n)!=b(o,n)&&t.column==o.column&&(a=t,(i=o).y0>a.y0&&i.y0<a.y1||i.y1>a.y0&&i.y1<a.y1||i.y0<a.y0&&i
.y1>a.y1)&&j(t,c,e,r)}))):(m>o.y0&&m<o.y1||v<o.y0&&m>o.y1)&&(c=m-
o.y0+10,o=j(o,c,e,r),t.nodes.forEach((function(t){b(t,n)!=b(o,n)&&t.column==o.column&&t.y0<o.y1&&t.y1>o.y1
&&j(t,c,e,r)}))))}))))}))}function j(t,e,r,n){return
t.y0+e>=r&&t.y1+e<=n&&(t.y0=t.y0+e,t.y1=t.y1+e,t.targetLinks.forEach((function(t){t.y1=t.y1+e})),t.sourceLinks
.forEach((function(t){t.y0=t.y0+e}))),t}function U(t,e,r,n){t.nodes.forEach((function(i){n&&i.y+(i.y1-
i.y0)>e&&(i.y=i.y-(i.y+(i.y1-i.y0)-e));var a=t.links.filter((function(t){return
b(t.source,r)==b(i,r)})),o=a.length;o>1&&a.sort((function(t,e){if(!t.circular&&!e.circular){if(t.target.column==e.tar
get.column)return t.y1-e.y1;if(!q(t,e))return t.y1-e.y1;if(t.target.column>e.target.column){var r=B(e,t);return t.y1-
r}if(e.target.column>t.target.column)return B(t,e)-e.y1}return t.circular&&!e.circular?"top"==t.circularLinkType?-
1:1:e.circular&&!t.circular?"top"==e.circularLinkType?1:-
1:t.circular&&e.circular?t.circularLinkType===e.circularLinkType&&"top"==t.circularLinkType?t.target.column=
==e.target.column?t.target.y1-e.target.y1:e.target.column-
t.target.column:t.circularLinkType===e.circularLinkType&&"bottom"==t.circularLinkType?t.target.column===e.ta
rget.column?e.target.y1-t.target.y1:t.target.column-e.target.column:"top"==t.circularLinkType?-1:1:void 0}));var
s=i.y0;a.forEach((function(t){t.y0=s+t.width/2,s+=t.width})),a.forEach((function(t,e){if("bottom"==t.circularLinkT
ype){for(var r=e+1,n=0;r<o;r++)n+=a[r].width;t.y0=i.y1-n-t.width/2}}))}))}function
V(t,e,r){t.nodes.forEach((function(e){var n=t.links.filter((function(t){return
b(t.target,r)==b(e,r)})),i=n.length;i>1&&n.sort((function(t,e){if(!t.circular&&!e.circular){if(t.source.column==e.sou

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rce.column)return t.y0-e.y0;if(!q(t,e))return t.y0-e.y0;if(e.source.column<t.source.column){var r=F(e,t);return t.y0-
r}if(t.source.column<e.source.column)return F(t,e)-e.y0}return t.circular&&!e.circular?"top"==t.circularLinkType?-
1:1:e.circular&&!t.circular?"top"==e.circularLinkType?1:-
1:t.circular&&e.circular?t.circularLinkType===e.circularLinkType&&"top"==t.circularLinkType?t.source.column=
==e.source.column?t.source.y1-e.source.y1:t.source.column-
e.source.column:t.circularLinkType===e.circularLinkType&&"bottom"==t.circularLinkType?t.source.column===e
.source.column?t.source.y1-e.source.y1:e.source.column-t.source.column:"top"==t.circularLinkType?-1:1:void
0}));var
a=e.y0;n.forEach((function(t){t.y1=a+t.width/2,a+=t.width})),n.forEach((function(t,r){if("bottom"==t.circularLinkT
ype){for(var a=r+1,o=0;a<i;a++)o+=n[a].width;t.y1=e.y1-o-t.width/2}}))}))}function q(t,e){return
H(t)==H(e)}function H(t){return t.y0-t.y1>0?"up":"down"}function G(t,e){return
b(t.source,e)==b(t.target,e)}function Y(t,r,n){var
i=t.nodes,a=t.links,o=!1,s=!1;if(a.forEach((function(t){"top"==t.circularLinkType?o=!0:"bottom"==t.circularLinkT
ype&&(s=!0)})),0==o||0==s){var l=e.min(i,(function(t){return t.y0})),c=(n-r)/(e.max(i,(function(t){return t.y1}))-
l);i.forEach((function(t){var e=(t.y1-t.y0)*c;t.y0=(t.y0-l)*c,t.y1=t.y0+e})),a.forEach((function(t){t.y0=(t.y0-
l)*c,t.y1=(t.y1-l)*c,t.width=t.width*c}))}}t.sankeyCircular=function(){var
t,n,i=0,a=0,b=1,A=1,S=24,E=v,C=o,P=m,I=y,O=32,z=2,D=null;function R(){var
t={nodes:P.apply(null,arguments),links:I.apply(null,arguments)};F(t),T(t,0,D),B(t),j(t),k(t,E),q(t,O,E),H(t);for(var
e=4,r=0;r<e;r++)U(t,A,E),V(t,0,E),N(t,a,A,E),U(t,A,E),V(t,0,E);return Y(t,a,A),L(t,z,A,E),t}function
F(t){t.nodes.forEach((function(t,e){t.index=e,t.sourceLinks=[],t.targetLinks=[]}));var e=r.map(t.nodes,E);return
t.links.forEach((function(t,r){t.index=r;var n=t.source,i=t.target;"object"!==(void
0===n?"undefined":l(n))&&(n=t.source=x(e,n)),"object"!==(void
0===i?"undefined":l(i))&&(i=t.target=x(e,i)),n.sourceLinks.push(t),i.targetLinks.push(t)})),t}function
B(t){t.nodes.forEach((function(t){t.partOfCycle=!1,t.value=Math.max(e.sum(t.sourceLinks,h),e.sum(t.targetLinks,h
)),t.sourceLinks.forEach((function(e){e.circular&&(t.partOfCycle=!0,t.circularLinkType=e.circularLinkType)})),t.t
argetLinks.forEach((function(e){e.circular&&(t.partOfCycle=!0,t.circularLinkType=e.circularLinkType)}))}))}func
tion j(t){var
e,r,n;for(e=t.nodes,r=[],n=0;e.length;++n,e=r,r=[])e.forEach((function(t){t.depth=n,t.sourceLinks.forEach((function(
t){r.indexOf(t.target)<0&&!t.circular&&r.push(t.target)}))}));for(e=t.nodes,r=[],n=0;e.length;++n,e=r,r=[])e.forEac
h((function(t){t.height=n,t.targetLinks.forEach((function(t){r.indexOf(t.source)<0&&!t.circular&&r.push(t.source)}
))}));t.nodes.forEach((function(t){t.column=Math.floor(C.call(null,t,n))}))}function q(o,s,l){var
c=r.nest().key((function(t){return t.column})).sortKeys(e.ascending).entries(o.nodes).map((function(t){return
t.values}));(function(r){if(n){var s=1/0;c.forEach((function(t){var e=A*n/(t.length+1);s=e<s?e:s})),t=s}var
l=e.min(c,(function(r){return(A-a-(r.length-
1)*t)/e.sum(r,h)}));l*=.3,o.links.forEach((function(t){t.width=t.value*l}));var u=function(t){var
r=0,n=0,i=0,a=0,o=e.max(t.nodes,(function(t){return t.column}));return
t.links.forEach((function(t){t.circular&&("top"==t.circularLinkType?r+=t.width:n+=t.width,0==t.target.column&&(
a+=t.width),t.source.column==o&&(i+=t.width))})),{top:r=r>0?r+_+w:r,bottom:n=n>0?n+_+w:n,left:a=a>0?a+_+
w:a,right:i=i>0?i+_+w:i}}(o),f=function(t,r){var n=e.max(t.nodes,(function(t){return t.column})),o=b-i,s=A-
a,l=o/(o+r.right+r.left),c=s/(s+r.top+r.bottom);return
i=i*l+r.left,b=0==r.right?b:b*l,a=a*c+r.top,A*=c,t.nodes.forEach((function(t){t.x0=i+t.column*((b-i-
S)/n),t.x1=t.x0+S})),c}(o,u);l*=f,o.links.forEach((function(t){t.width=t.value*l})),c.forEach((function(t){var
e=t.length;t.forEach((function(t,n){t.depth==c.length-1&&1==e||0==t.depth&&1==e?(t.y0=A/2-
t.value*l,t.y1=t.y0+t.value*l):t.partOfCycle?0==M(t,r)?(t.y0=A/2+n,t.y1=t.y0+t.value*l):"top"==t.circularLinkType
?(t.y0=a+n,t.y1=t.y0+t.value*l):(t.y0=A-t.value*l-n,t.y1=t.y0+t.value*l):0==u.top||0==u.bottom?(t.y0=(A-
a)/e*n,t.y1=t.y0+t.value*l):(t.y0=(A-a)/2-e/2+n,t.y1=t.y0+t.value*l)}))}))}))}))})(l),y();for(var u=1,v=s;v>0;--
v)m(u*=.99,l),y();function m(t,r){var n=c.length;c.forEach((function(i){var
a=i.length,o=i[0].depth;i.forEach((function(i){var
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s;if(i.sourceLinks.length||i.targetLinks.length)if(i.partOfCycle&&M(i,r)>0);else if(0==o&&1==a)s=i.y1-i.y0,i.y0=A/2-s/2,i.y1=A/2+s/2;else if(o==n-1&&1==a)s=i.y1-i.y0,i.y0=A/2-s/2,i.y1=A/2+s/2;else{var l=e.mean(i.sourceLinks,g),c=e.mean(i.targetLinks,d),u=((l&&c?(l+c)/2:l||c)-p(i))*t;i.y0+=u,i.y1+=u}}))))}function y(){c.forEach((function(e){var r,n,i,o=a,s=e.length;for(e.sort(f),i=0;i<s;++i)(n=o-(r=e[i]).y0)>0&&(r.y0+=n,r.y1+=n),o=r.y1+t;if((n=o-t-A)>0)for(o=r.y0-=n,r.y1-=n,i=s-2;i>=0;--i)(n=(r=e[i]).y1+t-o)>0&&(r.y0-=n,r.y1-=n),o=r.y0}))}}function H(t){t.nodes.forEach((function(t){t.sourceLinks.sort(u),t.targetLinks.sort(c)})),t.nodes.forEach((function(t){var e=t.y0,r=e,n=t.y1,i=n;t.sourceLinks.forEach((function(t){t.circular?(t.y0=n-t.width/2,n-=t.width):(t.y0=e+t.width/2,e+=t.width)})),t.targetLinks.forEach((function(t){t.circular?(t.y1=i-t.width/2,i-=t.width):(t.y1=r+t.width/2,r+=t.width)}))}))}return R.nodeId=function(t){return arguments.length?(E="function"==typeof t?t:s(t),R):E},R.nodeAlign=function(t){return arguments.length?(C="function"==typeof t?t:s(t),R):C},R.nodeWidth=function(t){return arguments.length?(S=+t,R):S},R.nodePadding=function(e){return arguments.length?(t=+e,R):t},R.nodes=function(t){return arguments.length?(P="function"==typeof t?t:s(t),R):P},R.links=function(t){return arguments.length?(I="function"==typeof t?t:s(t),R):I},R.size=function(t){return arguments.length?(i=a=0,b=+t[0],A=+t[1],R):[b-i,A-a]},R.extent=function(t){return arguments.length?(i=+t[0][0],b=+t[1][0],a=+t[0][1],A=+t[1][1],R):[[i,a],[b,A]]},R.iterations=function(t){return arguments.length?(O=+t,R):O},R.circularLinkGap=function(t){return arguments.length?(z=+t,R):z},R.nodePaddingRatio=function(t){return arguments.length?(n=+t,R):n},R.sortNodes=function(t){return arguments.length?(D=t,R):D},R.update=function(t){return k(t,E),H(t),t.links.forEach((function(t){t.circular&&(t.circularLinkType=t.y0+t.y1<A?"top":"bottom",t.source.circularLinkType=t.circularLinkType,t.target.circularLinkType=t.circularLinkType)})),U(t,A,E,!1),V(t,0,E),L(t,z,A,E),t},R},t.sankeyCenter=function(t){return t.targetLinks.length?t.depth:t.sourceLinks.length?e.min(t.sourceLinks,a)-1:0},t.sankeyLeft=function(t){return t.depth},t.sankeyRight=function(t,e){return e-1-t.height},t.sankeyJustify=o,Object.defineProperty(t,"__esModule",{value:!0})},"object"==typeof r&&void 0!==e?i(r,t("d3-array"),t("d3-collection"),t("d3-shape"),t("elementary-circuits-directed-graph")):i(n.d3=n.d3||{},n.d3,n.d3,n.d3,null)},{"d3-array":107,"d3-collection":108,"d3-shape":119,"elementary-circuits-directed-graph":130}],57:[function(t,e,r){var n,i;n=this,i=function(t,e,r,n){"use strict";function i(t){return t.target.depth}function a(t,e){return t.sourceLinks.length?t.depth:e-1}function o(t){return function(){return t}}function s(t,e){return c(t.source,e.source)||t.index-e.index}function l(t,e){return c(t.target,e.target)||t.index-e.index}function c(t,e){return t.y0-e.y0}function u(t){return t.value}function f(t){return(t.y0+t.y1)/2}function h(t){return f(t.source)*t.value}function p(t){return f(t.target)*t.value}function d(t){return t.index}function g(t){return t.nodes}function v(t){return t.links}function m(t,e){var r=t.get(e);if(!r)throw new Error("missing: "+e);return r}function y(t){return[t.source.x1,t.y0]}function x(t){return[t.target.x0,t.y1]}t.sankey=function(){var t=0,n=0,i=1,y=1,x=24,b=8,_=d,w=a,T=g,k=v,A=32;function M(){var t={nodes:T.apply(null,arguments),links:k.apply(null,arguments)};return S(t),E(t),L(t),C(t),P(t),t}function S(t){t.nodes.forEach((function(t,e){t.index=e,t.sourceLinks=[],t.targetLinks=[]}));var e=r.map(t.nodes,_);t.links.forEach((function(t,r){t.index=r;var n=t.source,i=t.target;"object"!=typeof n&&(n=t.source=m(e,n)),"object"!=typeof i&&(i=t.target=m(e,i)),n.sourceLinks.push(t),i.targetLinks.push(t)}))}function E(t){t.nodes.forEach((function(t){t.value=Math.max(e.sum(t.sourceLinks,u),e.sum(t.targetLinks,u))}))}function L(e){var r,n,a;for(r=e.nodes,n=[],a=0;r.length;++a,r=n,n=[])r.forEach((function(t){t.depth=a,t.sourceLinks.forEach((function(t){n.indexOf(t.target)<0&&n.push(t.target)}))}));for(r=e.nodes,n=[],a=0;r.length;++a,r=n,n=[])r.forEach((function(t){t.height=a,t.targetLinks.forEach((function(t){n.indexOf(t.source)<0&&n.push(t.source)}))}));var o=(i-t-x)/(a-1);e.nodes.forEach((function(e){e.x1=(e.x0=t+Math.max(0,Math.min(a-

1,Math.floor(w.call(null,e,a))))*o)+x}))}function C(t){var i=r.nest().key((function(t){return t.x0})).sortKeys(e.ascending).entries(t.nodes).map((function(t){return t.values}));(function(){var r=e.max(i,(function(t){return t.length})),a=.6666666666666666*(y-n)/(r-1);b>a&&(b=a);var o=e.min(i,(function(t){return(y-n-(t.length-1)*b)/e.sum(t,u)}));i.forEach((function(t){t.forEach((function(t,e){t.y1=(t.y0=e)+t.value*o}))})),t.links.forEach((function(t){t.width=t.value*o}))})(),d();for(var a=1,o=A;o>0;--o)l(a*=.99),d(),s(a),d();function s(t){i.forEach((function(r){r.forEach((function(r){if(r.targetLinks.length){var n=(e.sum(r.targetLinks,h)/e.sum(r.targetLinks,u)-f(r))*t;r.y0+=n,r.y1+=n}}))}))}function l(t){i.slice().reverse().forEach((function(r){r.forEach((function(r){if(r.sourceLinks.length){var n=(e.sum(r.sourceLinks,p)/e.sum(r.sourceLinks,u)-f(r))*t;r.y0+=n,r.y1+=n}}))}))}function d(){i.forEach((function(t){var e,r,i,a=n,o=t.length;for(t.sort(c),i=0;i<o;++i)(r=a-(e=t[i]).y0)>0&&(e.y0+=r,e.y1+=r),a=e.y1+b;if((r=a-b-y)>0)for(a=e.y0-=r,e.y1-=r,i=o-2;i>=0;--i)(r=(e=t[i]).y1+b-a)>0&&(e.y0-=r,e.y1-=r),a=e.y0}))}}function P(t){t.nodes.forEach((function(t){t.sourceLinks.sort(l),t.targetLinks.sort(s)})),t.nodes.forEach((function(t){var e=t.y0,r=e;t.sourceLinks.forEach((function(t){t.y0=e+t.width/2,e+=t.width})),t.targetLinks.forEach((function(t){t.y1=r+t.width/2,r+=t.width}))}))}return M.update=function(t){return P(t),t},M.nodeId=function(t){return arguments.length?(_="function"==typeof t?t:o(t),M):_},M.nodeAlign=function(t){return arguments.length?(w="function"==typeof t?t:o(t),M):w},M.nodeWidth=function(t){return arguments.length?(x=+t,M):x},M.nodePadding=function(t){return arguments.length?(b=+t,M):b},M.nodes=function(t){return arguments.length?(T="function"==typeof t?t:o(t),M):T},M.links=function(t){return arguments.length?(k="function"==typeof t?t:o(t),M):k},M.size=function(e){return arguments.length?(t=n=0,i=+e[0],y=+e[1],M):[i-t,y-n]},M.extent=function(e){return arguments.length?(t=+e[0][0],i=+e[1][0],n=+e[0][1],y=+e[1][1],M):[[t,n],[i,y]]},M.iterations=function(t){return arguments.length?(A=+t,M):A},M},t.sankeyCenter=function(t){return t.targetLinks.length?t.depth:t.sourceLinks.length?e.min(t.sourceLinks,i)-1:0},t.sankeyLeft=function(t){return t.depth},t.sankeyRight=function(t,e){return e-1-t.height},t.sankeyJustify=a,t.sankeyLinkHorizontal=function(){return n.linkHorizontal().source(y).target(x)},Object.defineProperty(t,"__esModule",{value:!0})},"object"==typeof r&&void 0!==e?i(r,t("d3-array"),t("d3-collection"),t("d3-shape")):i(n.d3=n.d3||{},n.d3,n.d3,n.d3)},{"d3-array":107,"d3-collection":108,"d3-shape":119}],58:[function(t,e,r){(function(){var t={version:"3.8.0"},r=[].slice,n=function(t){return r.call(t)},i=self.document;function a(t){return t&&(t.ownerDocument||t.document||t).documentElement}function o(t){return t&&(t.ownerDocument&&t.ownerDocument.defaultView||t.document&&t||t.defaultView)}if(i)try{n(i.documentElement.childNodes)[0].nodeType}catch(t){n=function(t){for(var e=t.length,r=new Array(e);e--;)r[e]=t[e];return r}}if(Date.now||(Date.now=function(){return+new Date}),i)try{i.createElement("DIV").style.setProperty("opacity",0,"")}catch(t){var s=this.Element.prototype,l=s.setAttribute,c=s.setAttributeNS,u=this.CSSStyleDeclaration.prototype,f=u.setProperty;s.setAttribute=function(t,e){l.call(this,t,e+"")},s.setAttributeNS=function(t,e,r){c.call(this,t,e,r+"")},u.setProperty=function(t,e,r){f.call(this,t,e+"",r)}}function h(t,e){return t<e?-1:t>e?1:t>=e?0:NaN}function p(t){return null===t?NaN:+t}function d(t){return!isNaN(t)}function g(t){return{left:function(e,r,n,i){for(arguments.length<3&&(n=0),arguments.length<4&&(i=e.length);n<i;){var a=n+i>>>1;t(e[a],r)<0?n=a+1:i=a}return n},right:function(e,r,n,i){for(arguments.length<3&&(n=0),arguments.length<4&&(i=e.length);n<i;){var a=n+i>>>1;t(e[a],r)>0?i=a:n=a+1}return n}}}t.ascending=h,t.descending=function(t,e){return e<t?-1:e>t?1:e>=t?0:NaN},t.min=function(t,e){var r,n,i=-1,a=t.length;if(1===arguments.length){for(;++i<a;)if(null!=(n=t[i])&&n>=n){r=n;break}for(;++i<a;)null!=(n=t[i])&&r>n&&(r=n)}else{for(;++i<a;)if(null!=(n=e.call(t,t[i],i))&&n>=n){r=n;break}for(;++i<a;)null!=(n=e.call(t,t[i],i)

)&&r>n&&(r=n)}return r},t.max=function(t,e){var r,n,i=-
1,a=t.length;if(1===arguments.length){for(;++i<a;)if(null!=(n=t[i])&&n>=n){r=n;break}for(;++i<a;)null!=(n=t[i])
&&n>r&&(r=n)}else{for(;++i<a;)if(null!=(n=e.call(t,t[i],i))&&n>=n){r=n;break}for(;++i<a;)null!=(n=e.call(t,t[i],i)
)&&n>r&&(r=n)}return r},t.extent=function(t,e){var r,n,i,a=-
1,o=t.length;if(1===arguments.length){for(;++a<o;)if(null!=(n=t[a])&&n>=n){r=i=n;break}for(;++a<o;)null!=(n=t[
a])&&(r>n&&(r=n),i<n&&(i=n))}else{for(;++a<o;)if(null!=(n=e.call(t,t[a],a))&&n>=n){r=i=n;break}for(;++a<o;)
null!=(n=e.call(t,t[a],a))&&(r>n&&(r=n),i<n&&(i=n))}return[r,i]},t.sum=function(t,e){var r,n=0,i=t.length,a=-
1;if(1===arguments.length)for(;++a<i;)d(r=+t[a])&&(n+=r);else for(;++a<i;)d(r=+e.call(t,t[a],a))&&(n+=r);return
n},t.mean=function(t,e){var r,n=0,i=t.length,a=-1,o=i;if(1===arguments.length)for(;++a<i;)d(r=p(t[a]))?n+=r:--
o;else for(;++a<i;)d(r=p(e.call(t,t[a],a)))?n+=r:--o;if(o)return n/o},t.quantile=function(t,e){var r=(t.length-
1)*e+1,n=Math.floor(r),i=+t[n-1],a=r-n;return a?i+a*(t[n]-i):i},t.median=function(e,r){var n,i=[],a=e.length,o=-
1;if(1===arguments.length)for(;++o<a;)d(n=p(e[o]))&&i.push(n);else
for(;++o<a;)d(n=p(r.call(e,e[o],o)))&&i.push(n);if(i.length)return
t.quantile(i.sort(h),.5)},t.variance=function(t,e){var r,n,i=t.length,a=0,o=0,s=-
1,l=0;if(1===arguments.length)for(;++s<i;)d(r=p(t[s]))&&(o+=(n=r-a)*(r-(a+=n/++l)));else
for(;++s<i;)d(r=p(e.call(t,t[s],s)))&&(o+=(n=r-a)*(r-(a+=n/++l)));if(l>1)return o/(l-1)},t.deviation=function(){var
e=t.variance.apply(this,arguments);return e?Math.sqrt(e):e};var v=g(h);function m(t){return
t.length}t.bisectLeft=v.left,t.bisect=t.bisectRight=v.right,t.bisector=function(t){return
g(1===t.length?function(e,r){return
h(t(e),r)}:t)},t.shuffle=function(t,e,r){(a=arguments.length)<3&&(r=t.length,a<2&&(e=0));for(var n,i,a=r-
e;a;)i=Math.random()*a--|0,n=t[a+e],t[a+e]=t[i+e],t[i+e]=n;return t},t.permute=function(t,e){for(var
r=e.length,n=new Array(r);r--;)n[r]=t[e[r]];return n},t.pairs=function(t){for(var e=0,r=t.length-1,n=t[0],i=new
Array(r<0?0:r);e<r;)i[e]=[n,n=t[++e]];return i},t.transpose=function(e){if(!(a=e.length))return[];for(var r=-
1,n=t.min(e,m),i=new Array(n);++r<n;)for(var a,o=-1,s=i[r]=new Array(a);++o<a;)s[o]=e[o][r];return
i},t.zip=function(){return t.transpose(arguments)},t.keys=function(t){var e=[];for(var r in t)e.push(r);return
e},t.values=function(t){var e=[];for(var r in t)e.push(t[r]);return e},t.entries=function(t){var e=[];for(var r in
t)e.push({key:r,value:t[r]});return e},t.merge=function(t){for(var e,r,n,i=t.length,a=-
1,o=0;++a<i;)o+=t[a].length;for(r=new Array(o);--i>=0;)for(e=(n=t[i]).length;--e>=0;)r[--o]=n[e];return r};var
y=Math.abs;function x(t){for(var e=1;t*e%1;)e*=10;return e}function b(t,e){for(var r in
e)Object.defineProperty(t.prototype,r,{value:e[r],enumerable:!1})}function _(){this._=Object.create(null)}function
w(t){return"__proto__"==(t+="")||"\0"===t[0]?"\0"+t:t}function T(t){return"\0"===(t+="")[0]?t.slice(1):t}function
k(t){return w(t)in this._}function A(t){return(t=w(t))in this._&&delete this._[t]}function M(){var t=[];for(var e in
this._)t.push(T(e));return t}function S(){var t=0;for(var e in this._)++t;return t}function E(){for(var t in
this._)return!1;return!0}function L(){this._=Object.create(null)}function C(t){return t}function P(t,e,r){return
function(){var n=r.apply(e,arguments);return n===e?t:n}}function I(t,e){if(e in t)return
e;e=e.charAt(0).toUpperCase()+e.slice(1);for(var r=0,n=O.length;r<n;++r){var i=O[r]+e;if(i in t)return
i}}t.range=function(t,e,r){if(arguments.length<3&&(r=1,arguments.length<2&&(e=t,t=0)),(e-t)/r==1/0)throw new
Error("infinite range");var n,i=[],a=x(y(r)),o=-1;if(t*=a,e*=a,(r*=a)<0)for(;(n=t+r*++o)>e;)i.push(n/a);else
for(;(n=t+r*++o)<e;)i.push(n/a);return i},t.map=function(t,e){var r=new _;if(t instanceof
_)t.forEach((function(t,e){r.set(t,e)}));else if(Array.isArray(t)){var n,i=-
1,a=t.length;if(1===arguments.length)for(;++i<a;)r.set(i,t[i]);else for(;++i<a;)r.set(e.call(t,n=t[i],i),n)}else for(var o
in t)r.set(o,t[o]);return r},b(_,{has:k,get:function(t){return this._[w(t)]},set:function(t,e){return
this._[w(t)]=e},remove:A,keys:M,values:function(){var t=[];for(var e in this._)t.push(this._[e]);return
t},entries:function(){var t=[];for(var e in this._)t.push({key:T(e),value:this._[e]});return
t},size:S,empty:E,forEach:function(t){for(var e in this._)t.call(this,T(e),this._[e])}}),t.nest=function(){var
e,r,n={},i=[],a=[];function o(t,a,s){if(s>=i.length)return r?r.call(n,a):e?a.sort(e):a;for(var l,c,u,f,h=-
1,p=a.length,d=i[s++],g=new _;++h<p;)(f=g.get(l=d(c=a[h])))?f.push(c):g.set(l,[c]);return
t?(c=t(),u=function(e,r){c.set(e,o(t,r,s))}):(c={},u=function(e,r){c[e]=o(t,r,s)}),g.forEach(u),c}function

s(t,e){if(e>=i.length)return t;var r=[],n=a[e++];return
t.forEach((function(t,n){r.push({key:t,values:s(n,e)})})),n?r.sort((function(t,e){return n(t.key,e.key)})):r}return
n.map=function(t,e){return o(e,t,0)},n.entries=function(e){return s(o(t.map,e,0),0)},n.key=function(t){return
i.push(t),n},n.sortKeys=function(t){return a[i.length-1]=t,n},n.sortValues=function(t){return
e=t,n},n.rollup=function(t){return r=t,n},n},t.set=function(t){var e=new L;if(t)for(var
r=0,n=t.length;r<n;++r)e.add(t[r]);return e},b(L,{has:k,add:function(t){return
this._[w(t+="")]=!0,t},remove:A,values:M,size:S,empty:E,forEach:function(t){for(var e in
this._)t.call(this,T(e))}}),t.behavior={},t.rebind=function(t,e){for(var
r,n=1,i=arguments.length;++n<i;)t[r=arguments[n]]=P(t,e,e[r]);return t};var
O=["webkit","ms","moz","Moz","o","O"];function z(){}function D(){}function R(t){var e=[],r=new _;function
n(){for(var r,n=e,i=-1,a=n.length;++i<a;)(r=n[i].on)&&r.apply(this,arguments);return t}return
n.on=function(n,i){var a,o=r.get(n);return
arguments.length<2?o&&o.on:(o&&(o.on=null,e=e.slice(0,a=e.indexOf(o)).concat(e.slice(a+1)),r.remove(n)),i&&e.
push(r.set(n,{on:i})),t)},n}function F(){t.event.preventDefault()}function B(){for(var
e,r=t.event;e=r.sourceEvent;)r=e;return r}function N(e){for(var r=new
D,n=0,i=arguments.length;++n<i;)r[arguments[n]]=R(r);return r.of=function(n,i){return function(a){try{var
o=a.sourceEvent=t.event;a.target=e,t.event=a,r[a.type].apply(n,i)}finally{t.event=o}}},r}t.dispatch=function(){for(v
ar t=new D,e=-1,r=arguments.length;++e<r;)t[arguments[e]]=R(t);return t},D.prototype.on=function(t,e){var
r=t.indexOf("."),n="";if(r>=0&&(n=t.slice(r+1),t=t.slice(0,r)),t)return
arguments.length<2?this[t].on(n):this[t].on(n,e);if(2===arguments.length){if(null==e)for(t in
this)this.hasOwnProperty(t)&&this[t].on(n,null);return this}},t.event=null,t.requote=function(t){return
t.replace(j,"\\$&")};var
j=/[\\\^\$*\+\?\|\[\]\(\)\.\{\}]/g,U={}.__proto__?function(t,e){t.__proto__=e}:function(t,e){for(var r in
e)t[r]=e[r]};function V(t){return U(t,Y),t}var q=function(t,e){return e.querySelector(t)},H=function(t,e){return
e.querySelectorAll(t)},G=function(t,e){var r=t.matches||t[I(t,"matchesSelector")];return(G=function(t,e){return
r.call(t,e)})(t,e)};"function"==typeof Sizzle&&(q=function(t,e){return
Sizzle(t,e)[0]||null},H=Sizzle,G=Sizzle.matchesSelector),t.selection=function(){return
t.select(i.documentElement)};var Y=t.selection.prototype=[];function W(t){return"function"==typeof
t?t:function(){return q(t,this)}}function X(t){return"function"==typeof t?t:function(){return
H(t,this)}}Y.select=function(t){var e,r,n,i,a=[];t=W(t);for(var o=-
1,s=this.length;++o<s;){a.push(e=[]),e.parentNode=(n=this[o]).parentNode;for(var l=-
1,c=n.length;++l<c;)(i=n[l])?(e.push(r=t.call(i,i.__data__,l,o)),r&&"__data__"in
i&&(r.__data__=i.__data__)):e.push(null)}return V(a)},Y.selectAll=function(t){var e,r,i=[];t=X(t);for(var a=-
1,o=this.length;++a<o;)for(var s=this[a],l=-
1,c=s.length;++l<c;)(r=s[l])&&(i.push(e=n(t.call(r,r.__data__,l,a))),e.parentNode=r);return V(i)};var
Z="http://www.w3.org/1999/xhtml",J={svg:"http://www.w3.org/2000/svg",xhtml:Z,xlink:"http://www.w3.org/1999
/xlink",xml:"http://www.w3.org/XML/1998/namespace",xmlns:"http://www.w3.org/2000/xmlns/"};function
K(e,r){return
e=t.ns.qualify(e),null==r?e.local?function(){this.removeAttributeNS(e.space,e.local)}:function(){this.removeAttribu
te(e)}:"function"==typeof r?e.local?function(){var
t=r.apply(this,arguments);null==t?this.removeAttributeNS(e.space,e.local):this.setAttributeNS(e.space,e.local,t)}:fu
nction(){var
t=r.apply(this,arguments);null==t?this.removeAttribute(e):this.setAttribute(e,t)}:e.local?function(){this.setAttribute
NS(e.space,e.local,r)}:function(){this.setAttribute(e,r)}}function Q(t){return t.trim().replace(/\s+/g," ")}function
$(e){return new RegExp("(?:^|\\s+)"+t.requote(e)+"(?:\\s+|$)","g")}function
tt(t){return(t+"").trim().split(/^|\s+/)}function et(t,e){var r=(t=tt(t).map(rt)).length;return"function"==typeof
e?function(){for(var n=-1,i=e.apply(this,arguments);++n<r;)t[n](this,i)}:function(){for(var n=-
1;++n<r;)t[n](this,e)}}function rt(t){var e=$(t);return function(r,n){if(i=r.classList)return n?i.add(t):i.remove(t);var

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i=r.getAttribute("class")||"";n?(e.lastIndex=0,e.test(i)||r.setAttribute("class",Q(i+"
"+t))):r.setAttribute("class",Q(i.replace(e," ")))}}function nt(t,e,r){return
null==e?function(){this.style.removeProperty(t)}:"function"==typeof e?function(){var
n=e.apply(this,arguments);null==n?this.style.removeProperty(t):this.style.setProperty(t,n,r)}:function(){this.style.set
Property(t,e,r)}}function it(t,e){return null==e?function(){delete this[t]}:"function"==typeof e?function(){var
r=e.apply(this,arguments);null==r?delete this[t]:this[t]=r}:function(){this[t]=e}}function
at(e){return"function"==typeof e?e:(e=t.ns.qualify(e)).local?function(){return
this.ownerDocument.createElementNS(e.space,e.local)}:function(){var
t=this.ownerDocument,r=this.namespaceURI;return
r===Z&&t.documentElement.namespaceURI===Z?t.createElement(e):t.createElementNS(r,e)}}function ot(){var
t=this.parentNode;t&&t.removeChild(this)}function st(t){return{__data__:t}}function lt(t){return function(){return
G(this,t)}}function ct(t){return arguments.length||(t=h),function(e,r){return e&&r?t(e.__data__,r.__data__):!e-
!r}}function ut(t,e){for(var r=0,n=t.length;r<n;r++)for(var i,a=t[r],o=0,s=a.length;o<s;o++)(i=a[o])&&e(i,o,r);return
t}function ft(t){return U(t,ht),t}t.ns={prefix:J,qualify:function(t){var e=t.indexOf(":"),r=t;return
e>=0&&"xmlns"!==(r=t.slice(0,e))&&(t=t.slice(e+1)),J.hasOwnProperty(r)?{space:J[r],local:t}:t}},Y.attr=function(
e,r){if(arguments.length<2){if("string"==typeof e){var
n=this.node();return(e=t.ns.qualify(e)).local?n.getAttributeNS(e.space,e.local):n.getAttribute(e)}for(r in
e)this.each(K(r,e[r]));return this}return
this.each(K(e,r))},Y.classed=function(t,e){if(arguments.length<2){if("string"==typeof t){var
r=this.node(),n=(t=tt(t)).length,i=-1;if(e=r.classList){for(;++i<n;)if(!e.contains(t[i]))return!1}else
for(e=r.getAttribute("class");++i<n;)if(!$(t[i]).test(e))return!1;return!0}for(e in t)this.each(et(e,t[e]));return
this}return this.each(et(t,e))},Y.style=function(t,e,r){var n=arguments.length;if(n<3){if("string"!=typeof t){for(r in
n<2&&(e=""),t)this.each(nt(r,t[r],e));return this}if(n<2){var i=this.node();return
o(i).getComputedStyle(i,null).getPropertyValue(t)}r=""}return
this.each(nt(t,e,r))},Y.property=function(t,e){if(arguments.length<2){if("string"==typeof t)return this.node()[t];for(e
in t)this.each(it(e,t[e]));return this}return this.each(it(t,e))},Y.text=function(t){return
arguments.length?this.each("function"==typeof t?function(){var
e=t.apply(this,arguments);this.textContent=null==e?"":e}:null==t?function(){this.textContent=""}:function(){this.te
xtContent=t}):this.node().textContent},Y.html=function(t){return arguments.length?this.each("function"==typeof
t?function(){var
e=t.apply(this,arguments);this.innerHTML=null==e?"":e}:null==t?function(){this.innerHTML=""}:function(){this.i
nnerHTML=t}):this.node().innerHTML},Y.append=function(t){return t=at(t),this.select((function(){return
this.appendChild(t.apply(this,arguments))}))},Y.insert=function(t,e){return
t=at(t),e=W(e),this.select((function(){return
this.insertBefore(t.apply(this,arguments),e.apply(this,arguments)||null)}))},Y.remove=function(){return
this.each(ot)},Y.data=function(t,e){var r,n,i=-1,a=this.length;if(!arguments.length){for(t=new
Array(a=(r=this[0]).length);++i<a;)(n=r[i])&&(t[i]=n.__data__);return t}function o(t,r){var
n,i,a,o=t.length,u=r.length,f=Math.min(o,u),h=new Array(u),p=new Array(u),d=new Array(o);if(e){var g,v=new
_,m=new Array(o);for(n=-1;++n<o;)(i=t[n])&&(v.has(g=e.call(i,i.__data__,n))?d[n]=i:v.set(g,i),m[n]=g);for(n=-
1;++n<u;)(i=v.get(g=e.call(r,a=r[n],n)))?!0!==i&&(h[n]=i,i.__data__=a):p[n]=st(a),v.set(g,!0);for(n=-1;++n<o;)n in
m&&!0!==v.get(m[n])&&(d[n]=t[n])}else{for(n=-
1;++n<f;)i=t[n],a=r[n],i?(i.__data__=a,h[n]=i):p[n]=st(a);for(;n<u;++n)p[n]=st(r[n]);for(;n<o;++n)d[n]=t[n]}p.updat
e=h,p.parentNode=h.parentNode=d.parentNode=t.parentNode,s.push(p),l.push(h),c.push(d)}var
s=ft([]),l=V([]),c=V([]);if("function"==typeof t)for(;++i<a;)o(r=this[i],t.call(r,r.parentNode.__data__,i));else
for(;++i<a;)o(r=this[i],t);return l.enter=function(){return s},l.exit=function(){return
c},l},Y.datum=function(t){return
arguments.length?this.property("__data__",t):this.property("__data__")},Y.filter=function(t){var
e,r,n,i=[];"function"!=typeof t&&(t=lt(t));for(var
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a=0,o=this.length;a<o;a++){i.push(e=[]),e.parentNode=(r=this[a]).parentNode;for(var s=0,l=r.length;s<l;s++)(n=r[s])&&t.call(n,n.__data__,s,a)&&e.push(n)}return V(i)},Y.order=function(){for(var t=-1,e=this.length;++t<e;)for(var r,n=this[t],i=n.length-1,a=n[i];--i>=0;)(r=n[i])&&(a&&a!==r.nextSibling&&a.parentNode.insertBefore(r,a),a=r);return this},Y.sort=function(t){t=ct.apply(this,arguments);for(var e=-1,r=this.length;++e<r;)this[e].sort(t);return this.order()},Y.each=function(t){return ut(this,(function(e,r,n){t.call(e,e.__data__,r,n)}))},Y.call=function(t){var e=n(arguments);return t.apply(e[0]=this,e),this},Y.empty=function(){return!this.node()},Y.node=function(){for(var t=0,e=this.length;t<e;t++)for(var r=this[t],n=0,i=r.length;n<i;n++){var a=r[n];if(a)return a}return null},Y.size=function(){var t=0;return ut(this,(function(){++t})),t};var ht=[];function pt(t){var e,r;return function(n,i,a){var o,s=t[a].update,l=s.length;for(a!=r&&(r=a,e=0),i>=e&&(e=i+1);!(o=s[e])&&++e<l;);return o}}function dt(e,r,i){var a="__on"+e,o=e.indexOf("."),s=vt;o>0&&(e=e.slice(0,o));var l=gt.get(e);function c(){var t=this[a];t&&(this.removeEventListener(e,t,t.$),delete this[a])}return l&&(e=l,s=mt),o?r?function(){var t=s(r,n(arguments));c.call(this),this.addEventListener(e,this[a]=t,t.$=i),t._=r}:c:r?z:function(){var r,n=new RegExp("^__on([^.]+)"+t.requote(e)+"$");for(var i in this)if(r=i.match(n)){var a=this[i];this.removeEventListener(r[1],a,a.$),delete this[i]}}}t.selection.enter=ft,t.selection.enter.prototype=ht,ht.append=Y.append,ht.empty=Y.empty,ht.node=Y.node,ht.call=Y.call,ht.size=Y.size,ht.select=function(t){for(var e,r,n,i,a,o=[],s=-1,l=this.length;++s<l;){n=(i=this[s]).update,o.push(e=[]),e.parentNode=i.parentNode;for(var c=-1,u=i.length;++c<u;)(a=i[c])?(e.push(n[c]=r=t.call(i.parentNode,a.__data__,c,s)),r.__data__=a.__data__):e.push(null)}return V(o)},ht.insert=function(t,e){return arguments.length<2&&(e=pt(this)),Y.insert.call(this,t,e)},t.select=function(t){var e;return"string"==typeof t?(e=[q(t,i)]).parentNode=i.documentElement:(e=[t]).parentNode=a(t),V([e])},t.selectAll=function(t){var e;return"string"==typeof t?(e=n(H(t,i))).parentNode=i.documentElement:(e=n(t)).parentNode=null,V([e])},Y.on=function(t,e,r){var n=arguments.length;if(n<3){if("string"!=typeof t){for(r in n<2&&(e=!1),t)this.each(dt(r,t[r],e));return this}if(n<2)return(n=this.node()["__on"+t])&&n._;r=!1}return this.each(dt(t,e,r))};var gt=t.map({mouseenter:"mouseover",mouseleave:"mouseout"});function vt(e,r){return function(n){var i=t.event;t.event=n,r[0]=this.__data__;try{e.apply(this,r)}finally{t.event=i}}}function mt(t,e){var r=vt(t,e);return function(t){var e=this,n=t.relatedTarget;n&&(n===e||8&n.compareDocumentPosition(e))||r.call(e,t)}}i&&gt.forEach((function(t){"on"+t in i&&gt.remove(t)}));var yt,xt=0;function bt(e){var r=".dragsuppress-"+ ++xt,n="click"+r,i=t.select(o(e)).on("touchmove"+r,F).on("dragstart"+r,F).on("selectstart"+r,F);if(null==yt&&(yt=!("onselectstart"in e)&&I(e.style,"userSelect")),yt){var s=a(e).style,l=s[yt];s[yt]="none"}return function(t){if(i.on(r,null),yt&&(s[yt]=l),t){var e=function(){i.on(n,null)};i.on(n,(function(){F(),e()}),!0),setTimeout(e,0)}}}t.mouse=function(t){return wt(t,B())};var _t=this.navigator&&/WebKit/.test(this.navigator.userAgent)?-1:0;function wt(e,r){r.changedTouches&&(r=r.changedTouches[0]);var n=e.ownerSVGElement||e;if(n.createSVGPoint){var i=n.createSVGPoint();if(_t<0){var a=o(e);if(a.scrollX||a.scrollY){var s=(n=t.select("body").append("svg").style({position:"absolute",top:0,left:0,margin:0,padding:0,border:"none"},"important"))[0][0].getScreenCTM();_t=!(s.f||s.e),n.remove()}}return _t?(i.x=r.pageX,i.y=r.pageY):(i.x=r.clientX,i.y=r.clientY),[(i=i.matrixTransform(e.getScreenCTM().inverse())).x,i.y]}var l=e.getBoundingClientRect();return[r.clientX-l.left-e.clientLeft,r.clientY-l.top-e.clientTop]}function Tt(){return t.event.changedTouches[0].identifier}t.touch=function(t,e,r){if(arguments.length<3&&(r=e,e=B().changedTouches),e)for(var n,i=0,a=e.length;i<a;++i)if((n=e[i]).identifier===r)return wt(t,n)},t.behavior.drag=function(){var e=N(a,"drag","dragstart","dragend"),r=null,n=s(z,t.mouse,o,"mousemove","mouseup"),i=s(Tt,t.touch,C,"touchmove","touchend");function a(){this.on("mousedown.drag",n).on("touchstart.drag",i)}function s(n,i,a,o,s){return function(){var

l,c=this,u=t.event.target.correspondingElement||t.event.target,f=c.parentNode,h=e.of(c,arguments),p=0,d=n(),g=".drag"+(null==d?"":"-"+d),v=t.select(a(u)).on(o+g,x).on(s+g,b),m=bt(u),y=i(f,d);function x(){var t,e,r=i(f,d);r&&(t=r[0]-y[0],e=r[1]-y[1],p|=t|e,y=r,h({type:"drag",x:r[0]+l[0],y:r[1]+l[1],dx:t,dy:e}))}function b(){i(f,d)&&(v.on(o+g,null).on(s+g,null),m(p),h({type:"dragend"}))}l=r?[(l=r.apply(c,arguments)).x-y[0],l.y-y[1]]:[0,0],h({type:"dragstart"})}}return a.origin=function(t){return arguments.length?(r=t,a):r},t.rebind(a,e,"on")},t.touches=function(t,e){return arguments.length<2&&(e=B().touches),e?n(e).map((function(e){var r=wt(t,e);return r.identifier=e.identifier,r})):[]};var kt=1e-6,At=Math.PI,Mt=2*At,St=Mt-kt,Et=At/2,Lt=At/180,Ct=180/At;function Pt(t){return t>1?Et:t<-1?-Et:Math.asin(t)}function It(t){return((t=Math.exp(t))+1/t)/2}var Ot=Math.SQRT2;t.interpolateZoom=function(t,e){var r,n,i=t[0],a=t[1],o=t[2],s=e[0],l=e[1],c=e[2],u=s-i,f=l-a,h=u*u+f*f;if(h<1e-12)n=Math.log(c/o)/Ot,r=function(t){return[i+t*u,a+t*f,o*Math.exp(Ot*t*n)]};else{var p=Math.sqrt(h),d=(c*c-o*o+4*h)/(2*o*2*p),g=(c*c-o*o-4*h)/(2*c*2*p),v=Math.log(Math.sqrt(d*d+1)-d),m=Math.log(Math.sqrt(g*g+1)-g);n=(m-v)/Ot,r=function(t){var e,r=t*n,s=It(v),l=o/(2*p)*(s*(e=Ot*r+v,((e=Math.exp(2*e))-1)/(e+1))-function(t){return((t=Math.exp(t))-1/t)/2}(v));return[i+l*u,a+l*f,o*s/It(Ot*r+v)]}}return r.duration=1e3*n,r},t.behavior.zoom=function(){var e,r,n,a,s,l,c,u,f,h={x:0,y:0,k:1},p=[960,500],d=Rt,g=250,v=0,m="mousedown.zoom",y="mousemove.zoom",x="mouseup.zoom",b="touchstart.zoom",_=N(w,"zoomstart","zoom","zoomend");function w(t){t.on(m,P).on(Dt+".zoom",O).on("dblclick.zoom",z).on(b,I)}function T(t){return[(t[0]-h.x)/h.k,(t[1]-h.y)/h.k]}function k(t){h.k=Math.max(d[0],Math.min(d[1],t))}function A(t,e){e=function(t){return[t[0]*h.k+h.x,t[1]*h.k+h.y]}(e),h.x+=t[0]-e[0],h.y+=t[1]-e[1]}function M(e,n,i,a){e.__chart__={x:h.x,y:h.y,k:h.k},k(Math.pow(2,a)),A(r=n,i),e=t.select(e),g>0&&(e=e.transition().duration(g)),e.call(w.event)}function S(){c&&c.domain(l.range().map((function(t){return(t-h.x)/h.k})).map(l.invert)),f&&f.domain(u.range().map((function(t){return(t-h.y)/h.k})).map(u.invert))}function E(t){v++||t({type:"zoomstart"})}function L(t){S(),t({type:"zoom",scale:h.k,translate:[h.x,h.y]})}function C(t){--v||(t({type:"zoomend"}),r=null)}function P(){var e=this,r=_.of(e,arguments),n=0,i=t.select(o(e)).on(y,l).on(x,c),a=T(t.mouse(e)),s=bt(e);function l(){n=1,A(t.mouse(e),a),L(r)}function c(){i.on(y,null).on(x,null),s(n),C(r)}Xi.call(e),E(r)}function I(){var e,r=this,n=_.of(r,arguments),i={},a=0,o=".zoom-"+t.event.changedTouches[0].identifier,l="touchmove"+o,c="touchend"+o,u=[],f=t.select(r),p=bt(r);function d(){var n=t.touches(r);return e=h.k,n.forEach((function(t){t.identifier in i&&(i[t.identifier]=T(t))})),n}function g(){var e=t.event.target;t.select(e).on(l,v).on(c,y),u.push(e);for(var n=t.event.changedTouches,o=0,f=n.length;o<f;++o)i[n[o].identifier]=null;var p=d(),g=Date.now();if(1===p.length){if(g-s<500){var m=p[0];M(r,m,i[m.identifier],Math.floor(Math.log(h.k)/Math.LN2)+1),F()}s=g}else if(p.length>1){m=p[0];var x=p[1],b=m[0]-x[0],_=m[1]-x[1];a=b*b+_*_}}function v(){var o,l,c,u,f=t.touches(r);Xi.call(r);for(var h=0,p=f.length;h<p;++h,u=null)if(c=f[h],u=i[c.identifier]){if(l)break;o=c,l=u}if(u){var d=(d=c[0]-o[0])*d+(d=c[1]-o[1])*d,g=a&&Math.sqrt(d/a);o=[(o[0]+c[0])/2,(o[1]+c[1])/2],l=[(l[0]+u[0])/2,(l[1]+u[1])/2],k(g*e)}s=null,A(o,l),L(n)}function y(){if(t.event.touches.length){for(var e=t.event.changedTouches,r=0,a=e.length;r<a;++r)delete i[e[r].identifier];for(var s in i)return void d()}t.selectAll(u).on(o,null),f.on(m,P).on(b,I),p(),C(n)}g(),E(n),f.on(m,null).on(b,g)}function O(){var i=_.of(this,arguments);a?clearTimeout(a):(Xi.call(this),e=T(r=n||t.mouse(this)),E(i)),a=setTimeout((function(){a=null,C(i)}),50),F(),k(Math.pow(2,.002*zt())*h.k),A(r,e),L(i)}function z(){var e=t.mouse(this),r=Math.log(h.k)/Math.LN2;M(this,e,T(e),t.event.shiftKey?Math.ceil(r)-1:Math.floor(r)+1)}return Dt||(Dt="onwheel"in i?(zt=function(){return-t.event.deltaY*(t.event.deltaMode?120:1)},"wheel"):"onmousewheel"in i?(zt=function(){return t.event.wheelDelta},"mousewheel"):(zt=function(){return-t.event.detail},"MozMousePixelScroll")),w.event=function(e){e.each((function(){var e=_.of(this,arguments),n=h;Ki?t.select(this).transition().each("start.zoom",(function(){h=this.__chart__||{x:0,y:0,k:1

},E(e)})).tween("zoom:zoom",(function(){var i=p[0],a=p[1],o=r?r[0]:i/2,s=r?r[1]:a/2,l=t.interpolateZoom([(o-h.x)/h.k,(s-h.y)/h.k,i/h.k],[(o-n.x)/n.k,(s-n.y)/n.k,i/n.k]);return function(t){var r=l(t),n=i/r[2];this.__chart__=h={x:o-r[0]*n,y:s-r[1]*n,k:n},L(e)}})).each("interrupt.zoom",(function(){C(e)})).each("end.zoom",(function(){C(e)})):(this.__chart__=h,E(e),L(e),C(e))})))},w.translate=function(t){return arguments.length?(h={x:+t[0],y:+t[1],k:h.k},S(),w):[h.x,h.y]},w.scale=function(t){return arguments.length?(h={x:h.x,y:h.y,k:null},k(+t),S(),w):h.k},w.scaleExtent=function(t){return arguments.length?(d=null==t?Rt:[+t[0],+t[1]],w):d},w.center=function(t){return arguments.length?(n=t&&[+t[0],+t[1]],w):n},w.size=function(t){return arguments.length?(p=t&&[+t[0],+t[1]],w):p},w.duration=function(t){return arguments.length?(g=+t,w):g},w.x=function(t){return arguments.length?(c=t,l=t.copy(),h={x:0,y:0,k:1},w):c},w.y=function(t){return arguments.length?(f=t,u=t.copy(),h={x:0,y:0,k:1},w):f},t.rebind(w,_,"on")};var zt,Dt,Rt=[0,1/0];function Ft(){}function Bt(t,e,r){return this instanceof Bt?(this.h=+t,this.s=+e,void(this.l=+r)):arguments.length<2?t instanceof Bt?new Bt(t.h,t.s,t.l):ae(""+t,oe,Bt):new Bt(t,e,r)}t.color=Ft,Ft.prototype.toString=function(){return this.rgb()+""},t.hsl=Bt;var Nt=Bt.prototype=new Ft;function jt(t,e,r){var n,i;function a(t){return Math.round(255*function(t){return t>360?t-=360:t<0&&(t+=360),t<60?n+(i-n)*t/60:t<180?i:t<240?n+(i-n)*(240-t)/60:n}(t))}return t=isNaN(t)?0:(t%=360)<0?t+360:t,e=isNaN(e)||e<0?0:e>1?1:e,n=2*(r=r<0?0:r>1?1:r)-(i=r<=.5?r*(1+e):r+e-r*e),new te(a(t+120),a(t),a(t-120))}function Ut(e,r,n){return this instanceof Ut?(this.h=+e,this.c=+r,void(this.l=+n)):arguments.length<2?e instanceof Ut?new Ut(e.h,e.c,e.l):Jt(e instanceof Ht?e.l:(e=se((e=t.rgb(e)).r,e.g,e.b)).l,e.a,e.b):new Ut(e,r,n)}Nt.brighter=function(t){return t=Math.pow(.7,arguments.length?t:1),new Bt(this.h,this.s,this.l/t)},Nt.darker=function(t){return t=Math.pow(.7,arguments.length?t:1),new Bt(this.h,this.s,t*this.l)},Nt.rgb=function(){return jt(this.h,this.s,this.l)},t.hcl=Ut;var Vt=Ut.prototype=new Ft;function qt(t,e,r){return isNaN(t)&&(t=0),isNaN(e)&&(e=0),new Ht(r,Math.cos(t*=Lt)*e,Math.sin(t)*e)}function Ht(t,e,r){return this instanceof Ht?(this.l=+t,this.a=+e,void(this.b=+r)):arguments.length<2?t instanceof Ht?new Ht(t.l,t.a,t.b):t instanceof Ut?qt(t.h,t.c,t.l):se((t=te(t)).r,t.g,t.b):new Ht(t,e,r)}Vt.brighter=function(t){return new Ut(this.h,this.c,Math.min(100,this.l+Gt*(arguments.length?t:1)))},Vt.darker=function(t){return new Ut(this.h,this.c,Math.max(0,this.l-Gt*(arguments.length?t:1)))},Vt.rgb=function(){return qt(this.h,this.c,this.l).rgb()},t.lab=Ht;var Gt=18,Yt=.95047,Wt=1.08883,Xt=Ht.prototype=new Ft;function Zt(t,e,r){var n=(t+16)/116,i=n+e/500,a=n-r/200;return new te($t(3.2404542*(i=Kt(i)*Yt)-1.5371385*(n=1*Kt(n))-.4985314*(a=Kt(a)*Wt)),$t(-.969266*i+1.8760108*n+.041556*a),$t(.0556434*i-.2040259*n+1.0572252*a))}function Jt(t,e,r){return t>0?new Ut(Math.atan2(r,e)*Ct,Math.sqrt(e*e+r*r),t):new Ut(NaN,NaN,t)}function Kt(t){return t>.206893034?t*t*t:(t-4/29)/7.787037}function Qt(t){return t>.008856?Math.pow(t,1/3):7.787037*t+4/29}function $t(t){return Math.round(255*(t<=.00304?12.92*t:1.055*Math.pow(t,1/2.4)-.055))}function te(t,e,r){return this instanceof te?(this.r=~~t,this.g=~~e,void(this.b=~~r)):arguments.length<2?t instanceof te?new te(t.r,t.g,t.b):ae(""+t,te,jt):new te(t,e,r)}function ee(t){return new te(t>>16,t>>8&255,255&t)}function re(t){return ee(t)+""}Xt.brighter=function(t){return new Ht(Math.min(100,this.l+Gt*(arguments.length?t:1)),this.a,this.b)},Xt.darker=function(t){return new Ht(Math.max(0,this.l-Gt*(arguments.length?t:1)),this.a,this.b)},Xt.rgb=function(){return Zt(this.l,this.a,this.b)},t.rgb=te;var ne=te.prototype=new Ft;function ie(t){return t<16?"0"+Math.max(0,t).toString(16):Math.min(255,t).toString(16)}function ae(t,e,r){var n,i,a,o=0,s=0,l=0;if(n=/([a-z]+)\((.*)\)/.exec(t=t.toLowerCase()))switch(i=n[2].split(","),n[1]){case"hsl":return r(parseFloat(i[0]),parseFloat(i[1])/100,parseFloat(i[2])/100);case"rgb":return e(ce(i[0]),ce(i[1]),ce(i[2]))}return(a=ue.get(t))?e(a.r,a.g,a.b):(null==t||"#"!==t.charAt(0)||isNaN(a=parseInt(t.slice(1),16))||(4===t.length?(o=(3840&a)>>4,o|=o>>4,s=240&a,s|=s>>4,l=15&a,l|=l<<4):7===t.length&&(o=(16711680&a)>>16,s=(65280&a)>>8,l=255&a)),e(o,s,l))}function oe(t,e,r){var

n,i,a=Math.min(t/=255,e/=255,r/=255),o=Math.max(t,e,r),s=o-a,l=(o+a)/2;return s?(i=l<.5?s/(o+a):s/(2-o-a),n=t==o?(e-r)/s+(e<r?6:0):e==o?(r-t)/s+2:(t-e)/s+4,n*=60):(n=NaN,i=l>0&&l<1?0:n),new Bt(n,i,l)}function se(t,e,r){var n=Qt((.4124564*(t=le(t))+.3575761*(e=le(e))+.1804375*(r=le(r)))/Yt),i=Qt((.2126729*t+.7151522*e+.072175*r)/1);return Ht(116*i-16,500*(n-i),200*(i-Qt((.0193339*t+.119192*e+.9503041*r)/Wt)))}function le(t){return(t/=255)<=.04045?t/12.92:Math.pow((t+.055)/1.055,2.4)}function ce(t){var e=parseFloat(t);return"%"===t.charAt(t.length-1)?Math.round(2.55*e):e}ne.brighter=function(t){t=Math.pow(.7,arguments.length?t:1);var e=this.r,r=this.g,n=this.b,i=30;return e||r||n?(e&&e<i&&(e=i),r&&r<i&&(r=i),n&&n<i&&(n=i),new te(Math.min(255,e/t),Math.min(255,r/t),Math.min(255,n/t))):new te(i,i,i)},ne.darker=function(t){return new te((t=Math.pow(.7,arguments.length?t:1))*this.r,t*this.g,t*this.b)},ne.hsl=function(){return oe(this.r,this.g,this.b)},ne.toString=function(){return"#"+ie(this.r)+ie(this.g)+ie(this.b)};var ue=t.map({aliceblue:15792383,antiquewhite:16444375,aqua:65535,aquamarine:8388564,azure:15794175,beige:16119260,bisque:16770244,black:0,blanchedalmond:16772045,blue:255,blueviolet:9055202,brown:10824234,burlywood:14596231,cadetblue:6266528,chartreuse:8388352,chocolate:13789470,coral:16744272,cornflowerblue:6591981,cornsilk:16775388,crimson:14423100,cyan:65535,darkblue:139,darkcyan:35723,darkgoldenrod:12092939,darkgray:11119017,darkgreen:25600,darkgrey:11119017,darkkhaki:12433259,darkmagenta:9109643,darkolivegreen:5597999,darkorange:16747520,darkorchid:10040012,darkred:9109504,darksalmon:15308410,darkseagreen:9419919,darkslateblue:4734347,darkslategray:3100495,darkslategrey:3100495,darkturquoise:52945,darkviolet:9699539,deeppink:16716947,deepskyblue:49151,dimgray:6908265,dimgrey:6908265,dodgerblue:2003199,firebrick:11674146,floralwhite:16775920,forestgreen:2263842,fuchsia:16711935,gainsboro:14474460,ghostwhite:16316671,gold:16766720,goldenrod:14329120,gray:8421504,green:32768,greenyellow:11403055,grey:8421504,honeydew:15794160,hotpink:16738740,indianred:13458524,indigo:4915330,ivory:16777200,khaki:15787660,lavender:15132410,lavenderblush:16773365,lawngreen:8190976,lemonchiffon:16775885,lightblue:11393254,lightcoral:15761536,lightcyan:14745599,lightgoldenrodyellow:16448210,lightgray:13882323,lightgreen:9498256,lightgrey:13882323,lightpink:16758465,lightsalmon:16752762,lightseagreen:2142890,lightskyblue:8900346,lightslategray:7833753,lightslategrey:7833753,lightsteelblue:11584734,lightyellow:16777184,lime:65280,limegreen:3329330,linen:16445670,magenta:16711935,maroon:8388608,mediumaquamarine:6737322,mediumblue:205,mediumorchid:12211667,mediumpurple:9662683,mediumseagreen:3978097,mediumslateblue:8087790,mediumspringgreen:64154,mediumturquoise:4772300,mediumvioletred:13047173,midnightblue:1644912,mintcream:16121850,mistyrose:16770273,moccasin:16770229,navajowhite:16768685,navy:128,oldlace:16643558,olive:8421376,olivedrab:7048739,orange:16753920,orangered:16729344,orchid:14315734,palegoldenrod:15657130,palegreen:10025880,paleturquoise:11529966,palevioletred:14381203,papayawhip:16773077,peachpuff:16767673,peru:13468991,pink:16761035,plum:14524637,powderblue:11591910,purple:8388736,rebeccapurple:6697881,red:16711680,rosybrown:12357519,royalblue:4286945,saddlebrown:9127187,salmon:16416882,sandybrown:16032864,seagreen:3050327,seashell:16774638,sienna:10506797,silver:12632256,skyblue:8900331,slateblue:6970061,slategray:7372944,slategrey:7372944,snow:16775930,springgreen:65407,steelblue:4620980,tan:13808780,teal:32896,thistle:14204888,tomato:16737095,turquoise:4251856,violet:15631086,wheat:16113331,white:16777215,whitesmoke:16119285,yellow:16776960,yellowgreen:10145074});function fe(t){return"function"==typeof t?t:function(){return t}}function he(t){return function(e,r,n){return 2===arguments.length&&"function"==typeof r&&(n=r,r=null),pe(e,r,t,n)}}function pe(e,r,i,a){var o={},s=t.dispatch("beforesend","progress","load","error"),l={},c=new XMLHttpRequest,u=null;function f(){var t,e=c.status;if(!e&&function(t){var e=t.responseType;return e&&"text"!==e?t.response:t.responseText}(c)||e>=200&&e<300||304===e){try{t=i.call(o,c)}catch(t){return void s.error.call(o,t)}s.load.call(o,t)}else s.error.call(o,c)}return self.XDomainRequest&&!("withCredentials"in c)&&/^(http(s)?:)?\/\//.test(e)&&(c=new XDomainRequest),"onload"in c?c.onload=c.onerror=f:c.onreadystatechange=function(){c.readyState>3&&f()},c.onprogress=function(e){var r=t.event;t.event=e;try{s.progress.call(o,c)}finally{t.event=r}},o.header=function(t,e){return t=(t+"").toLowerCase(),arguments.length<2?l[t]:(null==e?delete l[t]:l[t]=e+"",o)},o.mimeType=function(t){return

arguments.length?(r=null==t?null:t+"",o):r},o.responseType=function(t){return
arguments.length?(u=t,o):u},o.response=function(t){return
i=t,o},["get","post"].forEach((function(t){o[t]=function(){return
o.send.apply(o,[t].concat(n(arguments)))}})),o.send=function(t,n,i){if(2===arguments.length&&"function"==typeof
n&&(i=n,n=null),c.open(t,e,!0),null==r||"accept"in l||(l.accept=r+",*/*"),c.setRequestHeader)for(var a in
l)c.setRequestHeader(a,l[a]);return
null!=r&&c.overrideMimeType&&c.overrideMimeType(r),null!=u&&(c.responseType=u),null!=i&&o.on("error",i
).on("load",(function(t){i(null,t)})),s.beforesend.call(o,c),c.send(null==n?null:n),o},o.abort=function(){return
c.abort(),o},t.rebind(o,s,"on"),null==a?o:o.get(function(t){return
1===t.length?function(e,r){t(null==e?r:null)}:t}(a))}ue.forEach((function(t,e){ue.set(t,ee(e))})),t.functor=fe,t.xhr=h
e(C),t.dsv=function(t,e){var r=new RegExp('["'+t+"\n]"),n=t.charCodeAt(0);function
i(t,r,n){arguments.length<3&&(n=r,r=null);var i=pe(t,e,null==r?a:o(r),n);return i.row=function(t){return
arguments.length?i.response(null==(r=t)?a:o(t)):r},i}function a(t){return i.parse(t.responseText)}function
o(t){return function(e){return i.parse(e.responseText,t)}}function s(e){return e.map(l).join(t)}function l(t){return
r.test(t)?'"'+t.replace(/\"/g,'""')+'"':t}return i.parse=function(t,e){var r;return i.parseRows(t,(function(t,n){if(r)return
r(t,n-1);var i=function(e){for(var r={},n=t.length,i=0;i<n;++i)r[t[i]]=e[i];return r};r=e?function(t,r){return
e(i(t),r)}:i}))},i.parseRows=function(t,e){var r,i,a={},o={},s=[],l=t.length,c=0,u=0;function f(){if(c>=l)return
o;if(i)return i=!1,a;var e=c;if(34===t.charCodeAt(e)){for(var
r=e;r++<l;)if(34===t.charCodeAt(r)){if(34!==t.charCodeAt(r+1))break;++r}return
c=r+2,13===(s=t.charCodeAt(r+1))?(i=!0,10===t.charCodeAt(r+2)&&++c):10===s&&(i=!0),t.slice(e+1,r).replace(
/""/g,'"')}for(;c<l;){var s,u=1;if(10===(s=t.charCodeAt(c++)))i=!0;else
if(13===s)i=!0,10===t.charCodeAt(c)&&(++c,++u);else if(s!==n)continue;return t.slice(e,c-u)}return
t.slice(e)}for(;(r=f())!==o;){for(var h=[];r!==a&&r!==o;)h.push(r),r=f();e&&null==(h=e(h,u++))||s.push(h)}return
s},i.format=function(e){if(Array.isArray(e[0]))return i.formatRows(e);var r=new L,n=[];return
e.forEach((function(t){for(var e in t)r.has(e)||n.push(r.add(e))})),[n.map(l).join(t)].concat(e.map((function(e){return
n.map((function(t){return l(e[t])})).join(t)}))).join("\n")},i.formatRows=function(t){return
t.map(s).join("\n")},i},t.csv=t.dsv(",","text/csv"),t.tsv=t.dsv("\t","text/tab-separated-values");var
de,ge,ve,me,ye=this[I(this,"requestAnimationFrame")]||function(t){setTimeout(t,17)};function xe(t,e,r){var
n=arguments.length;n<2&&(e=0),n<3&&(r=Date.now());var i={c:t,t:r+e,n:null};return
ge?ge.n=i:de=i,ge=i,ve||(me=clearTimeout(me),ve=1,ye(be)),i}function be(){var t=_e(),e=we()-
t;e>24?(isFinite(e)&&(clearTimeout(me),me=setTimeout(be,e)),ve=0):(ve=1,ye(be))}function _e(){for(var
t=Date.now(),e=de;e;)t>=e.t&&e.c(t-e.t)&&(e.c=null),e=e.n;return t}function we(){for(var
t,e=de,r=1/0;e;)e.c?(e.t<r&&(r=e.t),e=(t=e).n):e=t?t.n=e.n:de=e.n;return ge=t,r}function Te(t){return t[0]}function
ke(t){return t[1]}function Ae(t){for(var e=t.length,r=[0,1],n=2,i=2;i<e;i++){for(;n>1&&(a=t[r[n-2]],o=t[r[n-
1]],s=t[i],(o[0]-a[0])*(s[1]-a[1])-(o[1]-a[1])*(s[0]-a[0])<=0);)--n;r[n++]=i}var a,o,s;return r.slice(0,n)}function
Me(t,e){return t[0]-e[0]||t[1]-
e[1]}t.timer=function(){xe.apply(this,arguments)},t.timer.flush=function(){_e(),we()},t.round=function(t,e){return
e?Math.round(t*(e=Math.pow(10,e)))/e:Math.round(t)},t.geom={},t.geom.hull=function(t){var
e=Te,r=ke;if(arguments.length)return n(t);function n(t){if(t.length<3)return[];var
n,i=fe(e),a=fe(r),o=t.length,s=[],l=[];for(n=0;n<o;n++)s.push([+i.call(this,t[n],n),+a.call(this,t[n],n),n]);for(s.sort(Me
),n=0;n<o;n++)l.push([s[n][0],-s[n][1]]);var c=Ae(s),u=Ae(l),f=u[0]===c[0],h=u[u.length-1]===c[c.length-
1],p=[];for(n=c.length-1;n>=0;--n)p.push(t[s[c[n]][2]]);for(n=+f;n<u.length-h;++n)p.push(t[s[u[n]][2]]);return
p}return n.x=function(t){return arguments.length?(e=t,n):e},n.y=function(t){return
arguments.length?(r=t,n):r},n},t.geom.polygon=function(t){return U(t,Se),t};var
Se=t.geom.polygon.prototype=[];function Ee(t,e,r){return(r[0]-e[0])*(t[1]-e[1])<(r[1]-e[1])*(t[0]-e[0])}function
Le(t,e,r,n){var i=t[0],a=r[0],o=e[0]-i,s=n[0]-a,l=t[1],c=r[1],u=e[1]-l,f=n[1]-c,h=(s*(l-c)-f*(i-a))/(f*o-
s*u);return[i+h*o,l+h*u]}function Ce(t){var e=t[0],r=t[t.length-1];return!(e[0]-r[0]||e[1]-
r[1])}Se.area=function(){for(var t,e=-1,r=this.length,n=this[r-1],i=0;++e<r;)t=n,n=this[e],i+=t[1]*n[0]-

t[0]*n[1];return.5*i},Se.centroid=function(t){var e,r,n=-1,i=this.length,a=0,o=0,s=this[i-1];for(arguments.length||(t=-1/(6*this.area()));++n<i;)e=s,s=this[n],r=e[0]*s[1]-s[0]*e[1],a+=(e[0]+s[0])*r,o+=(e[1]+s[1])*r;return[a*t,o*t]},Se.clip=function(t){for(var e,r,n,i,a,o,s=Ce(t),l=-1,c=this.length-Ce(this),u=this[c-1];++l<c;){for(e=t.slice(),t.length=0,i=this[l],a=e[(n=e.length-s)-1],r=-1;++r<n;)Ee(o=e[r],u,i)?(Ee(a,u,i)||t.push(Le(a,o,u,i)),t.push(o)):Ee(a,u,i)&&t.push(Le(a,o,u,i)),a=o;s&&t.push(t[0]),u=i}return t};var Pe,Ie,Oe,ze,De,Re=[],Fe=[];function Be(){rr(this),this.edge=this.site=this.circle=null}function Ne(t){var e=Re.pop()||new Be;return e.site=t,e}function je(t){Ze(t),Oe.remove(t),Re.push(t),rr(t)}function Ue(t){var e=t.circle,r=e.x,n=e.cy,i={x:r,y:n},a=t.P,o=t.N,s=[t];je(t);for(var l=a;l.circle&&y(r-l.circle.x)<kt&&y(n-l.circle.cy)<kt;)a=l.P,s.unshift(l),je(l),l=a;s.unshift(l),Ze(l);for(var c=o;c.circle&&y(r-c.circle.x)<kt&&y(n-c.circle.cy)<kt;)o=c.N,s.push(c),je(c),c=o;s.push(c),Ze(c);var u,f=s.length;for(u=1;u<f;++u)c=s[u],l=s[u-1],$e(c.edge,l.site,c.site,i);l=s[0],(c=s[f-1]).edge=Qe(l.site,c.site,null,i),Xe(l),Xe(c)}function Ve(t){for(var e,r,n,i,a=t.x,o=t.y,s=Oe._;s;)if((n=qe(s,o)-a)>kt)s=s.L;else{if(!((i=a-He(s,o))>kt)){n>-kt?(e=s.P,r=s):i>-kt?(e=s,r=s.N):e=r=s;break}if(!s.R){e=s;break}s=s.R}var l=Ne(t);if(Oe.insert(e,l),e||r){if(e===r)return Ze(e),r=Ne(e.site),Oe.insert(l,r),l.edge=r.edge=Qe(e.site,l.site),Xe(e),void Xe(r);if(r){Ze(e),Ze(r);var c=e.site,u=c.x,f=c.y,h=t.x-u,p=t.y-f,d=r.site,g=d.x-u,v=d.y-f,m=2*(h*v-p*g),y=h*h+p*p,x=g*g+v*v,b={x:(v*y-p*x)/m+u,y:(h*x-g*y)/m+f};$e(r.edge,c,d,b),l.edge=Qe(c,t,null,b),r.edge=Qe(t,d,null,b),Xe(e),Xe(r)}else l.edge=Qe(e.site,l.site)}}function qe(t,e){var r=t.site,n=r.x,i=r.y,a=i-e;if(!a)return n;var o=t.P;if(!o)return-1/0;var s=(r=o.site).x,l=r.y,c=l-e;if(!c)return s;var u=s-n,f=1/a-1/c,h=u/c;return f?(-h+Math.sqrt(h*h-2*f*(u*u/(-2*c)-l+c/2+i-a/2)))/f+n:(n+s)/2}function He(t,e){var r=t.N;if(r)return qe(r,e);var n=t.site;return n.y===e?n.x:1/0}function Ge(t){this.site=t,this.edges=[]}function Ye(t,e){return e.angle-t.angle}function We(){rr(this),this.x=this.y=this.arc=this.site=this.cy=null}function Xe(t){var e=t.P,r=t.N;if(e&&r){var n=e.site,i=t.site,a=r.site;if(n!==a){var o=i.x,s=i.y,l=n.x-o,c=n.y-s,u=a.x-o,f=2*(l*(v=a.y-s)-c*u);if(!(f>=-1e-12)){var h=l*l+c*c,p=u*u+v*v,d=(v*h-c*p)/f,g=(l*p-u*h)/f,v=g+s,m=Fe.pop()||new We;m.arc=t,m.site=i,m.x=d+o,m.y=v+Math.sqrt(d*d+g*g),m.cy=v,t.circle=m;for(var y=null,x=De._;x;)if(m.y<x.y||m.y===x.y&&m.x<=x.x){if(!x.L){y=x.P;break}x=x.L}else{if(!x.R){y=x;break}x=x.R}De.insert(y,m),y||(ze=m)}}}}function Ze(t){var e=t.circle;e&&(e.P||(ze=e.N),De.remove(e),Fe.push(e),rr(e),t.circle=null)}function Je(t,e){var r=t.b;if(r)return!0;var n,i,a=t.a,o=e[0][0],s=e[1][0],l=e[0][1],c=e[1][1],u=t.l,f=t.r,h=u.x,p=u.y,d=f.x,g=f.y,v=(h+d)/2,m=(p+g)/2;if(g===p){if(v<o||v>=s)return;if(h>d){if(a){if(a.y>=c)return}else a={x:v,y:l};r={x:v,y:c}}else{if(a){if(a.y<l)return}else a={x:v,y:c};r={x:v,y:l}}}else if(i=m-(n=(h-d)/(g-p))*v,n<-1||n>1)if(h>d){if(a){if(a.y>=c)return}else a={x:(l-i)/n,y:l};r={x:(c-i)/n,y:c}}else{if(a){if(a.y<l)return}else a={x:(c-i)/n,y:c};r={x:(l-i)/n,y:l}}else if(p<g){if(a){if(a.x>=s)return}else a={x:o,y:n*o+i};r={x:s,y:n*s+i}}else{if(a){if(a.x<o)return}else a={x:s,y:n*s+i};r={x:o,y:n*o+i}}return t.a=a,t.b=r,!0}function Ke(t,e){this.l=t,this.r=e,this.a=this.b=null}function Qe(t,e,r,n){var i=new Ke(t,e);return Pe.push(i),r&&$e(i,t,e,r),n&&$e(i,e,t,n),Ie[t.i].edges.push(new tr(i,t,e)),Ie[e.i].edges.push(new tr(i,e,t)),i}function $e(t,e,r,n){t.a||t.b?t.l===r?t.b=n:t.a=n:(t.a=n,t.l=e,t.r=r)}function tr(t,e,r){var n=t.a,i=t.b;this.edge=t,this.site=e,this.angle=r?Math.atan2(r.y-e.y,r.x-e.x):t.l===e?Math.atan2(i.x-n.x,n.y-i.y):Math.atan2(n.x-i.x,i.y-n.y)}function er(){this._=null}function rr(t){t.U=t.C=t.L=t.R=t.P=t.N=null}function nr(t,e){var r=e,n=e.R,i=r.U;i?i.L===r?i.L=n:i.R=n:t._=n,n.U=i,r.U=n,r.R=n.L,r.R&&(r.R.U=r),n.L=r}function ir(t,e){var r=e,n=e.L,i=r.U;i?i.L===r?i.L=n:i.R=n:t._=n,n.U=i,r.U=n,r.L=n.R,r.L&&(r.L.U=r),n.R=r}function ar(t){for(;t.L;)t=t.L;return t}function or(t,e){var r,n,i,a=t.sort(sr).pop();for(Pe=[],Ie=new Array(t.length),Oe=new er,De=new er;;)if(i=ze,a&&(!i||a.y<i.y||a.y===i.y&&a.x<i.x))a.x===r&&a.y===n||(Ie[a.i]=new Ge(a),Ve(a),r=a.x,n=a.y),a=t.pop();else{if(!i)break;Ue(i.arc)}e&&(function(t){for(var e,r=Pe,n=function(t,e,r,n){return function(i){var a,o=i.a,s=i.b,l=o.x,c=o.y,u=0,f=1,h=s.x-l,p=s.y-c;if(a=t-l,h||!(a>0)){if(a/=h,h<0){if(a<u)return;a<f&&(f=a)}else if(h>0){if(a>f)return;a>u&&(u=a)}if(a=r-l,h||!(a<0)){if(a/=h,h<0){if(a>f)return;a>u&&(u=a)}else if(h>0){if(a<u)return;a<f&&(f=a)}if(a=e-c,p||!(a>0)){if(a/=p,p<0){if(a<u)return;a<f&&(f=a)}else if(p>0){if(a>f)return;a>u&&(u=a)}if(a=n-c,p||!(a<0)){if(a/=p,p<0){if(a>f)return;a>u&&(u=a)}else if(p>0){if(a<u)return;a<f&&(f=a)}return

u>0&&(i.a={x:l+u*h,y:c+u*p}),f<1&&(i.b={x:l+f*h,y:c+f*p}),i}}}}}}(t[0][0],t[0][1],t[1][0],t[1][1]),i=r.length;i--;)(!Je(e=r[i],t)||!n(e)||y(e.a.x-e.b.x)<kt&&y(e.a.y-e.b.y)<kt)&&(e.a=e.b=null,r.splice(i,1))}(e),function(t){for(var e,r,n,i,a,o,s,l,c,u,f=t[0][0],h=t[1][0],p=t[0][1],d=t[1][1],g=Ie,v=g.length;v--;)if((a=g[v])&&a.prepare())for(l=(s=a.edges).length,o=0;o<l;)n=(u=s[o].end()).x,i=u.y,e=(c=s[++o%l].start()).x,r=c.y,(y(n-e)>kt||y(i-r)>kt)&&(s.splice(o,0,new tr((m=a.site,x=u,b=y(n-f)<kt&&d-i>kt?{x:f,y:y(e-f)<kt?r:d}:y(i-d)<kt&&h-n>kt?{x:y(r-d)<kt?e:h,y:d}:y(n-h)<kt&&i-p>kt?{x:h,y:y(e-h)<kt?r:p}:y(i-p)<kt&&n-f>kt?{x:y(r-p)<kt?e:f,y:p}:null,_=void 0,(_=new Ke(m,null)).a=x,_.b=b,Pe.push(_),_),a.site,null)),++l);var m,x,b,_}(e));var o={cells:Ie,edges:Pe};return Oe=De=Pe=Ie=null,o}function sr(t,e){return e.y-t.y||e.x-t.x}Ge.prototype.prepare=function(){for(var t,e=this.edges,r=e.length;r--;)(t=e[r].edge).b&&t.a||e.splice(r,1);return e.sort(Ye),e.length},tr.prototype={start:function(){return this.edge.l===this.site?this.edge.a:this.edge.b},end:function(){return this.edge.l===this.site?this.edge.b:this.edge.a}},er.prototype={insert:function(t,e){var r,n,i;if(t){if(e.P=t,e.N=t.N,t.N&&(t.N.P=e),t.N=e,t.R){for(t=t.R;t.L;)t=t.L;t.L=e}else t.R=e;r=t}else this._?(t=ar(this._),e.P=null,e.N=t,t.P=t.L=e,r=t):(e.P=e.N=null,this._=e,r=null);for(e.L=e.R=null,e.U=r,e.C=!0,t=e;r&&r.C;)r===(n=r.U).L?(i=n.R)&&i.C?(r.C=i.C=!1,n.C=!0,t=n):(t===r.R&&(nr(this,r),r=(t=r).U),r.C=!1,n.C=!0,ir(this,n)):(i=n.L)&&i.C?(r.C=i.C=!1,n.C=!0,t=n):(t===r.L&&(ir(this,r),r=(t=r).U),r.C=!1,n.C=!0,nr(this,n)),r=t.U;this._.C=!1},remove:function(t){t.N&&(t.N.P=t.P),t.P&&(t.P.N=t.N),t.N=t.P=null;var e,r,n,i=t.U,a=t.L,o=t.R;if(r=a?o?ar(o):a:o,i?i.L===t?i.L=r:i.R=r:this._=r,a&&o?(n=r.C,r.C=t.C,r.L=a,a.U=r,r!==o?(i=r.U,r.U=t.U,t=r.R,i.L=t,r.R=o,o.U=r):(r.U=i,i=r,t=r.R)):(n=t.C,t=r),t&&(t.U=i),!n)if(t&&t.C)t.C=!1;else{do{if(t===this._)break;if(t===i.L){if((e=i.R).C&&(e.C=!1,i.C=!0,nr(this,i),e=i.R),e.L&&e.L.C||e.R&&e.R.C){e.R&&e.R.C||(e.L.C=!1,e.C=!0,ir(this,e),e=i.R),e.C=i.C,i.C=e.R.C=!1,nr(this,i),t=this._;break}}else if((e=i.L).C&&(e.C=!1,i.C=!0,ir(this,i),e=i.L),e.L&&e.L.C||e.R&&e.R.C){e.L&&e.L.C||(e.R.C=!1,e.C=!0,nr(this,e),e=i.L),e.C=i.C,i.C=e.L.C=!1,ir(this,i),t=this._;break}e.C=!0,t=i,i=i.U}while(!t.C);t&&(t.C=!1)}}},t.geom.voronoi=function(t){var e=Te,r=ke,n=e,i=r,a=lr;if(t)return o(t);function o(t){var e=new Array(t.length),r=a[0][0],n=a[0][1],i=a[1][0],o=a[1][1];return or(s(t),a).cells.forEach((function(a,s){var l=a.edges,c=a.site;(e[s]=l.length?l.map((function(t){var e=t.start();return[e.x,e.y]})):c.x>=r&&c.x<=i&&c.y>=n&&c.y<=o?[[r,o],[i,o],[i,n],[r,n]]:[]).point=t[s]})),e}function s(t){return t.map((function(t,e){return{x:Math.round(n(t,e)/kt)*kt,y:Math.round(i(t,e)/kt)*kt,i:e}}))}return o.links=function(t){return or(s(t)).edges.filter((function(t){return t.l&&t.r})).map((function(e){return{source:t[e.l.i],target:t[e.r.i]}}))},o.triangles=function(t){var e=[];return or(s(t)).cells.forEach((function(r,n){for(var i,a=r.site,o=r.edges.sort(Ye),s=-1,l=o.length,c=o[l-1].edge,u=c.l===a?c.r:c.l;++s<l;)i=u,u=(c=o[s].edge).l===a?c.r:c.l,n<i.i&&n<u.i&&(h=i,p=u,((f=a).x-p.x)*(h.y-f.y)-(f.x-h.x)*(p.y-f.y)<0)&&e.push([t[n],t[i.i],t[u.i]]);var f,h,p})),e},o.x=function(t){return arguments.length?(n=fe(e=t),o):e},o.y=function(t){return arguments.length?(i=fe(r=t),o):r},o.clipExtent=function(t){return arguments.length?(a=null==t?lr:t,o):a===lr?null:a},o.size=function(t){return arguments.length?o.clipExtent(t&&[[0,0],t]):a===lr?null:a&&a[1]},o};var lr=[[-1e6,-1e6],[1e6,1e6]];function cr(t){return t.x}function ur(t){return t.y}function fr(t,e,r,n,i,a){if(!t(e,r,n,i,a)){var o=.5*(r+i),s=.5*(n+a),l=e.nodes;l[0]&&fr(t,l[0],r,n,o,s),l[1]&&fr(t,l[1],o,n,i,s),l[2]&&fr(t,l[2],r,s,o,a),l[3]&&fr(t,l[3],o,s,i,a)}}function hr(t,e,r,n,i,a,o){var s,l=1/0;return function t(c,u,f,h,p){if(!(u>a||f>o||h<n||p<i)){if(d=c.point){var d,g=e-c.x,v=r-c.y,m=g*g+v*v;if(m<l){var y=Math.sqrt(l=m);n=e-y,i=r-y,a=e+y,o=r+y,s=d}}for(var x=c.nodes,b=.5*(u+h),_=.5*(f+p),w=(r>=_)<<1|e>=b,T=w+4;w<T;++w)if(c=x[3&w])switch(3&w){case 0:t(c,u,f,b,_);break;case 1:t(c,b,f,h,_);break;case 2:t(c,u,_,b,p);break;case 3:t(c,b,_,h,p)}}}(t,n,i,a,o),s}function pr(e,r){e=t.rgb(e),r=t.rgb(r);var n=e.r,i=e.g,a=e.b,o=r.r-n,s=r.g-i,l=r.b-a;return function(t){return"#"+ie(Math.round(n+o*t))+ie(Math.round(i+s*t))+ie(Math.round(a+l*t))}}function dr(t,e){var r,n={},i={};for(r in t)r in e?n[r]=xr(t[r],e[r]):i[r]=t[r];for(r in e)r in t||(i[r]=e[r]);return function(t){for(r in n)i[r]=n[r](t);return i}}function gr(t,e){return t=+t,e=+e,function(r){return t*(1-r)+e*r}}function vr(t,e){var r,n,i,a=mr.lastIndex=yr.lastIndex=0,o=-

1,s=[],l=[];for(t+="",e+="";(r=mr.exec(t))&&(n=yr.exec(e));)(i=n.index)>a&&(i=e.slice(a,i),s[o]?s[o]+=i:s[++o]=i),(r=r[0])===(n=n[0])?s[o]?s[o]+=n:s[++o]=n:(s[++o]=null,l.push({i:o,x:gr(r,n)})),a=yr.lastIndex;return a<e.length&&(i=e.slice(a),s[o]?s[o]+=i:s[++o]=i),s.length<2?l[0]?(e=l[0].x,function(t){return e(t)+""}):function(){return e}:(e=l.length,function(t){for(var r,n=0;n<e;++n)s[(r=l[n]).i]=r.x(t);return s.join("")})}t.geom.delaunay=function(e){return t.geom.voronoi().triangles(e)},t.geom.quadtree=function(t,e,r,n,i){var a,o=Te,s=ke;if(a=arguments.length)return o=cr,s=ur,3===a&&(i=r,n=e,r=e=0),l(t);function l(t){var l,c,u,f,h,p,d,g,v,m=fe(o),x=fe(s);if(null!=e)p=e,d=r,g=n,v=i;else if(g=v=-(p=d=1/0),c=[],u=[],h=t.length,a)for(f=0;f<h;++f)(l=t[f]).x<p&&(p=l.x),l.y<d&&(d=l.y),l.x>g&&(g=l.x),l.y>v&&(v=l.y),c.push(l.x),u.push(l.y);else for(f=0;f<h;++f){var b=+m(l=t[f],f),_=+x(l,f);b<p&&(p=b),_<d&&(d=_),b>g&&(g=b),_>v&&(v=_),c.push(b),u.push(_)}var w=g-p,T=v-d;function k(t,e,r,n,i,a,o,s){if(!isNaN(r)&&!isNaN(n))if(t.leaf){var l=t.x,c=t.y;if(null!=l)if(y(l-r)+y(c-n)<.01)A(t,e,r,n,i,a,o,s);else{var u=t.point;t.x=t.y=t.point=null,A(t,u,l,c,i,a,o,s),A(t,e,r,n,i,a,o,s)}else t.x=r,t.y=n,t.point=e}else A(t,e,r,n,i,a,o,s)}function A(t,e,r,n,i,a,o,s){var l=.5*(i+o),c=.5*(a+s),u=r>=l,f=n>=c,h=f<<1|u;t.leaf=!1,u?i=l:o=l,f?a=c:s=c,k(t=t.nodes[h]||(t.nodes[h]={leaf:!0,nodes:[],point:null,x:null,y:null}),e,r,n,i,a,o,s)}w>T?v=d+w:g=p+T;var M={leaf:!0,nodes:[],point:null,x:null,y:null,add:function(t){k(M,t,+m(t,++f),+x(t,f),p,d,g,v)},visit:function(t){fr(t,M,p,d,g,v)},find:function(t){return hr(M,t[0],t[1],p,d,g,v)}};if(f=-1,null==e){for(;++f<h;)k(M,t[f],c[f],u[f],p,d,g,v);--f}else t.forEach(M.add);return c=u=t=l=null,M}return l.x=function(t){return arguments.length?(o=t,l):o},l.y=function(t){return arguments.length?(s=t,l):s},l.extent=function(t){return arguments.length?(null==t?e=r=n=i=null:(e=+t[0][0],r=+t[0][1],n=+t[1][0],i=+t[1][1]),l):null==e?null:[[e,r],[n,i]]},l.size=function(t){return arguments.length?(null==t?e=r=n=i=null:(e=r=0,n=+t[0],i=+t[1]),l):null==e?null:[n-e,i-r]},l},t.interpolateRgb=pr,t.interpolateObject=dr,t.interpolateNumber=gr,t.interpolateString=vr;var mr=/[-+]?(?:\d+\.?\d*|\.?\d+)(?:[eE][-+]?\d+)?/g,yr=new RegExp(mr.source,"g");function xr(e,r){for(var n,i=t.interpolators.length;--i>=0&&!(n=t.interpolators[i](e,r)););return n}function br(t,e){var r,n=[],i=[],a=t.length,o=e.length,s=Math.min(t.length,e.length);for(r=0;r<s;++r)n.push(xr(t[r],e[r]));for(;r<a;++r)i[r]=t[r];for(;r<o;++r)i[r]=e[r];return function(t){for(r=0;r<s;++r)i[r]=n[r](t);return i}}t.interpolate=xr,t.interpolators=[function(t,e){var r=typeof e;return("string"===r?ue.has(e.toLowerCase())||/^(#|rgb\(|hsl\()/i.test(e)?pr:vr:e instanceof Ft?pr:Array.isArray(e)?br:"object"===r&&isNaN(e)?dr:gr)(t,e)}],t.interpolateArray=br;var _r=function(){return C},wr=t.map({linear:_r,poly:function(t){return function(e){return Math.pow(e,t)}},quad:function(){return Sr},cubic:function(){return Er},sin:function(){return Cr},exp:function(){return Pr},circle:function(){return Ir},elastic:function(t,e){var r;return arguments.length<2&&(e=.45),arguments.length?r=e/Mt*Math.asin(1/t):(t=1,r=e/4),function(n){return 1+t*Math.pow(2,-10*n)*Math.sin((n-r)*Mt/e)}},back:function(t){return t||(t=1.70158),function(e){return e*e*((t+1)*e-t)}},bounce:function(){return Or}}),Tr=t.map({in:C,out:Ar,"in-out":Mr,"out-in":function(t){return Mr(Ar(t))}});function kr(t){return function(e){return e<=0?0:e>=1?1:t(e)}}function Ar(t){return function(e){return 1-t(1-e)}}function Mr(t){return function(e){return.5*(e<.5?t(2*e):2-t(2-2*e))}}function Sr(t){return t*t}function Er(t){return t*t*t}function Lr(t){if(t<=0)return 0;if(t>=1)return 1;var e=t*t,r=e*t;return 4*(t<.5?r:3*(t-e)+r-.75)}function Cr(t){return 1-Math.cos(t*Et)}function Pr(t){return Math.pow(2,10*(t-1))}function Ir(t){return 1-Math.sqrt(1-t*t)}function Or(t){return t<1/2.75?7.5625*t*t:t<2/2.75?7.5625*(t-=1.5/2.75)*t+.75:t<2.5/2.75?7.5625*(t-=2.25/2.75)*t+.9375:7.5625*(t-=2.625/2.75)*t+.984375}function zr(t,e){return e-=t,function(r){return Math.round(t+e*r)}}function Dr(t){var e,r,n,i=[t.a,t.b],a=[t.c,t.d],o=Fr(i),s=Rr(i,a),l=Fr(((e=a)[0]+=(n=-s)*(r=i)[0],e[1]+=n*r[1],e))||0;i[0]*a[1]<a[0]*i[1]&&(i[0]*=-1,i[1]*=-1,o*=-1,s*=-1),this.rotate=(o?Math.atan2(i[1],i[0]):Math.atan2(-a[0],a[1]))*Ct,this.translate=[t.e,t.f],this.scale=[o,l],this.skew=l?Math.atan2(s,l)*Ct:0}function Rr(t,e){return t[0]*e[0]+t[1]*e[1]}function Fr(t){var e=Math.sqrt(Rr(t,t));return e&&(t[0]/=e,t[1]/=e),e}t.ease=function(t){var

e=t.indexOf("-"),n=e>=0?t.slice(0,e):t,i=e>=0?t.slice(e+1):"in";return
n=wr.get(n)||_r,kr((i=Tr.get(i)||C)(n.apply(null,r.call(arguments,1))))},t.interpolateHcl=function(e,r){e=t.hcl(e),r=t.hcl(r);var n=e.h,i=e.c,a=e.l,o=r.h-n,s=r.c-i,l=r.l-a;return
isNaN(s)&&(s=0,i=isNaN(i)?r.c:i),isNaN(o)?(o=0,n=isNaN(n)?r.h:n):o>180?o-=360:o<-180&&(o+=360),function(t){return
qt(n+o*t,i+s*t,a+l*t)+""}},t.interpolateHsl=function(e,r){e=t.hsl(e),r=t.hsl(r);var n=e.h,i=e.s,a=e.l,o=r.h-n,s=r.s-i,l=r.l-a;return isNaN(s)&&(s=0,i=isNaN(i)?r.s:i),isNaN(o)?(o=0,n=isNaN(n)?r.h:n):o>180?o-=360:o<-180&&(o+=360),function(t){return
jt(n+o*t,i+s*t,a+l*t)+""}},t.interpolateLab=function(e,r){e=t.lab(e),r=t.lab(r);var n=e.l,i=e.a,a=e.b,o=r.l-n,s=r.a-i,l=r.b-a;return function(t){return Zt(n+o*t,i+s*t,a+l*t)+""}},t.interpolateRound=zr,t.transform=function(e){var r=i.createElementNS(t.ns.prefix.svg,"g");return(t.transform=function(t){if(null!=t){r.setAttribute("transform",t);var e=r.transform.baseVal.consolidate()}return new
Dr(e?e.matrix:Br)})(e)},Dr.prototype.toString=function(){return"translate("+this.translate+")rotate("+this.rotate+")skewX("+this.skew+")scale("+this.scale+")"};var Br={a:1,b:0,c:0,d:1,e:0,f:0};function Nr(t){return
t.length?t.pop()+",":""}function jr(e,r){var n=[],i=[];return
e=t.transform(e),r=t.transform(r),function(t,e,r,n){if(t[0]!==e[0]||t[1]!==e[1]){var
i=r.push("translate(",null,",",null,")");n.push({i:i-4,x:gr(t[0],e[0])},{i:i-2,x:gr(t[1],e[1])})}else(e[0]||e[1])&&r.push("translate("+e+")")}(e.translate,r.translate,n,i),function(t,e,r,n){t!==e?(t-e>180?e+=360:e-t>180&&(t+=360),n.push({i:r.push(Nr(r)+"rotate(",null,")")-2,x:gr(t,e)})):e&&r.push(Nr(r)+"rotate("+e+")")}(e.rotate,r.rotate,n,i),function(t,e,r,n){t!==e?n.push({i:r.push(Nr(r)+"skewX(",null,")")-2,x:gr(t,e)}):e&&r.push(Nr(r)+"skewX("+e+")")}(e.skew,r.skew,n,i),function(t,e,r,n){if(t[0]!==e[0]||t[1]!==e[1]){var i=r.push(Nr(r)+"scale(",null,",",null,")");n.push({i:i-4,x:gr(t[0],e[0])},{i:i-2,x:gr(t[1],e[1])})}else
1===e[0]&&1===e[1]||r.push(Nr(r)+"scale("+e+")")}(e.scale,r.scale,n,i),e=r=null,function(t){for(var e,r=-1,a=i.length;++r<a;)n[(e=i[r]).i]=e.x(t);return n.join("")}}function Ur(t,e){return e=(e-=t=+t)||1/e,function(r){return(r-t)/e}}function Vr(t,e){return e=(e-=t=+t)||1/e,function(r){return
Math.max(0,Math.min(1,(r-t)/e))}}function qr(t){for(var e=t.source,r=t.target,n=function(t,e){if(t===e)return
t;for(var r=Hr(t),n=Hr(e),i=r.pop(),a=n.pop(),o=null;i===a;)o=i,i=r.pop(),a=n.pop();return
o}(e,r),i=[e];e!==n;)e=e.parent,i.push(e);for(var a=i.length;r!==n;)i.splice(a,0,r),r=r.parent;return i}function
Hr(t){for(var e=[],r=t.parent;null!=r;)e.push(t),t=r,r=r.parent;return e.push(t),e}function Gr(t){t.fixed|=2}function
Yr(t){t.fixed&=-7}function Wr(t){t.fixed|=4,t.px=t.x,t.py=t.y}function Xr(t){t.fixed&=-5}function Zr(t,e,r){var
n=0,i=0;if(t.charge=0,!t.leaf)for(var a,o=t.nodes,s=o.length,l=-1;++l<s;)null!=(a=o[l])&&(Zr(a,e,r),t.charge+=a.charge,n+=a.charge*a.cx,i+=a.charge*a.cy);if(t.point){t.leaf||(t.point.x+=Math.random()-.5,t.point.y+=Math.random()-.5);var
c=e*r[t.point.index];t.charge+=t.pointCharge=c,n+=c*t.point.x,i+=c*t.point.y}t.cx=n/t.charge,t.cy=i/t.charge}t.interpolateTransform=jr,t.layout={},t.layout.bundle=function(){return function(t){for(var e=[],r=-1,n=t.length;++r<n;)e.push(qr(t[r]));return e}},t.layout.chord=function(){var e,r,n,i,a,o,s,l={},c=0;function u(){var
l,u,h,p,d,g={},v=[],m=t.range(i),y=[];for(e=[],r=[],l=0,p=-1;++p<i;){for(u=0,d=-1;++d<i;)u+=n[p][d];v.push(u),y.push(t.range(i)),l+=u}for(a&&m.sort((function(t,e){return
a(v[t],v[e])})),o&&y.forEach((function(t,e){t.sort((function(t,r){return o(n[e][t],n[e][r])}))})),l=(Mt-c*i)/l,u=0,p=-1;++p<i;){for(h=u,d=-1;++d<i;){var x=m[p],b=y[x][d],_=n[x][b],w=u,T=u+=_*l;g[x+"-"+b]={index:x,subindex:b,startAngle:w,endAngle:T,value:_}}r[x]={index:x,startAngle:h,endAngle:u,value:v[x]},u+=c}for(p=-1;++p<i;)for(d=p-1;++d<i;){var k=g[p+"-"+d],A=g[d+"-"+p];(k.value||A.value)&&e.push(k.value<A.value?{source:A,target:k}:{source:k,target:A})}s&&f()}function
f(){e.sort((function(t,e){return s((t.source.value+t.target.value)/2,(e.source.value+e.target.value)/2)}))}return
l.matrix=function(t){return arguments.length?(i=(n=t)&&n.length,e=r=null,l):n},l.padding=function(t){return
arguments.length?(c=t,e=r=null,l):c},l.sortGroups=function(t){return
arguments.length?(a=t,e=r=null,l):a},l.sortSubgroups=function(t){return

arguments.length?(o=t,e=null,l):o},l.sortChords=function(t){return
arguments.length?(s=t,e&&f(),l):s},l.chords=function(){return e||u(),e},l.groups=function(){return
r||u(),r},l},t.layout.force=function(){var e,r,n,i,a,o,s={},l=t.dispatch("start","tick","end"),c=[1,1],u=.9,f=Jr,h=Kr,p=-
30,d=Qr,g=.1,v=.64,m=[],y=[];function x(t){return function(e,r,n,i){if(e.point!==t){var a=e.cx-t.x,o=e.cy-t.y,s=i-
r,l=a*a+o*o;if(s*s/v<l){if(l<d){var c=e.charge/l;t.px-=a*c,t.py-
=o*c}return!0}e.point&&l&&l<d&&(c=e.pointCharge/l,t.px-=a*c,t.py-=o*c)}return!e.charge}}function
b(e){e.px=t.event.x,e.py=t.event.y,s.resume()}return s.tick=function(){if((n*=.99)<.005)return
e=null,l.end({type:"end",alpha:n=0}),!0;var
r,s,f,h,d,v,b,_,w,T=m.length,k=y.length;for(s=0;s<k;++s)h=(f=y[s]).source,(v=(_=(d=f.target).x-h.x)*_+(w=d.y-
h.y)*w)&&(_*=v=n*a[s]*((v=Math.sqrt(v))-i[s])/v,w*=v,d.x-
=_*(b=h.weight+d.weight?h.weight/(h.weight+d.weight):.5),d.y-=w*b,h.x+=_*(b=1-
b),h.y+=w*b);if((b=n*g)&&(_=c[0]/2,w=c[1]/2,s=-1,b))for(;++s<T;)(f=m[s]).x+=(_-f.x)*b,f.y+=(w-
f.y)*b;if(p)for(Zr(r=t.geom.quadtree(m),n,o),s=-1;++s<T;)(f=m[s]).fixed||r.visit(x(f));for(s=-
1;++s<T;)(f=m[s]).fixed?(f.x=f.px,f.y=f.py):(f.x-=(f.px-(f.px=f.x))*u,f.y-=(f.py-
(f.py=f.y))*u);l.tick({type:"tick",alpha:n})},s.nodes=function(t){return
arguments.length?(m=t,s):m},s.links=function(t){return arguments.length?(y=t,s):y},s.size=function(t){return
arguments.length?(c=t,s):c},s.linkDistance=function(t){return arguments.length?(f="function"==typeof
t?t:+t,s):f},s.distance=s.linkDistance,s.linkStrength=function(t){return arguments.length?(h="function"==typeof
t?t:+t,s):h},s.friction=function(t){return arguments.length?(u=+t,s):u},s.charge=function(t){return
arguments.length?(p="function"==typeof t?t:+t,s):p},s.chargeDistance=function(t){return
arguments.length?(d=t*t,s):Math.sqrt(d)},s.gravity=function(t){return
arguments.length?(g=+t,s):g},s.theta=function(t){return
arguments.length?(v=t*t,s):Math.sqrt(v)},s.alpha=function(t){return
arguments.length?(t=+t,n?t>0?n=t:(e.c=null,e.t=NaN,e=null,l.end({type:"end",alpha:n=0})):t>0&&(l.start({type:"st
art",alpha:n=t}),e=xe(s.tick)),s):n},s.start=function(){var
t,e,r,n=m.length,l=y.length,u=c[0],d=c[1];for(t=0;t<n;++t)(r=m[t]).index=t,r.weight=0;for(t=0;t<l;++t)"number"==t
ypeof(r=y[t]).source&&(r.source=m[r.source]),"number"==typeof
r.target&&(r.target=m[r.target]),++r.source.weight,++r.target.weight;for(t=0;t<n;++t)r=m[t],isNaN(r.x)&&(r.x=g("x
",u)),isNaN(r.y)&&(r.y=g("y",d)),isNaN(r.px)&&(r.px=r.x),isNaN(r.py)&&(r.py=r.y);if(i=[],"function"==typeof
f)for(t=0;t<l;++t)i[t]=+f.call(this,y[t],t);else for(t=0;t<l;++t)i[t]=f;if(a=[],"function"==typeof
h)for(t=0;t<l;++t)a[t]=+h.call(this,y[t],t);else for(t=0;t<l;++t)a[t]=h;if(o=[],"function"==typeof
p)for(t=0;t<n;++t)o[t]=+p.call(this,m[t],t);else for(t=0;t<n;++t)o[t]=p;function g(r,i){if(!e){for(e=new
Array(n),c=0;c<n;++c)e[c]=[];for(c=0;c<l;++c){var
a=y[c];e[a.source.index].push(a.target),e[a.target.index].push(a.source)}}for(var o,s=e[t],c=-
1,u=s.length;++c<u;)if(!isNaN(o=s[c][r]))return o;return Math.random()*i}return
s.resume()},s.resume=function(){return s.alpha(.1)},s.stop=function(){return
s.alpha(0)},s.drag=function(){if(r||(r=t.behavior.drag().origin(C).on("dragstart.force",Gr).on("drag.force",b).on("dra
gend.force",Yr)),!arguments.length)return
r;this.on("mouseover.force",Wr).on("mouseout.force",Xr).call(r)},t.rebind(s,l,"on")};var
Jr=20,Kr=1,Qr=1/0;function $r(e,r){return t.rebind(e,r,"sort","children","value"),e.nodes=e,e.links=on,e}function
tn(t,e){for(var r=[t];null!=(t=r.pop());)if(e(t),(i=t.children)&&(n=i.length))for(var n,i;--n>=0;)r.push(i[n])}function
en(t,e){for(var r=[t],n=[];null!=(t=r.pop());)if(n.push(t),(a=t.children)&&(i=a.length))for(var i,a,o=-
1;++o<i;)r.push(a[o]);for(;null!=(t=n.pop());)e(t)}function rn(t){return t.children}function nn(t){return
t.value}function an(t,e){return e.value-t.value}function on(e){return
t.merge(e.map((function(t){return(t.children||[]).map((function(e){return{source:t,target:e}}))}))))}t.layout.hierarchy
=function(){var t=an,e=rn,r=nn;function n(i){var
a,o=[i],s=[];for(i.depth=0;null!=(a=o.pop());)if(s.push(a),(c=e.call(n,a,a.depth))&&(l=c.length)){for(var l,c,u;--
l>=0;)o.push(u=c[l]),u.parent=a,u.depth=a.depth+1;r&&(a.value=0),a.children=c}else

r&&(a.value=+r.call(n,a,a.depth)||0),delete a.children;return en(i,(function(e){var n,i;t&&(n=e.children)&&n.sort(t),r&&(i=e.parent)&&(i.value+=e.value)})),s}return n.sort=function(e){return arguments.length?(t=e,n):t},n.children=function(t){return arguments.length?(e=t,n):e},n.value=function(t){return arguments.length?(r=t,n):r},n.revalue=function(t){return r&&(tn(t,(function(t){t.children&&(t.value=0)})),en(t,(function(t){var e;t.children||(t.value=+r.call(n,t,t.depth)||0),(e=t.parent)&&(e.value+=t.value)}))),t},n},t.layout.partition=function(){var e=t.layout.hierarchy(),r=[1,1];function n(t,e,r,i){var a=t.children;if(t.x=e,t.y=t.depth*i,t.dx=r,t.dy=i,a&&(o=a.length)){var o,s,l,c=-1;for(r=t.value?r/t.value:0;++c<o;)n(s=a[c],e,l=s.value*r,i),e+=l}}function i(t){var e=t.children,r=0;if(e&&(n=e.length))for(var n,a=-1;++a<n;)r=Math.max(r,i(e[a]));return 1+r}function a(t,a){var o=e.call(this,t,a);return n(o[0],0,r[0],r[1]/i(o[0])),o}return a.size=function(t){return arguments.length?(r=t,a):r},$r(a,e)},t.layout.pie=function(){var e=Number,r=sn,n=0,i=Mt,a=0;function o(s){var l,c=s.length,u=s.map((function(t,r){return+e.call(o,t,r)})),f=+("function"==typeof n?n.apply(this,arguments):n),h=("function"==typeof i?i.apply(this,arguments):i)-f,p=Math.min(Math.abs(h)/c,+("function"==typeof a?a.apply(this,arguments):a)),d=p*(h<0?-1:1),g=t.sum(u),v=g?(h-c*d)/g:0,m=t.range(c),y=[];return null!=r&&m.sort(r===sn?function(t,e){return u[e]-u[t]}:function(t,e){return r(s[t],s[e])}),m.forEach((function(t){y[t]={data:s[t],value:l=u[t],startAngle:f,endAngle:f+=l*v+d,padAngle:p}})),y}return o.value=function(t){return arguments.length?(e=t,o):e},o.sort=function(t){return arguments.length?(r=t,o):r},o.startAngle=function(t){return arguments.length?(n=t,o):n},o.endAngle=function(t){return arguments.length?(i=t,o):i},o.padAngle=function(t){return arguments.length?(a=t,o):a},o};var sn={};function ln(t){return t.x}function cn(t){return t.y}function un(t,e,r){t.y0=e,t.y=r}t.layout.stack=function(){var e=C,r=pn,n=dn,i=un,a=ln,o=cn;function s(l,c){if(!(p=l.length))return l;var u=l.map((function(t,r){return e.call(s,t,r)})),f=u.map((function(t){return t.map((function(t,e){return[a.call(s,t,e),o.call(s,t,e)]}))})),h=r.call(s,f,c);u=t.permute(u,h),f=t.permute(f,h);var p,d,g,v,m=n.call(s,f,c),y=u[0].length;for(g=0;g<y;++g)for(i.call(s,u[0][g],v=m[g],f[0][g][1]),d=1;d<p;++d)i.call(s,u[d][g],v+=f[d-1][g][1],f[d][g][1]);return l}return s.values=function(t){return arguments.length?(e=t,s):e},s.order=function(t){return arguments.length?(r="function"==typeof t?t:fn.get(t)||pn,s):r},s.offset=function(t){return arguments.length?(n="function"==typeof t?t:hn.get(t)||dn,s):n},s.x=function(t){return arguments.length?(a=t,s):a},s.y=function(t){return arguments.length?(o=t,s):o},s.out=function(t){return arguments.length?(i=t,s):i},s};var fn=t.map({"inside-out":function(e){var r,n,i=e.length,a=e.map(gn),o=e.map(vn),s=t.range(i).sort((function(t,e){return a[t]-a[e]})),l=0,c=0,u=[],f=[];for(r=0;r<i;++r)n=s[r],l<c?(l+=o[n],u.push(n)):(c+=o[n],f.push(n));return f.reverse().concat(u)},reverse:function(e){return t.range(e.length).reverse()},default:pn}),hn=t.map({silhouette:function(t){var e,r,n,i=t.length,a=t[0].length,o=[],s=0,l=[];for(r=0;r<a;++r){for(e=0,n=0;e<i;e++)n+=t[e][r][1];n>s&&(s=n),o.push(n)}for(r=0;r<a;++r)l[r]=(s-o[r])/2;return l},wiggle:function(t){var e,r,n,i,a,o,s,l,c,u=t.length,f=t[0],h=f.length,p=[];for(p[0]=l=c=0,r=1;r<h;++r){for(e=0,i=0;e<u;++e)i+=t[e][r][1];for(e=0,a=0,s=f[r][0]-f[r-1][0];e<u;++e){for(n=0,o=(t[e][r][1]-t[e][r-1][1])/(2*s);n<e;++n)o+=(t[n][r][1]-t[n][r-1][1])/s;a+=o*t[e][r][1]}p[r]=l-=i?a/i*s:0,l<c&&(c=l)}for(r=0;r<h;++r)p[r]-=c;return p},expand:function(t){var e,r,n,i=t.length,a=t[0].length,o=1/i,s=[];for(r=0;r<a;++r){for(e=0,n=0;e<i;e++)n+=t[e][r][1];if(n)for(e=0;e<i;e++)t[e][r][1]/=n;else for(e=0;e<i;e++)t[e][r][1]=o}for(r=0;r<a;++r)s[r]=0;return s},zero:dn});function pn(e){return t.range(e.length)}function dn(t){for(var e=-1,r=t[0].length,n=[];++e<r;)n[e]=0;return n}function gn(t){for(var e,r=1,n=0,i=t[0][1],a=t.length;r<a;++r)(e=t[r][1])>i&&(n=r,i=e);return n}function vn(t){return t.reduce(mn,0)}function mn(t,e){return t+e[1]}function yn(t,e){return xn(t,Math.ceil(Math.log(e.length)/Math.LN2+1))}function xn(t,e){for(var r=-1,n=+t[0],i=(t[1]-n)/e,a=[];++r<=e;)a[r]=i*r+n;return a}function bn(e){return[t.min(e),t.max(e)]}function _n(t,e){return t.value-

e.value}function wn(t,e){var
r=t._pack_next;t._pack_next=e,e._pack_prev=t,e._pack_next=r,r._pack_prev=e}function
Tn(t,e){t._pack_next=e,e._pack_prev=t}function kn(t,e){var r=e.x-t.x,n=e.y-
t.y,i=t.r+e.r;return.999*i*i>r*r+n*n}function An(t){if((e=t.children)&&(l=e.length)){var e,r,n,i,a,o,s,l,c=1/0,u=-
1/0,f=1/0,h=-1/0;if(e.forEach(Mn),(r=e[0]).x=-
r.r,r.y=0,x(r),l>1&&((n=e[1]).x=n.r,n.y=0,x(n),l>2))for(Ln(r,n,i=e[2]),x(i),wn(r,i),r._pack_prev=i,wn(i,n),n=r._pack
_next,a=3;a<l;a++){Ln(r,n,i=e[a]);var
p=0,d=1,g=1;for(o=n._pack_next;o!==n;o=o._pack_next,d++)if(kn(o,i)){p=1;break}if(1==p)for(s=r._pack_prev;s!=
=o._pack_prev&&!kn(s,i);s=s._pack_prev,g++);p?(d<g||d==g&&n.r<r.r?Tn(r,n=o):Tn(r=s,n),a--
):(wn(r,i),n=i,x(i))}var v=(c+u)/2,m=(f+h)/2,y=0;for(a=0;a<l;a++)(i=e[a]).x-=v,i.y-
=m,y=Math.max(y,i.r+Math.sqrt(i.x*i.x+i.y*i.y));t.r=y,e.forEach(Sn)}function x(t){c=Math.min(t.x-
t.r,c),u=Math.max(t.x+t.r,u),f=Math.min(t.y-t.r,f),h=Math.max(t.y+t.r,h)}}function
Mn(t){t._pack_next=t._pack_prev=t}function Sn(t){delete t._pack_next,delete t._pack_prev}function
En(t,e,r,n){var i=t.children;if(t.x=e+=n*t.x,t.y=r+=n*t.y,t.r*=n,i)for(var a=-
1,o=i.length;++a<o;)En(i[a],e,r,n)}function Ln(t,e,r){var n=t.r+r.r,i=e.x-t.x,a=e.y-t.y;if(n&&(i||a)){var
o=e.r+r.r,s=i*i+a*a,l=.5+((n*=n)-(o*=o))/(2*s),c=Math.sqrt(Math.max(0,2*o*(n+s)-(n-=s)*n-
o*o))/(2*s);r.x=t.x+l*i+c*a,r.y=t.y+l*a-c*i}else r.x=t.x+n,r.y=t.y}function Cn(t,e){return
t.parent==e.parent?1:2}function Pn(t){var e=t.children;return e.length?e[0]:t.t}function In(t){var
e,r=t.children;return(e=r.length)?r[e-1]:t.t}function On(t,e,r){var n=r/(e.i-t.i);e.c-
=n,e.s+=r,t.c+=n,e.z+=r,e.m+=r}function zn(t,e,r){return t.a.parent===e.parent?t.a:r}function Dn(t){var
e=t.children;return e&&e.length?Dn(e[0]):t}function Rn(t){var e,r=t.children;return r&&(e=r.length)?Rn(r[e-
1]):t}function Fn(t){return{x:t.x,y:t.y,dx:t.dx,dy:t.dy}}function Bn(t,e){var r=t.x+e[3],n=t.y+e[0],i=t.dx-e[1]-
e[3],a=t.dy-e[0]-e[2];return i<0&&(r+=i/2,i=0),a<0&&(n+=a/2,a=0),{x:r,y:n,dx:i,dy:a}}function Nn(t){var
e=t[0],r=t[t.length-1];return e<r?[e,r]:[r,e]}function jn(t){return
t.rangeExtent?t.rangeExtent():Nn(t.range())}function Un(t,e,r,n){var i=r(t[0],t[1]),a=n(e[0],e[1]);return
function(t){return a(i(t))}}function Vn(t,e){var r,n=0,i=t.length-1,a=t[n],o=t[i];return
o<a&&(r=n,n=i,i=r,r=a,a=o,o=r),t[n]=e.floor(a),t[i]=e.ceil(o),t}function qn(t){return t?{floor:function(e){return
Math.floor(e/t)*t},ceil:function(e){return Math.ceil(e/t)*t}}:Hn}t.layout.histogram=function(){var
e=!0,r=Number,n=bn,i=yn;function a(a,o){for(var
s,l,c=[],u=a.map(r,this),f=n.call(this,u,o),h=i.call(this,f,u,o),p=(o=-1,u.length),d=h.length-
1,g=e?1:1/p;++o<d;)(s=c[o]=[]).dx=h[o+1]-(s.x=h[o]),s.y=0;if(d>0)for(o=-
1;++o<p;)(l=u[o])>=f[0]&&l<=f[1]&&((s=c[t.bisect(h,l,1,d)-1]).y+=g,s.push(a[o]));return c}return
a.value=function(t){return arguments.length?(r=t,a):r},a.range=function(t){return
arguments.length?(n=fe(t),a):n},a.bins=function(t){return arguments.length?(i="number"==typeof
t?function(e){return xn(e,t)}:fe(t),a):i},a.frequency=function(t){return
arguments.length?(e=!!t,a):e},a},t.layout.pack=function(){var e,r=t.layout.hierarchy().sort(_n),n=0,i=[1,1];function
a(t,a){var o=r.call(this,t,a),s=o[0],l=i[0],c=i[1],u=null==e?Math.sqrt:"function"==typeof e?e:function(){return
e};if(s.x=s.y=0,en(s,(function(t){t.r=+u(t.value)})),en(s,An),n){var
f=n*(e?1:Math.max(2*s.r/l,2*s.r/c))/2;en(s,(function(t){t.r+=f})),en(s,An),en(s,(function(t){t.r-=f}))}return
En(s,l/2,c/2,e?1:1/Math.max(2*s.r/l,2*s.r/c)),o}return a.size=function(t){return
arguments.length?(i=t,a):i},a.radius=function(t){return arguments.length?(e=null==t||"function"==typeof
t?t:+t,a):e},a.padding=function(t){return arguments.length?(n=+t,a):n},$r(a,r)},t.layout.tree=function(){var
e=t.layout.hierarchy().sort(null).value(null),r=Cn,n=[1,1],i=null;function a(t,a){var
c=e.call(this,t,a),u=c[0],f=function(t){for(var e,r={A:null,children:[t]},n=[r];null!=(e=n.pop());)for(var
i,a=e.children,o=0,s=a.length;o<s;++o)n.push((a[o]=i={_:a[o],parent:e,children:(i=a[o].children)&&i.slice()||[],A:nu
ll,a:null,z:0,m:0,c:0,s:0,t:null,i:o}).a=i);return r.children[0]}(u);if(en(f,o),f.parent.m=-f.z,tn(f,s),i)tn(u,l);else{var
h=u,p=u,d=u;tn(u,(function(t){t.x<h.x&&(h=t),t.x>p.x&&(p=t),t.depth>d.depth&&(d=t)}));var g=r(h,p)/2-
h.x,v=n[0]/(p.x+r(p,h)/2+g),m=n[1]/(d.depth||1);tn(u,(function(t){t.x=(t.x+g)*v,t.y=t.depth*m}))}return c}function

o(t){var e=t.children,n=t.parent.children,i=t.i?n[t.i-1]:null;if(e.length){!function(t){for(var e,r=0,n=0,i=t.children,a=i.length;--a>=0;)(e=i[a]).z+=r,e.m+=r,r+=e.s+(n+=e.c)}(t);var a=(e[0].z+e[e.length-1].z)/2;i?(t.z=i.z+r(t._,i._),t.m=t.z-a):t.z=a}else i&&(t.z=i.z+r(t._,i._));t.parent.A=function(t,e,n){if(e){for(var i,a=t,o=t,s=e,l=a.parent.children[0],c=a.m,u=o.m,f=s.m,h=l.m;s=In(s),a=Pn(a),s&&a;)l=Pn(l),(o=In(o)).a=t,(i=s.z+f-a.z-c+r(s._,a._))>0&&(On(zn(s,t,n),t,i),c+=i,u+=i),f+=s.m,c+=a.m,h+=l.m,u+=o.m;s&&!In(o)&&(o.t=s,o.m+=f-u),a&&!Pn(l)&&(l.t=a,l.m+=c-h,n=t)}return n}(t,i,t.parent.A||n[0])}function s(t){t._.x=t.z+t.parent.m,t.m+=t.parent.m}function l(t){t.x*=n[0],t.y=t.depth*n[1]}return a.separation=function(t){return arguments.length?(r=t,a):r},a.size=function(t){return arguments.length?(i=null==(n=t)?l:null,a):i?null:n},a.nodeSize=function(t){return arguments.length?(i=null==(n=t)?null:l,a):i?n:null},$r(a,e)},t.layout.cluster=function(){var e=t.layout.hierarchy().sort(null).value(null),r=Cn,n=[1,1],i=!1;function a(a,o){var s,l=e.call(this,a,o),c=l[0],u=0;en(c,(function(e){var n=e.children;n&&n.length?(e.x=function(t){return t.reduce((function(t,e){return t+e.x}),0)/t.length}(n),e.y=function(e){return 1+t.max(e,(function(t){return t.y}))}(n)):(e.x=s?u+=r(e,s):0,e.y=0,s=e)}));var f=Dn(c),h=Rn(c),p=f.x-r(f,h)/2,d=h.x+r(h,f)/2;return en(c,i?function(t){t.x=(t.x-c.x)*n[0],t.y=(c.y-t.y)*n[1]}:function(t){t.x=(t.x-p)/(d-p)*n[0],t.y=(1-(c.y?t.y/c.y:1))*n[1]}),l}return a.separation=function(t){return arguments.length?(r=t,a):r},a.size=function(t){return arguments.length?(i=null==(n=t),a):i?null:n},a.nodeSize=function(t){return arguments.length?(i=null!=(n=t),a):i?n:null},$r(a,e)},t.layout.treemap=function(){var e,r=t.layout.hierarchy(),n=Math.round,i=[1,1],a=null,o=Fn,s=!1,l="squarify",c=.5*(1+Math.sqrt(5));function u(t,e){for(var r,n,i=-1,a=t.length;++i<a;)n=(r=t[i]).value*(e<0?0:e),r.area=isNaN(n)||n<=0?0:n}function f(t){var e=t.children;if(e&&e.length){var r,n,i,a=o(t),s=[],c=e.slice(),h=1/0,g="slice"===l?a.dx:"dice"===l?a.dy:"slice-dice"===l?1&t.depth?a.dy:a.dx:Math.min(a.dx,a.dy);for(u(c,a.dx*a.dy/t.value),s.area=0;(i=c.length)>0;)s.push(r=c[i-1]),s.area+=r.area,"squarify"!==l||(n=p(s,g))<=h?(c.pop(),h=n):(s.area-=s.pop().area,d(s,g,a,!1),g=Math.min(a.dx,a.dy),s.length=s.area=0,h=1/0);s.length&&(d(s,g,a,!0),s.length=s.area=0),e.forEach(f)}}function h(t){var e=t.children;if(e&&e.length){var r,n=o(t),i=e.slice(),a=[];for(u(i,n.dx*n.dy/t.value),a.area=0;r=i.pop();)a.push(r),a.area+=r.area,null!=r.z&&(d(a,r.z?n.dx:n.dy,n,!i.length),a.length=a.area=0);e.forEach(h)}}function p(t,e){for(var r,n=t.area,i=0,a=1/0,o=-1,s=t.length;++o<s;)(r=t[o].area)&&(r<a&&(a=r),r>i&&(i=r));return e*=e,(n*=n)?Math.max(e*i*c/n,n/(e*a*c)):1/0}function d(t,e,r,i){var a,o=-1,s=t.length,l=r.x,c=r.y,u=e?n(t.area/e):0;if(e==r.dx){for((i||u>r.dy)&&(u=r.dy);++o<s;)(a=t[o]).x=l,a.y=c,a.dy=u,l+=a.dx=Math.min(r.x+r.dx-l,u?n(a.area/u):0);a.z=!0,a.dx+=r.x+r.dx-l,r.y+=u,r.dy-=u}else{for((i||u>r.dx)&&(u=r.dx);++o<s;)(a=t[o]).x=l,a.y=c,a.dx=u,c+=a.dy=Math.min(r.y+r.dy-c,u?n(a.area/u):0);a.z=!1,a.dy+=r.y+r.dy-c,r.x+=u,r.dx-=u}}function g(t){var n=e||r(t),a=n[0];return a.x=a.y=0,a.value?(a.dx=i[0],a.dy=i[1]):a.dx=a.dy=0,e&&r.revalue(a),u([a],a.dx*a.dy/a.value),(e?h:f)(a),s&&(e=n),n}return g.size=function(t){return arguments.length?(i=t,g):i},g.padding=function(t){if(!arguments.length)return a;function e(e){var r=t.call(g,e,e.depth);return null==r?Fn(e):Bn(e,"number"==typeof r?[r,r,r,r]:r)}function r(e){return Bn(e,t)}var n;return o=null==(a=t)?Fn:"function"==(n=typeof t)?e:"number"===n?(t=[t,t,t,t],r):r,g},g.round=function(t){return arguments.length?(n=t?Math.round:Number,g):n!=Number},g.sticky=function(t){return arguments.length?(s=t,e=null,g):s},g.ratio=function(t){return arguments.length?(c=t,g):c},g.mode=function(t){return arguments.length?(l=t+"",g):l},$r(g,r)},t.random={normal:function(t,e){var r=arguments.length;return r<2&&(e=1),r<1&&(t=0),function(){var r,n,i;do{i=(r=2*Math.random()-1)*r+(n=2*Math.random()-1)*n}while(!i||i>1);return t+e*r*Math.sqrt(-2*Math.log(i)/i)}},logNormal:function(){var e=t.random.normal.apply(t,arguments);return function(){return Math.exp(e())}},bates:function(e){var r=t.random.irwinHall(e);return function(){return r()/e}},irwinHall:function(t){return function(){for(var e=0,r=0;r<t;r++)e+=Math.random();return e}}},t.scale={};var Hn={floor:C,ceil:C};function Gn(e,r,n,i){var a=[],o=[],s=0,l=Math.min(e.length,r.length)-

1;for(e[l]<e[0]&&(e=e.slice().reverse(),r=r.slice().reverse());++s<=l;)a.push(n(e[s-1],e[s])),o.push(i(r[s-1],r[s]));return function(r){var n=t.bisect(e,r,1,l)-1;return o[n](a[n](r))}}function Yn(t,e,r,n){var i,a;function o(){var o=Math.min(t.length,e.length)>2?Gn:Un,l=n?Vr:Ur;return i=o(t,e,l,r),a=o(e,t,l,xr),s}function s(t){return i(t)}return s.invert=function(t){return a(t)},s.domain=function(e){return arguments.length?(t=e.map(Number),o()):t},s.range=function(t){return arguments.length?(e=t,o()):e},s.rangeRound=function(t){return s.range(t).interpolate(zr)},s.clamp=function(t){return arguments.length?(n=t,o()):n},s.interpolate=function(t){return arguments.length?(r=t,o()):r},s.ticks=function(e){return Jn(t,e)},s.tickFormat=function(e,r){return d3_scale_linearTickFormat(t,e,r)},s.nice=function(e){return Xn(t,e),o()},s.copy=function(){return Yn(t,e,r,n)},o()}function Wn(e,r){return t.rebind(e,r,"range","rangeRound","interpolate","clamp")}function Xn(t,e){return Vn(t,qn(Zn(t,e)[2])),Vn(t,qn(Zn(t,e)[2])),t}function Zn(t,e){null==e&&(e=10);var r=Nn(t),n=r[1]-r[0],i=Math.pow(10,Math.floor(Math.log(n/e)/Math.LN10)),a=e/n*i;return a<=.15?i*=10:a<=.35?i*=5:a<=.75&&(i*=2),r[0]=Math.ceil(r[0]/i)*i,r[1]=Math.floor(r[1]/i)*i+.5*i,r[2]=i,r}function Jn(e,r){return t.range.apply(t,Zn(e,r))}function Kn(t,e,r,n){function i(t){return(r?Math.log(t<0?0:t):-Math.log(t>0?0:-t))/Math.log(e)}function a(t){return r?Math.pow(e,t):-Math.pow(e,-t)}function o(e){return t(i(e))}return o.invert=function(e){return a(t.invert(e))},o.domain=function(e){return arguments.length?(r=e[0]>=0,t.domain((n=e.map(Number)).map(i)),o):n},o.base=function(r){return arguments.length?(e=+r,t.domain(n.map(i)),o):e},o.nice=function(){var e=Vn(n.map(i),r?Math:Qn);return t.domain(e),n=e.map(a),o},o.ticks=function(){var t=Nn(n),o=[],s=t[0],l=t[1],c=Math.floor(i(s)),u=Math.ceil(i(l)),f=e%1?2:e;if(isFinite(u-c)){if(r){for(;c<u;c++)for(var h=1;h<f;h++)o.push(a(c)*h);o.push(a(c))}else for(o.push(a(c));c++<u;)for(h=f-1;h>0;h--)o.push(a(c)*h);for(c=0;o[c]<s;c++);for(u=o.length;o[u-1]>l;u--);o=o.slice(c,u)}return o},o.copy=function(){return Kn(t.copy(),e,r,n)},Wn(o,t)}t.scale.linear=function(){return Yn([0,1],[0,1],xr,!1)},t.scale.log=function(){return Kn(t.scale.linear().domain([0,1]),10,!0,[1,10])};var Qn={floor:function(t){return-Math.ceil(-t)},ceil:function(t){return-Math.floor(-t)}};function $n(t,e,r){var n=ti(e),i=ti(1/e);function a(e){return t(n(e))}return a.invert=function(e){return i(t.invert(e))},a.domain=function(e){return arguments.length?(t.domain((r=e.map(Number)).map(n)),a):r},a.ticks=function(t){return Jn(r,t)},a.tickFormat=function(t,e){return d3_scale_linearTickFormat(r,t,e)},a.nice=function(t){return a.domain(Xn(r,t))},a.exponent=function(o){return arguments.length?(n=ti(e=o),i=ti(1/e),t.domain(r.map(n)),a):e},a.copy=function(){return $n(t.copy(),e,r)},Wn(a,t)}function ti(t){return function(e){return e<0?-Math.pow(-e,t):Math.pow(e,t)}}function ei(e,r){var n,i,a;function o(t){return i[((n.get(t)||("range"===r.t?n.set(t,e.push(t)):NaN))-1)%i.length]}function s(r,n){return t.range(e.length).map((function(t){return r+n*t}))}return o.domain=function(t){if(!arguments.length)return e;e=[],n=new _;for(var i,a=-1,s=t.length;++a<s;)n.has(i=t[a])||n.set(i,e.push(i));return o[r.t].apply(o,r.a)},o.range=function(t){return arguments.length?(i=t,a=0,r={t:"range",a:arguments},o):i},o.rangePoints=function(t,n){arguments.length<2&&(n=0);var l=t[0],c=t[1],u=e.length<2?(l=(l+c)/2,0):(c-l)/(e.length-1+n);return i=s(l+u*n/2,u),a=0,r={t:"rangePoints",a:arguments},o},o.rangeRoundPoints=function(t,n){arguments.length<2&&(n=0);var l=t[0],c=t[1],u=e.length<2?(l=c=Math.round((l+c)/2),0):(c-l)/(e.length-1+n)|0;return i=s(l+Math.round(u*n/2+(c-l-(e.length-1+n)*u)/2),u),a=0,r={t:"rangeRoundPoints",a:arguments},o},o.rangeBands=function(t,n,l){arguments.length<2&&(n=0),arguments.length<3&&(l=n);var c=t[1]<t[0],u=t[c-0],f=(t[1-c]-u)/(e.length-n+2*l);return i=s(u+f*l,f),c&&i.reverse(),a=f*(1-n),r={t:"rangeBands",a:arguments},o},o.rangeRoundBands=function(t,n,l){arguments.length<2&&(n=0),arguments.length<3&&(l=n);var c=t[1]<t[0],u=t[c-0],f=t[1-c],h=Math.floor((f-u)/(e.length-n+2*l));return i=s(u+Math.round((f-u-(e.length-n)*h)/2),h),c&&i.reverse(),a=Math.round(h*(1-n)),r={t:"rangeRoundBands",a:arguments},o},o.rangeBand=function(){return a},o.rangeExtent=function(){return

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Nn(r.a[0])},o.copy=function(){return ei(e,r)},o.domain(e)}t.scale.pow=function(){return
$n(t.scale.linear(),1,[0,1])},t.scale.sqrt=function(){return
t.scale.pow().exponent(.5)},t.scale.ordinal=function(){return
ei([],{t:"range",a:[[]]})},t.scale.category10=function(){return
t.scale.ordinal().range(ri)},t.scale.category20=function(){return
t.scale.ordinal().range(ni)},t.scale.category20b=function(){return
t.scale.ordinal().range(ii)},t.scale.category20c=function(){return t.scale.ordinal().range(ai)};var
ri=[2062260,16744206,2924588,14034728,9725885,9197131,14907330,8355711,12369186,1556175].map(re),ni=[
2062260,11454440,16744206,16759672,2924588,10018698,14034728,16750742,9725885,12955861,9197131,1288
5140,14907330,16234194,8355711,13092807,12369186,14408589,1556175,10410725].map(re),ii=[3750777,53956
19,7040719,10264286,6519097,9216594,11915115,13556636,9202993,12426809,15186514,15190932,8666169,11
356490,14049643,15177372,8077683,10834324,13528509,14589654].map(re),ai=[3244733,7057110,10406625,13
032431,15095053,16616764,16625259,16634018,3253076,7652470,10607003,13101504,7695281,10394312,12369
372,14342891,6513507,9868950,12434877,14277081].map(re);function oi(e,r){var n;function i(){var
i=0,o=r.length;for(n=[];++i<o;)n[i-1]=t.quantile(e,i/o);return a}function a(e){if(!isNaN(e=+e))return
r[t.bisect(n,e)]}return a.domain=function(t){return
arguments.length?(e=t.map(p).filter(d).sort(h),i()):e},a.range=function(t){return
arguments.length?(r=t,i()):r},a.quantiles=function(){return
n},a.invertExtent=function(t){return(t=r.indexOf(t))<0?[NaN,NaN]:[t>0?n[t-1]:e[0],t<n.length?n[t]:e[e.length-
1]]},a.copy=function(){return oi(e,r)},i()}function si(t,e,r){var n,i;function a(e){return
r[Math.max(0,Math.min(i,Math.floor(n*(e-t))))]}function o(){return n=r.length/(e-t),i=r.length-1,a}return
a.domain=function(r){return arguments.length?(t=+r[0],e=+r[r.length-1],o()):[t,e]},a.range=function(t){return
arguments.length?(r=t,o()):r},a.invertExtent=function(e){return[e=(e=r.indexOf(e))<0?NaN:e/n+t,e+1/n]},a.copy=f
unction(){return si(t,e,r)},o()}function li(e,r){function n(n){if(n<=n)return r[t.bisect(e,n)]}return
n.domain=function(t){return arguments.length?(e=t,n):e},n.range=function(t){return
arguments.length?(r=t,n):r},n.invertExtent=function(t){return t=r.indexOf(t),[e[t-1],e[t]]},n.copy=function(){return
li(e,r)},n}function ci(t){function e(t){return+t}return e.invert=e,e.domain=e.range=function(r){return
arguments.length?(t=r.map(e),e):t},e.ticks=function(e){return Jn(t,e)},e.tickFormat=function(e,r){return
d3_scale_linearTickFormat(t,e,r)},e.copy=function(){return ci(t)},e}function ui(){return
0}t.scale.quantile=function(){return oi([],[])},t.scale.quantize=function(){return
si(0,1,[0,1])},t.scale.threshold=function(){return li([.5],[0,1])},t.scale.identity=function(){return
ci([0,1])},t.svg={},t.svg.arc=function(){var t=hi,e=pi,r=ui,n=fi,i=di,a=gi,o=vi;function s(){var
s=Math.max(0,+t.apply(this,arguments)),c=Math.max(0,+e.apply(this,arguments)),u=i.apply(this,arguments)-
Et,f=a.apply(this,arguments)-Et,h=Math.abs(f-u),p=u>f?0:1;if(c<s&&(d=c,c=s,s=d),h>=St)return l(c,p)+(s?l(s,1-
p):"")+"Z";var
d,g,v,m,y,x,b,_,w,T,k,A,M=0,S=0,E=[];if((m=(+o.apply(this,arguments)||0)/2)&&(v=n===fi?Math.sqrt(s*s+c*c):+n
.apply(this,arguments),p||(S*=-
1),c&&(S=Pt(v/c*Math.sin(m))),s&&(M=Pt(v/s*Math.sin(m)))),c){y=c*Math.cos(u+S),x=c*Math.sin(u+S),b=c*M
ath.cos(f-S),_=c*Math.sin(f-S);var L=Math.abs(f-u-2*S)<=At?0:1;if(S&&mi(y,x,b,_)===p^L){var
C=(u+f)/2;y=c*Math.cos(C),x=c*Math.sin(C),b=_=null}}else y=x=0;if(s){w=s*Math.cos(f-M),T=s*Math.sin(f-
M),k=s*Math.cos(u+M),A=s*Math.sin(u+M);var P=Math.abs(u-f+2*M)<=At?0:1;if(M&&mi(w,T,k,A)===1-
p^P){var I=(u+f)/2;w=s*Math.cos(I),T=s*Math.sin(I),k=A=null}}else w=T=0;if(h>kt&&(d=Math.min(Math.abs(c-
s)/2,+r.apply(this,arguments)))>.001){g=s<c^p?0:1;var O=d,z=d;if(h<At){var
D=null==k?[w,T]:null==b?[y,x]:Le([y,x],[k,A],[b,_],[w,T]),R=y-D[0],F=x-D[1],B=b-D[0],N=_-
D[1],j=1/Math.sin(Math.acos((R*B+F*N)/(Math.sqrt(R*R+F*F)*Math.sqrt(B*B+N*N)))/2),U=Math.sqrt(D[0]*D[
0]+D[1]*D[1]);z=Math.min(d,(s-U)/(j-1)),O=Math.min(d,(c-U)/(j+1))}if(null!=b){var
V=yi(null==k?[w,T]:[k,A],[y,x],c,O,p),q=yi([b,_],[w,T],c,O,p);d===O?E.push("M",V[0],"A",O,",",O," 0 0,",g,"
",V[1],"A",c,",",c," 0 ",1-p^mi(V[1][0],V[1][1],q[1][0],q[1][1]),",",p," ",q[1],"A",O,",",O," 0 0,",g,"
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",q[0]):E.push("M",V[0],"A",O,",",O," 0 1,",g," ",q[0])}else E.push("M",y,",",x);if(null!=k){var H=yi([y,x],[k,A],s,-z,p),G=yi([w,T],null==b?[y,x]:[b,_],s,-z,p);d===z?E.push("L",G[0],"A",z,",",z," 0 0,",g," ",G[1],"A",s,",",s," 0 ",p^mi(G[1][0],G[1][1],H[1][0],H[1][1]),",",1-p," ",H[1],"A",z,",",z," 0 0,",g," ",H[0]):E.push("L",G[0],"A",z,",",z," 0 0,",g," ",H[0])}else E.push("L",w,",",T)}else E.push("M",y,",",x),null!=b&&E.push("A",c,",",c," 0 ",L,",",p," ",b,",",_),E.push("L",w,",",T),null!=k&&E.push("A",s,",",s," 0 ",P,",",1-p," ",k,",",A);return E.push("Z"),E.join("")}function l(t,e){return"M0,"+t+"A"+t+","+t+" 0 1,"+e+" 0,"+-t+"A"+t+","+t+" 0 1,"+e+" 0,"+t}return s.innerRadius=function(e){return arguments.length?(t=fe(e),s):t},s.outerRadius=function(t){return arguments.length?(e=fe(t),s):e},s.cornerRadius=function(t){return arguments.length?(r=fe(t),s):r},s.padRadius=function(t){return arguments.length?(n=t==fi?fi:fe(t),s):n},s.startAngle=function(t){return arguments.length?(i=fe(t),s):i},s.endAngle=function(t){return arguments.length?(a=fe(t),s):a},s.padAngle=function(t){return arguments.length?(o=fe(t),s):o},s.centroid=function(){var r=(+t.apply(this,arguments)+ +e.apply(this,arguments))/2,n=(+i.apply(this,arguments)+ +a.apply(this,arguments))/2-Et;return[Math.cos(n)*r,Math.sin(n)*r]},s};var fi="auto";function hi(t){return t.innerRadius}function pi(t){return t.outerRadius}function di(t){return t.startAngle}function gi(t){return t.endAngle}function vi(t){return t&&t.padAngle}function mi(t,e,r,n){return(t-r)*e-(e-n)*t>0?0:1}function yi(t,e,r,n,i){var a=t[0]-e[0],o=t[1]-e[1],s=(i?n:-n)/Math.sqrt(a*a+o*o),l=s*o,c=-s*a,u=t[0]+l,f=t[1]+c,h=e[0]+l,p=e[1]+c,d=(u+h)/2,g=(f+p)/2,v=h-u,m=p-f,y=v*v+m*m,x=r-n,b=u*p-h*f,_=(m<0?-1:1)*Math.sqrt(Math.max(0,x*x*y-b*b)),w=(b*m-v*_)/y,T=(-b*v-m*_)/y,k=(b*m+v*_)/y,A=(-b*v+m*_)/y,M=w-d,S=T-g,E=k-d,L=A-g;return M*M+S*S>E*E+L*L&&(w=k,T=A),[[w-l,T-c],[w*r/x,T*r/x]]}function xi(){return!0}function bi(t){var e=Te,r=ke,n=xi,i=wi,a=i.key,o=.7;function s(a){var s,l=[],c=[],u=-1,f=a.length,h=fe(e),p=fe(r);function d(){l.push("M",i(t(c),o))}for(;++u<f;)n.call(this,s=a[u],u)?c.push([+h.call(this,s,u),+p.call(this,s,u)]):c.length&&(d(),c=[]);return c.length&&d(),l.length?l.join(""):null}return s.x=function(t){return arguments.length?(e=t,s):e},s.y=function(t){return arguments.length?(r=t,s):r},s.defined=function(t){return arguments.length?(n=t,s):n},s.interpolate=function(t){return arguments.length?(a="function"==typeof t?i=t:(i=_i.get(t)||wi).key,s):a},s.tension=function(t){return arguments.length?(o=t,s):o},s}t.svg.line=function(){return bi(C)};var _i=t.map({linear:wi,"linear-closed":Ti,step:function(t){for(var e=0,r=t.length,n=t[0],i=[n[0],",",n[1]];++e<r;)i.push("H",(n[0]+(n=t[e])[0])/2,"V",n[1]);return r>1&&i.push("H",n[0]),i.join("")},"step-before":ki,"step-after":Ai,basis:Ei,"basis-open":function(t){if(t.length<4)return wi(t);for(var e,r=[],n=-1,i=t.length,a=[0],o=[0];++n<3;)e=t[n],a.push(e[0]),o.push(e[1]);for(r.push(Li(Ii,a)+","+Li(Ii,o)),--n;++n<i;)e=t[n],a.shift(),a.push(e[0]),o.shift(),o.push(e[1]),Oi(r,a,o);return r.join("")},"basis-closed":function(t){for(var e,r,n=-1,i=t.length,a=i+4,o=[],s=[];++n<4;)r=t[n%i],o.push(r[0]),s.push(r[1]);for(e=[Li(Ii,o),",",Li(Ii,s)],--n;++n<a;)r=t[n%i],o.shift(),o.push(r[0]),s.shift(),s.push(r[1]),Oi(e,o,s);return e.join("")},bundle:function(t,e){var r=t.length-1;if(r)for(var n,i,a=t[0][0],o=t[0][1],s=t[r][0]-a,l=t[r][1]-o,c=-1;++c<=r;)i=c/r,(n=t[c])[0]=e*n[0]+(1-e)*(a+i*s),n[1]=e*n[1]+(1-e)*(o+i*l);return Ei(t)},cardinal:function(t,e){return t.length<3?wi(t):t[0]+Mi(t,Si(t,e))},"cardinal-open":function(t,e){return t.length<4?wi(t):t[1]+Mi(t.slice(1,-1),Si(t,e))},"cardinal-closed":function(t,e){return t.length<3?Ti(t):t[0]+Mi((t.push(t[0]),t),Si([t[t.length-2]].concat(t,[t[1]]),e))},monotone:function(t){return t.length<3?wi(t):t[0]+Mi(t,function(t){for(var e,r,n,i,a=[],o=function(t){for(var e=0,r=t.length-1,n=[],i=t[0],a=t[1],o=n[0]=zi(i,a);++e<r;)n[e]=(o+(o=zi(i=a,a=t[e+1])))/2;return n[e]=o,n}(t),s=-1,l=t.length-1;++s<l;)e=zi(t[s],t[s+1]),y(e)<kt?o[s]=o[s+1]=0:(i=(r=o[s]/e)*r+(n=o[s+1]/e)*n)>9&&(i=3*e/Math.sqrt(i),o[s]=i*r,o[s+1]=i*n);for(s=-1;++s<=l;)i=(t[Math.min(l,s+1)][0]-t[Math.max(0,s-1)][0])/(6*(1+o[s]*o[s])),a.push([i||0,o[s]*i||0]);return a}(t))}});function wi(t){return t.length>1?t.join("L"):t+"Z"}function Ti(t){return t.join("L")+"Z"}function ki(t){for(var

e=0,r=t.length,n=t[0],i=[n[0],",",n[1]];++e<r;)i.push("V",(n=t[e])[1],"H",n[0]);return i.join("")}function Ai(t){for(var e=0,r=t.length,n=t[0],i=[n[0],",",n[1]];++e<r;)i.push("H",(n=t[e])[0],"V",n[1]);return i.join("")}function Mi(t,e){if(e.length<1||t.length!=e.length&&t.length!=e.length+2)return wi(t);var r=t.length!=e.length,n="",i=t[0],a=t[1],o=e[0],s=o,l=1;if(r&&(n+="Q"+(a[0]-2*o[0]/3)+","+(a[1]-2*o[1]/3)+","+a[0]+","+a[1],i=t[1],l=2),e.length>1){s=e[1],a=t[l],l++,n+="C"+(i[0]+o[0])+","+(i[1]+o[1])+","+(a[0]-s[0])+","+(a[1]-s[1])+","+a[0]+","+a[1];for(var c=2;c<e.length;c++,l++)a=t[l],s=e[c],n+="S"+(a[0]-s[0])+","+(a[1]-s[1])+","+a[0]+","+a[1]}if(r){var u=t[l];n+="Q"+(a[0]+2*s[0]/3)+","+(a[1]+2*s[1]/3)+","+u[0]+","+u[1]}return n}function Si(t,e){for(var r,n=[],i=(1-e)/2,a=t[0],o=t[1],s=1,l=t.length;++s<l;)r=a,a=o,o=t[s],n.push([i*(o[0]-r[0]),i*(o[1]-r[1])]);return n}function Ei(t){if(t.length<3)return wi(t);var e=1,r=t.length,n=t[0],i=n[0],a=n[1],o=[i,i,i,(n=t[1])[0]],s=[a,a,a,n[1]],l=[i,",",a,"L",Li(Ii,o),",",Li(Ii,s)];for(t.push(t[r-1]);++e<=r;)n=t[e],o.shift(),o.push(n[0]),s.shift(),s.push(n[1]),Oi(l,o,s);return t.pop(),l.push("L",n),l.join("")}function Li(t,e){return t[0]*e[0]+t[1]*e[1]+t[2]*e[2]+t[3]*e[3]}_i.forEach((function(t,e){e.key=t,e.closed=/-closed$/.test(t)}));var Ci=[0,2/3,1/3,0],Pi=[0,1/3,2/3,0],Ii=[0,1/6,2/3,1/6];function Oi(t,e,r){t.push("C",Li(Ci,e),",",Li(Ci,r),",",Li(Pi,e),",",Li(Pi,r),",",Li(Ii,e),",",Li(Ii,r))}function zi(t,e){return(e[1]-t[1])/(e[0]-t[0])}function Di(t){for(var e,r,n,i=-1,a=t.length;++i<a;)r=(e=t[i])[0],n=e[1]-Et,e[0]=r*Math.cos(n),e[1]=r*Math.sin(n);return t}function Ri(t){var e=Te,r=Te,n=0,i=ke,a=xi,o=wi,s=o.key,l=o,c="L",u=.7;function f(s){var f,h,p,d=[],g=[],v=[],m=-1,y=s.length,x=fe(e),b=fe(n),_=e===r?function(){return h}:fe(r),w=n===i?function(){return p}:fe(i);function T(){d.push("M",o(t(v),u),c,l(t(g.reverse()),u),"Z")}for(;++m<y;)a.call(this,f=s[m],m)?(g.push([h=+x.call(this,f,m),p=+b.call(this,f,m)]),v.push([+_.call(this,f,m),+w.call(this,f,m)])):g.length&&(T(),g=[],v=[]);return g.length&&T(),d.length?d.join(""):null}return f.x=function(t){return arguments.length?(e=r=t,f):r},f.x0=function(t){return arguments.length?(e=t,f):e},f.x1=function(t){return arguments.length?(r=t,f):r},f.y=function(t){return arguments.length?(n=i=t,f):i},f.y0=function(t){return arguments.length?(n=t,f):n},f.y1=function(t){return arguments.length?(i=t,f):i},f.defined=function(t){return arguments.length?(a=t,f):a},f.interpolate=function(t){return arguments.length?(s="function"==typeof t?o=t:(o=_i.get(t)||wi).key,l=o.reverse||o,c=o.closed?"M":"L",f):s},f.tension=function(t){return arguments.length?(u=t,f):u},f}function Fi(t){return t.source}function Bi(t){return t.target}function Ni(t){return t.radius}function ji(t){return[t.x,t.y]}function Ui(t){return function(){var e=t.apply(this,arguments),r=e[0],n=e[1]-Et;return[r*Math.cos(n),r*Math.sin(n)]}}function Vi(){return 64}function qi(){return"circle"}function Hi(t){var e=Math.sqrt(t/At);return"M0,"+e+"A"+e+","+e+" 0 1,1 0,"+-e+"A"+e+","+e+" 0 1,1 0,"+e+"Z"}t.svg.line.radial=function(){var t=bi(Di);return t.radius=t.x,delete t.x,t.angle=t.y,delete t.y,t},ki.reverse=Ai,Ai.reverse=ki,t.svg.area=function(){return Ri(C)},t.svg.area.radial=function(){var t=Ri(Di);return t.radius=t.x,delete t.x,t.innerRadius=t.x0,delete t.x0,t.outerRadius=t.x1,delete t.x1,t.angle=t.y,delete t.y,t.startAngle=t.y0,delete t.y0,t.endAngle=t.y1,delete t.y1,t},t.svg.chord=function(){var t=Fi,e=Bi,r=Ni,n=di,i=gi;function a(r,n){var i,a,c=o(this,t,r,n),u=o(this,e,r,n);return"M"+c.p0+s(c.r,c.p1,c.a1-c.a0)+(a=u,((i=c).a0==a.a0&&i.a1==a.a1?l(c.r,c.p1,c.r,c.p0):l(c.r,c.p1,u.r,u.p0)+s(u.r,u.p1,u.a1-u.a0)+l(u.r,u.p1,c.r,c.p0))+"Z")}function o(t,e,a,o){var s=e.call(t,a,o),l=r.call(t,s,o),c=n.call(t,s,o)-Et,u=i.call(t,s,o)-Et;return{r:l,a0:c,a1:u,p0:[l*Math.cos(c),l*Math.sin(c)],p1:[l*Math.cos(u),l*Math.sin(u)]}}function s(t,e,r){return"A"+t+","+t+" 0 "+ +(r>At)+",1 "+e}function l(t,e,r,n){return"Q 0,0 "+n}return a.radius=function(t){return arguments.length?(r=fe(t),a):r},a.source=function(e){return arguments.length?(t=fe(e),a):t},a.target=function(t){return arguments.length?(e=fe(t),a):e},a.startAngle=function(t){return arguments.length?(n=fe(t),a):n},a.endAngle=function(t){return arguments.length?(i=fe(t),a):i},a},t.svg.diagonal=function(){var t=Fi,e=Bi,r=ji;function n(n,i){var a=t.call(this,n,i),o=e.call(this,n,i),s=(a.y+o.y)/2,l=[a,{x:a.x,y:s},{x:o.x,y:s},o];return"M"+(l=l.map(r))[0]+"C"+l[1]+" "+l[2]+" "+l[3]}return n.source=function(e){return arguments.length?(t=fe(e),n):t},n.target=function(t){return

arguments.length?(e=fe(t),n):e},n.projection=function(t){return
arguments.length?(r=t,n):r},n},t.svg.diagonal.radial=function(){var e=t.svg.diagonal(),r=ji,n=e.projection;return
e.projection=function(t){return arguments.length?n(Ui(r=t)):r},e},t.svg.symbol=function(){var t=qi,e=Vi;function
r(r,n){return(Gi.get(t.call(this,r,n))||Hi)(e.call(this,r,n))}return r.type=function(e){return
arguments.length?(t=fe(e),r):t},r.size=function(t){return arguments.length?(e=fe(t),r):e},r};var
Gi=t.map({circle:Hi,cross:function(t){var e=Math.sqrt(t/5)/2;return"M"+-3*e+","+-e+"H"+-e+"V"+-
3*e+"H"+e+"V"+-e+"H"+3*e+"V"+e+"H"+e+"V"+3*e+"H"+-e+"V"+e+"H"+-3*e+"Z"},diamond:function(t){var
e=Math.sqrt(t/(2*Wi)),r=e*Wi;return"M0,"+-e+"L"+r+",0 0,"+e+" "+-r+",0Z"},square:function(t){var
e=Math.sqrt(t)/2;return"M"+-e+","+-e+"L"+e+","+-e+" "+e+","+e+" "+-e+","+e+"Z"},"triangle-
down":function(t){var e=Math.sqrt(t/Yi),r=e*Yi/2;return"M0,"+r+"L"+e+","+-r+" "+-e+","+-r+"Z"},"triangle-
up":function(t){var e=Math.sqrt(t/Yi),r=e*Yi/2;return"M0,"+-r+"L"+e+","+r+" "+-
e+","+r+"Z"}});t.svg.symbolTypes=Gi.keys();var
Yi=Math.sqrt(3),Wi=Math.tan(30*Lt);Y.transition=function(t){for(var
e,r,n=Ki||++ta,i=na(t),a=[],o=Qi||{time:Date.now(),ease:Lr,delay:0,duration:250},s=-
1,l=this.length;++s<l;){a.push(e=[]);for(var c=this[s],u=-
1,f=c.length;++u<f;)(r=c[u])&&ia(r,u,i,n,o),e.push(r)}return Ji(a,i,n)},Y.interrupt=function(t){return
this.each(null==t?Xi:Zi(na(t)))};var Xi=Zi(na());function Zi(t){return function(){var
e,r,n;(e=this[t])&&(n=e[r=e.active])&&(n.timer.c=null,n.timer.t=NaN,--e.count?delete e[r]:delete
this[t],e.active+=.5,n.event&&n.event.interrupt.call(this,this.__data__,n.index))}}function Ji(t,e,r){return
U(t,$i),t.namespace=e,t.id=r,t}var Ki,Qi,$i=[],ta=0;function ea(t,e,r,n){var i=t.id,a=t.namespace;return
ut(t,"function"==typeof
r?function(t,o,s){t[a][i].tween.set(e,n(r.call(t,t.__data__,o,s)))}:(r=n(r),function(t){t[a][i].tween.set(e,r)}))}function
ra(t){return null==t&&(t=""),function(){this.textContent=t}}function na(t){return
null==t?"__transition__":"__transition_"+t+"__"}function ia(t,e,r,n,i){var
a,o,s,l,c,u=t[r]||(t[r]={active:0,count:0}),f=u[n];function h(r){var i=u.active,h=u[i];for(var d in
h&&(h.timer.c=null,h.timer.t=NaN,--u.count,delete
u[i],h.event&&h.event.interrupt.call(t,t.__data__,h.index)),u)if(+d<n){var g=u[d];g.timer.c=null,g.timer.t=NaN,--
u.count,delete u[d]}o.c=p,xe((function(){return
o.c&&p(r||1)&&(o.c=null,o.t=NaN),1}),0,a),u.active=n,f.event&&f.event.start.call(t,t.__data__,e),c=[],f.tween.forE
ach((function(r,n){(n=n.call(t,t.__data__,e))&&c.push(n)})),l=f.ease,s=f.duration}function p(i){for(var
a=i/s,o=l(a),h=c.length;h>0;)c[--h].call(t,o);if(a>=1)return f.event&&f.event.end.call(t,t.__data__,e),--u.count?delete
u[n]:delete t[r],1}f||(a=i.time,o=xe((function(t){var e=f.delay;if(o.t=e+a,e<=t)return h(t-
e);o.c=h}),0,a),f=u[n]={tween:new
_,time:a,timer:o,delay:i.delay,duration:i.duration,ease:i.ease,index:e},i=null,++u.count)}$i.call=Y.call,$i.empty=Y.e
mpty,$i.node=Y.node,$i.size=Y.size,t.transition=function(e,r){return
e&&e.transition?Ki?e.transition(r):e:t.selection().transition(e)},t.transition.prototype=$i,$i.select=function(t){var
e,r,n,i=this.id,a=this.namespace,o=[];t=W(t);for(var s=-1,l=this.length;++s<l;){o.push(e=[]);for(var c=this[s],u=-
1,f=c.length;++u<f;)(n=c[u])&&(r=t.call(n,n.__data__,u,s))?("__data__"in
n&&(r.__data__=n.__data__),ia(r,u,a,i,n[a][i]),e.push(r)):e.push(null)}return Ji(o,a,i)},$i.selectAll=function(t){var
e,r,n,i,a,o=this.id,s=this.namespace,l=[];t=X(t);for(var c=-1,u=this.length;++c<u;)for(var f=this[c],h=-
1,p=f.length;++h<p;)if(n=f[h]){a=n[s][o],r=t.call(n,n.__data__,h,c),l.push(e=[]);for(var d=-
1,g=r.length;++d<g;)(i=r[d])&&ia(i,d,s,o,a),e.push(i)}return Ji(l,s,o)},$i.filter=function(t){var
e,r,n=[];"function"!=typeof t&&(t=lt(t));for(var i=0,a=this.length;i<a;i++){n.push(e=[]);for(var
o,s=0,l=(o=this[i]).length;s<l;s++)(r=o[s])&&t.call(r,r.__data__,s,i)&&e.push(r)}return
Ji(n,this.namespace,this.id)},$i.tween=function(t,e){var r=this.id,n=this.namespace;return
arguments.length<2?this.node()[n][r].tween.get(t):ut(this,null==e?function(e){e[n][r].tween.remove(t)}:function(i){i
[n][r].tween.set(t,e)})},$i.attr=function(e,r){if(arguments.length<2){for(r in e)this.attr(r,e[r]);return this}var
n="transform"==e?jr:xr,i=t.ns.qualify(e);function a(){this.removeAttribute(i)}function

o(){this.removeAttributeNS(i.space,i.local)}function s(t){return null==t?a:(t+="",function(){var e,r=this.getAttribute(i);return r!==t&&(e=n(r,t),function(t){this.setAttribute(i,e(t))})})}function l(t){return null==t?o:(t+="",function(){var e,r=this.getAttributeNS(i.space,i.local);return r!==t&&(e=n(r,t),function(t){this.setAttributeNS(i.space,i.local,e(t))})})}return ea(this,"attr."+e,r,i.local?l:s)},$i.attrTween=function(e,r){var n=t.ns.qualify(e);return this.tween("attr."+e,n.local?function(t,e){var i=r.call(this,t,e,this.getAttributeNS(n.space,n.local));return i&&function(t){this.setAttributeNS(n.space,n.local,i(t))}}:function(t,e){var i=r.call(this,t,e,this.getAttribute(n));return i&&function(t){this.setAttribute(n,i(t))}})},$i.style=function(t,e,r){var n=arguments.length;if(n<3){if("string"!=typeof t){for(r in n<2&&(e=""),t)this.style(r,t[r],e);return this}r=""}function i(){this.style.removeProperty(t)}function a(e){return null==e?i:(e+="",function(){var n,i=o(this).getComputedStyle(this,null).getPropertyValue(t);return i!==e&&(n=xr(i,e),function(e){this.style.setProperty(t,n(e),r)})})}return ea(this,"style."+t,e,a)},$i.styleTween=function(t,e,r){function n(n,i){var a=e.call(this,n,i,o(this).getComputedStyle(this,null).getPropertyValue(t));return a&&function(e){this.style.setProperty(t,a(e),r)}}return arguments.length<3&&(r=""),this.tween("style."+t,n)},$i.text=function(t){return ea(this,"text",t,ra)},$i.remove=function(){var t=this.namespace;return this.each("end.transition",(function(){var e;this[t].count<2&&(e=this.parentNode)&&e.removeChild(this)}))},$i.ease=function(e){var r=this.id,n=this.namespace;return arguments.length<1?this.node()[n][r].ease:("function"!=typeof e&&(e=t.ease.apply(t,arguments)),ut(this,(function(t){t[n][r].ease=e})))},$i.delay=function(t){var e=this.id,r=this.namespace;return arguments.length<1?this.node()[r][e].delay:ut(this,"function"==typeof t?function(n,i,a){n[r][e].delay=+t.call(n,n.__data__,i,a)}:(t=+t,function(n){n[r][e].delay=t}))},$i.duration=function(t){var e=this.id,r=this.namespace;return arguments.length<1?this.node()[r][e].duration:ut(this,"function"==typeof t?function(n,i,a){n[r][e].duration=Math.max(1,t.call(n,n.__data__,i,a))}:(t=Math.max(1,t),function(n){n[r][e].duration=t}))},$i.each=function(e,r){var n=this.id,i=this.namespace;if(arguments.length<2){var a=Qi,o=Ki;try{Ki=n,ut(this,(function(t,r,a){Qi=t[i][n],e.call(t,t.__data__,r,a)}))}finally{Qi=a,Ki=o}}else ut(this,(function(a){var o=a[i][n];(o.event||(o.event=t.dispatch("start","end","interrupt"))).on(e,r)}));return this},$i.transition=function(){for(var t,e,r,n=this.id,i=++ta,a=this.namespace,o=[],s=0,l=this.length;s<l;s++){o.push(t=[]);for(var c,u=0,f=(c=this[s]).length;u<f;u++)(e=c[u])&&ia(e,u,a,i,{time:(r=e[a][n]).time,ease:r.ease,delay:r.delay+r.duration,duration:r.duration}),t.push(e)}return Ji(o,a,i)},t.svg.axis=function(){var e,r=t.scale.linear(),i=aa,a=6,o=6,s=3,l=[10],c=null;function u(n){n.each((function(){var n,u=t.select(this),f=this.__chart__||r,h=this.__chart__=r.copy(),p=null==c?h.ticks?h.ticks.apply(h,l):h.domain():c,d=null==e?h.tickFormat?h.tickFormat.apply(h,l):C:e,g=u.selectAll(".tick").data(p,h),v=g.enter().insert("g",".domain").attr("class","tick").style("opacity",kt),m=t.transition(g.exit()).style("opacity",kt).remove(),y=t.transition(g.order()).style("opacity",1),x=Math.max(a,0)+s,b=jn(h),_=u.selectAll(".domain").data([0]),w=(_.enter().append("path").attr("class","domain"),t.transition(_));v.append("line"),v.append("text");var T,k,A,M,S=v.select("line"),E=y.select("line"),L=g.select("text").text(d),P=v.select("text"),I=y.select("text"),O="top"===i||"left"===i?-1:1;if("bottom"===i||"top"===i?(n=sa,T="x",A="y",k="x2",M="y2",L.attr("dy",O<0?"0em":".71em").style("text-anchor","middle"),w.attr("d","M"+b[0]+","+O*o+"V0H"+b[1]+"V"+O*o)):(n=la,T="y",A="x",k="y2",M="x2",L.attr("dy",".32em").style("text-anchor",O<0?"end":"start"),w.attr("d","M"+O*o+","+b[0]+"H0V"+b[1]+"H"+O*o)),S.attr(M,O*a),P.attr(A,O*x),E.attr(k,0).attr(M,O*a),I.attr(T,0).attr(A,O*x),h.rangeBand){var z=h,D=z.rangeBand()/2;f=h=function(t){return z(t)+D}}else f.rangeBand?f=h:m.call(n,h,f);v.call(n,f,h),y.call(n,h,h)}))}return u.scale=function(t){return arguments.length?(r=t,u):r},u.orient=function(t){return arguments.length?(i=t in oa?t+"":aa,u):i},u.ticks=function(){return arguments.length?(l=n(arguments),u):l},u.tickValues=function(t){return arguments.length?(c=t,u):c},u.tickFormat=function(t){return arguments.length?(e=t,u):e},u.tickSize=function(t){var

e=arguments.length;return e?(a=+t,o=+arguments[e-1],u):a},u.innerTickSize=function(t){return arguments.length?(a=+t,u):a},u.outerTickSize=function(t){return arguments.length?(o=+t,u):o},u.tickPadding=function(t){return arguments.length?(s=+t,u):s},u.tickSubdivide=function(){return arguments.length&&u},u};var aa="bottom",oa={top:1,right:1,bottom:1,left:1};function sa(t,e,r){t.attr("transform",(function(t){var n=e(t);return"translate("+(isFinite(n)?n:r(t))+",0)"}))}function la(t,e,r){t.attr("transform",(function(t){var n=e(t);return"translate(0,"+(isFinite(n)?n:r(t))+")"}))}t.svg.brush=function(){var e,r,n=N(h,"brushstart","brush","brushend"),i=null,a=null,s=[0,0],l=[0,0],c=!0,u=!0,f=ua[0];function h(e){e.each((function(){var e=t.select(this).style("pointer-events","all").style("-webkit-tap-highlight-color","rgba(0,0,0,0)").on("mousedown.brush",v).on("touchstart.brush",v),r=e.selectAll(".background").data([0]);r.enter().append("rect").attr("class","background").style("visibility","hidden").style("cursor","crosshair"),e.selectAll(".extent").data([0]).enter().append("rect").attr("class","extent").style("cursor","move");var n=e.selectAll(".resize").data(f,C);n.exit().remove(),n.enter().append("g").attr("class",(function(t){return"resize "+t})).style("cursor",(function(t){return ca[t]})).append("rect").attr("x",(function(t){return/[ew]$/.test(t)?-3:null})).attr("y",(function(t){return/^[ns]/.test(t)?-3:null})).attr("width",6).attr("height",6).style("visibility","hidden"),n.style("display",h.empty()?"none":null);var o,s=t.transition(e),l=t.transition(r);i&&(o=jn(i),l.attr("x",o[0]).attr("width",o[1]-o[0]),d(s)),a&&(o=jn(a),l.attr("y",o[0]).attr("height",o[1]-o[0]),g(s)),p(s)}))}function p(t){t.selectAll(".resize").attr("transform",(function(t){return"translate("+s[+/e$/.test(t)]+","+l[+/^s/.test(t)]+")"}))}function d(t){t.select(".extent").attr("x",s[0]),t.selectAll(".extent,.n>rect,.s>rect").attr("width",s[1]-s[0])}function g(t){t.select(".extent").attr("y",l[0]),t.selectAll(".extent,.e>rect,.w>rect").attr("height",l[1]-l[0])}function v(){var f,v,m=this,y=t.select(t.event.target),x=n.of(m,arguments),b=t.select(m),_=y.datum(),w=!/^(n|s)$/.test(_)&&i,T=!/^(e|w)$/.test(_)&&a,k=y.classed("extent"),A=bt(m),M=t.mouse(m),S=t.select(o(m)).on("keydown.brush",C).on("keyup.brush",P);if(t.event.changedTouches?S.on("touchmove.brush",I).on("touchend.brush",z):S.on("mousemove.brush",I).on("mouseup.brush",z),b.interrupt().selectAll("*").interrupt(),k)M[0]=s[0]-M[0],M[1]=l[0]-M[1];else if(_){var E=+/w$/.test(_),L=+/^n/.test(_);v=[s[1-E]-M[0],l[1-L]-M[1]],M[0]=s[E],M[1]=l[L]}else t.event.altKey&&(f=M.slice());function C(){32==t.event.keyCode&&(k||(f=null,M[0]-=s[1],M[1]-=l[1],k=2),F())}function P(){32==t.event.keyCode&&2==k&&(M[0]+=s[1],M[1]+=l[1],k=0,F())}function I(){var e=t.mouse(m),r=!1;v&&(e[0]+=v[0],e[1]+=v[1]),k||(t.event.altKey?(f||(f=[(s[0]+s[1])/2,(l[0]+l[1])/2]),M[0]=s[+(e[0]<f[0])],M[1]=l[+(e[1]<f[1])]):f=null),w&&O(e,i,0)&&(d(b),r=!0),T&&O(e,a,1)&&(g(b),r=!0),r&&(p(b),x({type:"brush",mode:k?"move":"resize"}))}function O(t,n,i){var a,o,h=jn(n),p=h[0],d=h[1],g=M[i],v=i?l:s,m=v[1]-v[0];if(k&&(p-=g,d-=m+g),a=(i?u:c)?Math.max(p,Math.min(d,t[i])):t[i],k?o=(a+=g)+m:(f&&(g=Math.max(p,Math.min(d,2*f[i]-a))),g<a?(o=a,a=g):o=g),v[0]!=a||v[1]!=o)return i?r=null:e=null,v[0]=a,v[1]=o,!0}function z(){I(),b.style("pointer-events","all").selectAll(".resize").style("display",h.empty()?"none":null),t.select("body").style("cursor",null),S.on("mousemove.brush",null).on("mouseup.brush",null).on("touchmove.brush",null).on("touchend.brush",null).on("keydown.brush",null).on("keyup.brush",null),A(),x({type:"brushend"})}b.style("pointer-events","none").selectAll(".resize").style("display",null),t.select("body").style("cursor",y.style("cursor")),x({type:"brushstart"}),I()}return h.event=function(i){i.each((function(){var i=n.of(this,arguments),a={x:s,y:l,i:e,j:r},o=this.__chart__||a;this.__chart__=a,Ki?t.select(this).transition().each("start.brush",(function(){e=o.i,r=o.j,s=o.x,l=o.y,i({type:"brushstart"})})).tween("brush:brush",(function(){var t=br(s,a.x),n=br(l,a.y);return e=r=null,function(e){s=a.x=t(e),l=a.y=n(e),i({type:"brush",mode:"resize"})}})).each("end.brush",(function(){e=a.i,r=a.j,i({type:"brush",mode:"resize"}),i({type:"brushend"})})):(i({type:"brushstart"}),i({type:"brush",mode:"resize"}),i({type:"brushend"})))}))},h.x=function(t){return arguments.length?(f=ua[!(i=t)<<1|!a],h):i},h.y=function(t){return arguments.length?(f=ua[!i<<1|!(a=t)],h):a},h.clamp=function(t){return arguments.length?(i&&a?(c=!!t[0],u=!!t[1]):i?c=!!t:a&&(u=!!t),h):i&&a?[c,u]:i?c:a?u:null},h.extent=function(t){var n,o,c,u,f;return

arguments.length?(i&&(n=t[0],o=t[1],a&&(n=n[0],o=o[0]),e=[n,o],i.invert&&(n=i(n),o=i(o)),o<n&&(f=n,n=o,o=f),n==s[0]&&o==s[1]||(s=[n,o])),a&&(c=t[0],u=t[1],i&&(c=c[1],u=u[1]),r=[c,u],a.invert&&(c=a(c),u=a(u)),u<c&&(f=c,c=u,u=f),c==l[0]&&u==l[1]||(l=[c,u])),h):(i&&(e?(n=e[0],o=e[1]):(n=s[0],o=s[1],i.invert&&(n=i.invert(n),o=i.invert(o)),o<n&&(f=n,n=o,o=f))),a&&(r?(c=r[0],u=r[1]):(c=l[0],u=l[1],a.invert&&(c=a.invert(c),u=a.invert(u)),u<c&&(f=c,c=u,u=f))),i&&a?[[n,c],[o,u]]:i?[n,o]:a&&[c,u])},h.clear=function(){return h.empty()||(s=[0,0],l=[0,0],e=r=null),h},h.empty=function(){return!!i&&s[0]==s[1]||!!a&&l[0]==l[1]},t.rebind(h,n,"on")};var ca={n:"ns-resize",e:"ew-resize",s:"ns-resize",w:"ew-resize",nw:"nwse-resize",ne:"nesw-resize",se:"nwse-resize",sw:"nesw-resize"},ua=[["n","e","s","w","nw","ne","se","sw"],["e","w"],["n","s"],[]];function fa(t){return JSON.parse(t.responseText)}function ha(t){var e=i.createRange();return e.selectNode(i.body),e.createContextualFragment(t.responseText)}t.text=he((function(t){return t.responseText})),t.json=function(t,e){return pe(t,"application/json",fa,e)},t.html=function(t,e){return pe(t,"text/html",ha,e)},t.xml=he((function(t){return t.responseXML})),"object"==typeof e&&e.exports?e.exports=t:this.d3=t}).apply(self)},{}],59:[function(t,e,r){"use strict";e.exports=t("./quad")},{"./quad":60}],60:[function(t,e,r){"use strict";var n=t("binary-search-bounds"),i=t("clamp"),a=t("parse-rect"),o=t("array-bounds"),s=t("pick-by-alias"),l=t("defined"),c=t("flatten-vertex-data"),u=t("is-obj"),f=t("dtype"),h=t("math-log2");function p(t,e){for(var r=e[0],n=e[1],a=1/(e[2]-r),o=1/(e[3]-n),s=new Array(t.length),l=0,c=t.length/2;l<c;l++)s[2*l]=i((t[2*l]-r)*a,0,1),s[2*l+1]=i((t[2*l+1]-n)*o,0,1);return s}e.exports=function(t,e){e||(e={}),t=c(t,"float64"),e=s(e,{bounds:"range bounds dataBox databox",maxDepth:"depth maxDepth maxdepth level maxLevel maxlevel levels",dtype:"type dtype format out dst output destination"});var r=l(e.maxDepth,255),i=l(e.bounds,o(t,2));i[0]===i[2]&&i[2]++,i[1]===i[3]&&i[3]++;var d,g=p(t,i),v=t.length>>>1;e.dtype||(e.dtype="array"),"string"==typeof e.dtype?d=new(f(e.dtype))(v):e.dtype&&(d=e.dtype,Array.isArray(d)&&(d.length=v));for(var m=0;m<v;++m)d[m]=m;var y=[],x=[],b=[],_=[];!function t(e,n,i,a,o,s){if(!a.length)return null;var l=y[o]||(y[o]=[]),c=b[o]||(b[o]=[]),u=x[o]||(x[o]=[]),f=l.length;if(++o>r||s>1073741824){for(var h=0;h<a.length;h++)l.push(a[h]),c.push(s),u.push(null,null,null,null);return f}if(l.push(a[0]),c.push(s),a.length<=1)return u.push(null,null,null,null),f;for(var p=.5*i,d=e+p,v=n+p,m=[],_=[],w=[],T=[],k=1,A=a.length;k<A;k++){var M=a[k],S=g[2*M],E=g[2*M+1];S<d?E<v?m.push(M):_.push(M):E<v?w.push(M):T.push(M)}return s<<=2,u.push(t(e,n,p,m,o,s),t(e,v,p,_,o,s+1),t(d,n,p,w,o,s+2),t(d,v,p,T,o,s+3)),f}(0,0,1,d,0,1);for(var w=0,T=0;T<y.length;T++){var k=y[T];if(d.set)d.set(k,w);else for(var A=0,M=k.length;A<M;A++)d[A+w]=k[A];var S=w+y[T].length;_[T]=[w,S],w=S}return d.range=function(){for(var e,r=[],n=arguments.length;n--;)r[n]=arguments[n];if(u(r[r.length-1])){var o=r.pop();r.length||null==o.x&&null==o.l&&null==o.left||(r=[o],e={}),e=s(o,{level:"level maxLevel",d:"d diam diameter r radius px pxSize pixel pixelSize maxD size minSize",lod:"lod details ranges offsets"})}else e={};r.length||(r=i);var c,f=a.apply(void 0,r),d=[Math.min(f.x,f.x+f.width),Math.min(f.y,f.y+f.height),Math.max(f.x,f.x+f.width),Math.max(f.y,f.y+f.height)],g=d[0],v=d[1],m=d[2],b=d[3],_=p([g,v,m,b],i),w=_[0],T=_[1],k=_[2],A=_[3],M=l(e.level,y.length);if(null!=e.d&&("number"==typeof e.d?c=[e.d,e.d]:e.d.length&&(c=e.d),M=Math.min(Math.max(Math.ceil(-h(Math.abs(c[0])/(i[2]-i[0]))),Math.ceil(-h(Math.abs(c[1])/(i[3]-i[1])))),M)),M=Math.min(M,y.length),e.lod)return E(w,T,k,A,M);var S=[];function L(e,r,n,i,a,o){if(null!==a&&null!==o&&!(w>e+n||T>r+n||k<e||A<r||i>=M||a===o)){var s=y[i];void 0===o&&(o=s.length);for(var l=a;l<o;l++){var c=s[l],u=t[2*c],f=t[2*c+1];u>=g&&u<=m&&f>=v&&f<=b&&S.push(c)}var h=x[i],p=h[4*a+0],d=h[4*a+1],_=h[4*a+2],E=h[4*a+3],P=C(h,a+1),I=.5*n,O=i+1;L(e,r,I,O,p,d||_||E||P),L(e,r+I,I,O,d,_||E||P),L(e+I,r,I,O,_,E||P),L(e+I,r+I,I,O,E,P)}}function C(t,e){for(var r=null,n=0;null===r;)if(r=t[4*e+n],++n>t.length)return null;return r}return L(0,0,1,0,0,1),S},d;function E(t,e,r,i,a){for(var o=[],s=0;s<a;s++){var l=b[s],c=_[s][0],u=L(t,e,s),f=L(r,i,s),h=n.ge(l,u),p=n.gt(l,f,h,l.length-1);o[s]=[h+c,p+c]}return o}function L(t,e,r){for(var n=1,i=.5,a=.5,o=.5,s=0;s<r;s++)n<<=2,n+=t<i?e<a?0:1:e<a?2:3,o*=.5,i+=t<i?-o:o,a+=e<a?-o:o;return n}}},{"array-

bounds":71,"binary-search-bounds":80,clamp:86,defined:124,dtype:127,"flatten-vertex-data":191,"is-obj":235,"math-log2":240,"parse-rect":249,"pick-by-alias":253}],61:[function(t,e,r){"use strict";Object.defineProperty(r,"__esModule",{value:!0});var n=t("@turf/meta"),i=6378137;function a(t){var e=0;if(t&&t.length>0){e+=Math.abs(o(t[0]));for(var r=1;r<t.length;r++)e-=Math.abs(o(t[r]))}return e}function o(t){var e,r,n,a,o,l,c=0,u=t.length;if(u>2){for(l=0;l<u;l++)l===u-2?(n=u-2,a=u-1,o=0):l===u-1?(n=u-1,a=0,o=1):(n=l,a=l+1,o=l+2),e=t[n],r=t[a],c+=(s(t[o][0])-s(e[0]))*Math.sin(s(r[1]));c=c*i*i/2}return c}function s(t){return t*Math.PI/180}r.default=function(t){return n.geomReduce(t,(function(t,e){return t+function(t){var e,r=0;switch(t.type){case"Polygon":return a(t.coordinates);case"MultiPolygon":for(e=0;e<t.coordinates.length;e++)r+=a(t.coordinates[e]);return r;case"Point":case"MultiPoint":case"LineString":case"MultiLineString":return 0}return 0}(e)}),0)}},{"@turf/meta":63}],62:[function(t,e,r){"use strict";function n(t,e,r){void 0===r&&(r={});var n={type:"Feature"};return(0===r.id||r.id)&&(n.id=r.id),r.bbox&&(n.bbox=r.bbox),n.properties=e||{},n.geometry=t,n}function i(t,e,r){if(void 0===r&&(r={}),!t)throw new Error("coordinates is required");if(!Array.isArray(t))throw new Error("coordinates must be an Array");if(t.length<2)throw new Error("coordinates must be at least 2 numbers long");if(!d(t[0])||!d(t[1]))throw new Error("coordinates must contain numbers");return n({type:"Point",coordinates:t},e,r)}function a(t,e,r){void 0===r&&(r={});for(var i=0,a=t;i<a.length;i++){var o=a[i];if(o.length<4)throw new Error("Each LinearRing of a Polygon must have 4 or more Positions.");for(var s=0;s<o[o.length-1].length;s++)if(o[o.length-1][s]!==o[0][s])throw new Error("First and last Position are not equivalent.")}return n({type:"Polygon",coordinates:t},e,r)}function o(t,e,r){if(void 0===r&&(r={}),t.length<2)throw new Error("coordinates must be an array of two or more positions");return n({type:"LineString",coordinates:t},e,r)}function s(t,e){void 0===e&&(e={});var r={type:"FeatureCollection"};return e.id&&(r.id=e.id),e.bbox&&(r.bbox=e.bbox),r.features=t,r}function l(t,e,r){return void 0===r&&(r={}),n({type:"MultiLineString",coordinates:t},e,r)}function c(t,e,r){return void 0===r&&(r={}),n({type:"MultiPoint",coordinates:t},e,r)}function u(t,e,r){return void 0===r&&(r={}),n({type:"MultiPolygon",coordinates:t},e,r)}function f(t,e){void 0===e&&(e="kilometers");var n=r.factors[e];if(!n)throw new Error(e+" units is invalid");return t*n}function h(t,e){void 0===e&&(e="kilometers");var n=r.factors[e];if(!n)throw new Error(e+" units is invalid");return t/n}function p(t){return t%(2*Math.PI)*180/Math.PI}function d(t){return!isNaN(t)&&null!==t&&!Array.isArray(t)}Object.defineProperty(r,"__esModule",{value:!0}),r.earthRadius=6371008.8,r.factors={centimeters:100*r.earthRadius,centimetres:100*r.earthRadius,degrees:r.earthRadius/111325,feet:3.28084*r.earthRadius,inches:39.37*r.earthRadius,kilometers:r.earthRadius/1e3,kilometres:r.earthRadius/1e3,meters:r.earthRadius,metres:r.earthRadius,miles:r.earthRadius/1609.344,millimeters:1e3*r.earthRadius,millimetres:1e3*r.earthRadius,nauticalmiles:r.earthRadius/1852,radians:1,yards:1.0936*r.earthRadius},r.unitsFactors={centimeters:100,centimetres:100,degrees:1/111325,feet:3.28084,inches:39.37,kilometers:.001,kilometres:.001,meters:1,metres:1,miles:1/1609.344,millimeters:1e3,millimetres:1e3,nauticalmiles:1/1852,radians:1/r.earthRadius,yards:1.0936133},r.areaFactors={acres:247105e-9,centimeters:1e4,centimetres:1e4,feet:10.763910417,hectares:1e-4,inches:1550.003100006,kilometers:1e-6,kilometres:1e-6,meters:1,metres:1,miles:386e-9,millimeters:1e6,millimetres:1e6,yards:1.195990046},r.feature=n,r.geometry=function(t,e,r){switch(void 0===r&&(r={}),t){case"Point":return i(e).geometry;case"LineString":return o(e).geometry;case"Polygon":return a(e).geometry;case"MultiPoint":return c(e).geometry;case"MultiLineString":return l(e).geometry;case"MultiPolygon":return u(e).geometry;default:throw new Error(t+" is invalid")}},r.point=i,r.points=function(t,e,r){return void 0===r&&(r={}),s(t.map((function(t){return i(t,e)})),r)},r.polygon=a,r.polygons=function(t,e,r){return void 0===r&&(r={}),s(t.map((function(t){return a(t,e)})),r)},r.lineString=o,r.lineStrings=function(t,e,r){return void 0===r&&(r={}),s(t.map((function(t){return o(t,e)})),r)},r.featureCollection=s,r.multiLineString=l,r.multiPoint=c,r.multiPolygon=u,r.geometryCollection=function(t,e,r){return void 0===r&&(r={}),n({type:"GeometryCollection",geometries:t},e,r)},r.round=function(t,e){if(void 0===e&&(e=0),e&&!(e>=0))throw new Error("precision must be a positive number");var

r=Math.pow(10,e||0);return
Math.round(t*r)/r},r.radiansToLength=f,r.lengthToRadians=h,r.lengthToDegrees=function(t,e){return
p(h(t,e))},r.bearingToAzimuth=function(t){var e=t%360;return
e<0&&(e+=360),e},r.radiansToDegrees=p,r.degreesToRadians=function(t){return
t%360*Math.PI/180},r.convertLength=function(t,e,r){if(void 0===e&&(e="kilometers"),void
0===r&&(r="kilometers"),!(t>=0))throw new Error("length must be a positive number");return
f(h(t,e),r)},r.convertArea=function(t,e,n){if(void 0===e&&(e="meters"),void
0===n&&(n="kilometers"),!(t>=0))throw new Error("area must be a positive number");var
i=r.areaFactors[e];if(!i)throw new Error("invalid original units");var a=r.areaFactors[n];if(!a)throw new
Error("invalid final units");return
t/i*a},r.isNumber=d,r.isObject=function(t){return!!t&&t.constructor===Object},r.validateBBox=function(t){if(!t)th
row new Error("bbox is required");if(!Array.isArray(t))throw new Error("bbox must be an
Array");if(4!==t.length&&6!==t.length)throw new Error("bbox must be an Array of 4 or 6
numbers");t.forEach((function(t){if(!d(t))throw new Error("bbox must only contain
numbers")}))},r.validateId=function(t){if(!t)throw new Error("id is required");if(-
1===["string","number"].indexOf(typeof t))throw new Error("id must be a number or a
string")}},{}],63:[function(t,e,r){"use strict";Object.defineProperty(r,"__esModule",{value:!0});var
n=t("@turf/helpers");function i(t,e,r){if(null!==t)for(var
n,a,o,s,l,c,u,f,h=0,p=0,d=t.type,g="FeatureCollection"===d,v="Feature"===d,m=g?t.features.length:1,y=0;y<m;y++
){l=(f=!!(u=g?t.features[y].geometry:v?t.geometry:t)&&"GeometryCollection"===u.type)?u.geometries.length:1;for
(var x=0;x<l;x++){var b=0,_=0;if(null!==(s=f?u.geometries[x]:u)){c=s.coordinates;var
w=s.type;switch(h=!r||"Polygon"!==w&&"MultiPolygon"!==w?0:1,w){case
null:break;case"Point":if(!1===e(c,p,y,b,_))return!1;p++,b++;break;case"LineString":case"MultiPoint":for(n=0;n<c.
length;n++){if(!1===e(c[n],p,y,b,_))return!1;p++,"MultiPoint"===w&&b++}"LineString"===w&&b++;break;case
"Polygon":case"MultiLineString":for(n=0;n<c.length;n++){for(a=0;a<c[n].length-
h;a++){if(!1===e(c[n][a],p,y,b,_))return!1;p++}"MultiLineString"===w&&b++,"Polygon"===w&&_++}"Polygon
"===w&&b++;break;case"MultiPolygon":for(n=0;n<c.length;n++){for(_=0,a=0;a<c[n].length;a++){for(o=0;o<c[n]
[a].length-
h;o++){if(!1===e(c[n][a][o],p,y,b,_))return!1;p++}_++}b++}break;case"GeometryCollection":for(n=0;n<s.geometr
ies.length;n++)if(!1===i(s.geometries[n],e,r))return!1;break;default:throw new Error("Unknown Geometry
Type")}}}}}function a(t,e){var
r;switch(t.type){case"FeatureCollection":for(r=0;r<t.features.length&&!1!==e(t.features[r].properties,r);r++);break;
case"Feature":e(t.properties,0)}}function o(t,e){if("Feature"===t.type)e(t,0);else
if("FeatureCollection"===t.type)for(var r=0;r<t.features.length&&!1!==e(t.features[r],r);r++);}function s(t,e){var
r,n,i,a,o,s,l,c,u,f,h=0,p="FeatureCollection"===t.type,d="Feature"===t.type,g=p?t.features.length:1;for(r=0;r<g;r++)
{for(s=p?t.features[r].geometry:d?t.geometry:t,c=p?t.features[r].properties:d?t.properties:{},u=p?t.features[r].bbox:d
?t.bbox:void 0,f=p?t.features[r].id:d?t.id:void
0,o=(l=!!s&&"GeometryCollection"===s.type)?s.geometries.length:1,i=0;i<o;i++)if(null!==(a=l?s.geometries[i]:s))
switch(a.type){case"Point":case"LineString":case"MultiPoint":case"Polygon":case"MultiLineString":case"MultiPol
ygon":if(!1===e(a,h,c,u,f))return!1;break;case"GeometryCollection":for(n=0;n<a.geometries.length;n++)if(!1===e(
a.geometries[n],h,c,u,f))return!1;break;default:throw new Error("Unknown Geometry Type")}else
if(!1===e(null,h,c,u,f))return!1;h++}}function l(t,e){s(t,(function(t,r,i,a,o){var
s,l=null===t?null:t.type;switch(l){case
null:case"Point":case"LineString":case"Polygon":return!1!==e(n.feature(t,i,{bbox:a,id:o}),r,0)&&void
0}switch(l){case"MultiPoint":s="Point";break;case"MultiLineString":s="LineString";break;case"MultiPolygon":s="
Polygon"}for(var c=0;c<t.coordinates.length;c++){var
u={type:s,coordinates:t.coordinates[c]};if(!1===e(n.feature(u,i),r,c))return!1}}))}function
c(t,e){l(t,(function(t,r,a){var o=0;if(t.geometry){var s=t.geometry.type;if("Point"!==s&&"MultiPoint"!==s){var

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l,c=0,u=0,f=0;return!1!==i(t,(function(i,s,h,p,d){if(void 0===l||r>c||p>u||d>f)return l=i,c=r,u=p,f=d,void(o=0);var
g=n.lineString([l,i],t.properties);if(!1===e(g,r,a,d,o))return!1;o++,l=i}))&&void 0}}}))}function u(t,e){if(!t)throw
new Error("geojson is required");l(t,(function(t,r,i){if(null!==t.geometry){var
a=t.geometry.type,o=t.geometry.coordinates;switch(a){case"LineString":if(!1===e(t,r,i,0,0))return!1;break;case"Pol
ygon":for(var
s=0;s<o.length;s++)if(!1===e(n.lineString(o[s],t.properties),r,i,s))return!1}}}))}r.coordEach=i,r.coordReduce=funct
ion(t,e,r,n){var a=r;return i(t,(function(t,n,i,o,s){a=0===n&&void
0===r?t:e(a,t,n,i,o,s)}),n),a},r.propEach=a,r.propReduce=function(t,e,r){var n=r;return
a(t,(function(t,i){n=0===i&&void 0===r?t:e(n,t,i)})),n},r.featureEach=o,r.featureReduce=function(t,e,r){var
n=r;return o(t,(function(t,i){n=0===i&&void 0===r?t:e(n,t,i)})),n},r.coordAll=function(t){var e=[];return
i(t,(function(t){e.push(t)})),e},r.geomEach=s,r.geomReduce=function(t,e,r){var n=r;return
s(t,(function(t,i,a,o,s){n=0===i&&void
0===r?t:e(n,t,i,a,o,s)})),n},r.flattenEach=l,r.flattenReduce=function(t,e,r){var n=r;return
l(t,(function(t,i,a){n=0===i&&0===a&&void
0===r?t:e(n,t,i,a)})),n},r.segmentEach=c,r.segmentReduce=function(t,e,r){var n=r,i=!1;return
c(t,(function(t,a,o,s,l){n=!1===i&&void
0===r?t:e(n,t,a,o,s,l),i=!0})),n},r.lineEach=u,r.lineReduce=function(t,e,r){var n=r;return
u(t,(function(t,i,a,o){n=0===i&&void
0===r?t:e(n,t,i,a,o)})),n},r.findSegment=function(t,e){if(e=e||{},!n.isObject(e))throw new Error("options is
invalid");var
r,i=e.featureIndex||0,a=e.multiFeatureIndex||0,o=e.geometryIndex||0,s=e.segmentIndex||0,l=e.properties;switch(t.typ
e){case"FeatureCollection":i<0&&(i=t.features.length+i),l=l||t.features[i].properties,r=t.features[i].geometry;break;c
ase"Feature":l=l||t.properties,r=t.geometry;break;case"Point":case"MultiPoint":return
null;case"LineString":case"Polygon":case"MultiLineString":case"MultiPolygon":r=t;break;default:throw new
Error("geojson is invalid")}if(null===r)return null;var
c=r.coordinates;switch(r.type){case"Point":case"MultiPoint":return null;case"LineString":return
s<0&&(s=c.length+s-1),n.lineString([c[s],c[s+1]],l,e);case"Polygon":return
o<0&&(o=c.length+o),s<0&&(s=c[o].length+s-1),n.lineString([c[o][s],c[o][s+1]],l,e);case"MultiLineString":return
a<0&&(a=c.length+a),s<0&&(s=c[a].length+s-1),n.lineString([c[a][s],c[a][s+1]],l,e);case"MultiPolygon":return
a<0&&(a=c.length+a),o<0&&(o=c[a].length+o),s<0&&(s=c[a][o].length-s-
1),n.lineString([c[a][o][s],c[a][o][s+1]],l,e)}throw new Error("geojson is
invalid")},r.findPoint=function(t,e){if(e=e||{},!n.isObject(e))throw new Error("options is invalid");var
r,i=e.featureIndex||0,a=e.multiFeatureIndex||0,o=e.geometryIndex||0,s=e.coordIndex||0,l=e.properties;switch(t.type){
case"FeatureCollection":i<0&&(i=t.features.length+i),l=l||t.features[i].properties,r=t.features[i].geometry;break;case
"Feature":l=l||t.properties,r=t.geometry;break;case"Point":case"MultiPoint":return
null;case"LineString":case"Polygon":case"MultiLineString":case"MultiPolygon":r=t;break;default:throw new
Error("geojson is invalid")}if(null===r)return null;var c=r.coordinates;switch(r.type){case"Point":return
n.point(c,l,e);case"MultiPoint":return a<0&&(a=c.length+a),n.point(c[a],l,e);case"LineString":return
s<0&&(s=c.length+s),n.point(c[s],l,e);case"Polygon":return
o<0&&(o=c.length+o),s<0&&(s=c[o].length+s),n.point(c[o][s],l,e);case"MultiLineString":return
a<0&&(a=c.length+a),s<0&&(s=c[a].length+s),n.point(c[a][s],l,e);case"MultiPolygon":return
a<0&&(a=c.length+a),o<0&&(o=c[a].length+o),s<0&&(s=c[a][o].length-s),n.point(c[a][o][s],l,e)}throw new
Error("geojson is invalid")}},{"@turf/helpers":62}],64:[function(t,e,r){"use
strict";Object.defineProperty(r,"__esModule",{value:!0});var n=t("@turf/meta");function i(t){var e=[1/0,1/0,-1/0,-
1/0];return
n.coordEach(t,(function(t){e[0]>t[0]&&(e[0]=t[0]),e[1]>t[1]&&(e[1]=t[1]),e[2]<t[0]&&(e[2]=t[0]),e[3]<t[1]&&(e[
3]=t[1])})),e}i.default=i,r.default=i},{"@turf/meta":66}],65:[function(t,e,r){arguments[4][62][0].apply(r,arguments)
},{dup:62}],66:[function(t,e,r){arguments[4][63][0].apply(r,arguments)},{"@turf/helpers":65,dup:63}],67:[function
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(t,e,r){"use strict";Object.defineProperty(r,"__esModule",{value:!0});var n=t("@turf/meta"),i=t("@turf/helpers");r.default=function(t,e){void 0===e&&(e={});var r=0,a=0,o=0;return n.coordEach(t,(function(t){r+=t[0],a+=t[1],o++})),i.point([r/o,a/o],e.properties)}},{"@turf/helpers":68,"@turf/meta":69}],68:[function(t,e,r){"use strict";function n(t,e,r){void 0===r&&(r={});var n={type:"Feature"};return(0===r.id||r.id)&&(n.id=r.id),r.bbox&&(n.bbox=r.bbox),n.properties=e||{},n.geometry=t,n}function i(t,e,r){return void 0===r&&(r={}),n({type:"Point",coordinates:t},e,r)}function a(t,e,r){void 0===r&&(r={});for(var i=0,a=t;i<a.length;i++){var o=a[i];if(o.length<4)throw new Error("Each LinearRing of a Polygon must have 4 or more Positions.");for(var s=0;s<o[o.length-1].length;s++)if(o[o.length-1][s]!==o[0][s])throw new Error("First and last Position are not equivalent.")}return n({type:"Polygon",coordinates:t},e,r)}function o(t,e,r){if(void 0===r&&(r={}),t.length<2)throw new Error("coordinates must be an array of two or more positions");return n({type:"LineString",coordinates:t},e,r)}function s(t,e){void 0===e&&(e={});var r={type:"FeatureCollection"};return e.id&&(r.id=e.id),e.bbox&&(r.bbox=e.bbox),r.features=t,r}function l(t,e,r){return void 0===r&&(r={}),n({type:"MultiLineString",coordinates:t},e,r)}function c(t,e,r){return void 0===r&&(r={}),n({type:"MultiPoint",coordinates:t},e,r)}function u(t,e,r){return void 0===r&&(r={}),n({type:"MultiPolygon",coordinates:t},e,r)}function f(t,e){void 0===e&&(e="kilometers");var n=r.factors[e];if(!n)throw new Error(e+" units is invalid");return t*n}function h(t,e){void 0===e&&(e="kilometers");var n=r.factors[e];if(!n)throw new Error(e+" units is invalid");return t/n}function p(t){return t%(2*Math.PI)*180/Math.PI}function d(t){return!isNaN(t)&&null!==t&&!Array.isArray(t)&&!/^\s*$/.test(t)}Object.defineProperty(r,"__esModule",{value:!0}),r.earthRadius=6371008.8,r.factors={centimeters:100*r.earthRadius,centimetres:100*r.earthRadius,degrees:r.earthRadius/111325,feet:3.28084*r.earthRadius,inches:39.37*r.earthRadius,kilometers:r.earthRadius/1e3,kilometres:r.earthRadius/1e3,meters:r.earthRadius,metres:r.earthRadius,miles:r.earthRadius/1609.344,millimeters:1e3*r.earthRadius,millimetres:1e3*r.earthRadius,nauticalmiles:r.earthRadius/1852,radians:1,yards:r.earthRadius/1.0936},r.unitsFactors={centimeters:100,centimetres:100,degrees:1/111325,feet:3.28084,inches:39.37,kilometers:.001,kilometres:.001,meters:1,metres:1,miles:1/1609.344,millimeters:1e3,millimetres:1e3,nauticalmiles:1/1852,radians:1/r.earthRadius,yards:1/1.0936},r.areaFactors={acres:247105e-9,centimeters:1e4,centimetres:1e4,feet:10.763910417,inches:1550.003100006,kilometers:1e-6,kilometres:1e-6,meters:1,metres:1,miles:386e-9,millimeters:1e6,millimetres:1e6,yards:1.195990046},r.feature=n,r.geometry=function(t,e,r){switch(void 0===r&&(r={}),t){case"Point":return i(e).geometry;case"LineString":return o(e).geometry;case"Polygon":return a(e).geometry;case"MultiPoint":return c(e).geometry;case"MultiLineString":return l(e).geometry;case"MultiPolygon":return u(e).geometry;default:throw new Error(t+" is invalid")}},r.point=i,r.points=function(t,e,r){return void 0===r&&(r={}),s(t.map((function(t){return i(t,e)})),r)},r.polygon=a,r.polygons=function(t,e,r){return void 0===r&&(r={}),s(t.map((function(t){return a(t,e)})),r)},r.lineString=o,r.lineStrings=function(t,e,r){return void 0===r&&(r={}),s(t.map((function(t){return o(t,e)})),r)},r.featureCollection=s,r.multiLineString=l,r.multiPoint=c,r.multiPolygon=u,r.geometryCollection=function(t,e,r){return void 0===r&&(r={}),n({type:"GeometryCollection",geometries:t},e,r)},r.round=function(t,e){if(void 0===e&&(e=0),e&&!(e>=0))throw new Error("precision must be a positive number");var r=Math.pow(10,e||0);return Math.round(t*r)/r},r.radiansToLength=f,r.lengthToRadians=h,r.lengthToDegrees=function(t,e){return p(h(t,e))},r.bearingToAzimuth=function(t){var e=t%360;return e<0&&(e+=360),e},r.radiansToDegrees=p,r.degreesToRadians=function(t){return t%360*Math.PI/180},r.convertLength=function(t,e,r){if(void 0===e&&(e="kilometers"),void 0===r&&(r="kilometers"),!(t>=0))throw new Error("length must be a positive number");return f(h(t,e),r)},r.convertArea=function(t,e,n){if(void 0===e&&(e="meters"),void 0===n&&(n="kilometers"),!(t>=0))throw new Error("area must be a positive number");var

i=r.areaFactors[e];if(!i)throw new Error("invalid original units");var a=r.areaFactors[n];if(!a)throw new Error("invalid final units");return t/i*a},r.isNumber=d,r.isObject=function(t){return!!t&&t.constructor===Object},r.validateBBox=function(t){if(!t)throw new Error("bbox is required");if(!Array.isArray(t))throw new Error("bbox must be an Array");if(4!==t.length&&6!==t.length)throw new Error("bbox must be an Array of 4 or 6 numbers");t.forEach((function(t){if(!d(t))throw new Error("bbox must only contain numbers")}))},r.validateId=function(t){if(!t)throw new Error("id is required");if(-1===["string","number"].indexOf(typeof t))throw new Error("id must be a number or a string")},r.radians2degrees=function(){throw new Error("method has been renamed to `radiansToDegrees`")},r.degrees2radians=function(){throw new Error("method has been renamed to `degreesToRadians`")},r.distanceToDegrees=function(){throw new Error("method has been renamed to `lengthToDegrees`")},r.distanceToRadians=function(){throw new Error("method has been renamed to `lengthToRadians`")},r.radiansToDistance=function(){throw new Error("method has been renamed to `radiansToLength`")},r.bearingToAngle=function(){throw new Error("method has been renamed to `bearingToAzimuth`")},r.convertDistance=function(){throw new Error("method has been renamed to `convertLength`")}},{}],69:[function(t,e,r){"use strict";Object.defineProperty(r,"__esModule",{value:!0});var n=t("@turf/helpers");function i(t,e,r){if(null!==t)for(var n,a,o,s,l,c,u,f,h=0,p=0,d=t.type,g="FeatureCollection"===d,v="Feature"===d,m=g?t.features.length:1,y=0;y<m;y++){l=(f=!!(u=g?t.features[y].geometry:v?t.geometry:t)&&"GeometryCollection"===u.type)?u.geometries.length:1;for(var x=0;x<l;x++){var b=0,_=0;if(null!==(s=f?u.geometries[x]:u)){c=s.coordinates;var w=s.type;switch(h=!r||"Polygon"!==w&&"MultiPolygon"!==w?0:1,w){case null:break;case"Point":if(!1===e(c,p,y,b,_))return!1;p++,b++;break;case"LineString":case"MultiPoint":for(n=0;n<c.length;n++){if(!1===e(c[n],p,y,b,_))return!1;p++,"MultiPoint"===w&&b++}"LineString"===w&&b++;break;case"Polygon":case"MultiLineString":for(n=0;n<c.length;n++){for(a=0;a<c[n].length-h;a++){if(!1===e(c[n][a],p,y,b,_))return!1;p++}"MultiLineString"===w&&b++,"Polygon"===w&&_++}"Polygon"===w&&b++;break;case"MultiPolygon":for(n=0;n<c.length;n++){for(_=0,a=0;a<c[n].length;a++){for(o=0;o<c[n][a].length-h;o++){if(!1===e(c[n][a][o],p,y,b,_))return!1;p++}_++}b++}break;case"GeometryCollection":for(n=0;n<s.geometries.length;n++)if(!1===i(s.geometries[n],e,r))return!1;break;default:throw new Error("Unknown Geometry Type")}}}}}function a(t,e){var r;switch(t.type){case"FeatureCollection":for(r=0;r<t.features.length&&!1!==e(t.features[r].properties,r);r++);break;case"Feature":e(t.properties,0)}}function o(t,e){if("Feature"===t.type)e(t,0);else if("FeatureCollection"===t.type)for(var r=0;r<t.features.length&&!1!==e(t.features[r],r);r++);}function s(t,e){var r,n,i,a,o,s,l,c,u,f,h=0,p="FeatureCollection"===t.type,d="Feature"===t.type,g=p?t.features.length:1;for(r=0;r<g;r++){for(s=p?t.features[r].geometry:d?t.geometry:t,c=p?t.features[r].properties:d?t.properties:{},u=p?t.features[r].bbox:d?t.bbox:void 0,f=p?t.features[r].id:d?t.id:void 0,o=(l=!!s&&"GeometryCollection"===s.type)?s.geometries.length:1,i=0;i<o;i++)if(null!==(a=l?s.geometries[i]:s))switch(a.type){case"Point":case"LineString":case"MultiPoint":case"Polygon":case"MultiLineString":case"MultiPolygon":if(!1===e(a,h,c,u,f))return!1;break;case"GeometryCollection":for(n=0;n<a.geometries.length;n++)if(!1===e(a.geometries[n],h,c,u,f))return!1;break;default:throw new Error("Unknown Geometry Type")}else if(!1===e(null,h,c,u,f))return!1;h++}}function l(t,e){s(t,(function(t,r,i,a,o){var s,l=null===t?null:t.type;switch(l){case null:case"Point":case"LineString":case"Polygon":return!1!==e(n.feature(t,i,{bbox:a,id:o}),r,0)&&void 0}switch(l){case"MultiPoint":s="Point";break;case"MultiLineString":s="LineString";break;case"MultiPolygon":s="Polygon"}for(var c=0;c<t.coordinates.length;c++){var u={type:s,coordinates:t.coordinates[c]};if(!1===e(n.feature(u,i),r,c))return!1}}))}function c(t,e){l(t,(function(t,r,a){var o=0;if(t.geometry){var s=t.geometry.type;if("Point"!==s&&"MultiPoint"!==s){var l,c=0,u=0,f=0;return!1!==i(t,(function(i,s,h,p,d){if(void 0===l||r>c||p>u||d>f)return l=i,c=r,u=p,f=d,void(o=0);var

g=n.lineString([l,i],t.properties);if(!1===e(g,r,a,d,o))return!1;o++,l=i}))&&void 0}}}))}function u(t,e){if(!t)throw new Error("geojson is required");l(t,(function(t,r,i){if(null!==t.geometry){var a=t.geometry.type,o=t.geometry.coordinates;switch(a){case"LineString":if(!1===e(t,r,i,0,0))return!1;break;case"Polygon":for(var s=0;s<o.length;s++)if(!1===e(n.lineString(o[s],t.properties),r,i,s))return!1}}}))}r.coordEach=i,r.coordReduce=function(t,e,r,n){var a=r;return i(t,(function(t,n,i,o,s){a=0===n&&void 0===r?t:e(a,t,n,i,o,s)}),n),a},r.propEach=a,r.propReduce=function(t,e,r){var n=r;return a(t,(function(t,i){n=0===i&&void 0===r?t:e(n,t,i)})),n},r.featureEach=o,r.featureReduce=function(t,e,r){var n=r;return o(t,(function(t,i){n=0===i&&void 0===r?t:e(n,t,i)})),n},r.coordAll=function(t){var e=[];return i(t,(function(t){e.push(t)})),e},r.geomEach=s,r.geomReduce=function(t,e,r){var n=r;return s(t,(function(t,i,a,o,s){n=0===i&&void 0===r?t:e(n,t,i,a,o,s)})),n},r.flattenEach=l,r.flattenReduce=function(t,e,r){var n=r;return l(t,(function(t,i,a){n=0===i&&0===a&&void 0===r?t:e(n,t,i,a)})),n},r.segmentEach=c,r.segmentReduce=function(t,e,r){var n=r,i=!1;return c(t,(function(t,a,o,s,l){n=!1===i&&void 0===r?t:e(n,t,a,o,s,l),i=!0})),n},r.lineEach=u,r.lineReduce=function(t,e,r){var n=r;return u(t,(function(t,i,a,o){n=0===i&&void 0===r?t:e(n,t,i,a,o)})),n},r.findSegment=function(t,e){if(e=e||{},!n.isObject(e))throw new Error("options is invalid");var r,i=e.featureIndex||0,a=e.multiFeatureIndex||0,o=e.geometryIndex||0,s=e.segmentIndex||0,l=e.properties;switch(t.type){case"FeatureCollection":i<0&&(i=t.features.length+i),l=l||t.features[i].properties,r=t.features[i].geometry;break;case"Feature":l=l||t.properties,r=t.geometry;break;case"Point":case"MultiPoint":return null;case"LineString":case"Polygon":case"MultiLineString":case"MultiPolygon":r=t;break;default:throw new Error("geojson is invalid")}if(null===r)return null;var c=r.coordinates;switch(r.type){case"Point":case"MultiPoint":return null;case"LineString":return s<0&&(s=c.length+s-1),n.lineString([c[s],c[s+1]],l,e);case"Polygon":return o<0&&(o=c.length+o),s<0&&(s=c[o].length+s-1),n.lineString([c[o][s],c[o][s+1]],l,e);case"MultiLineString":return a<0&&(a=c.length+a),s<0&&(s=c[a].length+s-1),n.lineString([c[a][s],c[a][s+1]],l,e);case"MultiPolygon":return a<0&&(a=c.length+a),o<0&&(o=c[a].length+o),s<0&&(s=c[a][o].length-s-1),n.lineString([c[a][o][s],c[a][o][s+1]],l,e)}throw new Error("geojson is invalid")},r.findPoint=function(t,e){if(e=e||{},!n.isObject(e))throw new Error("options is invalid");var r,i=e.featureIndex||0,a=e.multiFeatureIndex||0,o=e.geometryIndex||0,s=e.coordIndex||0,l=e.properties;switch(t.type){case"FeatureCollection":i<0&&(i=t.features.length+i),l=l||t.features[i].properties,r=t.features[i].geometry;break;case"Feature":l=l||t.properties,r=t.geometry;break;case"Point":case"MultiPoint":return null;case"LineString":case"Polygon":case"MultiLineString":case"MultiPolygon":r=t;break;default:throw new Error("geojson is invalid")}if(null===r)return null;var c=r.coordinates;switch(r.type){case"Point":return n.point(c,l,e);case"MultiPoint":return a<0&&(a=c.length+a),n.point(c[a],l,e);case"LineString":return s<0&&(s=c.length+s),n.point(c[s],l,e);case"Polygon":return o<0&&(o=c.length+o),s<0&&(s=c[o].length+s),n.point(c[o][s],l,e);case"MultiLineString":return a<0&&(a=c.length+a),s<0&&(s=c[a].length+s),n.point(c[a][s],l,e);case"MultiPolygon":return a<0&&(a=c.length+a),o<0&&(o=c[a].length+o),s<0&&(s=c[a][o].length-s),n.point(c[a][o][s],l,e)}throw new Error("geojson is invalid")}},{"@turf/helpers":68}],70:[function(t,e,r){e.exports=function(t){var e=0,r=0,n=0,i=0;return t.map((function(t){var a=(t=t.slice())[0],o=a.toUpperCase();if(a!=o)switch(t[0]=o,a){case"a":t[6]+=n,t[7]+=i;break;case"v":t[1]+=i;break;case"h":t[1]+=n;break;default:for(var s=1;s<t.length;)t[s++]+=n,t[s++]+=i}switch(o){case"Z":n=e,i=r;break;case"H":n=t[1];break;case"V":i=t[1];break;case"M":n=e=t[1],i=r=t[2];break;default:n=t[t.length-2],i=t[t.length-1]}return t}))}},{}],71:[function(t,e,r){"use strict";e.exports=function(t,e){if(!t||null==t.length)throw Error("Argument should be an

array");e=null==e?1:Math.floor(e);for(var r=Array(2*e),n=0;n<e;n++){for(var i=-1/0,a=1/0,o=n,s=t.length;o<s;o+=e)t[o]>i&&(i=t[o]),t[o]<a&&(a=t[o]);r[n]=a,r[e+n]=i}return r}},{}],72:[function(t,e,r){"use strict";e.exports=function(t,e,r){if("function"==typeof Array.prototype.findIndex)return t.findIndex(e,r);if("function"!=typeof e)throw new TypeError("predicate must be a function");var n=Object(t),i=n.length;if(0===i)return-1;for(var a=0;a<i;a++)if(e.call(r,n[a],a,n))return a;return-1}},{}],73:[function(t,e,r){"use strict";var n=t("array-bounds");e.exports=function(t,e,r){if(!t||null==t.length)throw Error("Argument should be an array");null==e&&(e=1),null==r&&(r=n(t,e));for(var i=0;i<e;i++){var a=r[e+i],o=r[i],s=i,l=t.length;if(a===1/0&&o===-1/0)for(s=i;s<l;s+=e)t[s]=t[s]===a?1:t[s]===o?0:.5;else if(a===1/0)for(s=i;s<l;s+=e)t[s]=t[s]===a?1:0;else if(o===-1/0)for(s=i;s<l;s+=e)t[s]=t[s]===o?0:1;else{var c=a-o;for(s=i;s<l;s+=e)isNaN(t[s])||(t[s]=0===c?.5:(t[s]-o)/c)}return t}},{"array-bounds":71}],74:[function(t,e,r){e.exports=function(t,e){var r="number"==typeof t,n="number"==typeof e;r&&!n?(e=t,t=0):r||n||(t=0,e=0);var i=(e|=0)-(t|=0);if(i<0)throw new Error("array length must be positive");for(var a=new Array(i),o=0,s=t;o<i;o++,s++)a[o]=s;return a}},{}],75:[function(t,e,n){(function(r){(function(){"use strict";var n=t("object-assign");function i(t,e){if(t===e)return 0;for(var r=t.length,n=e.length,i=0,a=Math.min(r,n);i<a;++i)if(t[i]!==e[i]){r=t[i],n=e[i];break}return r<n?-1:n<r?1:0}function a(t){return r.Buffer&&"function"==typeof r.Buffer.isBuffer?r.Buffer.isBuffer(t):!(null==t||!t._isBuffer)}var o=t("util/"),s=Object.prototype.hasOwnProperty,l=Array.prototype.slice,c="foo"===function(){}.name;function u(t){return Object.prototype.toString.call(t)}function f(t){return!a(t)&&"function"==typeof r.ArrayBuffer&&("function"==typeof ArrayBuffer.isView?ArrayBuffer.isView(t):!!t&&(t instanceof DataView||!!(t.buffer&&t.buffer instanceof ArrayBuffer)))}var h=e.exports=y,p=/\s*function\s+([^\(\s]*)\s*/;function d(t){if(o.isFunction(t)){if(c)return t.name;var e=t.toString().match(p);return e&&e[1]}}function g(t,e){return"string"==typeof t?t.length<e?t:t.slice(0,e):t}function v(t){if(c||!o.isFunction(t))return o.inspect(t);var e=d(t);return"[Function"+(e?": "+e:"")+"]"}function m(t,e,r,n,i){throw new h.AssertionError({message:r,actual:t,expected:e,operator:n,stackStartFunction:i})}function y(t,e){t||m(t,!0,e,"==",h.ok)}function x(t,e,r,n){if(t===e)return!0;if(a(t)&&a(e))return 0===i(t,e);if(o.isDate(t)&&o.isDate(e))return t.getTime()===e.getTime();if(o.isRegExp(t)&&o.isRegExp(e))return t.source===e.source&&t.global===e.global&&t.multiline===e.multiline&&t.lastIndex===e.lastIndex&&t.ignoreCase===e.ignoreCase;if(null!==t&&"object"==typeof t||null!==e&&"object"==typeof e){if(f(t)&&f(e)&&u(t)===u(e)&&!(t instanceof Float32Array||t instanceof Float64Array))return 0===i(new Uint8Array(t.buffer),new Uint8Array(e.buffer));if(a(t)!==a(e))return!1;var s=(n=n||{actual:[],expected:[]}).actual.indexOf(t);return-1!==s&&s===n.expected.indexOf(e)||(n.actual.push(t),n.expected.push(e),function(t,e,r,n){if(null==t||null==e)return!1;if(o.isPrimitive(t)||o.isPrimitive(e))return t===e;if(r&&Object.getPrototypeOf(t)!==Object.getPrototypeOf(e))return!1;var i=b(t),a=b(e);if(i&&!a||!i&&a)return!1;if(i)return x(t=l.call(t),e=l.call(e),r);var s,c,u=T(t),f=T(e);if(u.length!==f.length)return!1;for(u.sort(),f.sort(),c=u.length-1;c>=0;c--)if(u[c]!==f[c])return!1;for(c=u.length-1;c>=0;c--)if(!x(t[s=u[c]],e[s],r,n))return!1;return!0}(t,e,r,n))}return r?t===e:t==e}function b(t){return"[object Arguments]"==Object.prototype.toString.call(t)}function _(t,e){if(!t||!e)return!1;if("[object RegExp]"==Object.prototype.toString.call(e))return e.test(t);try{if(t instanceof e)return!0}catch(t){}return!Error.isPrototypeOf(e)&&!0===e.call({},t)}function w(t,e,r,n){var i;if("function"!=typeof e)throw new TypeError('"block" argument must be a function');"string"==typeof r&&(n=r,r=null),i=function(t){var e;try{t()}catch(t){e=t}return e}(e),n=(r&&r.name?" ("+r.name+").":".")+(n?" "+n:"."),t&&!i&&m(i,r,"Missing expected exception"+n);var a="string"==typeof n,s=!t&&i&&!r;if((!t&&o.isError(i)&&a&&_(i,r)||s)&&m(i,r,"Got unwanted exception"+n),t&&i&&r&&!_(i,r)||!t&&i)throw i}h.AssertionError=function(t){this.name="AssertionError",this.actual=t.actual,this.expected=t.expected,this.operator=t.operator,t.message?(this.message=t.message,this.generatedMessage=!1):(this.message=function(t){return g(v(t.actual),128)+" "+t.operator+" "+g(v(t.expected),128)}(this),this.generatedMessage=!0);var

e=t.stackStartFunction||m;if(Error.captureStackTrace)Error.captureStackTrace(this,e);else{var r=new Error;if(r.stack){var n=r.stack,i=d(e),a=n.indexOf("\n"+i);if(a>=0){var o=n.indexOf("\n",a+1);n=n.substring(o+1)}this.stack=n}}},o.inherits(h.AssertionError,Error),h.fail=m,h.ok=y,h.equal=function(t,e,r){t!=e&&m(t,e,r,"==",h.equal)},h.notEqual=function(t,e,r){t==e&&m(t,e,r,"!=",h.notEqual)},h.deepEqual=function(t,e,r){x(t,e,!1)||m(t,e,r,"deepEqual",h.deepEqual)},h.deepStrictEqual=function(t,e,r){x(t,e,!0)||m(t,e,r,"deepStrictEqual",h.deepStrictEqual)},h.notDeepEqual=function(t,e,r){x(t,e,!1)&&m(t,e,r,"notDeepEqual",h.notDeepEqual)},h.notDeepStrictEqual=function t(e,r,n){x(e,r,!0)&&m(e,r,n,"notDeepStrictEqual",t)},h.strictEqual=function(t,e,r){t!==e&&m(t,e,r,"===",h.strictEqual)},h.notStrictEqual=function(t,e,r){t===e&&m(t,e,r,"!==",h.notStrictEqual)},h.throws=function(t,e,r){w(!0,t,e,r)},h.doesNotThrow=function(t,e,r){w(!1,t,e,r)},h.ifError=function(t){if(t)throw t},h.strict=n((function t(e,r){e||m(e,!0,r,"==",t)}),h,{equal:h.strictEqual,deepEqual:h.deepStrictEqual,notEqual:h.notStrictEqual,notDeepEqual:h.notDeepStrictEqual}),h.strict.strict=h.strict;var T=Object.keys||function(t){var e=[];for(var r in t)s.call(t,r)&&e.push(r);return e}}).call(this)}).call(this,void 0!==r.g?r.g:"undefined"!=typeof self?self:"undefined"!=typeof window?window:{})},{"object-assign":247,"util/":78}],76:[function(t,e,r){"function"==typeof Object.create?e.exports=function(t,e){t.super_=e,t.prototype=Object.create(e.prototype,{constructor:{value:t,enumerable:!1,writable:!0,configurable:!0}})}:e.exports=function(t,e){t.super_=e;var r=function(){};r.prototype=e.prototype,t.prototype=new r,t.prototype.constructor=t}},{}],77:[function(t,e,r){e.exports=function(t){return t&&"object"==typeof t&&"function"==typeof t.copy&&"function"==typeof t.fill&&"function"==typeof t.readUInt8}},{}],78:[function(t,e,n){(function(e,r){(function(){var i=/%[sdj%]/g;n.format=function(t){if(!m(t)){for(var e=[],r=0;r<arguments.length;r++)e.push(s(arguments[r]));return e.join(" ")}r=1;for(var n=arguments,a=n.length,o=String(t).replace(i,(function(t){if("%%"===t)return"%";if(r>=a)return t;switch(t){case"%s":return String(n[r++]);case"%d":return Number(n[r++]);case"%j":try{return JSON.stringify(n[r++])}catch(t){return"[Circular]"}default:return t}})),l=n[r];r<a;l=n[++r])g(l)||!b(l)?o+=" "+l:o+=" "+s(l);return o},n.deprecate=function(t,i){if(y(r.process))return function(){return n.deprecate(t,i).apply(this,arguments)};if(!0===e.noDeprecation)return t;var a=!1;return function(){if(!a){if(e.throwDeprecation)throw new Error(i);e.traceDeprecation?console.trace(i):console.error(i),a=!0}return t.apply(this,arguments)}};var a,o={};function s(t,e){var r={seen:[],stylize:c};return arguments.length>=3&&(r.depth=arguments[2]),arguments.length>=4&&(r.colors=arguments[3]),d(e)?r.showHidden=e:e&&n._extend(r,e),y(r.showHidden)&&(r.showHidden=!1),y(r.depth)&&(r.depth=2),y(r.colors)&&(r.colors=!1),y(r.customInspect)&&(r.customInspect=!0),r.colors&&(r.stylize=l),u(r,t,r.depth)}function l(t,e){var r=s.styles[e];return r?"["+s.colors[r][0]+"m"+t+"["+s.colors[r][1]+"m":t}function c(t,e){return t}function u(t,e,r){if(t.customInspect&&e&&T(e.inspect)&&e.inspect!==n.inspect&&(!e.constructor||e.constructor.prototype!==e)){var i=e.inspect(r,t);return m(i)||(i=u(t,i,r)),i}var a=function(t,e){if(y(e))return t.stylize("undefined","undefined");if(m(e)){var r="'"+JSON.stringify(e).replace(/^"|"$/g,"").replace(/'/g,"\\'").replace(/\\"/g,'"')+"'";return t.stylize(r,"string")}return v(e)?t.stylize(""+e,"number"):d(e)?t.stylize(""+e,"boolean"):g(e)?t.stylize("null","null"):void 0}(t,e);if(a)return a;var o=Object.keys(e),s=function(t){var e={};return t.forEach((function(t,r){e[t]=!0})),e}(o);if(t.showHidden&&(o=Object.getOwnPropertyNames(e)),w(e)&&(o.indexOf("message")>=0||o.indexOf("description")>=0))return f(e);if(0===o.length){if(T(e)){var l=e.name?": "+e.name:"";return t.stylize("[Function"+l+"]","special")}if(x(e))return t.stylize(RegExp.prototype.toString.call(e),"regexp");if(_(e))return t.stylize(Date.prototype.toString.call(e),"date");if(w(e))return f(e)}var c,b="",k=!1,A=["{","}"];return p(e)&&(k=!0,A=["[","]"]),T(e)&&(b=" [Function"+(e.name?": "+e.name:"")+"]"),x(e)&&(b=" "+RegExp.prototype.toString.call(e)),_(e)&&(b=" "+Date.prototype.toUTCString.call(e)),w(e)&&(b="

"+f(e)),0!==o.length||k&&0!=e.length?r<0?x(e)?t.stylize(RegExp.prototype.toString.call(e),"regexp"):t.stylize("[Object]","special"):(t.seen.push(e),c=k?function(t,e,r,n,i){for(var a=[],o=0,s=e.length;o<s;++o)E(e,String(o))?a.push(h(t,e,r,n,String(o),!0)):a.push("");return i.forEach((function(i){i.match(/^\d+$/)||a.push(h(t,e,r,n,i,!0))})),a}(t,e,r,s,o):o.map((function(n){return h(t,e,r,s,n,k)})),t.seen.pop(),function(t,e,r){return t.reduce((function(t,e){return e.indexOf("\n"),t+e.replace(/\u001b\[\d\d?m/g,"").length+1}),0)>60?r[0]+(""===e?"":e+"\n ")+" "+t.join(",\n ")+" "+r[1]:r[0]+e+" "+t.join(", ")+" "+r[1]}(c,b,A)):A[0]+b+A[1]}function f(t){return"["+Error.prototype.toString.call(t)+"]"}function h(t,e,r,n,i,a){var o,s,l;if((l=Object.getOwnPropertyDescriptor(e,i)||{value:e[i]}).get?s=l.set?t.stylize("[Getter/Setter]","special"):t.stylize("[Getter]","special"):l.set&&(s=t.stylize("[Setter]","special")),E(n,i)||(o="["+i+"]"),s||(t.seen.indexOf(l.value)<0?(s=g(r)?u(t,l.value,null):u(t,l.value,r-1)).indexOf("\n")>-1&&(s=a?s.split("\n").map((function(t){return" "+t})).join("\n").substr(2):"\n"+s.split("\n").map((function(t){return" "+t})).join("\n")):s=t.stylize("[Circular]","special")),y(o)){if(a&&i.match(/^\d+$/))return s;(o=JSON.stringify(""+i)).match(/^"([a-zA-Z_][a-zA-Z_0-9]*)"$/)?(o=o.substr(1,o.length-2),o=t.stylize(o,"name")):(o=o.replace(/'/g,"\\'").replace(/\\"/g,"").replace(/(^"|"$)/g,"'"),o=t.stylize(o,"string"))}return o+": "+s}function p(t){return Array.isArray(t)}function d(t){return"boolean"==typeof t}function g(t){return null===t}function v(t){return"number"==typeof t}function m(t){return"string"==typeof t}function y(t){return void 0===t}function x(t){return b(t)&&"[object RegExp]"===k(t)}function b(t){return"object"==typeof t&&null!==t}function _(t){return b(t)&&"[object Date]"===k(t)}function w(t){return b(t)&&("[object Error]"===k(t)||t instanceof Error)}function T(t){return"function"==typeof t}function k(t){return Object.prototype.toString.call(t)}function A(t){return t<10?"0"+t.toString(10):t.toString(10)}n.debuglog=function(t){if(y(a)&&(a=e.env.NODE_DEBUG||""),t=t.toUpperCase(),!o[t])if(new RegExp("\\b"+t+"\\b","i").test(a)){var r=e.pid;o[t]=function(){var e=n.format.apply(n,arguments);console.error("%s %d: %s",t,r,e)}}else o[t]=function(){};return o[t]},n.inspect=s,s.colors={bold:[1,22],italic:[3,23],underline:[4,24],inverse:[7,27],white:[37,39],grey:[90,39],black:[30,39],blue:[34,39],cyan:[36,39],green:[32,39],magenta:[35,39],red:[31,39],yellow:[33,39]},s.styles={special:"cyan",number:"yellow",boolean:"yellow",undefined:"grey",null:"bold",string:"green",date:"magenta",regexp:"red"},n.isArray=p,n.isBoolean=d,n.isNull=g,n.isNullOrUndefined=function(t){return null==t},n.isNumber=v,n.isString=m,n.isSymbol=function(t){return"symbol"==typeof t},n.isUndefined=y,n.isRegExp=x,n.isObject=b,n.isDate=_,n.isError=w,n.isFunction=T,n.isPrimitive=function(t){return null===t||"boolean"==typeof t||"number"==typeof t||"string"==typeof t||"symbol"==typeof t||void 0===t},n.isBuffer=t("./support/isBuffer");var M=["Jan","Feb","Mar","Apr","May","Jun","Jul","Aug","Sep","Oct","Nov","Dec"];function S(){var t=new Date,e=[A(t.getHours()),A(t.getMinutes()),A(t.getSeconds())].join(":");return[t.getDate(),M[t.getMonth()],e].join(" ")}function E(t,e){return Object.prototype.hasOwnProperty.call(t,e)}n.log=function(){console.log("%s - %s",S(),n.format.apply(n,arguments))},n.inherits=t("inherits"),n._extend=function(t,e){if(!e||!b(e))return t;for(var r=Object.keys(e),n=r.length;n--;)t[r[n]]=e[r[n]];return t}}).call(this)}).call(this,t("_process"),void 0!==r.g?r.g:"undefined"!=typeof self?self:"undefined"!=typeof window?window:{})},{"./support/isBuffer":77,_process:277,inherits:76}],79:[function(t,e,r){"use strict";r.byteLength=function(t){var e=c(t),r=e[0],n=e[1];return 3*(r+n)/4-n},r.toByteArray=function(t){var e,r,n=c(t),o=n[0],s=n[1],l=new a(function(t,e,r){return 3*(e+r)/4-r}(0,o,s)),u=0,f=s>0?o-4:o;for(r=0;r<f;r+=4)e=i[t.charCodeAt(r)]<<18|i[t.charCodeAt(r+1)]<<12|i[t.charCodeAt(r+2)]<<6|i[t.charCodeAt(r+3)],l[u++]=e>>16&255,l[u++]=e>>8&255,l[u++]=255&e;return 2===s&&(e=i[t.charCodeAt(r)]<<2|i[t.charCodeAt(r+1)]>>4,l[u++]=255&e),1===s&&(e=i[t.charCodeAt(r)]<<10|i[t.charCodeAt(r+1)]<<4|i[t.charCodeAt(r+2)]>>2,l[u++]=e>>8&255,l[u++]=255&e),l},r.fromByteArray=function(t){for(var e,r=t.length,i=r%3,a=[],o=16383,s=0,l=r-i;s<l;s+=o)a.push(u(t,s,s+o>l?l:s+o));return 1===i?(e=t[r-1],a.push(n[e>>2]+n[e<<4&63]+"==")):2===i&&(e=(t[r-2]<<8)+t[r-1],a.push(n[e>>10]+n[e>>4&63]+n[e<<2&63]+"=")),a.join("")};for(var n=[],i=[],a="undefined"!=typeof

Uint8Array?Uint8Array:Array,o="ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789+/",s=0,l=o.length;s<l;++s)n[s]=o[s],i[o.charCodeAt(s)]=s;function c(t){var e=t.length;if(e%4>0)throw new Error("Invalid string. Length must be a multiple of 4");var r=t.indexOf("=");return-1===r&&(r=e),[r,r===e?0:4-r%4]}function u(t,e,r){for(var i,a=[],o=e;o<r;o+=3)i=(t[o]<<16&16711680)+(t[o+1]<<8&65280)+(255&t[o+2]),a.push(n[(s=i)>>18&63]+n[s>>12&63]+n[s>>6&63]+n[63&s]);var s;return a.join("")}i["-".charCodeAt(0)]=62,i["_".charCodeAt(0)]=63},{}],80:[function(t,e,r){"use strict";function n(t,e,r,n,i){for(var a=i+1;n<=i;){var o=n+i>>>1,s=t[o];(void 0!==r?r(s,e):s-e)>=0?(a=o,i=o-1):n=o+1}return a}function i(t,e,r,n,i){for(var a=i+1;n<=i;){var o=n+i>>>1,s=t[o];(void 0!==r?r(s,e):s-e)>0?(a=o,i=o-1):n=o+1}return a}function a(t,e,r,n,i){for(var a=n-1;n<=i;){var o=n+i>>>1,s=t[o];(void 0!==r?r(s,e):s-e)<0?(a=o,n=o+1):i=o-1}return a}function o(t,e,r,n,i){for(var a=n-1;n<=i;){var o=n+i>>>1,s=t[o];(void 0!==r?r(s,e):s-e)<=0?(a=o,n=o+1):i=o-1}return a}function s(t,e,r,n,i){for(;n<=i;){var a=n+i>>>1,o=t[a],s=void 0!==r?r(o,e):o-e;if(0===s)return a;s<=0?n=a+1:i=a-1}return-1}function l(t,e,r,n,i,a){return"function"==typeof r?a(t,e,r,void 0===n?0:0|n,void 0===i?t.length-1:0|i):a(t,e,void 0,void 0===r?0:0|r,void 0===n?t.length-1:0|n)}e.exports={ge:function(t,e,r,i,a){return l(t,e,r,i,a,n)},gt:function(t,e,r,n,a){return l(t,e,r,n,a,i)},lt:function(t,e,r,n,i){return l(t,e,r,n,i,a)},le:function(t,e,r,n,i){return l(t,e,r,n,i,o)},eq:function(t,e,r,n,i){return l(t,e,r,n,i,s)}}},{}],81:[function(t,e,r){"use strict";function n(t){var e=32;return(t&=-t)&&e--,65535&t&&(e-=16),16711935&t&&(e-=8),252645135&t&&(e-=4),858993459&t&&(e-=2),1431655765&t&&(e-=1),e}r.INT_BITS=32,r.INT_MAX=2147483647,r.INT_MIN=-1<<31,r.sign=function(t){return(t>0)-(t<0)},r.abs=function(t){var e=t>>31;return(t^e)-e},r.min=function(t,e){return e^(t^e)&-(t<e)},r.max=function(t,e){return t^(t^e)&-(t<e)},r.isPow2=function(t){return!(t&t-1||!t)},r.log2=function(t){var e,r;return e=(t>65535)<<4,e|=r=((t>>>=e)>255)<<3,e|=r=((t>>>=r)>15)<<2,(e|=r=((t>>>=r)>3)<<1)|(t>>>=r)>>1},r.log10=function(t){return t>=1e9?9:t>=1e8?8:t>=1e7?7:t>=1e6?6:t>=1e5?5:t>=1e4?4:t>=1e3?3:t>=100?2:t>=10?1:0},r.popCount=function(t){return 16843009*((t=(858993459&(t-=t>>>1&1431655765))+(t>>>2&858993459))+(t>>>4)&252645135)>>>24},r.countTrailingZeros=n,r.nextPow2=function(t){return t+=0===t,--t,t|=t>>>1,t|=t>>>2,t|=t>>>4,1+((t|=t>>>8)|t>>>16)},r.prevPow2=function(t){return t|=t>>>1,t|=t>>>2,t|=t>>>4,t|=t>>>8,(t|=t>>>16)-(t>>>1)},r.parity=function(t){return t^=t>>>16,t^=t>>>8,t^=t>>>4,27030>>>(t&=15)&1};var i=new Array(256);!function(t){for(var e=0;e<256;++e){var r=e,n=e,i=7;for(r>>>=1;r;r>>>=1)n<<=1,n|=1&r,--i;t[e]=n<<i&255}}(i),r.reverse=function(t){return i[255&t]<<24|i[t>>>8&255]<<16|i[t>>>16&255]<<8|i[t>>>24&255]},r.interleave2=function(t,e){return(t=1431655765&((t=858993459&((t=252645135&((t=16711935&((t&=65535)|t<<8))|t<<4))|t<<2))|t<<1))|(e=1431655765&((e=858993459&((e=252645135&((e=16711935&((e&=65535)|e<<8))|e<<4))|e<<2))|e<<1))<<1},r.deinterleave2=function(t,e){return(t=65535&((t=16711935&((t=252645135&((t=858993459&((t=t>>>e&1431655765)|t>>>1))|t>>>2))|t>>>4))|t>>>16))<<16>>16},r.interleave3=function(t,e,r){return t=1227133513&((t=3272356035&((t=251719695&((t=4278190335&((t&=1023)|t<<16))|t<<8))|t<<4))|t<<2),(t|=(e=1227133513&((e=3272356035&((e=251719695&((e=4278190335&((e&=1023)|e<<16))|e<<8))|e<<4))|e<<2))<<1)|(r=1227133513&((r=3272356035&((r=251719695&((r=4278190335&((r&=1023)|r<<16))|r<<8))|r<<4))|r<<2))<<2},r.deinterleave3=function(t,e){return(t=1023&((t=4278190335&((t=251719695&((t=3272356035&((t=t>>>e&1227133513)|t>>>2))|t>>>4))|t>>>8))|t>>>16))<<22>>22},r.nextCombination=function(t){var e=t|t-1;return e+1|(~e&-~e)-1>>>n(t)+1}},{}],82:[function(t,e,r){"use strict";var n=t("clamp");e.exports=function(t,e){e||(e={});var r,o,s,l,c,u,f,h,p,d,g,v=null==e.cutoff?.25:e.cutoff,m=null==e.radius?8:e.radius,y=e.channel||0;if(ArrayBuffer.isView(t)||Array.isArray(t)){if(!e.width||!e.height)throw Error("For raw data width and height should be provided by options");r=e.width,o=e.height,l=t,u=e.stride?e.stride:Math.floor(t.length/r/o)}else window.HTMLCanvasElement&&t instanceof

window.HTMLCanvasElement?(f=(h=t).getContext("2d"),r=h.width,o=h.height,l=(p=f.getImageData(0,0,r,o)).data,u=4):window.CanvasRenderingContext2D&&t instanceof window.CanvasRenderingContext2D?(f=t,r=(h=t.canvas).width,o=h.height,l=(p=f.getImageData(0,0,r,o)).data,u=4):window.ImageData&&t instanceof window.ImageData&&(p=t,r=t.width,o=t.height,l=p.data,u=4);if(s=Math.max(r,o),window.Uint8ClampedArray&&l instanceof window.Uint8ClampedArray||window.Uint8Array&&l instanceof window.Uint8Array)for(c=l,l=Array(r*o),d=0,g=c.length;d<g;d++)l[d]=c[d*u+y]/255;else if(1!==u)throw Error("Raw data can have only 1 value per pixel");var x=Array(r*o),b=Array(r*o),_=Array(s),w=Array(s),T=Array(s+1),k=Array(s);for(d=0,g=r*o;d<g;d++){var A=l[d];x[d]=1===A?0:0===A?i:Math.pow(Math.max(0,.5-A),2),b[d]=1===A?i:0===A?0:Math.pow(Math.max(0,A-.5),2)}a(x,r,o,_,w,k,T),a(b,r,o,_,w,k,T);var M=window.Float32Array?new Float32Array(r*o):new Array(r*o);for(d=0,g=r*o;d<g;d++)M[d]=n(1-((x[d]-b[d])/m+v),0,1);return M};var i=1e20;function a(t,e,r,n,i,a,s){for(var l=0;l<e;l++){for(var c=0;c<r;c++)n[c]=t[c*e+l];for(o(n,i,a,s,r),c=0;c<r;c++)t[c*e+l]=i[c]}for(c=0;c<r;c++){for(l=0;l<e;l++)n[l]=t[c*e+l];for(o(n,i,a,s,e),l=0;l<e;l++)t[c*e+l]=Math.sqrt(i[l])}}function o(t,e,r,n,a){r[0]=0,n[0]=-i,n[1]=+i;for(var o=1,s=0;o<a;o++){for(var l=(t[o]+o*o-(t[r[s]]+r[s]*r[s]))/(2*o-2*r[s]);l<=n[s];)s--,l=(t[o]+o*o-(t[r[s]]+r[s]*r[s]))/(2*o-2*r[s]);r[++s]=o,n[s]=l,n[s+1]=+i}for(o=0,s=0;o<a;o++){for(;n[s+1]<o;)s++;e[o]=(o-r[s])*(o-r[s])+t[r[s]]}}},{clamp:86}],83:[function(t,e,r){},{}],84:[function(t,e,r){"use strict";var n,i="object"==typeof Reflect?Reflect:null,a=i&&"function"==typeof i.apply?i.apply:function(t,e,r){return Function.prototype.apply.call(t,e,r)};n=i&&"function"==typeof i.ownKeys?i.ownKeys:Object.getOwnPropertySymbols?function(t){return Object.getOwnPropertyNames(t).concat(Object.getOwnPropertySymbols(t))}:function(t){return Object.getOwnPropertyNames(t)};var o=Number.isNaN||function(t){return t!=t};function s(){s.init.call(this)}e.exports=s,e.exports.once=function(t,e){return new Promise((function(r,n){function i(){void 0!==a&&t.removeListener("error",a),r([].slice.call(arguments))}var a;"error"!==e&&(a=function(r){t.removeListener(e,i),n(r)},t.once("error",a)),t.once(e,i)}))},s.EventEmitter=s,s.prototype._events=void 0,s.prototype._eventsCount=0,s.prototype._maxListeners=void 0;var l=10;function c(t){if("function"!=typeof t)throw new TypeError('The "listener" argument must be of type Function. Received type '+typeof t)}function u(t){return void 0===t._maxListeners?s.defaultMaxListeners:t._maxListeners}function f(t,e,r,n){var i,a,o,s;if(c(r),void 0===(a=t._events)?(a=t._events=Object.create(null),t._eventsCount=0):(void 0!==a.newListener&&(t.emit("newListener",e,r.listener?r.listener:r),a=t._events),o=a[e]),void 0===o)o=a[e]=r,++t._eventsCount;else if("function"==typeof o?o=a[e]=n?[r,o]:[o,r]:n?o.unshift(r):o.push(r),(i=u(t))>0&&o.length>i&&!o.warned){o.warned=!0;var l=new Error("Possible EventEmitter memory leak detected. "+o.length+" "+String(e)+" listeners added. Use emitter.setMaxListeners() to increase limit");l.name="MaxListenersExceededWarning",l.emitter=t,l.type=e,l.count=o.length,s=l,console&&console.warn&&console.warn(s)}return t}function h(){if(!this.fired)return this.target.removeListener(this.type,this.wrapFn),this.fired=!0,0===arguments.length?this.listener.call(this.target):this.listener.apply(this.target,arguments)}function p(t,e,r){var n={fired:!1,wrapFn:void 0,target:t,type:e,listener:r},i=h.bind(n);return i.listener=r,n.wrapFn=i,i}function d(t,e,r){var n=t._events;if(void 0===n)return[];var i=n[e];return void 0===i?[]:"function"==typeof i?r?[i.listener||i]:[i]:r?function(t){for(var e=new Array(t.length),r=0;r<e.length;++r)e[r]=t[r].listener||t[r];return e}(i):v(i,i.length)}function g(t){var e=this._events;if(void 0!==e){var r=e[t];if("function"==typeof r)return 1;if(void 0!==r)return r.length}return 0}function v(t,e){for(var r=new Array(e),n=0;n<e;++n)r[n]=t[n];return r}Object.defineProperty(s,"defaultMaxListeners",{enumerable:!0,get:function(){return l},set:function(t){if("number"!=typeof t||t<0||o(t))throw new RangeError('The value of "defaultMaxListeners" is out of range. It must be a non-negative number. Received '+t+".");l=t}}),s.init=function(){void 0!==this._events&&this._events!==Object.getPrototypeOf(this)._events||(this._events=Object.create(null),this._eve

ntsCount=0),this._maxListeners=this._maxListeners||void
0},s.prototype.setMaxListeners=function(t){if("number"!=typeof t||t<0||o(t))throw new RangeError('The value of
"n" is out of range. It must be a non-negative number. Received '+t+".");return
this._maxListeners=t,this},s.prototype.getMaxListeners=function(){return
u(this)},s.prototype.emit=function(t){for(var e=[],r=1;r<arguments.length;r++)e.push(arguments[r]);var
n="error"===t,i=this._events;if(void 0!==i)n=n&&void 0===i.error;else if(!n)return!1;if(n){var
o;if(e.length>0&&(o=e[0]),o instanceof Error)throw o;var s=new Error("Unhandled error."+(o?"
("+o.message+")":""));throw s.context=o,s}var l=i[t];if(void 0===l)return!1;if("function"==typeof
l)a(l,this,e);else{var
c=l.length,u=v(l,c);for(r=0;r<c;++r)a(u[r],this,e)}return!0},s.prototype.addListener=function(t,e){return
f(this,t,e,!1)},s.prototype.on=s.prototype.addListener,s.prototype.prependListener=function(t,e){return
f(this,t,e,!0)},s.prototype.once=function(t,e){return
c(e),this.on(t,p(this,t,e)),this},s.prototype.prependOnceListener=function(t,e){return
c(e),this.prependListener(t,p(this,t,e)),this},s.prototype.removeListener=function(t,e){var r,n,i,a,o;if(c(e),void
0===(n=this._events))return this;if(void 0===(r=n[t]))return this;if(r===e||r.listener===e)0==--
this._eventsCount?this._events=Object.create(null):(delete
n[t],n.removeListener&&this.emit("removeListener",t,r.listener||e));else if("function"!=typeof r){for(i=-
1,a=r.length-1;a>=0;a--)if(r[a]===e||r[a].listener===e){o=r[a].listener,i=a;break}if(i<0)return
this;0===i?r.shift():function(t,e){for(;e+1<t.length;e++)t[e]=t[e+1];t.pop()}(r,i),1===r.length&&(n[t]=r[0]),void
0!==n.removeListener&&this.emit("removeListener",t,o||e)}return
this},s.prototype.off=s.prototype.removeListener,s.prototype.removeAllListeners=function(t){var e,r,n;if(void
0===(r=this._events))return this;if(void 0===r.removeListener)return
0===arguments.length?(this._events=Object.create(null),this._eventsCount=0):void 0!==r[t]&&(0==--
this._eventsCount?this._events=Object.create(null):delete r[t]),this;if(0===arguments.length){var
i,a=Object.keys(r);for(n=0;n<a.length;++n)"removeListener"!==(i=a[n])&&this.removeAllListeners(i);return
this.removeAllListeners("removeListener"),this._events=Object.create(null),this._eventsCount=0,this}if("function"
==typeof(e=r[t]))this.removeListener(t,e);else if(void 0!==e)for(n=e.length-1;n>=0;n--
)this.removeListener(t,e[n]);return this},s.prototype.listeners=function(t){return
d(this,t,!0)},s.prototype.rawListeners=function(t){return
d(this,t,!1)},s.listenerCount=function(t,e){return"function"==typeof
t.listenerCount?t.listenerCount(e):g.call(t,e)},s.prototype.listenerCount=g,s.prototype.eventNames=function(){return
this._eventsCount>0?n(this._events):[]}},{}],85:[function(t,e,r){(function(e){(function(){"use strict";var
e=t("base64-
js"),n=t("ieee754");r.Buffer=o,r.SlowBuffer=function(t){return+t!=t&&(t=0),o.alloc(+t)},r.INSPECT_MAX_BYTE
S=50;var i=2147483647;function a(t){if(t>i)throw new RangeError('The value "'+t+'" is invalid for option
"size"');var e=new Uint8Array(t);return e.__proto__=o.prototype,e}function o(t,e,r){if("number"==typeof
t){if("string"==typeof e)throw new TypeError('The "string" argument must be of type string. Received type
number');return c(t)}return s(t,e,r)}function s(t,e,r){if("string"==typeof t)return function(t,e){if("string"==typeof
e&&""!==e||(e="utf8"),!o.isEncoding(e))throw new TypeError("Unknown encoding: "+e);var
r=0|h(t,e),n=a(r),i=n.write(t,e);return i!==r&&(n=n.slice(0,i)),n}(t,e);if(ArrayBuffer.isView(t))return
u(t);if(null==t)throw TypeError("The first argument must be one of type string, Buffer, ArrayBuffer, Array, or
Array-like Object. Received type "+typeof t);if(N(t,ArrayBuffer)||t&&N(t.buffer,ArrayBuffer))return
function(t,e,r){if(e<0||t.byteLength<e)throw new RangeError('"offset" is outside of buffer
bounds');if(t.byteLength<e+(r||0))throw new RangeError('"length" is outside of buffer bounds');var n;return(n=void
0===e&&void 0===r?new Uint8Array(t):void 0===r?new Uint8Array(t,e):new
Uint8Array(t,e,r)).__proto__=o.prototype,n}(t,e,r);if("number"==typeof t)throw new TypeError('The "value"
argument must not be of type number. Received type number');var
n=t.valueOf&&t.valueOf();if(null!=n&&n!==t)return o.from(n,e,r);var i=function(t){if(o.isBuffer(t)){var

e=0|f(t.length),r=a(e);return 0===r.length||t.copy(r,0,0,e),r}return void 0!==t.length?"number"!=typeof t.length||j(t.length)?a(0):u(t):"Buffer"===t.type&&Array.isArray(t.data)?u(t.data):void 0}(t);if(i)return i;if("undefined"!=typeof Symbol&&null!=Symbol.toPrimitive&&"function"==typeof t[Symbol.toPrimitive])return o.from(t[Symbol.toPrimitive]("string"),e,r);throw new TypeError("The first argument must be one of type string, Buffer, ArrayBuffer, Array, or Array-like Object. Received type "+typeof t)}function l(t){if("number"!=typeof t)throw new TypeError('"size" argument must be of type number');if(t<0)throw new RangeError('The value "'+t+'" is invalid for option "size"')}function c(t){return l(t),a(t<0?0:0|f(t))}function u(t){for(var e=t.length<0?0:0|f(t.length),r=a(e),n=0;n<e;n+=1)r[n]=255&t[n];return r}function f(t){if(t>=i)throw new RangeError("Attempt to allocate Buffer larger than maximum size: 0x"+i.toString(16)+" bytes");return 0|t}function h(t,e){if(o.isBuffer(t))return t.length;if(ArrayBuffer.isView(t)||N(t,ArrayBuffer))return t.byteLength;if("string"!=typeof t)throw new TypeError('The "string" argument must be one of type string, Buffer, or ArrayBuffer. Received type '+typeof t);var r=t.length,n=arguments.length>2&&!0===arguments[2];if(!n&&0===r)return 0;for(var i=!1;;)switch(e){case"ascii":case"latin1":case"binary":return r;case"utf8":case"utf-8":return R(t).length;case"ucs2":case"ucs-2":case"utf16le":case"utf-16le":return 2*r;case"hex":return r>>>1;case"base64":return F(t).length;default:if(i)return n?-1:R(t).length;e=(""+e).toLowerCase(),i=!0}}function p(t,e,r){var n=!1;if((void 0===e||e<0)&&(e=0),e>this.length)return"";if((void 0===r||r>this.length)&&(r=this.length),r<=0)return"";if((r>>>=0)<=(e>>>=0))return"";for(t||(t="utf8");;)switch(t){case"hex":return E(this,e,r);case"utf8":case"utf-8":return k(this,e,r);case"ascii":return M(this,e,r);case"latin1":case"binary":return S(this,e,r);case"base64":return T(this,e,r);case"ucs2":case"ucs-2":case"utf16le":case"utf-16le":return L(this,e,r);default:if(n)throw new TypeError("Unknown encoding: "+t);t=(t+"").toLowerCase(),n=!0}}function d(t,e,r){var n=t[e];t[e]=t[r],t[r]=n}function g(t,e,r,n,i){if(0===t.length)return-1;if("string"==typeof r?(n=r,r=0):r>2147483647?r=2147483647:r<-2147483648&&(r=-2147483648),j(r=+r)&&(r=i?0:t.length-1),r<0&&(r=t.length+r),r>=t.length){if(i)return-1;r=t.length-1}else if(r<0){if(!i)return-1;r=0}if("string"==typeof e&&(e=o.from(e,n)),o.isBuffer(e))return 0===e.length?-1:v(t,e,r,n,i);if("number"==typeof e)return e&=255,"function"==typeof Uint8Array.prototype.indexOf?i?Uint8Array.prototype.indexOf.call(t,e,r):Uint8Array.prototype.lastIndexOf.call(t,e,r):v(t,[e],r,n,i);throw new TypeError("val must be string, number or Buffer")}function v(t,e,r,n,i){var a,o=1,s=t.length,l=e.length;if(void 0!==n&&("ucs2"===(n=String(n).toLowerCase())||"ucs-2"===n||"utf16le"===n||"utf-16le"===n)){if(t.length<2||e.length<2)return-1;o=2,s/=2,l/=2,r/=2}function c(t,e){return 1===o?t[e]:t.readUInt16BE(e*o)}if(i){var u=-1;for(a=r;a<s;a++)if(c(t,a)===c(e,-1===u?0:a-u)){if(-1===u&&(u=a),a-u+1===l)return u*o}else-1!==u&&(a-=a-u),u=-1}else for(r+l>s&&(r=s-l),a=r;a>=0;a--){for(var f=!0,h=0;h<l;h++)if(c(t,a+h)!==c(e,h)){f=!1;break}if(f)return a}return-1}function m(t,e,r,n){r=Number(r)||0;var i=t.length-r;n?(n=Number(n))>i&&(n=i):n=i;var a=e.length;n>a/2&&(n=a/2);for(var o=0;o<n;++o){var s=parseInt(e.substr(2*o,2),16);if(j(s))return o;t[r+o]=s}return o}function y(t,e,r,n){return B(R(e,t.length-r),t,r,n)}function x(t,e,r,n){return B(function(t){for(var e=[],r=0;r<t.length;++r)e.push(255&t.charCodeAt(r));return e}(e),t,r,n)}function b(t,e,r,n){return x(t,e,r,n)}function _(t,e,r,n){return B(F(e),t,r,n)}function w(t,e,r,n){return B(function(t,e){for(var r,n,i,a=[],o=0;o<t.length&&!((e-=2)<0);++o)n=(r=t.charCodeAt(o))>>8,i=r%256,a.push(i),a.push(n);return a}(e,t.length-r),t,r,n)}function T(t,r,n){return 0===r&&n===t.length?e.fromByteArray(t):e.fromByteArray(t.slice(r,n))}function k(t,e,r){r=Math.min(t.length,r);for(var n=[],i=e;i<r;){var a,o,s,l,c=t[i],u=null,f=c>239?4:c>223?3:c>191?2:1;if(i+f<=r)switch(f){case 1:c<128&&(u=c);break;case 2:128==(192&(a=t[i+1]))&&(l=(31&c)<<6|63&a)>127&&(u=l);break;case 3:a=t[i+1],o=t[i+2],128==(192&a)&&128==(192&o)&&(l=(15&c)<<12|(63&a)<<6|63&o)>2047&&(l<55296||l>57343)&&(u=l);break;case 4:a=t[i+1],o=t[i+2],s=t[i+3],128==(192&a)&&128==(192&o)&&128==(192&s)&&(l=(15&c)<<18|(63&a)<<12|(63&o)<<6|63&s)>65535&&l<1114112&&(u=l)}null===u?(u=65533,f=1):u>65535&&(u-=65536,n.push(u>>>10&1023|55296),u=56320|1023&u),n.push(u),i+=f}return function(t){var

e=t.length;if(e<=A)return String.fromCharCode.apply(String,t);for(var r="",n=0;n<e;)r+=String.fromCharCode.apply(String,t.slice(n,n+=A));return r}(n)}r.kMaxLength=i,o.TYPED_ARRAY_SUPPORT=function(){try{var t=new Uint8Array(1);return t.__proto__={__proto__:Uint8Array.prototype,foo:function(){return 42}},42===t.foo()}catch(t){return!1}}(),o.TYPED_ARRAY_SUPPORT||"undefined"==typeof console||"function"!=typeof console.error||console.error("This browser lacks typed array (Uint8Array) support which is required by `buffer` v5.x. Use `buffer` v4.x if you require old browser support."),Object.defineProperty(o.prototype,"parent",{enumerable:!0,get:function(){if(o.isBuffer(this))return this.buffer}}),Object.defineProperty(o.prototype,"offset",{enumerable:!0,get:function(){if(o.isBuffer(this))return this.byteOffset}}),"undefined"!=typeof Symbol&&null!=Symbol.species&&o[Symbol.species]===o&&Object.defineProperty(o,Symbol.species,{value:null,configurable:!0,enumerable:!1,writable:!1}),o.poolSize=8192,o.from=function(t,e,r){return s(t,e,r)},o.prototype.__proto__=Uint8Array.prototype,o.__proto__=Uint8Array,o.alloc=function(t,e,r){return function(t,e,r){return l(t),t<=0?a(t):void 0!==e?"string"==typeof r?a(t).fill(e,r):a(t).fill(e):a(t)}(t,e,r)},o.allocUnsafe=function(t){return c(t)},o.allocUnsafeSlow=function(t){return c(t)},o.isBuffer=function(t){return null!=t&&!0===t._isBuffer&&t!==o.prototype},o.compare=function(t,e){if(N(t,Uint8Array)&&(t=o.from(t,t.offset,t.byteLength)),N(e,Uint8Array)&&(e=o.from(e,e.offset,e.byteLength)),!o.isBuffer(t)||!o.isBuffer(e))throw new TypeError('The "buf1", "buf2" arguments must be one of type Buffer or Uint8Array');if(t===e)return 0;for(var r=t.length,n=e.length,i=0,a=Math.min(r,n);i<a;++i)if(t[i]!==e[i]){r=t[i],n=e[i];break}return r<n?-1:n<r?1:0},o.isEncoding=function(t){switch(String(t).toLowerCase()){case"hex":case"utf8":case"utf-8":case"ascii":case"latin1":case"binary":case"base64":case"ucs2":case"ucs-2":case"utf16le":case"utf-16le":return!0;default:return!1}},o.concat=function(t,e){if(!Array.isArray(t))throw new TypeError('"list" argument must be an Array of Buffers');if(0===t.length)return o.alloc(0);var r;if(void 0===e)for(e=0,r=0;r<t.length;++r)e+=t[r].length;var n=o.allocUnsafe(e),i=0;for(r=0;r<t.length;++r){var a=t[r];if(N(a,Uint8Array)&&(a=o.from(a)),!o.isBuffer(a))throw new TypeError('"list" argument must be an Array of Buffers');a.copy(n,i),i+=a.length}return n},o.byteLength=h,o.prototype._isBuffer=!0,o.prototype.swap16=function(){var t=this.length;if(t%2!=0)throw new RangeError("Buffer size must be a multiple of 16-bits");for(var e=0;e<t;e+=2)d(this,e,e+1);return this},o.prototype.swap32=function(){var t=this.length;if(t%4!=0)throw new RangeError("Buffer size must be a multiple of 32-bits");for(var e=0;e<t;e+=4)d(this,e,e+3),d(this,e+1,e+2);return this},o.prototype.swap64=function(){var t=this.length;if(t%8!=0)throw new RangeError("Buffer size must be a multiple of 64-bits");for(var e=0;e<t;e+=8)d(this,e,e+7),d(this,e+1,e+6),d(this,e+2,e+5),d(this,e+3,e+4);return this},o.prototype.toString=function(){var t=this.length;return 0===t?"":0===arguments.length?k(this,0,t):p.apply(this,arguments)},o.prototype.toLocaleString=o.prototype.toString,o.prototype.equals=function(t){if(!o.isBuffer(t))throw new TypeError("Argument must be a Buffer");return this===t||0===o.compare(this,t)},o.prototype.inspect=function(){var t="",e=r.INSPECT_MAX_BYTES;return t=this.toString("hex",0,e).replace(/(.{2})/g,"$1 ").trim(),this.length>e&&(t+=" ... "),"<Buffer "+t+">"},o.prototype.compare=function(t,e,r,n,i){if(N(t,Uint8Array)&&(t=o.from(t,t.offset,t.byteLength)),!o.isBuffer(t))throw new TypeError('The "target" argument must be one of type Buffer or Uint8Array. Received type '+typeof t);if(void 0===e&&(e=0),void 0===r&&(r=t?t.length:0),void 0===n&&(n=0),void 0===i&&(i=this.length),e<0||r>t.length||n<0||i>this.length)throw new RangeError("out of range index");if(n>=i&&e>=r)return 0;if(n>=i)return-1;if(e>=r)return 1;if(this===t)return 0;for(var a=(i>>>=0)-(n>>>=0),s=(r>>>=0)-(e>>>=0),l=Math.min(a,s),c=this.slice(n,i),u=t.slice(e,r),f=0;f<l;++f)if(c[f]!==u[f]){a=c[f],s=u[f];break}return a<s?-1:s<a?1:0},o.prototype.includes=function(t,e,r){return-1!==this.indexOf(t,e,r)},o.prototype.indexOf=function(t,e,r){return g(this,t,e,r,!0)},o.prototype.lastIndexOf=function(t,e,r){return

g(this,t,e,r,!1)},o.prototype.write=function(t,e,r,n){if(void 0===e)n="utf8",r=this.length,e=0;else if(void 0===r&&"string"==typeof e)n=e,r=this.length,e=0;else{if(!isFinite(e))throw new Error("Buffer.write(string, encoding, offset[, length]) is no longer supported");e>>>=0,isFinite(r)?(r>>>=0,void 0===n&&(n="utf8")):(n=r,r=void 0)}var i=this.length-e;if((void 0===r||r>i)&&(r=i),t.length>0&&(r<0||e<0)||e>this.length)throw new RangeError("Attempt to write outside buffer bounds");n||(n="utf8");for(var a=!1;;)switch(n){case"hex":return m(this,t,e,r);case"utf8":case"utf-8":return y(this,t,e,r);case"ascii":return x(this,t,e,r);case"latin1":case"binary":return b(this,t,e,r);case"base64":return _(this,t,e,r);case"ucs2":case"ucs-2":case"utf16le":case"utf-16le":return w(this,t,e,r);default:if(a)throw new TypeError("Unknown encoding: "+n);n=(""+n).toLowerCase(),a=!0}},o.prototype.toJSON=function(){return{type:"Buffer",data:Array.prototype.slice.call(this._arr||this,0)}};var A=4096;function M(t,e,r){var n="";r=Math.min(t.length,r);for(var i=e;i<r;++i)n+=String.fromCharCode(127&t[i]);return n}function S(t,e,r){var n="";r=Math.min(t.length,r);for(var i=e;i<r;++i)n+=String.fromCharCode(t[i]);return n}function E(t,e,r){var n,i=t.length;(!e||e<0)&&(e=0),(!r||r<0||r>i)&&(r=i);for(var a="",o=e;o<r;++o)a+=(n=t[o])<16?"0"+n.toString(16):n.toString(16);return a}function L(t,e,r){for(var n=t.slice(e,r),i="",a=0;a<n.length;a+=2)i+=String.fromCharCode(n[a]+256*n[a+1]);return i}function C(t,e,r){if(t%1!=0||t<0)throw new RangeError("offset is not uint");if(t+e>r)throw new RangeError("Trying to access beyond buffer length")}function P(t,e,r,n,i,a){if(!o.isBuffer(t))throw new TypeError('"buffer" argument must be a Buffer instance');if(e>i||e<a)throw new RangeError('"value" argument is out of bounds');if(r+n>t.length)throw new RangeError("Index out of range")}function I(t,e,r,n,i,a){if(r+n>t.length)throw new RangeError("Index out of range");if(r<0)throw new RangeError("Index out of range")}function O(t,e,r,i,a){return e=+e,r>>>=0,a||I(t,0,r,4),n.write(t,e,r,i,23,4),r+4}function z(t,e,r,i,a){return e=+e,r>>>=0,a||I(t,0,r,8),n.write(t,e,r,i,52,8),r+8}o.prototype.slice=function(t,e){var r=this.length;(t=~~t)<0?(t+=r)<0&&(t=0):t>r&&(t=r),(e=void 0===e?r:~~e)<0?(e+=r)<0&&(e=0):e>r&&(e=r),e<t&&(e=t);var n=this.subarray(t,e);return n.__proto__=o.prototype,n},o.prototype.readUIntLE=function(t,e,r){t>>>=0,e>>>=0,r||C(t,e,this.length);for(var n=this[t],i=1,a=0;++a<e&&(i*=256);)n+=this[t+a]*i;return n},o.prototype.readUIntBE=function(t,e,r){t>>>=0,e>>>=0,r||C(t,e,this.length);for(var n=this[t+--e],i=1;e>0&&(i*=256);)n+=this[t+--e]*i;return n},o.prototype.readUInt8=function(t,e){return t>>>=0,e||C(t,1,this.length),this[t]},o.prototype.readUInt16LE=function(t,e){return t>>>=0,e||C(t,2,this.length),this[t]|this[t+1]<<8},o.prototype.readUInt16BE=function(t,e){return t>>>=0,e||C(t,2,this.length),this[t]<<8|this[t+1]},o.prototype.readUInt32LE=function(t,e){return t>>>=0,e||C(t,4,this.length),(this[t]|this[t+1]<<8|this[t+2]<<16)+16777216*this[t+3]},o.prototype.readUInt32BE=function(t,e){return t>>>=0,e||C(t,4,this.length),16777216*this[t]+(this[t+1]<<16|this[t+2]<<8|this[t+3])},o.prototype.readIntLE=function(t,e,r){t>>>=0,e>>>=0,r||C(t,e,this.length);for(var n=this[t],i=1,a=0;++a<e&&(i*=256);)n+=this[t+a]*i;return n>=(i*=128)&&(n-=Math.pow(2,8*e)),n},o.prototype.readIntBE=function(t,e,r){t>>>=0,e>>>=0,r||C(t,e,this.length);for(var n=e,i=1,a=this[t+--n];n>0&&(i*=256);)a+=this[t+--n]*i;return a>=(i*=128)&&(a-=Math.pow(2,8*e)),a},o.prototype.readInt8=function(t,e){return t>>>=0,e||C(t,1,this.length),128&this[t]?-1*(255-this[t]+1):this[t]},o.prototype.readInt16LE=function(t,e){t>>>=0,e||C(t,2,this.length);var r=this[t]|this[t+1]<<8;return 32768&r?4294901760|r:r},o.prototype.readInt16BE=function(t,e){t>>>=0,e||C(t,2,this.length);var r=this[t+1]|this[t]<<8;return 32768&r?4294901760|r:r},o.prototype.readInt32LE=function(t,e){return t>>>=0,e||C(t,4,this.length),this[t]|this[t+1]<<8|this[t+2]<<16|this[t+3]<<24},o.prototype.readInt32BE=function(t,e){return t>>>=0,e||C(t,4,this.length),this[t]<<24|this[t+1]<<16|this[t+2]<<8|this[t+3]},o.prototype.readFloatLE=function(t,e){return t>>>=0,e||C(t,4,this.length),n.read(this,t,!0,23,4)},o.prototype.readFloatBE=function(t,e){return

t>>>=0,e||C(t,4,this.length),n.read(this,t,!1,23,4)},o.prototype.readDoubleLE=function(t,e){return
t>>>=0,e||C(t,8,this.length),n.read(this,t,!0,52,8)},o.prototype.readDoubleBE=function(t,e){return
t>>>=0,e||C(t,8,this.length),n.read(this,t,!1,52,8)},o.prototype.writeUIntLE=function(t,e,r,n){t=+t,e>>>=0,r>>>=0,n
||P(this,t,e,r,Math.pow(2,8*r)-1,0);var i=1,a=0;for(this[e]=255&t;++a<r&&(i*=256);)this[e+a]=t/i&255;return
e+r},o.prototype.writeUIntBE=function(t,e,r,n){t=+t,e>>>=0,r>>>=0,n||P(this,t,e,r,Math.pow(2,8*r)-1,0);var i=r-
1,a=1;for(this[e+i]=255&t;--i>=0&&(a*=256);)this[e+i]=t/a&255;return
e+r},o.prototype.writeUInt8=function(t,e,r){return
t=+t,e>>>=0,r||P(this,t,e,1,255,0),this[e]=255&t,e+1},o.prototype.writeUInt16LE=function(t,e,r){return
t=+t,e>>>=0,r||P(this,t,e,2,65535,0),this[e]=255&t,this[e+1]=t>>>8,e+2},o.prototype.writeUInt16BE=function(t,e,r)
{return
t=+t,e>>>=0,r||P(this,t,e,2,65535,0),this[e]=t>>>8,this[e+1]=255&t,e+2},o.prototype.writeUInt32LE=function(t,e,r)
{return
t=+t,e>>>=0,r||P(this,t,e,4,4294967295,0),this[e+3]=t>>>24,this[e+2]=t>>>16,this[e+1]=t>>>8,this[e]=255&t,e+4}
,o.prototype.writeUInt32BE=function(t,e,r){return
t=+t,e>>>=0,r||P(this,t,e,4,4294967295,0),this[e]=t>>>24,this[e+1]=t>>>16,this[e+2]=t>>>8,this[e+3]=255&t,e+4}
,o.prototype.writeIntLE=function(t,e,r,n){if(t=+t,e>>>=0,!n){var i=Math.pow(2,8*r-1);P(this,t,e,r,i-1,-i)}var
a=0,o=1,s=0;for(this[e]=255&t;++a<r&&(o*=256);)t<0&&0===s&&0!==this[e+a-1]&&(s=1),this[e+a]=(t/o>>0)-
s&255;return e+r},o.prototype.writeIntBE=function(t,e,r,n){if(t=+t,e>>>=0,!n){var i=Math.pow(2,8*r-
1);P(this,t,e,r,i-1,-i)}var a=r-1,o=1,s=0;for(this[e+a]=255&t;--
a>=0&&(o*=256);)t<0&&0===s&&0!==this[e+a+1]&&(s=1),this[e+a]=(t/o>>0)-s&255;return
e+r},o.prototype.writeInt8=function(t,e,r){return t=+t,e>>>=0,r||P(this,t,e,1,127,-
128),t<0&&(t=255+t+1),this[e]=255&t,e+1},o.prototype.writeInt16LE=function(t,e,r){return
t=+t,e>>>=0,r||P(this,t,e,2,32767,-
32768),this[e]=255&t,this[e+1]=t>>>8,e+2},o.prototype.writeInt16BE=function(t,e,r){return
t=+t,e>>>=0,r||P(this,t,e,2,32767,-
32768),this[e]=t>>>8,this[e+1]=255&t,e+2},o.prototype.writeInt32LE=function(t,e,r){return
t=+t,e>>>=0,r||P(this,t,e,4,2147483647,-
2147483648),this[e]=255&t,this[e+1]=t>>>8,this[e+2]=t>>>16,this[e+3]=t>>>24,e+4},o.prototype.writeInt32BE=f
unction(t,e,r){return t=+t,e>>>=0,r||P(this,t,e,4,2147483647,-
2147483648),t<0&&(t=4294967295+t+1),this[e]=t>>>24,this[e+1]=t>>>16,this[e+2]=t>>>8,this[e+3]=255&t,e+4}
,o.prototype.writeFloatLE=function(t,e,r){return O(this,t,e,!0,r)},o.prototype.writeFloatBE=function(t,e,r){return
O(this,t,e,!1,r)},o.prototype.writeDoubleLE=function(t,e,r){return
z(this,t,e,!0,r)},o.prototype.writeDoubleBE=function(t,e,r){return
z(this,t,e,!1,r)},o.prototype.copy=function(t,e,r,n){if(!o.isBuffer(t))throw new TypeError("argument should be a
Buffer");if(r||(r=0),n||0===n||(n=this.length),e>=t.length&&(e=t.length),e||(e=0),n>0&&n<r&&(n=r),n===r)return
0;if(0===t.length||0===this.length)return 0;if(e<0)throw new RangeError("targetStart out of
bounds");if(r<0||r>=this.length)throw new RangeError("Index out of range");if(n<0)throw new
RangeError("sourceEnd out of bounds");n>this.length&&(n=this.length),t.length-e<n-r&&(n=t.length-e+r);var i=n-
r;if(this===t&&"function"==typeof Uint8Array.prototype.copyWithin)this.copyWithin(e,r,n);else
if(this===t&&r<e&&e<n)for(var a=i-1;a>=0;--a)t[a+e]=this[a+r];else
Uint8Array.prototype.set.call(t,this.subarray(r,n),e);return i},o.prototype.fill=function(t,e,r,n){if("string"==typeof
t){if("string"==typeof e?(n=e,e=0,r=this.length):"string"==typeof r&&(n=r,r=this.length),void
0!==n&&"string"!=typeof n)throw new TypeError("encoding must be a string");if("string"==typeof
n&&!o.isEncoding(n))throw new TypeError("Unknown encoding: "+n);if(1===t.length){var
i=t.charCodeAt(0);("utf8"===n&&i<128||"latin1"===n)&&(t=i)}}else"number"==typeof
t&&(t&=255);if(e<0||this.length<e||this.length<r)throw new RangeError("Out of range index");if(r<=e)return
this;var a;if(e>>>=0,r=void 0===r?this.length:r>>>0,t||(t=0),"number"==typeof t)for(a=e;a<r;++a)this[a]=t;else{var
s=o.isBuffer(t)?t:o.from(t,n),l=s.length;if(0===l)throw new TypeError('The value "'+t+'" is invalid for argument

"value"');for(a=0;a<r-e;++a)this[a+e]=s[a%l]}return this};var D=/[^+/0-9A-Za-z-_]/g;function R(t,e){var r;e=e||1/0;for(var n=t.length,i=null,a=[],o=0;o<n;++o){if((r=t.charCodeAt(o))>55295&&r<57344){if(!i){if(r>56319){(e-=3)>-1&&a.push(239,191,189);continue}if(o+1===n){(e-=3)>-1&&a.push(239,191,189);continue}i=r;continue}if(r<56320){(e-=3)>-1&&a.push(239,191,189),i=r;continue}r=65536+(i-55296<<10|r-56320)}else i&&(e-=3)>-1&&a.push(239,191,189);if(i=null,r<128){if((e-=1)<0)break;a.push(r)}else if(r<2048){if((e-=2)<0)break;a.push(r>>6|192,63&r|128)}else if(r<65536){if((e-=3)<0)break;a.push(r>>12|224,r>>6&63|128,63&r|128)}else{if(!(r<1114112))throw new Error("Invalid code point");if((e-=4)<0)break;a.push(r>>18|240,r>>12&63|128,r>>6&63|128,63&r|128)}}return a}function F(t){return e.toByteArray(function(t){if((t=(t=t.split("=")[0]).trim().replace(D,"")).length<2)return"";for(;t.length%4!=0;)t+="=";return t}(t))}function B(t,e,r,n){for(var i=0;i<n&&!(i+r>=e.length||i>=t.length);++i)e[i+r]=t[i];return i}function N(t,e){return t instanceof e||null!=t&&null!=t.constructor&&null!=t.constructor.name&&t.constructor.name===e.name}function j(t){return t!=t}}).call(this)}).call(this,t("buffer").Buffer)},{"base64-js":79,buffer:85,ieee754:230}],86:[function(t,e,r){e.exports=function(t,e,r){return e<r?t<e?e:t>r?r:t:t<r?r:t>e?e:t}},{}],87:[function(t,e,r){"use strict";var n=t("clamp");function i(t,e){null==e&&(e=!0);var r=t[0],i=t[1],a=t[2],o=t[3];return null==o&&(o=e?1:255),e&&(r*=255,i*=255,a*=255,o*=255),16777216*(r=255&n(r,0,255))+((i=255&n(i,0,255))<<16)+((a=255&n(a,0,255))<<8)+(255&n(o,0,255))}e.exports=i,e.exports.to=i,e.exports.from=function(t,e){var r=(t=+t)>>>24,n=(16711680&t)>>>16,i=(65280&t)>>>8,a=255&t;return!1===e?[r,n,i,a]:[r/255,n/255,i/255,a/255]}},{clamp:86}],88:[function(t,e,r){"use strict";e.exports={aliceblue:[240,248,255],antiquewhite:[250,235,215],aqua:[0,255,255],aquamarine:[127,255,212],azure:[240,255,255],beige:[245,245,220],bisque:[255,228,196],black:[0,0,0],blanchedalmond:[255,235,205],blue:[0,0,255],blueviolet:[138,43,226],brown:[165,42,42],burlywood:[222,184,135],cadetblue:[95,158,160],chartreuse:[127,255,0],chocolate:[210,105,30],coral:[255,127,80],cornflowerblue:[100,149,237],cornsilk:[255,248,220],crimson:[220,20,60],cyan:[0,255,255],darkblue:[0,0,139],darkcyan:[0,139,139],darkgoldenrod:[184,134,11],darkgray:[169,169,169],darkgreen:[0,100,0],darkgrey:[169,169,169],darkkhaki:[189,183,107],darkmagenta:[139,0,139],darkolivegreen:[85,107,47],darkorange:[255,140,0],darkorchid:[153,50,204],darkred:[139,0,0],darksalmon:[233,150,122],darkseagreen:[143,188,143],darkslateblue:[72,61,139],darkslategray:[47,79,79],darkslategrey:[47,79,79],darkturquoise:[0,206,209],darkviolet:[148,0,211],deeppink:[255,20,147],deepskyblue:[0,191,255],dimgray:[105,105,105],dimgrey:[105,105,105],dodgerblue:[30,144,255],firebrick:[178,34,34],floralwhite:[255,250,240],forestgreen:[34,139,34],fuchsia:[255,0,255],gainsboro:[220,220,220],ghostwhite:[248,248,255],gold:[255,215,0],goldenrod:[218,165,32],gray:[128,128,128],green:[0,128,0],greenyellow:[173,255,47],grey:[128,128,128],honeydew:[240,255,240],hotpink:[255,105,180],indianred:[205,92,92],indigo:[75,0,130],ivory:[255,255,240],khaki:[240,230,140],lavender:[230,230,250],lavenderblush:[255,240,245],lawngreen:[124,252,0],lemonchiffon:[255,250,205],lightblue:[173,216,230],lightcoral:[240,128,128],lightcyan:[224,255,255],lightgoldenrodyellow:[250,250,210],lightgray:[211,211,211],lightgreen:[144,238,144],lightgrey:[211,211,211],lightpink:[255,182,193],lightsalmon:[255,160,122],lightseagreen:[32,178,170],lightskyblue:[135,206,250],lightslategray:[119,136,153],lightslategrey:[119,136,153],lightsteelblue:[176,196,222],lightyellow:[255,255,224],lime:[0,255,0],limegreen:[50,205,50],linen:[250,240,230],magenta:[255,0,255],maroon:[128,0,0],mediumaquamarine:[102,205,170],mediumblue:[0,0,205],mediumorchid:[186,85,211],mediumpurple:[147,112,219],mediumseagreen:[60,179,113],mediumslateblue:[123,104,238],mediumspringgreen:[0,250,154],mediumturquoise:[72,209,204],mediumvioletred:[199,21,133],midnightblue:[25,25,112],mintcream:[245,255,250],mistyrose:[255,228,225],moccasin:[255,228,181],navajowhite:[255,222,173],navy:[0,0,128],oldlace:[253,245,230],olive:[128,128,0],olivedrab:[107,142,35],orange:[255,165,0],orangered:[255,69,0],orchid:[218,112,214],palegoldenrod:[238,232,170],palegreen:[152,251,152],paleturquoise:[175,238,238],palevioletred:[219,112,147],papayawhip:[255,239,213],peachpuff:[255,218,185],peru:[205,133,63],pink:[255,192,203],plum:[221,160,221],powderblue:[176,224,230],purple:[128,0,128],rebeccapurple:[102,51,153],red:[255,0,0],rosybrown:[188,143,143],royalblue:[65,105,225],saddlebrown:[139

,69,19],salmon:[250,128,114],sandybrown:[244,164,96],seagreen:[46,139,87],seashell:[255,245,238],sienna:[160,82
,45],silver:[192,192,192],skyblue:[135,206,235],slateblue:[106,90,205],slategray:[112,128,144],slategrey:[112,128,
144],snow:[255,250,250],springgreen:[0,255,127],steelblue:[70,130,180],tan:[210,180,140],teal:[0,128,128],thistle:[
216,191,216],tomato:[255,99,71],turquoise:[64,224,208],violet:[238,130,238],wheat:[245,222,179],white:[255,255,
255],whitesmoke:[245,245,245],yellow:[255,255,0],yellowgreen:[154,205,50]}},{}],89:[function(t,e,r){"use
strict";var n=t("color-
rgba"),i=t("clamp"),a=t("dtype");e.exports=function(t,e){"float"!==e&&e||(e="array"),"uint"===e&&(e="uint8"),"ui
nt_clamped"===e&&(e="uint8_clamped");var r=new(a(e))(4),o="uint8"!==e&&"uint8_clamped"!==e;return
t.length&&"string"!=typeof t||((t=n(t))[0]/=255,t[1]/=255,t[2]/=255),function(t){return t instanceof Uint8Array||t
instanceof
Uint8ClampedArray||!!(Array.isArray(t)&&(t[0]>1||0===t[0])&&(t[1]>1||0===t[1])&&(t[2]>1||0===t[2])&&(!t[3]||t
[3]>1))}(t)?(r[0]=t[0],r[1]=t[1],r[2]=t[2],r[3]=null!=t[3]?t[3]:255,o&&(r[0]/=255,r[1]/=255,r[2]/=255,r[3]/=255),r):(
o?(r[0]=t[0],r[1]=t[1],r[2]=t[2],r[3]=null!=t[3]?t[3]:1):(r[0]=i(Math.floor(255*t[0]),0,255),r[1]=i(Math.floor(255*t[1
]),0,255),r[2]=i(Math.floor(255*t[2]),0,255),r[3]=null==t[3]?255:i(Math.floor(255*t[3]),0,255)),r)}},{clamp:86,"col
or-rgba":91,dtype:127}],90:[function(t,e,n){(function(r){(function(){"use strict";var n=t("color-name"),i=t("is-plain-
obj"),a=t("defined");e.exports=function(t){var e,s,l=[],c=1;if("string"==typeof t)if(n[t])l=n[t].slice(),s="rgb";else
if("transparent"===t)c=0,s="rgb",l=[0,0,0];else if(/^#[A-Fa-f0-9]+$/.test(t)){var
u=t.slice(1);c=1,(p=u.length)<=4?(l=[parseInt(u[0]+u[0],16),parseInt(u[1]+u[1],16),parseInt(u[2]+u[2],16)],4===p
&&(c=parseInt(u[3]+u[3],16)/255)):(l=[parseInt(u[0]+u[1],16),parseInt(u[2]+u[3],16),parseInt(u[4]+u[5],16)],8===
p&&(c=parseInt(u[6]+u[7],16)/255)),l[0]||(l[0]=0),l[1]||(l[1]=0),l[2]||(l[2]=0),s="rgb"}else
if(e=/^((?:rgb|hs[lvb]|hwb|cmyk?|xy[zy]|gray|lab|lchu?v?|[ly]uv|lms)a?)\s*\(([^\)]*)\)/.exec(t)){var
f=e[1],h="rgb"===f;s=u=f.replace(/a$/,"");var
p="cmyk"===u?4:"gray"===u?1:3;l=e[2].trim().split(/\s*,\s*/).map((function(t,e){if(/%$/.test(t))return
e===p?parseFloat(t)/100:"rgb"===u?255*parseFloat(t)/100:parseFloat(t);if("h"===u[e]){if(/deg$/.test(t))return
parseFloat(t);if(void 0!==o[t])return o[t]}return parseFloat(t)})),f===u&&l.push(1),c=h||void
0===l[p]?1:l[p],l=l.slice(0,p)}else t.length>10&&/[0-9](?:\s|\/)/.test(t)&&(l=t.match(/([0-
9]+)/g).map((function(t){return parseFloat(t)})),s=t.match(/([a-z])/gi).join("").toLowerCase());else
if(isNaN(t))if(i(t)){var
d=a(t.r,t.red,t.R,null);null!==d?(s="rgb",l=[d,a(t.g,t.green,t.G),a(t.b,t.blue,t.B)]):(s="hsl",l=[a(t.h,t.hue,t.H),a(t.s,t.sat
uration,t.S),a(t.l,t.lightness,t.L,t.b,t.brightness)]),c=a(t.a,t.alpha,t.opacity,1),null!=t.opacity&&(c/=100)}else(Array.is
Array(t)||r.ArrayBuffer&&ArrayBuffer.isView&&ArrayBuffer.isView(t))&&(l=[t[0],t[1],t[2]],s="rgb",c=4===t.len
gth?t[3]:1);else s="rgb",l=[t>>>16,(65280&t)>>>8,255&t];return{space:s,values:l,alpha:c}};var
o={red:0,orange:60,yellow:120,green:180,blue:240,purple:300}}).call(this)}).call(this,void
0!==r.g?r.g:"undefined"!=typeof self?self:"undefined"!=typeof window?window:{})},{"color-
name":88,defined:124,"is-plain-obj":236}],91:[function(t,e,r){"use strict";var n=t("color-parse"),i=t("color-
space/hsl"),a=t("clamp");e.exports=function(t){var e,r=n(t);return
r.space?((e=Array(3))[0]=a(r.values[0],0,255),e[1]=a(r.values[1],0,255),e[2]=a(r.values[2],0,255),"h"===r.space[0]
&&(e=i.rgb(e)),e.push(a(r.alpha,0,1)),e):[]}},{clamp:86,"color-parse":90,"color-
space/hsl":92}],92:[function(t,e,r){"use strict";var
n=t("./rgb");e.exports={name:"hsl",min:[0,0,0],max:[360,100,100],channel:["hue","saturation","lightness"],alias:["H
SL"],rgb:function(t){var e,r,n,i,a,o=t[0]/360,s=t[1]/100,l=t[2]/100;if(0===s)return[a=255*l,a,a];e=2*l-
(r=l<.5?l*(1+s):l+s-l*s),i=[0,0,0];for(var c=0;c<3;c++)(n=o+1/3*-(c-1))<0?n++:n>1&&n--,a=6*n<1?e+6*(r-
e)*n:2*n<1?r:3*n<2?e+(r-e)*(2/3-n)*6:e,i[c]=255*a;return i}},n.hsl=function(t){var
e,r,n=t[0]/255,i=t[1]/255,a=t[2]/255,o=Math.min(n,i,a),s=Math.max(n,i,a),l=s-o;return s===o?e=0:n===s?e=(i-
a)/l:i===s?e=2+(a-n)/l:a===s&&(e=4+(n-
i)/l),(e=Math.min(60*e,360))<0&&(e+=360),r=(o+s)/2,[e,100*(s===o?0:r<=.5?l/(s+o):l/(2-s-
o)),100*r]}},{"./rgb":93}],93:[function(t,e,r){"use
strict";e.exports={name:"rgb",min:[0,0,0],max:[255,255,255],channel:["red","green","blue"],alias:["RGB"]}},{}],94

:[function(t,e,r){e.exports={AFG:"afghan",ALA:"\\b\\wland",ALB:"albania",DZA:"algeria",ASM:"^(?=.*americ).*samoa",AND:"andorra",AGO:"angola",AIA:"anguill?a",ATA:"antarctica",ATG:"antigua",ARG:"argentin",ARM:"armenia",ABW:"^(?!.*bonaire).*\\baruba",AUS:"australia",AUT:"^(?!.*hungary).*austria|\\baustri.*\\bemp",AZE:"azerbaijan",BHS:"bahamas",BHR:"bahrain",BGD:"bangladesh|^(?=.*east).*paki?stan",BRB:"barbados",BLR:"belarus|byelo",BEL:"^(?!.*luxem).*belgium",BLZ:"belize|^(?=.*british).*honduras",BEN:"benin|dahome",BMU:"bermuda",BTN:"bhutan",BOL:"bolivia",BES:"^(?=.*bonaire).*eustatius|^(?=.*carib).*netherlands|\\bbes.?islands",BIH:"herzegovina|bosnia",BWA:"botswana|bechuana",BVT:"bouvet",BRA:"brazil",IOT:"british.?indian.?ocean",BRN:"brunei",BGR:"bulgaria",BFA:"burkina|\\bfaso|upper.?volta",BDI:"burundi",CPV:"verde",KHM:"cambodia|kampuchea|khmer",CMR:"cameroon",CAN:"canada",CYM:"cayman",CAF:"\\bcentral.african.republic",TCD:"\\bchad",CHL:"\\bchile",CHN:"^(?!.*\\bmac)(?!.*\\bhong)(?!.*\\btai)(?!.*\\brep).*china|^(?=.*peo)(?=.*rep).*china",CXR:"christmas",CCK:"\\bcocos|keeling",COL:"colombia",COM:"comoro",COG:"^(?!.*\\bdem)(?!.*\\bd[\\.]?r)(?!.*kinshasa)(?!.*zaire)(?!.*belg)(?!.*l.opoldville)(?!.*free).*\\bcongo",COK:"\\bcook",CRI:"costa.?rica",CIV:"ivoire|ivory",HRV:"croatia",CUB:"\\bcuba",CUW:"^(?!.*bonaire).*\\bcura(c|ç)ao",CYP:"cyprus",CSK:"czechoslovakia",CZE:"^(?=.*rep).*czech|czechia|bohemia",COD:"\\bdem.*congo|congo.*\\bdem|congo.*\\bd[\\.]?r|\\bd[\\.]?r.*congo|belgian.?congo|congo.?free.?state|kinshasa|zaire|l.opoldville|drc|droc|rdc",DNK:"denmark",DJI:"djibouti",DMA:"dominica(?!n)",DOM:"dominican.rep",ECU:"ecuador",EGY:"egypt",SLV:"el.?salvador",GNQ:"guine.*eq|eq.*guine|^(?=.*span).*guinea",ERI:"eritrea",EST:"estonia",ETH:"ethiopia|abyssinia",FLK:"falkland|malvinas",FRO:"faroe|faeroe",FJI:"fiji",FIN:"finland",FRA:"^(?!.*\\bdep)(?!.*martinique).*france|french.?republic|\\bgaul",GUF:"^(?=.*french).*guiana",PYF:"french.?polynesia|tahiti",ATF:"french.?southern",GAB:"gabon",GMB:"gambia",GEO:"^(?!.*south).*georgia",DDR:"german.?democratic.?republic|democratic.?republic.*germany|east.germany",DEU:"^(?!.*east).*germany|^(?=.*\\bfed.*\\brep).*german",GHA:"ghana|gold.?coast",GIB:"gibraltar",GRC:"greece|hellenic|hellas",GRL:"greenland",GRD:"grenada",GLP:"guadeloupe",GUM:"\\bguam",GTM:"guatemala",GGY:"guernsey",GIN:"^(?!.*eq)(?!.*span)(?!.*bissau)(?!.*portu)(?!.*new).*guinea",GNB:"bissau|^(?=.*portu).*guinea",GUY:"guyana|british.?guiana",HTI:"haiti",HMD:"heard.*mcdonald",VAT:"holy.?see|vatican|papal.?st",HND:"^(?!.*brit).*honduras",HKG:"hong.?kong",HUN:"^(?!.*austr).*hungary",ISL:"iceland",IND:"india(?!.*ocea)",IDN:"indonesia",IRN:"\\biran|persia",IRQ:"\\biraq|mesopotamia",IRL:"(^ireland)|(^republic.*ireland)",IMN:"^(?=.*isle).*\\bman",ISR:"israel",ITA:"italy",JAM:"jamaica",JPN:"japan",JEY:"jersey",JOR:"jordan",KAZ:"kazak",KEN:"kenya|british.?east.?africa|east.?africa.?prot",KIR:"kiribati",PRK:"^(?=.*democrat|people|north|d.*p.*.r).*\\bkorea|dprk|korea.*(d.*p.*r)",KWT:"kuwait",KGZ:"kyrgyz|kirghiz",LAO:"\\blaos?\\b",LVA:"latvia",LBN:"lebanon",LSO:"lesotho|basuto",LBR:"liberia",LBY:"libya",LIE:"liechtenstein",LTU:"lithuania",LUX:"^(?!.*belg).*luxem",MAC:"maca(o|u)",MDG:"madagascar|malagasy",MWI:"malawi|nyasa",MYS:"malaysia",MDV:"maldive",MLI:"\\bmali\\b",MLT:"\\bmalta",MHL:"marshall",MTQ:"martinique",MRT:"mauritania",MUS:"mauritius",MYT:"\\bmayotte",MEX:"\\bmexic",FSM:"fed.*micronesia|micronesia.*fed",MCO:"monaco",MNG:"mongolia",MNE:"^(?!.*serbia).*montenegro",MSR:"montserrat",MAR:"morocco|\\bmaroc",MOZ:"mozambique",MMR:"myanmar|burma",NAM:"namibia",NRU:"nauru",NPL:"nepal",NLD:"^(?!.*\\bant)(?!.*\\bcarib).*netherlands",ANT:"^(?=.*\\bant).*(nether|dutch)",NCL:"new.?caledonia",NZL:"new.?zealand",NIC:"nicaragua",NER:"\\bniger(?!ia)",NGA:"nigeria",NIU:"niue",NFK:"norfolk",MNP:"mariana",NOR:"norway",OMN:"\\boman|trucial",PAK:"^(?!.*east).*paki?stan",PLW:"palau",PSE:"palestin|\\bgaza|west.?bank",PAN:"panama",PNG:"papua|new.?guinea",PRY:"paraguay",PER:"peru",PHL:"philippines",PCN:"pitcairn",POL:"poland",PRT:"portugal",PRI:"puerto.?rico",QAT:"qatar",KOR:"^(?!.*d.*p.*r)(?!.*democrat)(?!.*people)(?!.*north).*\\bkorea(?!.*d.*p.*r)",MDA:"moldov|b(a|e)ssarabia",REU:"r(e|é)union",ROU:"r(o|u|ou)mania",RUS:"\\brussia|soviet.?union|u\\.?s\\.?s\\.?r|socialist.?republics",RWA:"rwanda",BLM:"barth(e|é)lemy",SHN:"helena",KNA:"kitts|\\bnevis",LCA:"\\blucia",MAF:"^(?=.*collectivity).*martin|^(?=.*france).*martin(?!ique)|^(?=.*french).*martin(?!ique)",SPM:"miquelon",VCT:"vincent",WSM:"^(?!.*amer).*samoa",SMR:"san.?marino",STP:"\\bs(a|ã)o.?tom(e|é)",SAU:"\\bsa\\w*.?arabia",SEN:"senegal",SRB:"^(?!.*monte).*serbia",SYC:"seychell",SLE:"sierra",SGP:"singapore",SXM:"^(?!.*martin)(?!.*saba).*maarten",SVK:"^(?!.*cze).*slovak",SVN:"slovenia",SLB:"solomon",SOM:"somali",ZAF:"south.africa|s\\\\..?africa",SGS:"south.?georgia|sandwich",SSD:"\\bs\\w*.?sudan",ESP:"spain",LKA:"sri.?lanka|ceylon",SDN:"^(?!.*\\bs(?!u)).*sudan",SUR:"surinam|dutch.?guiana",SJM:"svalbard",SWZ:"swaziland",SWE:"sweden",CHE:"switz|swiss",SYR:"syria",TWN:"taiwan|taipei|formosa|^(?!.*peo)(?=.*rep).*china",TJK:"tajik",THA:"thailand|\\bsiam",

MKD:"macedonia|fyrom",TLS:"^(?=.*leste).*timor|^(?=.*east).*timor",TGO:"togo",TKL:"tokelau",TON:"tonga",TTO:"trinidad|tobago",TUN:"tunisia",TUR:"turkey",TKM:"turkmen",TCA:"turks",TUV:"tuvalu",UGA:"uganda",UKR:"ukrain",ARE:"emirates|^u\\.?a\\.?e\\.?$|united.?arab.?em",GBR:"united.?kingdom|britain|^u\\.?k\\.?$",TZA:"tanzania",USA:"united.?states\\b(?!.*islands)|\\bu\\.?s\\.?a\\.?\\b|^\\s*u\\.?s\\.?\\b(?!.*islands)",UMI:"minor.?outlying.?is",URY:"uruguay",UZB:"uzbek",VUT:"vanuatu|new.?hebrides",VEN:"venezuela",VNM:"^(?!.*republic).*viet.?nam|^(?=.*socialist).*viet.?nam",VGB:"^(?=.*\\bu\\.?\\s?k).*virgin|^(?=.*brit).*virgin|^(?=.*kingdom).*virgin",VIR:"^(?=.*\\bu\\.?\\s?s).*virgin|^(?=.*states).*virgin",WLF:"futuna|wallis",ESH:"western.sahara",YEM:"^(?!.*arab)(?!.*north)(?!.*sana)(?!.*peo)(?!.*dem)(?!.*south)(?!.*aden)(?!.*\\bp\\.?d\\.?r).*yemen",YMD:"^(?=.*peo).*yemen|^(?!.*rep)(?=.*dem).*yemen|^(?=.*south).*yemen|^(?=.*aden).*yemen|^(?=.*\\bp\\.?d\\.?r).*yemen",YUG:"yugoslavia",ZMB:"zambia|northern.?rhodesia",EAZ:"zanzibar",ZWE:"zimbabwe|^(?!.*northern).*rhodesia"}},{}],95:[function(t,e,r){e.exports=["xx-small","x-small","small","medium","large","x-large","xx-large","larger","smaller"]},{}],96:[function(t,e,r){e.exports=["normal","condensed","semi-condensed","extra-condensed","ultra-condensed","expanded","semi-expanded","extra-expanded","ultra-expanded"]},{}],97:[function(t,e,r){e.exports=["normal","italic","oblique"]},{}],98:[function(t,e,r){e.exports=["normal","bold","bolder","lighter","100","200","300","400","500","600","700","800","900"]},{}],99:[function(t,e,r){"use
strict";e.exports={parse:t("./parse"),stringify:t("./stringify")}},{"./parse":101,"./stringify":102}],100:[function(t,e,r){"use strict";var n=t("css-font-size-keywords");e.exports={isSize:function(t){return/^[\d\.]/.test(t)||-1!==t.indexOf("/")||-1!==n.indexOf(t)}}},{"css-font-size-keywords":95}],101:[function(t,e,r){"use strict";var n=t("unquote"),i=t("css-global-keywords"),a=t("css-system-font-keywords"),o=t("css-font-weight-keywords"),s=t("css-font-style-keywords"),l=t("css-font-stretch-keywords"),c=t("string-split-by"),u=t("./lib/util").isSize;e.exports=h;var f=h.cache={};function h(t){if("string"!=typeof t)throw new Error("Font argument must be a string.");if(f[t])return f[t];if(""===t)throw new Error("Cannot parse an empty string.");if(-1!==a.indexOf(t))return f[t]={system:t};for(var
e,r={style:"normal",variant:"normal",weight:"normal",stretch:"normal",lineHeight:"normal",size:"1rem",family:["serif"]},h=c(t,/\s+/);e=h.shift();){if(-1!==i.indexOf(e))return["style","variant","weight","stretch"].forEach((function(t){r[t]=e})),f[t]=r;if(-1===s.indexOf(e))if("normal"!==e&&"small-caps"!==e)if(-1===l.indexOf(e)){if(-1===o.indexOf(e)){if(u(e)){var d=c(e,"/");if(r.size=d[0],null!=d[1]?r.lineHeight=p(d[1]):"/"===h[0]&&(h.shift(),r.lineHeight=p(h.shift())),!h.length)throw new Error("Missing required font-family.");return r.family=c(h.join(" "),/\s*,\s*/).map(n),f[t]=r}throw new Error("Unknown or unsupported font token: "+e)}r.weight=e}else r.stretch=e;else r.variant=e;else r.style=e}throw new Error("Missing required font-size.")}function p(t){var e=parseFloat(t);return e.toString()===t?e:t}},{"./lib/util":100,"css-font-stretch-keywords":96,"css-font-style-keywords":97,"css-font-weight-keywords":98,"css-global-keywords":103,"css-system-font-keywords":104,"string-split-by":305,unquote:328}],102:[function(t,e,r){"use strict";var n=t("pick-by-alias"),i=t("./lib/util").isSize,a=g(t("css-global-keywords")),o=g(t("css-system-font-keywords")),s=g(t("css-font-weight-keywords")),l=g(t("css-font-style-keywords")),c=g(t("css-font-stretch-keywords")),u={normal:1,"small-caps":1},f={serif:1,"sans-serif":1,monospace:1,cursive:1,fantasy:1,"system-ui":1},h="1rem",p="serif";function d(t,e){if(t&&!e[t]&&!a[t])throw Error("Unknown keyword `"+t+"`");return t}function g(t){for(var e={},r=0;r<t.length;r++)e[t[r]]=1;return e}e.exports=function(t){if((t=n(t,{style:"style fontstyle fontStyle font-style slope distinction",variant:"variant font-variant fontVariant fontvariant var capitalization",weight:"weight w font-weight fontWeight fontweight",stretch:"stretch font-stretch fontStretch fontstretch width",size:"size s font-size fontSize fontsize height em emSize",lineHeight:"lh line-height lineHeight lineheight leading",family:"font family fontFamily font-family fontfamily type typeface face",system:"system reserved default global"})).system)return t.system&&d(t.system,o),t.system;if(d(t.style,l),d(t.variant,u),d(t.weight,s),d(t.stretch,c),null==t.size&&(t.size=h),"number"==typeof t.size&&(t.size+="px"),!i)throw Error("Bad size value `"+t.size+"`");t.family||(t.family=p),Array.isArray(t.family)&&(t.family.length||(t.family=[p]),t.family=t.family.map((function(t){return f[t]?t:""+t+""})).join(", "));var e=[];return

e.push(t.style),t.variant!==t.style&&e.push(t.variant),t.weight!==t.variant&&t.weight!==t.style&&e.push(t.weight),t.stretch!==t.weight&&t.stretch!==t.variant&&t.stretch!==t.style&&e.push(t.stretch),e.push(t.size+(null==t.lineHeight||"normal"===t.lineHeight||t.lineHeight+""=="1"?"":"/"+t.lineHeight)),e.push(t.family),e.filter(Boolean).join(" ")}},{"./lib/util":100,"css-font-stretch-keywords":96,"css-font-style-keywords":97,"css-font-weight-keywords":98,"css-global-keywords":103,"css-system-font-keywords":104,"pick-by-alias":253}],103:[function(t,e,r){e.exports=["inherit","initial","unset"]},{}],104:[function(t,e,r){e.exports=["caption","icon","menu","message-box","small-caption","status-bar"]},{}],105:[function(t,e,r){"use strict";var n,i=t("type/value/is"),a=t("type/value/ensure"),o=t("type/plain-function/ensure"),s=t("es5-ext/object/copy"),l=t("es5-ext/object/normalize-options"),c=t("es5-ext/object/map"),u=Function.prototype.bind,f=Object.defineProperty,h=Object.prototype.hasOwnProperty;n=function(t,e,r){var n,i=a(e)&&o(e.value);return delete(n=s(e)).writable,delete n.value,n.get=function(){return!r.overwriteDefinition&&h.call(this,t)?i:(e.value=u.call(i,r.resolveContext?r.resolveContext(this):this),f(this,t,e),this[t])},n},e.exports=function(t){var e=l(arguments[1]);return i(e.resolveContext)&&o(e.resolveContext),c(t,(function(t,r){return n(r,t,e)}))}},{"es5-ext/object/copy":147,"es5-ext/object/map":155,"es5-ext/object/normalize-options":156,"type/plain-function/ensure":321,"type/value/ensure":325,"type/value/is":326}],106:[function(t,e,r){"use strict";var n=t("type/value/is"),i=t("type/plain-function/is"),a=t("es5-ext/object/assign"),o=t("es5-ext/object/normalize-options"),s=t("es5-ext/string/#/contains");(e.exports=function(t,e){var r,i,l,c,u;return arguments.length<2||"string"!=typeof t?(c=e,e=t,t=null):c=arguments[2],n(t)?(r=s.call(t,"c"),i=s.call(t,"e"),l=s.call(t,"w")):(r=l=!0,i=!1),u={value:e,configurable:r,enumerable:i,writable:l},c?a(o(c),u):u}).gs=function(t,e,r){var l,c,u,f;return"string"!=typeof t?(u=r,r=e,e=t,t=null):u=arguments[3],n(e)?i(e)?n(r)?i(r)||(u=r,r=void 0):r=void 0:(u=e,e=r=void 0):e=void 0,n(t)?(l=s.call(t,"c"),c=s.call(t,"e")):(l=!0,c=!1),f={get:e,set:r,configurable:l,enumerable:c},u?a(o(u),f):f}},{"es5-ext/object/assign":144,"es5-ext/object/normalize-options":156,"es5-ext/string/#/contains":163,"type/plain-function/is":322,"type/value/is":326}],107:[function(t,e,r){!function(t){"use strict";function e(t,e){return t<e?-1:t>e?1:t>=e?0:NaN}function r(t){return 1===t.length&&(r=t,t=function(t,n){return e(r(t),n)}),{left:function(e,r,n,i){for(null==n&&(n=0),null==i&&(i=e.length);n<i;){var a=n+i>>>1;t(e[a],r)<0?n=a+1:i=a}return n},right:function(e,r,n,i){for(null==n&&(n=0),null==i&&(i=e.length);n<i;){var a=n+i>>>1;t(e[a],r)>0?i=a:n=a+1}return n}};var r}var n=r(e),i=n.right,a=n.left;function o(t,e){return[t,e]}function s(t){return null===t?NaN:+t}function l(t,e){var r,n,i=t.length,a=0,o=-1,l=0,c=0;if(null==e)for(;++o<i;)isNaN(r=s(t[o]))||(c+=(n=r-l)*(r-(l+=n/++a)));else for(;++o<i;)isNaN(r=s(e(t[o],o,t)))||(c+=(n=r-l)*(r-(l+=n/++a)));if(a>1)return c/(a-1)}function c(t,e){var r=l(t,e);return r?Math.sqrt(r):r}function u(t,e){var r,n,i,a=t.length,o=-1;if(null==e){for(;++o<a;)if(null!=(r=t[o])&&r>=r)for(n=i=r;++o<a;)null!=(r=t[o])&&(n>r&&(n=r),i<r&&(i=r))}else for(;++o<a;)if(null!=(r=e(t[o],o,t))&&r>=r)for(n=i=r;++o<a;)null!=(r=e(t[o],o,t))&&(n>r&&(n=r),i<r&&(i=r));return[n,i]}var f=Array.prototype,h=f.slice,p=f.map;function d(t){return function(){return t}}function g(t){return t}function v(t,e,r){t=+t,e=+e,r=(i=arguments.length)<2?(e=t,t=0,1):i<3?1:+r;for(var n=-1,i=0|Math.max(0,Math.ceil((e-t)/r)),a=new Array(i);++n<i;)a[n]=t+n*r;return a}var m=Math.sqrt(50),y=Math.sqrt(10),x=Math.sqrt(2);function b(t,e,r){var n=(e-t)/Math.max(0,r),i=Math.floor(Math.log(n)/Math.LN10),a=n/Math.pow(10,i);return i>=0?(a>=m?10:a>=y?5:a>=x?2:1)*Math.pow(10,i):-Math.pow(10,-i)/(a>=m?10:a>=y?5:a>=x?2:1)}function _(t,e,r){var n=Math.abs(e-t)/Math.max(0,r),i=Math.pow(10,Math.floor(Math.log(n)/Math.LN10)),a=n/i;return a>=m?i*=10:a>=y?i*=5:a>=x&&(i*=2),e<t?-i:i}function w(t){return Math.ceil(Math.log(t.length)/Math.LN2)+1}function T(t,e,r){if(null==r&&(r=s),n=t.length){if((e=+e)<=0||n<2)return+r(t[0],0,t);if(e>=1)return+r(t[n-1],n-1,t);var n,i=(n-1)*e,a=Math.floor(i),o=+r(t[a],a,t);return o+(+r(t[a+1],a+1,t)-o)*(i-a)}}function k(t,e){var r,n,i=t.length,a=-

1;if(null==e){for(;++a<i;)if(null!=(r=t[a])&&r>=r)for(n=r;++a<i;)null!=(r=t[a])&&n>r&&(n=r)}else for(;++a<i;)if(null!=(r=e(t[a],a,t))&&r>=r)for(n=r;++a<i;)null!=(r=e(t[a],a,t))&&n>r&&(n=r);return n}function A(t){if(!(i=t.length))return[];for(var e=-1,r=k(t,M),n=new Array(r);++e<r;)for(var i,a=-1,o=n[e]=new Array(i);++a<i;)o[a]=t[a][e];return n}function M(t){return t.length}t.bisect=i,t.bisectRight=i,t.bisectLeft=a,t.ascending=e,t.bisector=r,t.cross=function(t,e,r){var n,i,a,s,l=t.length,c=e.length,u=new Array(l*c);for(null==r&&(r=o),n=a=0;n<l;++n)for(s=t[n],i=0;i<c;++i,++a)u[a]=r(s,e[i]);return u},t.descending=function(t,e){return e<t?-1:e>t?1:e>=t?0:NaN},t.deviation=c,t.extent=u,t.histogram=function(){var t=g,e=u,r=w;function n(n){var a,o,s=n.length,l=new Array(s);for(a=0;a<s;++a)l[a]=t(n[a],a,n);var c=e(l),u=c[0],f=c[1],h=r(l,u,f);Array.isArray(h)||(h=_(u,f,h),h=v(Math.ceil(u/h)*h,f,h));for(var p=h.length;h[0]<=u;)h.shift(),--p;for(;h[p-1]>f;)h.pop(),--p;var d,g=new Array(p+1);for(a=0;a<=p;++a)(d=g[a]=[]).x0=a>0?h[a-1]:u,d.x1=a<p?h[a]:f;for(a=0;a<s;++a)u<=(o=l[a])&&o<=f&&g[i(h,o,0,p)].push(n[a]);return g}return n.value=function(e){return arguments.length?(t="function"==typeof e?e:d(e),n):t},n.domain=function(t){return arguments.length?(e="function"==typeof t?t:d([t[0],t[1]]),n):e},n.thresholds=function(t){return arguments.length?(r="function"==typeof t?t:Array.isArray(t)?d(h.call(t)):d(t),n):r},n},t.thresholdFreedmanDiaconis=function(t,r,n){return t=p.call(t,s).sort(e),Math.ceil((n-r)/(2*(T(t,.75)-T(t,.25))*Math.pow(t.length,-1/3)))},t.thresholdScott=function(t,e,r){return Math.ceil((r-e)/(3.5*c(t)*Math.pow(t.length,-1/3)))},t.thresholdSturges=w,t.max=function(t,e){var r,n,i=t.length,a=-1;if(null==e){for(;++a<i;)if(null!=(r=t[a])&&r>=r)for(n=r;++a<i;)null!=(r=t[a])&&r>n&&(n=r)}else for(;++a<i;)if(null!=(r=e(t[a],a,t))&&r>=r)for(n=r;++a<i;)null!=(r=e(t[a],a,t))&&r>n&&(n=r);return n},t.mean=function(t,e){var r,n=t.length,i=n,a=-1,o=0;if(null==e)for(;++a<n;)isNaN(r=s(t[a]))?--i:o+=r;else for(;++a<n;)isNaN(r=s(e(t[a],a,t)))?--i:o+=r;if(i)return o/i},t.median=function(t,r){var n,i=t.length,a=-1,o=[];if(null==r)for(;++a<i;)isNaN(n=s(t[a]))||o.push(n);else for(;++a<i;)isNaN(n=s(r(t[a],a,t)))||o.push(n);return T(o.sort(e),.5)},t.merge=function(t){for(var e,r,n,i=t.length,a=-1,o=0;++a<i;)o+=t[a].length;for(r=new Array(o);--i>=0;)for(e=(n=t[i]).length;--e>=0;)r[--o]=n[e];return r},t.min=k,t.pairs=function(t,e){null==e&&(e=o);for(var r=0,n=t.length-1,i=t[0],a=new Array(n<0?0:n);r<n;)a[r]=e(i,i=t[++r]);return a},t.permute=function(t,e){for(var r=e.length,n=new Array(r);r--;)n[r]=t[e[r]];return n},t.quantile=T,t.range=v,t.scan=function(t,r){if(n=t.length){var n,i,a=0,o=0,s=t[o];for(null==r&&(r=e);++a<n;)(r(i=t[a],s)<0||0!==r(s,s))&&(s=i,o=a);return 0===r(s,s)?o:void 0}},t.shuffle=function(t,e,r){for(var n,i,a=(null==r?t.length:r)-(e=null==e?0:+e);a;)i=Math.random()*a--|0,n=t[a+e],t[a+e]=t[i+e],t[i+e]=n;return t},t.sum=function(t,e){var r,n=t.length,i=-1,a=0;if(null==e)for(;++i<n;)(r=+t[i])&&(a+=r);else for(;++i<n;)(r=+e(t[i],i,t))&&(a+=r);return a},t.ticks=function(t,e,r){var n,i,a,o,s=-1;if(r=+r,(t=+t)==(e=+e)&&r>0)return[t];if((n=e<t)&&(i=t,t=e,e=i),0===(o=b(t,e,r))||!isFinite(o))return[];if(o>0)for(t=Math.ceil(t/o),e=Math.floor(e/o),a=new Array(i=Math.ceil(e-t+1));++s<i;)a[s]=(t+s)*o;else for(t=Math.floor(t*o),e=Math.ceil(e*o),a=new Array(i=Math.ceil(t-e+1));++s<i;)a[s]=(t-s)/o;return n&&a.reverse(),a},t.tickIncrement=b,t.tickStep=_,t.transpose=A,t.variance=l,t.zip=function(){return A(arguments)},Object.defineProperty(t,"__esModule",{value:!0})}("object"==typeof r&&void 0!==e?r:this.d3=this.d3||{})},{}],108:[function(t,e,r){!function(t){"use strict";var e="$";function r(){}function n(t,e){var n=new r;if(t instanceof r)t.each((function(t,e){n.set(e,t)}));else if(Array.isArray(t)){var i,a=-1,o=t.length;if(null==e)for(;++a<o;)n.set(a,t[a]);else for(;++a<o;)n.set(e(i=t[a],a,t),i)}else if(t)for(var s in t)n.set(s,t[s]);return n}function i(){return{}}function a(t,e,r){t[e]=r}function o(){return n()}function s(t,e,r){t.set(e,r)}function l(){}r.prototype=n.prototype={constructor:r,has:function(t){return e+t in this},get:function(t){return this[e+t]},set:function(t,r){return this[e+t]=r,this},remove:function(t){var r=e+t;return r in this&&delete this[r]},clear:function(){for(var t in this)t[0]===e&&delete this[t]},keys:function(){var t=[];for(var r in this)r[0]===e&&t.push(r.slice(1));return t},values:function(){var t=[];for(var r in this)r[0]===e&&t.push(this[r]);return t},entries:function(){var t=[];for(var r in

this)r[0]===e&&t.push({key:r.slice(1),value:this[r]});return t},size:function(){var t=0;for(var r in this)r[0]===e&&++t;return t},empty:function(){for(var t in this)if(t[0]===e)return!1;return!0},each:function(t){for(var r in this)r[0]===e&&t(this[r],r.slice(1),this)}};var c=n.prototype;function u(t,e){var r=new l;if(t instanceof l)t.each((function(t){r.add(t)}));else if(t){var n=-1,i=t.length;if(null==e)for(;++n<i;)r.add(t[n]);else for(;++n<i;)r.add(e(t[n],n,t))}return r}l.prototype=u.prototype={constructor:l,has:c.has,add:function(t){return this[e+(t+="")]=t,this},remove:c.remove,clear:c.clear,values:c.keys,size:c.size,empty:c.empty,each:c.each},t.nest=function(){var t,e,r,l=[],c=[];function u(r,i,a,o){if(i>=l.length)return null!=t&&r.sort(t),null!=e?e(r):r;for(var s,c,f,h=-1,p=r.length,d=l[i++],g=n(),v=a();++h<p;)(f=g.get(s=d(c=r[h])+""))?f.push(c):g.set(s,[c]);return g.each((function(t,e){o(v,e,u(t,i,a,o))})),v}function f(t,r){if(++r>l.length)return t;var n,i=c[r-1];return null!=e&&r>=l.length?n=t.entries():(n=[],t.each((function(t,e){n.push({key:e,values:f(t,r)})}))),null!=i?n.sort((function(t,e){return i(t.key,e.key)})):n}return r={object:function(t){return u(t,0,i,a)},map:function(t){return u(t,0,o,s)},entries:function(t){return f(u(t,0,o,s),0)},key:function(t){return l.push(t),r},sortKeys:function(t){return c[l.length-1]=t,r},sortValues:function(e){return t=e,r},rollup:function(t){return e=t,r}},t.set=u,t.map=n,t.keys=function(t){var e=[];for(var r in t)e.push(r);return e},t.values=function(t){var e=[];for(var r in t)e.push(t[r]);return e},t.entries=function(t){var e=[];for(var r in t)e.push({key:r,value:t[r]});return e},Object.defineProperty(t,"__esModule",{value:!0})}("object"==typeof r&&void 0!==e?r:this.d3=this.d3||{})},{}],109:[function(t,e,r){var n;n=this,function(t){"use strict";function e(t,e,r){t.prototype=e.prototype=r,r.constructor=t}function r(t,e){var r=Object.create(t.prototype);for(var n in e)r[n]=e[n];return r}function n(){}var i=.7,a=1/i,o="\\s*([+-]?\\d+)\\s*",s="\\s*([+-]?\\d*\\.?\\d+(?:[eE][+-]?\\d+)?)\\s*",l="\\s*([+-]?\\d*\\.?\\d+(?:[eE][+-]?\\d+)?)%\\s*",c=/^#([0-9a-f]{3,8})$/,u=new RegExp("^rgb\\("+[o,o,o]+"\\)$"),f=new RegExp("^rgb\\("+[l,l,l]+"\\)$"),h=new RegExp("^rgba\\("+[o,o,o,s]+"\\)$"),p=new RegExp("^rgba\\("+[l,l,l,s]+"\\)$"),d=new RegExp("^hsl\\("+[s,l,l]+"\\)$"),g=new RegExp("^hsla\\("+[s,l,l,s]+"\\)$"),v={aliceblue:15792383,antiquewhite:16444375,aqua:65535,aquamarine:8388564,azure:15794175,beige:16119260,bisque:16770244,black:0,blanchedalmond:16772045,blue:255,blueviolet:9055202,brown:10824234,burlywood:14596231,cadetblue:6266528,chartreuse:8388352,chocolate:13789470,coral:16744272,cornflowerblue:6591981,cornsilk:16775388,crimson:14423100,cyan:65535,darkblue:139,darkcyan:35723,darkgoldenrod:12092939,darkgray:11119017,darkgreen:25600,darkgrey:11119017,darkkhaki:12433259,darkmagenta:9109643,darkolivegreen:5597999,darkorange:16747520,darkorchid:10040012,darkred:9109504,darksalmon:15308410,darkseagreen:9419919,darkslateblue:4734347,darkslategray:3100495,darkslategrey:3100495,darkturquoise:52945,darkviolet:9699539,deeppink:16716947,deepskyblue:49151,dimgray:6908265,dimgrey:6908265,dodgerblue:2003199,firebrick:11674146,floralwhite:16775920,forestgreen:2263842,fuchsia:16711935,gainsboro:14474460,ghostwhite:16316671,gold:16766720,goldenrod:14329120,gray:8421504,green:32768,greenyellow:11403055,grey:8421504,honeydew:15794160,hotpink:16738740,indianred:13458524,indigo:4915330,ivory:16777200,khaki:15787660,lavender:15132410,lavenderblush:16773365,lawngreen:8190976,lemonchiffon:16775885,lightblue:11393254,lightcoral:15761536,lightcyan:14745599,lightgoldenrodyellow:16448210,lightgray:13882323,lightgreen:9498256,lightgrey:13882323,lightpink:16758465,lightsalmon:16752762,lightseagreen:2142890,lightskyblue:8900346,lightslategray:7833753,lightslategrey:7833753,lightsteelblue:11584734,lightyellow:16777184,lime:65280,limegreen:3329330,linen:16445670,magenta:16711935,maroon:8388608,mediumaquamarine:6737322,mediumblue:205,mediumorchid:12211667,mediumpurple:9662683,mediumseagreen:3978097,mediumslateblue:8087790,mediumspringgreen:64154,mediumturquoise:4772300,mediumvioletred:13047173,midnightblue:1644912,mintcream:16121850,mistyrose:16770273,moccasin:16770229,navajowhite:16768685,navy:128,oldlace:16643558,olive:8421376,olivedrab:7048739,orange:16753920,orangered:16729344,orchid:14315734,palegoldenrod:15657130,palegreen:10025880,paleturquoise:11529966,palevioletred:14381203,papayawhip:16773077,peachpuff:16767673,peru:13468991,pink:16761035,plum:14524637,powderblue:11591910,purple:8388736,rebeccapurple:6697881,red:16711680,rosybrown:12357519,royalblue:4286945,saddlebrown:9127187,salmon:16416882,sandybrown:16032864,seagreen:3050327,seashell:16774638,sienna:10506797,silver:12632256,skyblue:8900331,slateblue:6970061,slategray:7372944,slategrey:7372944,snow:16775930,spri

nggreen:65407,steelblue:4620980,tan:13808780,teal:32896,thistle:14204888,tomato:16737095,turquoise:4251856,violet:15631086,wheat:16113331,white:16777215,whitesmoke:16119285,yellow:16776960,yellowgreen:10145074};
function m(){return this.rgb().formatHex()}function y(){return this.rgb().formatRgb()}function x(t){var e,r;return
t=(t+"").trim().toLowerCase(),(e=c.exec(t))?(r=e[1].length,e=parseInt(e[1],16),6===r?b(e):3===r?new
k(e>>8&15|e>>4&240,e>>4&15|240&e,(15&e)<<4|15&e,1):8===r?_(e>>24&255,e>>16&255,e>>8&255,(255&e)
/255):4===r?_(e>>12&15|e>>8&240,e>>8&15|e>>4&240,e>>4&15|240&e,((15&e)<<4|15&e)/255):null):(e=u.exec(t))?new k(e[1],e[2],e[3],1):(e=f.exec(t))?new
k(255*e[1]/100,255*e[2]/100,255*e[3]/100,1):(e=h.exec(t))?_(e[1],e[2],e[3],e[4]):(e=p.exec(t))?_(255*e[1]/100,255
*e[2]/100,255*e[3]/100,e[4]):(e=d.exec(t))?E(e[1],e[2]/100,e[3]/100,1):(e=g.exec(t))?E(e[1],e[2]/100,e[3]/100,e[4]):
v.hasOwnProperty(t)?b(v[t]):"transparent"===t?new k(NaN,NaN,NaN,0):null}function b(t){return new
k(t>>16&255,t>>8&255,255&t,1)}function _(t,e,r,n){return n<=0&&(t=e=r=NaN),new k(t,e,r,n)}function
w(t){return t instanceof n||(t=x(t)),t?new k((t=t.rgb()).r,t.g,t.b,t.opacity):new k}function T(t,e,r,n){return
1===arguments.length?w(t):new k(t,e,r,null==n?1:n)}function
k(t,e,r,n){this.r=+t,this.g=+e,this.b=+r,this.opacity=+n}function
A(){return"#"+S(this.r)+S(this.g)+S(this.b)}function M(){var
t=this.opacity;return(1===(t=isNaN(t)?1:Math.max(0,Math.min(1,t)))?"rgb(":"rgba(")+Math.max(0,Math.min(255,
Math.round(this.r)||0))+", "+Math.max(0,Math.min(255,Math.round(this.g)||0))+",
"+Math.max(0,Math.min(255,Math.round(this.b)||0))+(1===t?")":", "+t+")")}function
S(t){return((t=Math.max(0,Math.min(255,Math.round(t)||0)))<16?"0":"")+t.toString(16)}function E(t,e,r,n){return
n<=0?t=e=r=NaN:r<=0||r>=1?t=e=NaN:e<=0&&(t=NaN),new P(t,e,r,n)}function L(t){if(t instanceof P)return new
P(t.h,t.s,t.l,t.opacity);if(t instanceof n||(t=x(t)),!t)return new P;if(t instanceof P)return t;var
e=(t=t.rgb()).r/255,r=t.g/255,i=t.b/255,a=Math.min(e,r,i),o=Math.max(e,r,i),s=NaN,l=o-a,c=(o+a)/2;return
l?(s=e===o?(r-i)/l+6*(r<i):r===o?(i-e)/l+2:(e-r)/l+4,l/=c<.5?o+a:2-o-a,s*=60):l=c>0&&c<1?0:s,new
P(s,l,c,t.opacity)}function C(t,e,r,n){return 1===arguments.length?L(t):new P(t,e,r,null==n?1:n)}function
P(t,e,r,n){this.h=+t,this.s=+e,this.l=+r,this.opacity=+n}function I(t,e,r){return 255*(t<60?e+(r-
e)*t/60:t<180?r:t<240?e+(r-e)*(240-t)/60:e)}e(n,x,{copy:function(t){return Object.assign(new
this.constructor,this,t)},displayable:function(){return
this.rgb().displayable()},hex:m,formatHex:m,formatHsl:function(){return
L(this).formatHsl()},formatRgb:y,toString:y}),e(k,T,r(n,{brighter:function(t){return t=null==t?a:Math.pow(a,t),new
k(this.r*t,this.g*t,this.b*t,this.opacity)},darker:function(t){return t=null==t?i:Math.pow(i,t),new
k(this.r*t,this.g*t,this.b*t,this.opacity)},rgb:function(){return this},displayable:function(){return-
.5<=this.r&&this.r<255.5&&-.5<=this.g&&this.g<255.5&&-
.5<=this.b&&this.b<255.5&&0<=this.opacity&&this.opacity<=1},hex:A,formatHex:A,formatRgb:M,toString:M}))
,e(P,C,r(n,{brighter:function(t){return t=null==t?a:Math.pow(a,t),new
P(this.h,this.s,this.l*t,this.opacity)},darker:function(t){return t=null==t?i:Math.pow(i,t),new
P(this.h,this.s,this.l*t,this.opacity)},rgb:function(){var
t=this.h%360+360*(this.h<0),e=isNaN(t)||isNaN(this.s)?0:this.s,r=this.l,n=r+(r<.5?r:1-r)*e,i=2*r-n;return new
k(I(t>=240?t-240:t+120,i,n),I(t,i,n),I(t<120?t+240:t-
120,i,n),this.opacity)},displayable:function(){return(0<=this.s&&this.s<=1||isNaN(this.s))&&0<=this.l&&this.l<=1
&&0<=this.opacity&&this.opacity<=1},formatHsl:function(){var
t=this.opacity;return(1===(t=isNaN(t)?1:Math.max(0,Math.min(1,t)))?"hsl(":"hsla(")+(this.h||0)+",
"+100*(this.s||0)+"%, "+100*(this.l||0)+"%"+(1===t?")":", "+t+")")}}));var
O=Math.PI/180,z=180/Math.PI,D=.96422,R=.82521,F=4/29,B=6/29,N=3*B*B;function j(t){if(t instanceof V)return
new V(t.l,t.a,t.b,t.opacity);if(t instanceof Z)return J(t);t instanceof k||(t=w(t));var
e,r,n=Y(t.r),i=Y(t.g),a=Y(t.b),o=q((.2225045*n+.7168786*i+.0606169*a)/1);return
n===i&&i===a?e=r=o:(e=q((.4360747*n+.3850649*i+.1430804*a)/D),r=q((.0139322*n+.0971045*i+.7141733*a)
/R)),new V(116*o-16,500*(e-o),200*(o-r),t.opacity)}function U(t,e,r,n){return 1===arguments.length?j(t):new
V(t,e,r,null==n?1:n)}function V(t,e,r,n){this.l=+t,this.a=+e,this.b=+r,this.opacity=+n}function q(t){return

t>.008856451679035631?Math.pow(t,1/3):t/N+F}function H(t){return t>B?t*t*t:N*(t-F)}function G(t){return 255*(t<=.0031308?12.92*t:1.055*Math.pow(t,1/2.4)-.055)}function Y(t){return(t/=255)<=.04045?t/12.92:Math.pow((t+.055)/1.055,2.4)}function W(t){if(t instanceof Z)return new Z(t.h,t.c,t.l,t.opacity);if(t instanceof V||(t=j(t)),0===t.a&&0===t.b)return new Z(NaN,0<t.l&&t.l<100?0:NaN,t.l,t.opacity);var e=Math.atan2(t.b,t.a)*z;return new Z(e<0?e+360:e,Math.sqrt(t.a*t.a+t.b*t.b),t.l,t.opacity)}function X(t,e,r,n){return 1===arguments.length?W(t):new Z(t,e,r,null==n?1:n)}function Z(t,e,r,n){this.h=+t,this.c=+e,this.l=+r,this.opacity=+n}function J(t){if(isNaN(t.h))return new V(t.l,0,0,t.opacity);var e=t.h*O;return new V(t.l,Math.cos(e)*t.c,Math.sin(e)*t.c,t.opacity)}e(V,U,r(n,{brighter:function(t){return new V(this.l+18*(null==t?1:t),this.a,this.b,this.opacity)},darker:function(t){return new V(this.l-18*(null==t?1:t),this.a,this.b,this.opacity)},rgb:function(){var t=(this.l+16)/116,e=isNaN(this.a)?t:t+this.a/500,r=isNaN(this.b)?t:t-this.b/200;return new k(G(3.1338561*(e=D*H(e))-1.6168667*(t=1*H(t))-.4906146*(r=R*H(r))),G(-.9787684*e+1.9161415*t+.033454*r),G(.0719453*e-.2289914*t+1.4052427*r),this.opacity)}})),e(Z,X,r(n,{brighter:function(t){return new Z(this.h,this.c,this.l+18*(null==t?1:t),this.opacity)},darker:function(t){return new Z(this.h,this.c,this.l-18*(null==t?1:t),this.opacity)},rgb:function(){return J(this).rgb()}}));var K=-.14861,Q=1.78277,$=-.29227,tt=-.90649,et=1.97294,rt=et*tt,nt=et*Q,it=Q*$-tt*K;function at(t){if(t instanceof st)return new st(t.h,t.s,t.l,t.opacity);t instanceof k||(t=w(t));var e=t.r/255,r=t.g/255,n=t.b/255,i=(it*n+rt*e-nt*r)/(it+rt-nt),a=n-i,o=(et*(r-i)-$*a)/tt,s=Math.sqrt(o*o+a*a)/(et*i*(1-i)),l=s?Math.atan2(o,a)*z-120:NaN;return new st(l<0?l+360:l,s,i,t.opacity)}function ot(t,e,r,n){return 1===arguments.length?at(t):new st(t,e,r,null==n?1:n)}function st(t,e,r,n){this.h=+t,this.s=+e,this.l=+r,this.opacity=+n}e(st,ot,r(n,{brighter:function(t){return t=null==t?a:Math.pow(a,t),new st(this.h,this.s,this.l*t,this.opacity)},darker:function(t){return t=null==t?i:Math.pow(i,t),new st(this.h,this.s,this.l*t,this.opacity)},rgb:function(){var t=isNaN(this.h)?0:(this.h+120)*O,e=+this.l,r=isNaN(this.s)?0:this.s*e*(1-e),n=Math.cos(t),i=Math.sin(t);return new k(255*(e+r*(K*n+Q*i)),255*(e+r*($*n+tt*i)),255*(e+r*(et*n)),this.opacity)}})),t.color=x,t.cubehelix=ot,t.gray=function(t,e){return new V(t,0,0,null==e?1:e)},t.hcl=X,t.hsl=C,t.lab=U,t.lch=function(t,e,r,n){return 1===arguments.length?W(t):new Z(r,e,t,null==n?1:n)},t.rgb=T,Object.defineProperty(t,"__esModule",{value:!0})}("object"==typeof r&&void 0!==e?r:(n=n||self).d3=n.d3||{})},{}],110:[function(t,e,r){var n;n=this,function(t){"use strict";var e={value:function(){}};function r(){for(var t,e=0,r=arguments.length,i={};e<r;++e){if(!(t=arguments[e]+"")||t in i||/[\s.]/.test(t))throw new Error("illegal type: "+t);i[t]=[]}return new n(i)}function n(t){this._=t}function i(t,e){return t.trim().split(/^|\s+/).map((function(t){var r="",n=t.indexOf(".");if(n>=0&&(r=t.slice(n+1),t=t.slice(0,n)),t&&!e.hasOwnProperty(t))throw new Error("unknown type: "+t);return{type:t,name:r}}))}function a(t,e){for(var r,n=0,i=t.length;n<i;++n)if((r=t[n]).name===e)return r.value}function o(t,r,n){for(var i=0,a=t.length;i<a;++i)if(t[i].name===r){t[i]=e,t=t.slice(0,i).concat(t.slice(i+1));break}return null!=n&&t.push({name:r,value:n}),t}n.prototype=r.prototype={constructor:n,on:function(t,e){var r,n=this._,s=i(t+"",n),l=-1,c=s.length;if(!(arguments.length<2)){if(null!=e&&"function"!=typeof e)throw new Error("invalid callback: "+e);for(;++l<c;)if(r=(t=s[l]).type)n[r]=o(n[r],t.name,e);else if(null==e)for(r in n)n[r]=o(n[r],t.name,null);return this}for(;++l<c;)if((r=(t=s[l]).type)&&(r=a(n[r],t.name)))return r},copy:function(){var t={},e=this._;for(var r in e)t[r]=e[r].slice();return new n(t)},call:function(t,e){if((r=arguments.length-2)>0)for(var r,n,i=new Array(r),a=0;a<r;++a)i[a]=arguments[a+2];if(!this._.hasOwnProperty(t))throw new Error("unknown type: "+t);for(a=0,r=(n=this._[t]).length;a<r;++a)n[a].value.apply(e,i)},apply:function(t,e,r){if(!this._.hasOwnProperty(t))throw new Error("unknown type: "+t);for(var n=this._[t],i=0,a=n.length;i<a;++i)n[i].value.apply(e,r)}},t.dispatch=r,Object.defineProperty(t,"__esModule",{value:

!0})}("object"==typeof r&&void 0!==e?r:(n=n||self).d3=n.d3||{})},{}],111:[function(t,e,r){var n,i;n=this,i=function(t,e,r,n,i){"use strict";function a(t){return function(){return t}}function o(){return 1e-6*(Math.random()-.5)}function s(t){return t.x+t.vx}function l(t){return t.y+t.vy}function c(t){return t.index}function u(t,e){var r=t.get(e);if(!r)throw new Error("missing: "+e);return r}function f(t){return t.x}function h(t){return t.y}var p=Math.PI*(3-Math.sqrt(5));t.forceCenter=function(t,e){var r;function n(){var n,i,a=r.length,o=0,s=0;for(n=0;n<a;++n)o+=(i=r[n]).x,s+=i.y;for(o=o/a-t,s=s/a-e,n=0;n<a;++n)(i=r[n]).x-=o,i.y-=s}return null==t&&(t=0),null==e&&(e=0),n.initialize=function(t){r=t},n.x=function(e){return arguments.length?(t=+e,n):t},n.y=function(t){return arguments.length?(e=+t,n):e},n},t.forceCollide=function(t){var r,n,i=1,c=1;function u(){for(var t,a,u,h,p,d,g,v=r.length,m=0;m<c;++m)for(a=e.quadtree(r,s,l).visitAfter(f),t=0;t<v;++t)u=r[t],d=n[u.index],g=d*d,h=u.x+u.vx,p=u.y+u.vy,a.visit(y);function y(t,e,r,n,a){var s=t.data,l=t.r,c=d+l;if(!s)return e>h+c||n<h-c||r>p+c||a<p-c;if(s.index>u.index){var f=h-s.x-s.vx,v=p-s.y-s.vy,m=f*f+v*v;m<c*c&&(0===f&&(m+=(f=o())*f),0===v&&(m+=(v=o())*v),m=(c-(m=Math.sqrt(m)))/m*i,u.vx+=(f*=m)*(c=(l*=l)/(g+l)),u.vy+=(v*=m)*c,s.vx-=f*(c=1-c),s.vy-=v*c)}}}function f(t){if(t.data)return t.r=n[t.data.index];for(var e=t.r=0;e<4;++e)t[e]&&t[e].r>t.r&&(t.r=t[e].r)}function h(){if(r){var e,i,a=r.length;for(n=new Array(a),e=0;e<a;++e)i=r[e],n[i.index]=+t(i,e,r)}}return"function"!=typeof t&&(t=a(null==t?1:+t)),u.initialize=function(t){r=t,h()},u.iterations=function(t){return arguments.length?(c=+t,u):c},u.strength=function(t){return arguments.length?(i=+t,u):i},u.radius=function(e){return arguments.length?(t="function"==typeof e?e:a(+e),h(),u):t},u},t.forceLink=function(t){var e,n,i,s,l,f=c,h=function(t){return 1/Math.min(s[t.source.index],s[t.target.index])},p=a(30),d=1;function g(r){for(var i=0,a=t.length;i<d;++i)for(var s,c,u,f,h,p,g,v=0;v<a;++v)c=(s=t[v]).source,f=(u=s.target).x+u.vx-c.x-c.vx||o(),h=u.y+u.vy-c.y-c.vy||o(),f*=p=((p=Math.sqrt(f*f+h*h))-n[v])/p*r*e[v],h*=p,u.vx-=f*(g=l[v]),u.vy-=h*g,c.vx+=f*(g=1-g),c.vy+=h*g}function v(){if(i){var a,o,c=i.length,h=t.length,p=r.map(i,f);for(a=0,s=new Array(c);a<h;++a)(o=t[a]).index=a,"object"!=typeof o.source&&(o.source=u(p,o.source)),"object"!=typeof o.target&&(o.target=u(p,o.target)),s[o.source.index]=(s[o.source.index]||0)+1,s[o.target.index]=(s[o.target.index]||0)+1;for(a=0,l=new Array(h);a<h;++a)o=t[a],l[a]=s[o.source.index]/(s[o.source.index]+s[o.target.index]);e=new Array(h),m(),n=new Array(h),y()}}function m(){if(i)for(var r=0,n=t.length;r<n;++r)e[r]=+h(t[r],r,t)}function y(){if(i)for(var e=0,r=t.length;e<r;++e)n[e]=+p(t[e],e,t)}return null==t&&(t=[]),g.initialize=function(t){i=t,v()},g.links=function(e){return arguments.length?(t=e,v(),g):t},g.id=function(t){return arguments.length?(f=t,g):f},g.iterations=function(t){return arguments.length?(d=+t,g):d},g.strength=function(t){return arguments.length?(h="function"==typeof t?t:a(+t),m(),g):h},g.distance=function(t){return arguments.length?(p="function"==typeof t?t:a(+t),y(),g):p},g},t.forceManyBody=function(){var t,r,n,i,s=a(-30),l=1,c=1/0,u=.81;function p(i){var a,o=t.length,s=e.quadtree(t,f,h).visitAfter(g);for(n=i,a=0;a<o;++a)r=t[a],s.visit(v)}function d(){if(t){var e,r,n=t.length;for(i=new Array(n),e=0;e<n;++e)r=t[e],i[r.index]=+s(r,e,t)}}function g(t){var e,r,n,a,o,s=0,l=0;if(t.length){for(n=a=o=0;o<4;++o)(e=t[o])&&(r=Math.abs(e.value))&&(s+=e.value,l+=r,n+=r*e.x,a+=r*e.y);t.x=n/l,t.y=a/l}else{(e=t).x=e.data.x,e.y=e.data.y;do{s+=i[e.data.index]}while(e=e.next)}t.value=s}function v(t,e,a,s){if(!t.value)return!0;var f=t.x-r.x,h=t.y-r.y,p=s-e,d=f*f+h*h;if(p*p/u<d)return d<c&&(0===f&&(d+=(f=o())*f),0===h&&(d+=(h=o())*h),d<l&&(d=Math.sqrt(l*d)),r.vx+=f*t.value*n/d,r.vy+=h*t.value*n/d),!0;if(!(t.length||d>=c)){(t.data!==r||t.next)&&(0===f&&(d+=(f=o())*f),0===h&&(d+=(h=o())*h),d<l&&(d=Math.sqrt(l*d)));do{t.data!==r&&(p=i[t.data.index]*n/d,r.vx+=f*p,r.vy+=h*p)}while(t=t.next)}}return p.initialize=function(e){t=e,d()},p.strength=function(t){return arguments.length?(s="function"==typeof t?t:a(+t),d(),p):s},p.distanceMin=function(t){return arguments.length?(l=t*t,p):Math.sqrt(l)},p.distanceMax=function(t){return arguments.length?(c=t*t,p):Math.sqrt(c)},p.theta=function(t){return arguments.length?(u=t*t,p):Math.sqrt(u)},p},t.forceRadial=function(t,e,r){var n,i,o,s=a(.1);function l(t){for(var a=0,s=n.length;a<s;++a){var l=n[a],c=l.x-e||1e-6,u=l.y-r||1e-6,f=Math.sqrt(c*c+u*u),h=(o[a]-

f)*i[a]*t/f;l.vx+=c*h,l.vy+=u*h}}function c(){if(n){var e,r=n.length;for(i=new Array(r),o=new Array(r),e=0;e<r;++e)o[e]=+t(n[e],e,n),i[e]=isNaN(o[e])?0:+s(n[e],e,n)}}return"function"!=typeof t&&(t=a(+t)),null==e&&(e=0),null==r&&(r=0),l.initialize=function(t){n=t,c()},l.strength=function(t){return arguments.length?(s="function"==typeof t?t:a(+t),c(),l):s},l.radius=function(e){return arguments.length?(t="function"==typeof e?e:a(+e),c(),l):t},l.x=function(t){return arguments.length?(e=+t,l):e},l.y=function(t){return arguments.length?(r=+t,l):r},l},t.forceSimulation=function(t){var e,a=1,o=.001,s=1-Math.pow(o,1/300),l=0,c=.6,u=r.map(),f=i.timer(d),h=n.dispatch("tick","end");function d(){g(),h.call("tick",e),a<o&&(f.stop(),h.call("end",e))}function g(r){var n,i,o=t.length;void 0===r&&(r=1);for(var f=0;f<r;++f)for(a+=(l-a)*s,u.each((function(t){t(a)})),n=0;n<o;++n)null==(i=t[n]).fx?i.x+=i.vx*=c:(i.x=i.fx,i.vx=0),null==i.fy?i.y+=i.vy*=c:(i.y=i.fy,i.vy=0);return e}function v(){for(var e,r=0,n=t.length;r<n;++r){if((e=t[r]).index=r,null!=e.fx&&(e.x=e.fx),null!=e.fy&&(e.y=e.fy),isNaN(e.x)||isNaN(e.y)){var i=10*Math.sqrt(r),a=r*p;e.x=i*Math.cos(a),e.y=i*Math.sin(a)}(isNaN(e.vx)||isNaN(e.vy))&&(e.vx=e.vy=0)}}function m(e){return e.initialize&&e.initialize(t),e}return null==t&&(t=[]),v(),e={tick:g,restart:function(){return f.restart(d),e},stop:function(){return f.stop(),e},nodes:function(r){return arguments.length?(t=r,v(),u.each(m),e):t},alpha:function(t){return arguments.length?(a=+t,e):a},alphaMin:function(t){return arguments.length?(o=+t,e):o},alphaDecay:function(t){return arguments.length?(s=+t,e):+s},alphaTarget:function(t){return arguments.length?(l=+t,e):l},velocityDecay:function(t){return arguments.length?(c=1-t,e):1-c},force:function(t,r){return arguments.length>1?(null==r?u.remove(t):u.set(t,m(r)),e):u.get(t)},find:function(e,r,n){var i,a,o,s,l,c=0,u=t.length;for(null==n?n=1/0:n*=n,c=0;c<u;++c)(o=(i=e-(s=t[c]).x)*i+(a=r-s.y)*a)<n&&(l=s,n=o);return l},on:function(t,r){return arguments.length>1?(h.on(t,r),e):h.on(t)}},t.forceX=function(t){var e,r,n,i=a(.1);function o(t){for(var i,a=0,o=e.length;a<o;++a)(i=e[a]).vx+=(n[a]-i.x)*r[a]*t}function s(){if(e){var a,o=e.length;for(r=new Array(o),n=new Array(o),a=0;a<o;++a)r[a]=isNaN(n[a]=+t(e[a],a,e))?0:+i(e[a],a,e)}}return"function"!=typeof t&&(t=a(null==t?0:+t)),o.initialize=function(t){e=t,s()},o.strength=function(t){return arguments.length?(i="function"==typeof t?t:a(+t),s(),o):i},o.x=function(e){return arguments.length?(t="function"==typeof e?e:a(+e),s(),o):t},o},t.forceY=function(t){var e,r,n,i=a(.1);function o(t){for(var i,a=0,o=e.length;a<o;++a)(i=e[a]).vy+=(n[a]-i.y)*r[a]*t}function s(){if(e){var a,o=e.length;for(r=new Array(o),n=new Array(o),a=0;a<o;++a)r[a]=isNaN(n[a]=+t(e[a],a,e))?0:+i(e[a],a,e)}}return"function"!=typeof t&&(t=a(null==t?0:+t)),o.initialize=function(t){e=t,s()},o.strength=function(t){return arguments.length?(i="function"==typeof t?t:a(+t),s(),o):i},o.y=function(e){return arguments.length?(t="function"==typeof e?e:a(+e),s(),o):t},o},Object.defineProperty(t,"__esModule",{value:!0})},"object"==typeof r&&void 0!==e?i(r,t("d3-quadtree"),t("d3-collection"),t("d3-dispatch"),t("d3-timer")):i(n.d3=n.d3||{},n.d3,n.d3,n.d3,n.d3)},{"d3-collection":108,"d3-dispatch":110,"d3-quadtree":118,"d3-timer":123}],112:[function(t,e,r){var n;n=this,function(t){"use strict";function e(t,e){if((r=(t=e?t.toExponential(e-1):t.toExponential()).indexOf("e"))<0)return null;var r,n=t.slice(0,r);return[n.length>1?n[0]+n.slice(2):n,+t.slice(r+1)]}function r(t){return(t=e(Math.abs(t)))?t[1]:NaN}var n,i=/^(?:(.)?([<>=^]))?([+\-( ])?([$#])?(0)?(\d+)?(,)?(\.\d+)?(~)?([a-z%])?$/i;function a(t){if(!(e=i.exec(t)))throw new Error("invalid format: "+t);var e;return new o({fill:e[1],align:e[2],sign:e[3],symbol:e[4],zero:e[5],width:e[6],comma:e[7],precision:e[8]&&e[8].slice(1),trim:e[9],type:e[10]})}function o(t){this.fill=void 0===t.fill?" ":t.fill+"",this.align=void 0===t.align?">":t.align+"",this.sign=void 0===t.sign?"-":t.sign+"",this.symbol=void

0===t.symbol?"":t.symbol+"",this.zero=!!t.zero,this.width=void 0===t.width?void 0:+t.width,this.comma=!!t.comma,this.precision=void 0===t.precision?void 0:+t.precision,this.trim=!!t.trim,this.type=void 0===t.type?"":t.type+""}function s(t,r){var n=e(t,r);if(!n)return t+"";var i=n[0],a=n[1];return a<0?"0."+new Array(-a).join("0")+i:i.length>a+1?i.slice(0,a+1)+"."+i.slice(a+1):i+new Array(a-i.length+2).join("0")}a.prototype=o.prototype,o.prototype.toString=function(){return this.fill+this.align+this.sign+this.symbol+(this.zero?"0":"")+(void 0===this.width?"":Math.max(1,0|this.width))+(this.comma?",":"")+(void 0===this.precision?"":"."+Math.max(0,0|this.precision))+(this.trim?"~":"")+this.type};var l={"%":function(t,e){return(100*t).toFixed(e)},b:function(t){return Math.round(t).toString(2)},c:function(t){return t+""},d:function(t){return Math.abs(t=Math.round(t))>=1e21?t.toLocaleString("en").replace(/,/g,""):t.toString(10)},e:function(t,e){return t.toExponential(e)},f:function(t,e){return t.toFixed(e)},g:function(t,e){return t.toPrecision(e)},o:function(t){return Math.round(t).toString(8)},p:function(t,e){return s(100*t,e)},r:s,s:function(t,r){var i=e(t,r);if(!i)return t+"";var a=i[0],o=i[1],s=o-(n=3*Math.max(-8,Math.min(8,Math.floor(o/3))))+1,l=a.length;return s===l?a:s>l?a+new Array(s-l+1).join("0"):s>0?a.slice(0,s)+"."+a.slice(s):"0."+new Array(1-s).join("0")+e(t,Math.max(0,r+s-1))[0]},X:function(t){return Math.round(t).toString(16).toUpperCase()},x:function(t){return Math.round(t).toString(16)}};function c(t){return t}var u,f=Array.prototype.map,h=["y","z","a","f","p","n","µ","m","","k","M","G","T","P","E","Z","Y"];function p(t){var e,i,o=void 0===t.grouping||void 0===t.thousands?c:(e=f.call(t.grouping,Number),i=t.thousands+"",function(t,r){for(var n=t.length,a=[],o=0,s=e[0],l=0;n>0&&s>0&&(l+s+1>r&&(s=Math.max(1,r-l)),a.push(t.substring(n-=s,n+s)),!((l+=s+1)>r));)s=e[o=(o+1)%e.length];return a.reverse().join(i)}),s=void 0===t.currency?"":t.currency[0]+"",u=void 0===t.currency?"":t.currency[1]+"",p=void 0===t.decimal?".":t.decimal+"",d=void 0===t.numerals?c:function(t){return function(e){return e.replace(/[0-9]/g,(function(e){return t[+e]}))}}(f.call(t.numerals,String)),g=void 0===t.percent?"%":t.percent+"",v=void 0===t.minus?"-":t.minus+"",m=void 0===t.nan?"NaN":t.nan+"";function y(t){var e=(t=a(t)).fill,r=t.align,i=t.sign,c=t.symbol,f=t.zero,y=t.width,x=t.comma,b=t.precision,_=t.trim,w=t.type;"n"===w?(x=!0,w="g"):l[w]||(void 0===b&&(b=12),_=!0,w="g"),(f||"0"===e&&"="===r)&&(f=!0,e="0",r="=");var T="$"===c?s:"#"===c&&/[boxX]/.test(w)?"0"+w.toLowerCase():"",k="$"===c?u:/[%p]/.test(w)?g:"",A=l[w],M=/[defgprs%]/.test(w);function S(t){var a,s,l,c=T,u=k;if("c"===w)u=A(t)+u,t="";else{var g=(t=+t)<0||1/t<0;if(t=isNaN(t)?m:A(Math.abs(t),b),_&&(t=function(t){t:for(var e,r=t.length,n=1,i=-1;n<r;++n)switch(t[n]){case".":i=e=n;break;case"0":0===i&&(i=n),e=n;break;default:if(!+t[n])break t;i>0&&(i=0)}return i>0?t.slice(0,i)+t.slice(e+1):t}(t)),g&&0==+t&&"+"!==i&&(g=!1),c=(g?"("===i?i:v:"-"===i||"("===i?"":i)+c,u=("s"===w?h[8+n/3]:"")+u+(g&&"("===i?")":""),M)for(a=-1,s=t.length;++a<s;)if(48>(l=t.charCodeAt(a))||l>57){u=(46===l?p+t.slice(a+1):t.slice(a))+u,t=t.slice(0,a);break}}x&&!f&&(t=o(t,1/0));var S=c.length+t.length+u.length,E=S<y?new Array(y-S+1).join(e):"";switch(x&&f&&(t=o(E+t,E.length?y-u.length:1/0),E=""),r){case"<":t=c+t+u+E;break;case"=":t=c+E+t+u;break;case"^":t=E.slice(0,S=E.length>>1)+c+t+u+E.slice(S);break;default:t=E+c+t+u}return d(t)}return b=void 0===b?6:/[gprs]/.test(w)?Math.max(1,Math.min(21,b)):Math.max(0,Math.min(20,b)),S.toString=function(){return t+""},S}return{format:y,formatPrefix:function(t,e){var n=y(((t=a(t)).type="f",t)),i=3*Math.max(-8,Math.min(8,Math.floor(r(e)/3))),o=Math.pow(10,-i),s=h[8+i/3];return function(t){return n(o*t)+s}}}}function d(e){return u=p(e),t.format=u.format,t.formatPrefix=u.formatPrefix,u}d({decimal:".",thousands:",",grouping:[3],currency:["$",""],minus:"-"}),t.FormatSpecifier=o,t.formatDefaultLocale=d,t.formatLocale=p,t.formatSpecifier=a,t.precisionFixed=function(t){return Math.max(0,-r(Math.abs(t)))},t.precisionPrefix=function(t,e){return Math.max(0,3*Math.max(-

8,Math.min(8,Math.floor(r(e)/3)))-r(Math.abs(t)))},t.precisionRound=function(t,e){return t=Math.abs(t),e=Math.abs(e)-t,Math.max(0,r(e)-r(t))+1},Object.defineProperty(t,"__esModule",{value:!0})}("object"==typeof r&&void 0!==e?r:(n="undefined"!=typeof globalThis?globalThis:n||self).d3=n.d3||{})},{}],113:[function(t,e,r){var n,i;n=this,i=function(t,e,r){"use strict";var n=Math.abs,i=Math.atan,a=Math.atan2,o=Math.cos,s=Math.exp,l=Math.floor,c=Math.log,u=Math.max,f=Math.min,h=Math.pow,p=Math.round,d=Math.sign||function(t){return t>0?1:t<0?-1:0},g=Math.sin,v=Math.tan,m=1e-6,y=1e-12,x=Math.PI,b=x/2,_=x/4,w=Math.SQRT1_2,T=C(2),k=C(x),A=2*x,M=180/x,S=x/180;function E(t){return t>1?b:t<-1?-b:Math.asin(t)}function L(t){return t>1?0:t<-1?x:Math.acos(t)}function C(t){return t>0?Math.sqrt(t):0}function P(t){return(s(t)-s(-t))/2}function I(t){return(s(t)+s(-t))/2}function O(t){var e=v(t/2),r=2*c(o(t/2))/(e*e);function i(t,e){var n=o(t),i=o(e),a=g(e),s=i*n,l=-((1-s?c((1+s)/2)/(1-s):-.5)+r/(1+s));return[l*i*g(t),l*a]}return i.invert=function(e,i){var s,l=C(e*e+i*i),u=-t/2,f=50;if(!l)return[0,0];do{var h=u/2,p=o(h),d=g(h),v=d/p,y=-c(n(p));u-=s=(2/v*y-r*v-l)/(-y/(d*d)+1-r/(2*p*p))*(p<0?.7:1)}while(n(s)>m&&--f>0);var x=g(u);return[a(e*x,l*o(u)),E(i*x/l)]},i}function z(t,e){var r=o(e),n=function(t){return t?t/Math.sin(t):1}(L(r*o(t/=2)));return[2*r*g(t)*n,g(e)*n]}function D(t){var e=g(t),r=o(t),i=t>=0?1:-1,s=v(i*t),l=(1+e-r)/2;function c(t,n){var c=o(n),u=o(t/=2);return[(1+c)*g(t),(i*n>-a(u,s)-.001?0:10*-i)+l+g(n)*r-(1+c)*e*u]}return c.invert=function(t,c){var u=0,f=0,h=50;do{var p=o(u),d=g(u),v=o(f),y=g(f),x=1+v,b=x*d-t,_=l+y*r-x*e*p-c,w=x*p/2,T=-d*y,k=e*x*d/2,A=r*v+e*p*y,M=T*k-A*w,S=(_*T-b*A)/M/2,E=(b*k-_*w)/M;n(E)>2&&(E/=2),u-=S,f-=E}while((n(S)>m||n(E)>m)&&--h>0);return i*f>-a(o(u),s)-.001?[2*u,f]:null},c}function R(t,e){var r=v(e/2),n=C(1-r*r),i=1+n*o(t/=2),a=g(t)*n/i,s=r/i,l=a*a,c=s*s;return[4/3*a*(3+l-3*c),4/3*s*(3+3*l-c)]}z.invert=function(t,e){if(!(t*t+4*e*e>x*x+m)){var r=t,i=e,a=25;do{var s,l=g(r),c=g(r/2),u=o(r/2),f=g(i),h=o(i),p=g(2*i),d=f*f,v=h*h,y=c*c,b=1-v*u*u,_=b?L(h*u)*C(s=1/b):s=0,w=2*_*h*c-t,T=_*f-e,k=s*(v*y+_*h*u*d),A=s*(.5*l*p-2*_*f*c),M=.25*s*(p*c-_*f*v*l),S=s*(d*u+_*y*h),E=A*M-S*k;if(!E)break;var P=(T*A-w*S)/E,I=(w*M-T*k)/E;r-=P,i-=I}while((n(P)>m||n(I)>m)&&--a>0);return[r,i]}},R.invert=function(t,e){if(e*=3/8,!(t*=3/8)&&n(e)>1)return null;var r=1+t*t+e*e,i=C((r-C(r*r-4*e*e))/2),s=E(i)/3,l=i?function(t){return c(t+C(t*t-1))}(n(e/i))/3:function(t){return c(t+C(t*t+1))}(n(t))/3,u=o(s),f=I(l),h=f*f-u*u;return[2*d(t)*a(P(l)*u,.25-h),2*d(e)*a(f*g(s),.25+h)]};var F=C(8),B=c(1+T);function N(t,e){var r=n(e);return r<_?[t,c(v(_+e/2))]:[t*o(r)*(2*T-1/g(r)),d(e)*(2*T*(r-_)-c(v(r/2)))]}function j(t){var r=2*x/t;function s(t,i){var s=e.geoAzimuthalEquidistantRaw(t,i);if(n(t)>b){var l=a(s[1],s[0]),c=C(s[0]*s[0]+s[1]*s[1]),u=r*p((l-b)/r)+b,f=a(g(l-=u),2-o(l));l=u+E(x/c*g(f))-f,s[0]=c*o(l),s[1]=c*g(l)}return s}return s.invert=function(t,n){var s=C(t*t+n*n);if(s>b){var l=a(n,t),c=r*p((l-b)/r)+b,u=l>c?-1:1,f=s*o(c-l),h=1/v(u*L((f-x)/C(x*(x-2*f)+s*s)));l=c+2*i((h+u*C(h*h-3))/3),t=s*o(l),n=s*g(l)}return e.geoAzimuthalEquidistantRaw.invert(t,n)},s}function U(t,r){if(arguments.length<2&&(r=t),1===r)return e.geoAzimuthalEqualAreaRaw;if(r===1/0)return V;function n(n,i){var a=e.geoAzimuthalEqualAreaRaw(n/r,i);return a[0]*=t,a}return n.invert=function(n,i){var a=e.geoAzimuthalEqualAreaRaw.invert(n/t,i);return a[0]*=r,a},n}function V(t,e){return[t*o(e)/o(e/=2),2*g(e)]}function q(t,e,r){var i,a,o,s=100;r=void 0===r?0:+r,e=+e;do{(a=t(r))===(o=t(r+m))&&(o=a+m),r-=i=-1e-6*(a-e)/(a-o)}while(s-- >0&&n(i)>m);return s<0?NaN:r}function H(t,e,r){return void 0===e&&(e=40),void 0===r&&(r=y),function(i,a,o,s){var l,c,u;o=void 0===o?0:+o,s=void 0===s?0:+s;for(var f=0;f<e;f++){var h=t(o,s),p=h[0]-i,d=h[1]-a;if(n(p)<r&&n(d)<r)break;var g=p*p+d*d;if(g>l)o-=c/=2,s-=u/=2;else{l=g;var v=(o>0?-1:1)*r,m=(s>0?-1:1)*r,y=t(o+v,s),x=t(o,s+m),b=(y[0]-h[0])/v,_=(y[1]-h[1])/v,w=(x[0]-h[0])/m,T=(x[1]-h[1])/m,k=T*b-_*w,A=(n(k)<.5?.5:1)/k;if(o+=c=(d*w-p*T)*A,s+=u=(p*_-d*b)*A,n(c)<r&&n(u)<r)break}}return[o,s]}}function G(){var t=U(1.68,2);function e(e,r){if(e+r<-1.4){var n=(e-r+1.6)*(e+r+1.4)/8;e+=n,r-=.8*n*g(r+x/2)}var i=t(e,r),a=(1-o(e*r))/12;return i[1]<0&&(i[0]*=1+a),i[1]>0&&(i[1]*=1+a/1.5*i[0]*i[0]),i}return e.invert=H(e),e}function Y(t,e){var r,i=t*g(e),a=30;do{e-=r=(e+g(e)-i)/(1+o(e))}while(n(r)>m&&--a>0);return e/2}function W(t,e,r){function

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n(n,i){return[t*n*o(i=Y(r,i)),e*g(i)]}return n.invert=function(n,i){return
i=E(i/e),[n/(t*o(i)),E((2*i+g(2*i))/r)]},n}N.invert=function(t,e){if((a=n(e))<B)return[t,2*i(s(e))-b];var
r,a,l=_,u=25;do{var f=o(l/2),h=v(l/2);l-=r=(F*(l-_)-c(h)-a)/(F-f*f/(2*h))}while(n(r)>y&&--u>0);return[t/(o(l)*(F-
1/g(l))),d(e)*l]},V.invert=function(t,e){var r=2*E(e/2);return[t*o(r/2)/o(r),r]};var
X=W(T/b,T,x),Z=2.00276,J=1.11072;function K(t,e){var r=Y(x,e);return[Z*t/(1/o(e)+J/o(r)),(e+T*g(r))/Z]}function
Q(t){var r=0,n=e.geoProjectionMutator(t),i=n(r);return i.parallel=function(t){return
arguments.length?n(r=t*S):r*M},i}function $(t,e){return[t*o(e),e]}function tt(t){if(!t)return $;var e=1/v(t);function
r(r,n){var i=e+t-n,a=i?r*o(n)/i:i;return[i*g(a),e-i*o(a)]}return r.invert=function(r,n){var i=C(r*r+(n=e-n)*n),s=e+t-
i;return[i/o(s)*a(r,n),s]},r}function et(t){function e(e,r){var n=b-r,i=n?e*t*g(n)/n:n;return[n*g(i)/t,b-n*o(i)]}return
e.invert=function(e,r){var n=e*t,i=b-r,o=C(n*n+i*i),s=a(n,i);return[(o?o/g(o):1)*s/t,b-
o]},e}K.invert=function(t,e){var r,i,a=Z*e,s=e<0?-_:_,l=25;do{i=a-T*g(s),s-=r=(g(2*s)+2*s-
x*g(i))/(2*o(2*s)+2+x*o(i)*T*o(s))}while(n(r)>m&&--l>0);return i=a-
T*g(s),[t*(1/o(i)+J/o(s))/Z,i]},$.invert=function(t,e){return[t/o(e),e]};var rt=W(1,4/x,x);function nt(t,e,r,i,s,l){var
c,u=o(l);if(n(t)>1||n(l)>1)c=L(r*s+e*i*u);else{var f=g(t/2),h=g(l/2);c=2*E(C(f*f+e*i*h*h))}return
n(c)>m?[c,a(i*g(l),e*s-r*i*u)]:[0,0]}function it(t,e,r){return L((t*t+e*e-r*r)/(2*t*e))}function at(t){return t-
2*x*l((t+x)/(2*x))}function ot(t,e,r){for(var
n,i=[[t[0],t[1],g(t[1]),o(t[1])],[e[0],e[1],g(e[1]),o(e[1])],[r[0],r[1],g(r[1]),o(r[1])]],a=i[2],s=0;s<3;++s,a=n)n=i[s],a.v=
nt(n[1]-a[1],a[3],a[2],n[3],n[2],n[0]-a[0]),a.point=[0,0];var
l=it(i[0].v[0],i[2].v[0],i[1].v[0]),c=it(i[0].v[0],i[1].v[0],i[2].v[0]),u=x-l;i[2].point[1]=0,i[0].point[0]=-
(i[1].point[0]=i[0].v[0]/2);var
f=[i[2].point[0]=i[0].point[0]+i[2].v[0]*o(l),2*(i[0].point[1]=i[1].point[1]=i[2].v[0]*g(l))];return function(t,e){var
r,n=g(e),a=o(e),s=new Array(3);for(r=0;r<3;++r){var l=i[r];if(s[r]=nt(e-l[1],l[3],l[2],a,n,t-l[0]),!s[r][0])return
l.point;s[r][1]=at(s[r][1]-l.v[1])}var h=f.slice();for(r=0;r<3;++r){var
p=2==r?0:r+1,d=it(i[r].v[0],s[r][0],s[p][0]);s[r][1]<0&&(d=-d),r?1==r?(d=c-d,h[0]-=s[r][0]*o(d),h[1]-
=s[r][0]*g(d)):(d=u-d,h[0]+=s[r][0]*o(d),h[1]+=s[r][0]*g(d)):(h[0]+=s[r][0]*o(d),h[1]-=s[r][0]*g(d))}return
h[0]/=3,h[1]/=3,h}}function st(t){return t[0]*=S,t[1]*=S,t}function lt(t,r,n){var
i=e.geoCentroid({type:"MultiPoint",coordinates:[t,r,n]}),a=[-i[0],-
i[1]],o=e.geoRotation(a),s=ot(st(o(t)),st(o(r)),st(o(n)));s.invert=H(s);var
l=e.geoProjection(s).rotate(a),c=l.center;return delete l.rotate,l.center=function(t){return
arguments.length?c(o(t)):o.invert(c())},l.clipAngle(90)}function ct(t,e){var r=C(1-g(e));return[2/k*t*r,k*(1-
r)]}function ut(t){var e=v(t);function r(t,r){return[t,(t?t/g(t):1)*(g(r)*o(t)-e*o(r))]}return
r.invert=e?function(t,r){t&&(r*=g(t)/t);var n=o(t);return[t,2*a(C(n*n+e*e-r*r)-n,e-
r)]}:function(t,e){return[t,E(t?e*v(t)/t:e)]},r}ct.invert=function(t,e){var r=(r=e/k-1)*r;return[r>0?t*C(x/r)/2:0,E(1-
r)]};var ft=C(3);function ht(t,e){return[ft*t*(2*o(2*e/3)-1)/k,ft*k*g(e/3)]}function pt(t){var e=o(t);function
r(t,r){return[t*e,g(r)/e]}return r.invert=function(t,r){return[t/e,E(r*e)]},r}function dt(t){var e=o(t);function
r(t,r){return[t*e,(1+e)*v(r/2)]}return r.invert=function(t,r){return[t/e,2*i(r/(1+e))]},r}function gt(t,e){var
r=C(8/(3*x));return[r*t*(1-n(e)/x),r*e]}function vt(t,e){var r=C(4-3*g(n(e)));return[2/C(6*x)*t*r,d(e)*C(2*x/3)*(2-
r)]}function mt(t,e){var r=C(x*(4+x));return[2/r*t*(1+C(1-4*e*e/(x*x))),4/r*e]}function yt(t,e){var
r=(2+b)*g(e);e/=2;for(var i=0,a=1/0;i<10&&n(a)>m;i++){var s=o(e);e-=a=(e+g(e)*(s+2)-
r)/(2*s*(1+s))}return[2/C(x*(4+x))*t*(1+o(e)),2*C(x/(4+x))*g(e)]}function
xt(t,e){return[t*(1+o(e))/C(2+x),2*e/C(2+x)]}function bt(t,e){for(var
r=(1+b)*g(e),i=0,a=1/0;i<10&&n(a)>m;i++)e-=a=(e+g(e)-r)/(1+o(e));return
r=C(2+x),[t*(1+o(e))/r,2*e/r]}ht.invert=function(t,e){var r=3*E(e/(ft*k));return[k*t/(ft*(2*o(2*r/3)-
1)),r]},gt.invert=function(t,e){var r=C(8/(3*x)),i=e/r;return[t/(r*(1-n(i)/x)),i]},vt.invert=function(t,e){var r=2-
n(e)/C(2*x/3);return[t*C(6*x)/(2*r),d(e)*E((4-r*r)/3)]},mt.invert=function(t,e){var
r=C(x*(4+x))/2;return[t*r/(1+C(1-e*e*(4+x)/(4*x))),e*r/2]},yt.invert=function(t,e){var
r=e*C((4+x)/x)/2,n=E(r),i=o(n);return[t/(2/C(x*(4+x))*(1+i)),E((n+r*(i+2))/(2+b))]},xt.invert=function(t,e){var
r=C(2+x),n=e*r/2;return[r*t/(1+o(n)),n]},bt.invert=function(t,e){var
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r=1+b,n=C(r/2);return[2*t*n/(1+o(e*=n)),E((e+g(e))/r)]};var _t=3+2*T;function wt(t,e){var r=g(t/=2),n=o(t),a=C(o(e)),s=o(e/=2),l=g(e)/(s+T*n*a),u=C(2/(1+l*l)),f=C((T*s+(n+r)*a)/(T*s+(n-r)*a));return[_t*(u*(f-1/f)-2*c(f)),_t*(u*l*(f+1/f)-2*i(l))]}wt.invert=function(t,e){if(!(r=R.invert(t/1.2,1.065*e)))return null;var r,a=r[0],s=r[1],l=20;t/=_t,e/=_t;do{var h=a/2,p=s/2,d=g(h),v=o(h),y=g(p),x=o(p),_=o(s),k=C(_),A=y/(x+T*v*k),M=A*A,S=C(2/(1+M)),E=(T*x+(v+d)*k)/(T*x+(v-d)*k),L=C(E),P=L-1/L,I=L+1/L,O=S*P-2*c(L)-t,z=S*A*I-2*i(A)-e,D=y&&w*k*d*M/y,F=(T*v*x+k)/(2*(x+T*v*k)*(x+T*v*k)*k),B=-.5*A*S*S*S,N=B*D,j=B*F,U=(U=2*x+T*k*(v-d))*U*L,V=(T*v*x*k+_)/U,q=-T*d*y/(k*U),H=P*N-2*V/L+S*(V+V/E),G=P*j-2*q/L+S*(q+q/E),Y=A*I*N-2*D/(1+M)+S*I*D+S*A*(V-V/E),W=A*I*j-2*F/(1+M)+S*I*F+S*A*(q-q/E),X=G*Y-W*H;if(!X)break;var Z=(z*G-O*W)/X,J=(O*Y-z*H)/X;a-=Z,s=u(-b,f(b,s-J))}while((n(Z)>m||n(J)>m)&&--l>0);return n(n(s)-b)<m?[0,s]:l&&[a,s]};var Tt=o(35*S);function kt(t,e){var r=v(e/2);return[t*Tt*C(1-r*r),(1+Tt)*r]}function At(t,e){var r=e/2,n=o(r);return[2*t/k*o(e)*n*n,k*v(r)]}function Mt(t){var e=1-t,r=i(x,0)[0]-i(-x,0)[0],n=C(2*(i(0,b)[1]-i(0,-b)[1])/r);function i(r,n){var i=o(n),a=g(n);return[i/(e+t*i)*r,e*n+t*a]}function a(t,e){var r=i(t,e);return[r[0]*n,r[1]/n]}function s(t){return a(0,t)[1]}return a.invert=function(r,i){var a=q(s,i);return[r/n*(t+e/o(a)),a]},a}function St(t){return[t[0]/2,E(v(t[1]/2*S))*M]}function Et(t){return[2*t[0],2*i(g(t[1]*S))*M]}function Lt(t,r){var i=2*x/r,s=t*t;function l(r,l){var c=e.geoAzimuthalEquidistantRaw(r,l),u=c[0],f=c[1],h=u*u+f*f;if(h>s){var d=C(h),v=a(f,u),y=i*p(v/i),_=v-y,w=t*o(_),T=(t*g(_)-_*g(w))/(b-w),k=Ct(_,T),A=(x-t)/Pt(k,w,x);u=d;var M,S=50;do{u-=M=(t+Pt(k,w,u)*A-d)/(k(u)*A)}while(n(M)>m&&--S>0);f=_*g(u),u<b&&(f-=T*(u-b));var E=g(y),L=o(y);c[0]=u*L-f*E,c[1]=u*E+f*L}return c}return l.invert=function(r,l){var c=r*r+l*l;if(c>s){var u=C(c),f=a(l,r),h=i*p(f/i),d=f-h;r=u*o(d),l=u*g(d);for(var v=r-b,m=g(r),_=l/m,w=r<b?1/0:0,T=10;;){var k=t*g(_),A=t*o(_),M=g(A),S=b-A,E=(k-_*M)/S,L=Ct(_,E);if(n(w)<y||!--T)break;_-=w=(_*m-E*v-l)/(m-2*v*(S*(A+_*k*o(A)-M)-k*(k-_*M))/(S*S))}r=(u=t+Pt(L,A,r)*(x-t)/Pt(L,A,x))*o(f=h+_),l=u*g(f)}return e.geoAzimuthalEquidistantRaw.invert(r,l)},l}function Ct(t,e){return function(r){var n=t*o(r);return r<b&&(n-=e),C(1+n*n)}}function Pt(t,e,r){for(var n=(r-e)/50,i=t(e)+t(r),a=1,o=e;a<50;++a)i+=2*t(o+=n);return.5*i*n}function It(t,e,r,i,a,s,l,c){function u(n,u){if(!u)return[t*n/x,0];var f=u*u,h=t+f*(e+f*(r+f*i)),p=u*(a-1+f*(s-c+f*l)),d=(h*h+p*p)/(2*p),v=n*E(h/d)/x;return[d*g(v),u*(1+f*c)+d*(1-o(v))]}return arguments.length<8&&(c=0),u.invert=function(u,f){var h,p,d=x*u/t,v=f,y=50;do{var b=v*v,_=t+b*(e+b*(r+b*i)),w=v*(a-1+b*(s-c+b*l)),T=_*_+w*w,k=2*w,A=T/k,M=A*A,S=E(_/A)/x,L=d*S,P=_*_,I=(2*e+b*(4*r+6*b*i))*v,O=a+b*(3*s+5*b*l),z=(2*(_*I+w*(O-1))*k-T*(2*(O-1)))/(k*k),D=o(L),R=g(L),F=A*D,B=A*R,N=d/x*(1/C(1-P/M))*(I*A-_*z)/M,j=B-u,U=v*(1+b*c)+A-F-f,V=z*R+F*N,q=F*S,H=1+z-(z*D-B*N),G=B*S,Y=V*G-H*q;if(!Y)break;d-=h=(U*V-j*H)/Y,v-=p=(j*G-U*q)/Y}while((n(h)>m||n(p)>m)&&--y>0);return[d,v]},u}kt.invert=function(t,e){var r=e/(1+Tt);return[t&&t/(Tt*C(1-r*r)),2*i(r)]},At.invert=function(t,e){var r=i(e/k),n=o(r),a=2*r;return[t*k/2/(o(a)*n*n),a]};var Ot=It(2.8284,-1.6988,.75432,-.18071,1.76003,-.38914,.042555),zt=It(2.583819,-.835827,.170354,-.038094,1.543313,-.411435,.082742),Dt=It(5/6*x,-.62636,-.0344,0,1.3493,-.05524,0,.045);function Rt(t,e){var r=t*t,n=e*e;return[t*(1-.162388*n)*(.87-952426e-9*r*r),e*(1+n/12)]}Rt.invert=function(t,e){var r,i=t,a=e,o=50;do{var s=a*a;a-=r=(a*(1+s/12)-e)/(1+s/4)}while(n(r)>m&&--o>0);o=50,t/=1-.162388*s;do{var l=(l=i*i)*l;i-=r=(i*(.87-952426e-9*l)-t)/(.87-.00476213*l)}while(n(r)>m&&--o>0);return[i,a]};var Ft=It(2.6516,-.76534,.19123,-.047094,1.36289,-.13965,.031762);function Bt(t){var e=t(b,0)[0]-t(-b,0)[0];function r(r,n){var i=r>0?-.5:.5,a=t(r+i*x,n);return a[0]-=i*e,a}return t.invert&&(r.invert=function(r,n){var i=r>0?-.5:.5,a=t.invert(r+i*e,n),o=a[0]-i*x;return o<-x?o+=2*x:o>x&&(o-=2*x),a[0]=o,a}),r}function Nt(t,e){var r=d(t),i=d(e),s=o(e),l=o(t)*s,c=g(t)*s,u=g(i*e);t=n(a(c,u)),e=E(l),n(t-b)>m&&(t%=b);var f=function(t,e){if(e===b)return[0,0];var r,i,a=g(e),s=a*a,l=s*s,c=1+l,u=1+3*l,f=1-l,h=E(1/C(c)),p=f+s*c*h,d=(1-a)/p,v=C(d),y=d*c,_=C(y),w=v*f;if(0===t)return[0,-(w+s*_)];var T,k=o(e),A=1/k,M=2*a*k,S=(-p*k-(-

3*s+h*u)*M*(1-a))/(p*p),L=-A*M,P=-A*(s*c*S+d*u*M),I=-2*A*(f*(.5*S/v)-
2*s*v*M),O=4*t/x;if(t>.222*x||e<x/4&&t>.175*x){if(r=(w+s*C(y*(1+l)-w*w))/(1+l),t>x/4)return[r,r];var
z=r,D=.5*r;r=.5*(D+z),i=50;do{var R=r*(I+L*C(y-r*r))+P*E(r/_)-
O;if(!R)break;R<0?D=r:z=r,r=.5*(D+z)}while(n(z-D)>m&&--i>0)}else{r=m,i=25;do{var F=r*r,B=C(y-
F),N=I+L*B,j=r*N+P*E(r/_)-O;r-=T=B?j/(N+(P-L*F)/B):0}while(n(T)>m&&--i>0)}return[r,-w-s*C(y-
r*r)]}(t>x/4?b-t:t,e);return t>x/4&&(u=f[0],f[0]=-f[1],f[1]=-u),f[0]*=r,f[1]*=-i,f}function jt(t,e){var
r,a,l,c,u,f;if(e<m)return[(c=g(t))-(r=e*(t-c*(a=o(t)))/4)*a,a+r*c,1-e*c*c/2,t-r];if(e>=.999999)return r=(1-
e)/4,l=1/(a=I(t)),[(f=t,(c=((f=s(2*f))-1)/(f+1))+r*((u=a*P(t))-t)/(a*a)),l-r*c*l*(u-t),l+r*c*l*(u+t),2*i(s(t))-b+r*(u-
t)/a];var h=[1,0,0,0,0,0,0,0,0],p=[C(e),0,0,0,0,0,0,0,0],d=0;for(a=C(1-
e),u=1;n(p[d]/h[d])>m&&d<8;)r=h[d++],p[d]=(r-
a)/2,h[d]=(r+a)/2,a=C(r*a),u*=2;l=u*h[d]*t;do{l=(E(c=p[d]*g(a=l)/h[d])+l)/2}while(--d);return[g(l),c=o(l),c/o(l-
a),l]}function Ut(t,e){if(!e)return t;if(1===e)return c(v(t/2+_));for(var r=1,a=C(1-
e),o=C(e),s=0;n(o)>m;s++){if(t%x){var l=i(a*v(t)/r);l<0&&(l+=x),t+=l+~~(t/x)*x}else
t+=t;o=(r+a)/2,a=C(r*a),o=((r=o)-a)/2}return t/(h(2,s)*r)}function Vt(t,e){var r=(T-1)/(T+1),l=C(1-
r*r),u=Ut(b,l*l),f=c(v(x/4+n(e)/2)),h=s(-1*f)/C(r),p=function(t,e){var r=t*t,n=e+1,i=1-r-e*e;return[.5*((t>=0?b:-b)-
a(i,2*t)),-.25*c(i*i+4*r)+.5*c(n*n+r)]}(h*o(-1*t),h*g(-1*t)),m=function(t,e,r){var a=n(t),o=P(n(e));if(a){var
s=1/g(a),l=1/(v(a)*v(a)),c=-(l+r*(o*o*s*s)-1+r),u=(-c+C(c*c-(r-1)*l*4))/2;return[Ut(i(1/C(u)),r)*d(t),Ut(i(C((u/l-
1)/r)),1-r)*d(e)]}return[0,Ut(i(o),1-r)*d(e)]}(p[0],p[1],l*l);return[-m[1],(e>=0?1:-1)*(.5*u-m[0])]}function qt(t){var
e=g(t),r=o(t),i=Ht(t);function s(t,a){var s=i(t,a);t=s[0],a=s[1];var
l=g(a),c=o(a),u=o(t),f=L(e*l+r*c*u),h=g(f),p=n(h)>m?f/h:1;return[p*r*g(t),(n(t)>b?p:-p)*(e*c-r*l*u)]}return
i.invert=Ht(-t),s.invert=function(t,r){var n=C(t*t+r*r),s=-g(n),l=o(n),c=n*l,u=-r*s,f=n*e,h=C(c*c+u*u-
f*f),p=a(c*f+u*h,u*f-c*h),d=(n>b?-1:1)*a(t*s,n*o(p)*l+r*g(p)*s);return i.invert(d,p)},s}function Ht(t){var
e=g(t),r=o(t);return function(t,n){var i=o(n),s=o(t)*i,l=g(t)*i,c=g(n);return[a(l,s*r-
c*e),E(c*r+s*e)]}}Nt.invert=function(t,e){n(t)>1&&(t=2*d(t)-t),n(e)>1&&(e=2*d(e)-e);var r=d(t),i=d(e),s=-r*t,l=-
i*e,c=l/s<1,u=function(t,e){for(var r=0,i=1,a=.5,s=50;;){var l=a*a,c=C(a),u=E(1/C(1+l)),f=1-l+a*(1+l)*u,h=(1-
c)/f,p=C(h),d=h*(1+l),g=p*(1-l),v=C(d-t*t),m=e+g+a*v;if(n(i-r)<y||0==--
s||0===m)break;m>0?r=a:i=a,a=.5*(r+i)}if(!s)return null;var b=E(c),_=o(b),w=1/_,T=2*c*_,k=(-f*_-(-
3*a+u*(1+3*l))*T*(1-c))/(f*f);return[x/4*(t*(-2*w*(.5*k/p*(1-l)-2*a*p*T)+-w*T*v)+-
w*(a*(1+l)*k+h*(1+3*l)*T)*E(t/C(d))),b]}(c?l:s,c?s:l),f=u[0],h=u[1],p=o(h);return c&&(f=-b-f),[r*(a(g(f)*p,-
g(h))+x),i*E(o(f)*p)]},Vt.invert=function(t,e){var r,n,o,l,u,f,h=(T-1)/(T+1),p=C(1-h*h),d=(r=.5*Ut(b,p*p)-e,n=-
t,o=p*p,r?(l=jt(r,o),n?(f=(u=jt(n,1-
o))[1]*u[1]+o*l[0]*l[0]*u[0]*u[0],[[l[0]*u[2]/f,l[1]*l[2]*u[0]*u[1]/f],[l[1]*u[1]/f,-
l[0]*l[2]*u[0]*u[2]/f],[l[2]*u[1]*u[2]/f,-o*l[0]*l[1]*u[0]/f]]):[[l[0],0],[l[1],0],[l[2],0]]):[[0,(u=jt(n,1-
o))[0]/u[1]],[1/u[1],0],[u[2]/u[1],0]]),g=function(t,e){var
r=e[0]*e[0]+e[1]*e[1];return[(t[0]*e[0]+t[1]*e[1])/r,(t[1]*e[0]-t[0]*e[1])/r]}(d[0],d[1]);return[a(g[1],g[0])/-1,2*i(s(-
.5*c(h*g[0]*g[0]+h*g[1]*g[1])))-b]};var Gt=E(1-1/3)*M,Yt=pt(0);function Wt(t){var e=Gt*S,r=ct(x,e)[0]-ct(-
x,e)[0],i=Yt(0,e)[1],a=ct(0,e)[1],o=k-a,s=A/t,c=4/A,h=i+o*o*4/A;function p(p,d){var g,v=n(d);if(v>e){var m=f(t-
1,u(0,l((p+x)/s)));(g=ct(p+=x*(t-1)/t-m*s,v))[0]=g[0]*A/r-A*(t-1)/(2*t)+m*A/t,g[1]=i+4*(g[1]-
a)*o/A,d<0&&(g[1]=-g[1])}else g=Yt(p,d);return g[0]*=c,g[1]/=h,g}return p.invert=function(e,p){e/=c;var
d=n(p*=h);if(d>i){var g=f(t-1,u(0,l((e+x)/s)));e=(e+x*(t-1)/t-g*s)*r/A;var v=ct.invert(e,.25*(d-i)*A/o+a);return
v[0]-=x*(t-1)/t-g*s,p<0&&(v[1]=-v[1]),v}return Yt.invert(e,p)},p}function
Xt(t,e){return[t,1&e?89.999999:Gt]}function Zt(t,e){return[t,1&e?-89.999999:-Gt]}function
Jt(t){return[.999999*t[0],t[1]]}function Kt(t){var
e,r=1+t,i=E(g(1/r)),s=2*C(x/(e=x+4*i*r)),l=.5*s*(r+C(t*(2+t))),c=t*t,u=r*r;function f(f,h){var p,d,v=1-
g(h);if(v&&v<2){var m,_=b-h,w=25;do{var T=g(_),k=o(_),A=i+a(T,r-k),M=1+u-2*r*k;_-=m=(_-c*i-r*T+M*A-
.5*v*e)/(2*r*T*A)}while(n(m)>y&&--w>0);p=s*C(M),d=f*A/x}else p=s*(t+v),d=f*i/x;return[p*g(d),l-
p*o(d)]}return f.invert=function(t,n){var o=t*t+(n-=l)*n,f=(1+u-o/(s*s))/(2*r),h=L(f),p=g(h),d=i+a(p,r-
f);return[E(t/C(o))*x/d,E(1-2*(h-c*i-r*p+(1+u-2*r*f)*d)/e)]},f}var

Qt=.7109889596207567,$t=.0528035274542;function te(t,e){return e>-Qt?((t=X(t,e))[1]+=$t,t):$(t,e)}function ee(t,e){return n(e)>Qt?((t=X(t,e))[1]-=e>0?$t:-$t,t):$(t,e)}function re(t,e,r,n){var i=C(4*x/(2*r+(1+t-e/2)*g(2*r)+(t+e)/2*g(4*r)+e/2*g(6*r))),a=C(n*g(r)*C((1+t*o(2*r)+e*o(4*r))/(1+t+e))),s=r*c(1);function l(r){return C(1+t*o(2*r)+e*o(4*r))}function c(n){var i=n*r;return(2*i+(1+t-e/2)*g(2*i)+(t+e)/2*g(4*i)+e/2*g(6*i))/r}function u(t){return l(t)*g(t)}var f=function(t,e){var n=r*q(c,s*g(e)/r,e/x);isNaN(n)&&(n=r*d(e));var u=i*l(n);return[u*a*t/x*o(n),u/a*g(n)]};return f.invert=function(t,e){var n=q(u,e*a/i);return[t*x/(o(n)*i*a*l(n)),E(r*c(n/r)/s)]},0===r&&(i=C(n/x),(f=function(t,e){return[t*i,g(e)/i]}).invert=function(t,e){return[t/i,E(e*i)]}),f}function ne(t,e,r,n,i,a,o,s,l,c,u){if(u.nanEncountered)return NaN;var f,h,p,d,g,v,m,y,x,b;if(h=t(e+.25*(f=r-e)),p=t(r-.25*f),isNaN(h))u.nanEncountered=!0;else{if(!isNaN(p))return b=((v=(d=f*(n+4*h+i)/12)+(g=f*(i+4*p+a)/12))-o)/15,c>l?(u.maxDepthCount++,v+b):Math.abs(b)<s?v+b:(y=ne(t,e,m=e+.5*f,n,h,i,d,.5*s,l,c+1,u),isNaN(y)?(u.nanEncountered=!0,NaN):(x=ne(t,m,r,i,p,a,g,.5*s,l,c+1,u),isNaN(x)?(u.nanEncountered=!0,NaN):y+x));u.nanEncountered=!0}}function ie(t,e,r,n,i){void 0===n&&(n=1e-8),void 0===i&&(i=20);var a=t(e),o=t(.5*(e+r)),s=t(r);return ne(t,e,r,a,o,s,(a+4*o+s)*(r-e)/6,n,i,1,{maxDepthCount:0,nanEncountered:!1})}function ae(t,e,r){function i(r){return t+(1-t)*h(1-h(r,e),1/e)}function a(t){return ie(i,0,t,1e-4)}for(var o=1/a(1),s=1e3,l=(1+1e-8)*o,c=[],u=0;u<=s;u++)c.push(a(u/s)*l);function f(t){var e=0,r=s,n=500;do{c[n]>t?r=n:e=n,n=e+r>>1}while(n>e);var i=c[n+1]-c[n];return i&&(i=(t-c[n+1])/i),(n+1+i)/s}var p=2*f(1)/x*o/r,v=function(t,e){var r=f(n(g(e))),a=i(r)*t;return r/=p,[a,e>=0?r:-r]};return v.invert=function(t,e){var r;return n(e*=p)<1&&(r=d(e)*E(a(n(e))*o)),[t/i(n(e)),r]},v}function oe(t,e){return n(t[0]-e[0])<m&&n(t[1]-e[1])<m}function se(t,e){for(var r,n,i,a=-1,o=t.length,s=t[0],l=[];++a<o;){n=((r=t[a])[0]-s[0])/e,i=(r[1]-s[1])/e;for(var c=0;c<e;++c)l.push([s[0]+c*n,s[1]+c*i]);s=r}return l.push(r),l}function le(t){var e,n,i,a,o,s,l,c=[],u=t[0].length;for(l=0;l<u;++l)n=(e=t[0][l])[0][0],i=e[0][1],a=e[1][1],o=e[2][0],s=e[2][1],c.push(se([[n+m,i+m],[n+m,a-m],[o-m,a-m],[o-m,s+m]],30));for(l=t[1].length-1;l>=0;--l)n=(e=t[1][l])[0][0],i=e[0][1],a=e[1][1],o=e[2][0],s=e[2][1],c.push(se([[o-m,s-m],[o-m,a+m],[n+m,a+m],[n+m,i-m]],30));return{type:"Polygon",coordinates:[r.merge(c)]}}function ce(t,r,n){var i,a;function o(e,n){for(var i=n<0?-1:1,a=r[+(n<0)],o=0,s=a.length-1;o<s&&e>a[o][2][0];++o);var l=t(e-a[o][1][0],n);return l[0]+=t(a[o][1][0],i*n>i*a[o][0][1]?a[o][0][1]:n)[0],l}n?o.invert=n(o):t.invert&&(o.invert=function(e,n){for(var i=a[+(n<0)],s=r[+(n<0)],l=0,c=i.length;l<c;++l){var u=i[l];if(u[0][0]<=e&&e<u[1][0]&&u[0][1]<=n&&n<u[1][1]){var f=t.invert(e-t(s[l][1][0],0)[0],n);return f[0]+=s[l][1][0],oe(o(f[0],f[1]),[e,n])?f:null}}});var s=e.geoProjection(o),l=s.stream;return s.stream=function(t){var r=s.rotate(),n=l(t),a=(s.rotate([0,0]),l(t));return s.rotate(r),n.sphere=function(){e.geoStream(i,a)},n},s.lobes=function(e){return arguments.length?(i=le(e),r=e.map((function(t){return t.map((function(t){return[[t[0][0]*S,t[0][1]*S],[t[1][0]*S,t[1][1]*S],[t[2][0]*S,t[2][1]*S]]}))})),a=r.map((function(e){return e.map((function(e){var r,n=t(e[0][0],e[0][1])[0],i=t(e[2][0],e[2][1])[0],a=t(e[1][0],e[0][1])[1],o=t(e[1][0],e[1][1])[1];return a>o&&(r=a,a=o,o=r),[[n,a],[i,o]]}))})),s):r.map((function(t){return t.map((function(t){return[[t[0][0]*M,t[0][1]*M],[t[1][0]*M,t[1][1]*M],[t[2][0]*M,t[2][1]*M]]}))}))},null!=r&&s.lobes(r),s}te.invert=function(t,e){return e>-Qt?X.invert(t,e-$t):$.invert(t,e)},ee.invert=function(t,e){return n(e)>Qt?X.invert(t,e+(e>0?$t:-$t)):$.invert(t,e)};var ue=[[[[-180,0],[-100,90],[-40,0]],[[-40,0],[30,90],[180,0]]],[[[-180,0],[-160,-90],[-100,0]],[[-100,0],[-60,-90],[-20,0]],[[-20,0],[20,-90],[80,0]],[[80,0],[140,-90],[180,0]]]],fe=[[[[-180,0],[-100,90],[-40,0]],[[-40,0],[30,90],[180,0]]],[[[-180,0],[-160,-90],[-100,0]],[[-100,0],[-60,-90],[-20,0]],[[-20,0],[20,-90],[80,0]],[[80,0],[140,-90],[180,0]]]],he=[[[[-180,0],[-100,90],[-40,0]],[[-40,0],[30,90],[180,0]]],[[[-180,0],[-160,-90],[-100,0]],[[-100,0],[-60,-90],[-20,0]],[[-20,0],[20,-90],[80,0]],[[80,0],[140,-90],[180,0]]]],pe=[[[[-180,0],[-90,90],[0,0]],[[0,0],[90,90],[180,0]]],[[[-180,0],[-90,-90],[0,0]],[[0,0],[90,-90],[180,0]]]],de=[[[[-180,35],[-30,90],[0,35]],[[0,35],[30,90],[180,35]]],[[[-180,-10],[-102,-90],[-65,-10]],[[-65,-10],[5,-90],[77,-10]],[[77,-10],[103,-90],[180,-10]]]],ge=[[[[-180,0],[-110,90],[-40,0]],[[-40,0],[0,90],[40,0]],[[40,0],[110,90],[180,0]]],[[[-

180,0],[-110,-90],[-40,0]],[[-40,0],[0,-90],[40,0]],[[40,0],[110,-90],[180,0]]]];function ve(t,e){return[3/A*t*C(x*x/3-e*e),e]}function me(t){function e(e,r){if(n(n(r)-b)<m)return[0,r<0?-2:2];var i=g(r),a=h((1+i)/(1-i),t/2),s=.5*(a+1/a)+o(e*=t);return[2*g(e)/s,(a-1/a)/s]}return e.invert=function(e,r){var i=n(r);if(n(i-2)<m)return e?null:[0,d(r)*b];if(i>2)return null;var o=(e/=2)*e,s=(r/=2)*r,l=2*r/(1+o+s);return l=h((1+l)/(1-l),1/t),[a(2*e,1-o-s)/t,E((l-1)/(l+1))]},e}ve.invert=function(t,e){return[A/3*t/C(x*x/3-e*e),e]};var ye=x/T;function xe(t,e){return[t*(1+C(o(e)))/2,e/(o(e/2)*o(t/6))]}function be(t,e){var r=t*t,n=e*e;return[t*(.975534+n*(-.0143059*r-.119161+-.0547009*n)),e*(1.00384+r*(.0802894+-.02855*n+199025e-9*r)+n*(.0998909+-.0491032*n))]}function _e(t,e){return[g(t)/o(e),v(e)*o(t)]}function we(t){var e=o(t),r=v(_+t/2);function i(i,a){var o=a-t,s=n(o)<m?i*e:n(s=_+a/2)<m||n(n(s)-b)<m?0:i*o/c(v(s)/r);return[s,o]}return i.invert=function(i,a){var o,s=a+t;return[n(a)<m?i/e:n(o=_+s/2)<m||n(n(o)-b)<m?0:i*c(v(o)/r)/a,s]},i}function Te(t,e){return[t,1.25*c(v(_+.4*e))]}function ke(t){var e=t.length-1;function r(r,n){for(var i,a=o(n),s=2/(1+a*o(r)),l=s*a*g(r),c=s*g(n),u=e,f=t[u],h=f[0],p=f[1];--u>=0;)h=(f=t[u])[0]+l*(i=h)-c*p,p=f[1]+l*p+c*i;return[h=l*(i=h)-c*p,p=l*p+c*i]}return r.invert=function(r,s){var l=20,c=r,u=s;do{for(var f,h=e,p=t[h],d=p[0],v=p[1],m=0,y=0;--h>=0;)m=d+c*(f=m)-u*y,y=v+c*y+u*f,d=(p=t[h])[0]+c*(f=d)-u*v,v=p[1]+c*v+u*f;var x,b,_=(m=d+c*(f=m)-u*y)*m+(y=v+c*y+u*f)*y;c-=x=((d=c*(f=d)-u*v-r)*m+(v=c*v+u*f-s)*y)/_,u-=b=(v*m-d*y)/_}while(n(x)+n(b)>1e-12&&--l>0);if(l){var w=C(c*c+u*u),T=2*i(.5*w),k=g(T);return[a(c*k,w*o(T)),w?E(u*k/w):0]}},r}xe.invert=function(t,e){var r=n(t),i=n(e),a=m,s=b;i<ye?s*=i/ye:a+=6*L(ye/i);for(var l=0;l<25;l++){var c=g(s),u=C(o(s)),f=g(s/2),h=o(s/2),p=g(a/6),d=o(a/6),v=.5*a*(1+u)-r,y=s/(h*d)-i,x=u?-.25*a*c/u:0,_=.5*(1+u),w=(1+.5*s*f/h)/(h*d),T=s/h*(p/6)/(d*d),k=x*T-w*_,A=(v*T-y*_)/k,M=(y*x-v*w)/k;if(s-=A,a-=M,n(A)<m&&n(M)<m)break}return[t<0?-a:a,e<0?-s:s]},be.invert=function(t,e){var r=d(t)*x,i=e/2,a=50;do{var o=r*r,s=i*i,l=r*i,c=r*(.975534+s*(-.0143059*o-.119161+-.0547009*s))-t,u=i*(1.00384+o*(.0802894+-.02855*s+199025e-9*o)+s*(.0998909+-.0491032*s))-e,f=.975534-s*(.119161+3*o*.0143059+.0547009*s),h=-l*(.238322+.2188036*s+.0286118*o),p=l*(.1605788+7961e-7*o+-.0571*s),g=1.00384+o*(.0802894+199025e-9*o)+s*(3*(.0998909-.02855*o)-.245516*s),v=h*p-g*f,y=(u*h-c*g)/v,b=(c*p-u*f)/v;r-=y,i-=b}while((n(y)>m||n(b)>m)&&--a>0);return a&&[r,i]},_e.invert=function(t,e){var r=t*t,n=e*e+1,i=r+n,a=t?w*C((i-C(i*i-4*r))/r):1/C(n);return[E(t*a),d(e)*L(a)]},Te.invert=function(t,e){return[t,2.5*i(s(.8*e))-.625*x]};var Ae=[[.9972523,0],[.0052513,-.0041175],[.0074606,.0048125],[-.0153783,-.1968253],[.0636871,-.1408027],[.3660976,-.2937382]],Me=[[.98879,0],[0,0],[-.050909,0],[0,0],[.075528,0]],Se=[[.984299,0],[.0211642,.0037608],[-.1036018,-.0575102],[-.0329095,-.0320119],[.0499471,.1223335],[.026046,.0899805],[7388e-7,-.1435792],[.0075848,-.1334108],[-.0216473,.0776645],[-.0225161,.0853673]],Ee=[[.9245,0],[0,0],[.01943,0]],Le=[[.721316,0],[0,0],[-.00881625,-.00617325]];function Ce(t,r){var n=e.geoProjection(ke(t)).rotate(r).clipAngle(90),i=e.geoRotation(r),a=n.center;return delete n.rotate,n.center=function(t){return arguments.length?a(i(t)):i.invert(a())},n}var Pe=C(6),Ie=C(7);function Oe(t,e){var r=E(7*g(e)/(3*Pe));return[Pe*t*(2*o(2*r/3)-1)/Ie,9*g(r/3)/Ie]}function ze(t,e){for(var r,i=(1+w)*g(e),a=e,s=0;s<25&&(a-=r=(g(a/2)+g(a)-i)/(.5*o(a/2)+o(a)),!(n(r)<m));s++);return[t*(1+2*o(a)/o(a/2))/(3*T),2*C(3)*g(a/2)/C(2+T)]}function De(t,e){for(var r,i=C(6/(4+x)),a=(1+x/4)*g(e),s=e/2,l=0;l<25&&(s-=r=(s/2+g(s)-a)/(.5+o(s)),!(n(r)<m));l++);return[i*(.5+o(s))*t/1.5,i*s]}function Re(t,e){var r=e*e,n=r*r,i=r*n;return[t*(.84719-.13063*r+i*i*(.05494*r-.04515-.02326*n+.00331*i)),e*(1.01183+n*n*(.01926*r-.02625-.00396*n))]}function Fe(t,e){return[t*(1+o(e))/2,2*(e-v(e/2))]}Oe.invert=function(t,e){var r=3*E(e*Ie/9);return[t*Ie/(Pe*(2*o(2*r/3)-1)),E(3*g(r)*Pe/7)]},ze.invert=function(t,e){var r=e*C(2+T)/(2*C(3)),n=2*E(r);return[3*T*t/(1+2*o(n)/o(n/2)),E((r+g(n))/(1+w))]},De.invert=function(t,e){var r=C(6/(4+x)),i=e/r;return n(n(i)-b)<m&&(i=i<0?-b:b),[1.5*t/(r*(.5+o(i))),E((i/2+g(i))/(1+x/4))]},Re.invert=function(t,e){var r,i,a,o,s=e,l=25;do{s-=r=(s*(1.01183+(a=(i=s*s)*i)*a*(.01926*i-.02625-.00396*a))-e)/(1.01183+a*a*(.21186*i-.23625+-

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.05148*a))}while(n(r)>y&&--l>0);return[t/(.84719-.13063*(i=s*s)+(o=i*(a=i*i))*o*(.05494*i-.04515-.02326*a+.00331*o)),s]},Fe.invert=function(t,e){for(var r=e/2,i=0,a=1/0;i<10&&n(a)>m;++i){var s=o(e/2);e-=a=(e-v(e/2)-r)/(1-.5/(s*s))}return[2*t/(1+o(e)),e]};var Be=[[[[-180,0],[-90,90],[0,0]],[[0,0],[90,90],[180,0]]],[[[-180,0],[-90,-90],[0,0]],[[0,0],[90,-90],[180,0]]]];function Ne(t,e){var r=g(e),i=o(e),a=d(t);if(0===t||n(e)===b)return[0,e];if(0===e)return[t,0];if(n(t)===b)return[t*i,b*r];var s=x/(2*t)-2*t/x,l=2*e/x,c=(1-l*l)/(r-l),u=s*s,f=c*c,h=1+u/f,p=1+f/u,v=(s*r/c-s/2)/h,m=(f*r/u+c/2)/p,y=m*m-(f*r*r/u+c*r-1)/p;return[b*(v+C(v*v+i*i/h)*a),b*(m+C(y<0?0:y)*d(-e*s)*a)]}Ne.invert=function(t,e){var r=(t/=b)*t,n=r+(e/=b)*e,i=x*x;return[t?(n-1+C((1-n)*(1-n)+4*r))/(2*t)*b:0,q((function(t){return n*(x*g(t)-2*t)*x+4*t*t*(e-g(t))+2*x*t-i*e}),0)]};var je=1.0148,Ue=.23185,Ve=-.14499,qe=.02406,He=1.790857183;function Ge(t,e){var r=e*e;return[t,e*(je+r*r*(Ue+r*(Ve+qe*r)))]}function Ye(t,e){if(n(e)<m)return[t,0];var r=v(e),i=t*g(e);return[g(i)/r,e+(1-o(i))/r]}function We(t,e){var r=Je(t[1],t[0]),n=Je(e[1],e[0]),i=function(t,e){return a(t[0]*e[1]-t[1]*e[0],t[0]*e[0]+t[1]*e[1])}(r,n),s=Ke(r)/Ke(n);return Ze([1,0,t[0][0],0,1,t[0][1]],Ze([s,0,0,0,s,0],Ze([o(i),g(i),0,-g(i),o(i),0],[1,0,-e[0][0],0,1,-e[0][1]])))}function Xe(t){var e=1/(t[0]*t[4]-t[1]*t[3]);return[e*t[4],-e*t[1],e*(t[1]*t[5]-t[2]*t[4]),-e*t[3],e*t[0],e*(t[2]*t[3]-t[0]*t[5])]}function Ze(t,e){return[t[0]*e[0]+t[1]*e[3],t[0]*e[1]+t[1]*e[4],t[0]*e[2]+t[1]*e[5]+t[2],t[3]*e[0]+t[4]*e[3],t[3]*e[1]+t[4]*e[4],t[3]*e[2]+t[4]*e[5]+t[5]]}function Je(t,e){return[t[0]-e[0],t[1]-e[1]]}function Ke(t){return C(t[0]*t[0]+t[1]*t[1])}function Qe(t,r,n){function i(t,e){var n,i=r(t,e),a=i.project([t*M,e*M]);return(n=i.transform)?[n[0]*a[0]+n[1]*a[1]+n[2],-(n[3]*a[0]+n[4]*a[1]+n[5])]:(a[1]=-a[1],a)}function a(t,e){var n=t.project.invert,i=t.transform,o=e;if(i&&(o=[(i=Xe(i))[0]*o[0]+i[1]*o[1]+i[2],i[3]*o[0]+i[4]*o[1]+i[5]]),n&&t===function(t){return r(t[0]*S,t[1]*S)}(s=n(o)))return s;for(var s,l=t.children,c=0,u=l&&l.length;c<u;++c)if(s=a(l[c],e))return s}(function t(e,r){if(e.edges=function(t){for(var e=t.length,r=[],n=t[e-1],i=0;i<e;++i)r.push([n,n=t[i]]);return r}(e.face),r.face){var n=e.shared=function(t,e){for(var r,n,i=t.length,a=null,o=0;o<i;++o){r=t[o];for(var s=e.length;--s>=0;)if(n=e[s],r[0]===n[0]&&r[1]===n[1]){if(a)return[a,r];a=r}}}(e.face,r.face),i=We(n.map(r.project),n.map(e.project));e.transform=r.transform?Ze(r.transform,i):i;for(var a=r.edges,o=0,s=a.length;o<s;++o)tr(n[0],a[o][1])&&tr(n[1],a[o][0])&&(a[o]=e),tr(n[0],a[o][0])&&tr(n[1],a[o][1])&&(a[o]=e);for(o=0,s=(a=e.edges).length;o<s;++o)tr(n[0],a[o][0])&&tr(n[1],a[o][1])&&(a[o]=r),tr(n[0],a[o][1])&&tr(n[1],a[o][0])&&(a[o]=r)}else e.transform=r.transform;return e.children&&e.children.forEach((function(r){t(r,e)})),e})(t,{transform:null}),er(t)&&(i.invert=function(e,r){var n=a(t,[e,-r]);return n&&(n[0]*=S,n[1]*=S,n)});var o=e.geoProjection(i),s=o.stream;return o.stream=function(e){var r=o.rotate(),n=s(e),i=(o.rotate([0,0]),s(e));return o.rotate(r),n.sphere=function(){i.polygonStart(),i.lineStart(),$e(i,t),i.lineEnd(),i.polygonEnd()},n},o.angle(null==n?-30:n*M)}function $e(t,r,i){var a,o,s=r.edges,l=s.length,c={type:"MultiPoint",coordinates:r.face},u=r.face.filter((function(t){return 90!==n(t[1])})),f=e.geoBounds({type:"MultiPoint",coordinates:u}),h=!1,p=-1,d=f[1][0]-f[0][0],g=180===d||360===d?[(f[0][0]+f[1][0])/2,(f[0][1]+f[1][1])/2]:e.geoCentroid(c);if(i)for(;++p<l&&s[p]!==i;);++p;for(var v=0;v<l;++v)o=s[(v+p)%l],Array.isArray(o)?(h||(t.point((a=e.geoInterpolate(o[0],g)(m))[0],a[1]),h=!0),t.point((a=e.geoInterpolate(o[1],g)(m))[0],a[1])):(h=!1,o!==i&&$e(t,o,r))}function tr(t,e){return t&&e&&t[0]===e[0]&&t[1]===e[1]}function er(t){return t.project.invert||t.children&&t.children.some(er)}Ge.invert=function(t,e){e>He?e=He:e<-1.790857183&&(e=-1.790857183);var r,i=e;do{var a=i*i;i-=r=(i*(je+a*a*(Ue+a*(Ve+qe*a)))-e)/(1.0148+a*a*(1.1592500000000001+a*(.21654*a-1.01493)))}while(n(r)>m);return[t,i]},Ye.invert=function(t,e){if(n(e)<m)return[t,0];var r,i=t*t+e*e,a=.5*e,s=10;do{var l=v(a),c=1/o(a),u=i-2*e*a+a*a;a-=r=(l*u+2*(a-e))/(2+u*c*c+2*(a-e)*l)}while(n(r)>m&&--s>0);return l=v(a),[(n(e)<n(a+1/l)?E(t*l):d(e)*d(t)*(L(n(t*l))+b))/g(a),a]};var rr=[[0,90],[-
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90,0],[0,0],[90,0],[180,0],[0,-
90]],nr=[[0,2,1],[0,3,2],[5,1,2],[5,2,3],[0,1,4],[0,4,3],[5,4,1],[5,3,4]].map((function(t){return
t.map((function(t){return rr[t]}))})),ir=2/C(3);function ar(t,e){var r=ct(t,e);return[r[0]*ir,r[1]]}function
or(t,e){for(var r=0,n=t.length,i=0;r<n;++r)i+=t[r]*e[r];return i}function sr(t){return[a(t[1],t[0])*M,E(u(-
1,f(1,t[2])))*M]}function lr(t){var e=t[0]*S,r=t[1]*S,n=o(r);return[n*o(e),n*g(e),g(r)]}function cr(){}function
ur(t,e){return{type:"FeatureCollection",features:t.features.map((function(t){return fr(t,e)}))}}function
fr(t,e){return{type:"Feature",id:t.id,properties:t.properties,geometry:hr(t.geometry,e)}}function hr(t,r){if(!t)return
null;if("GeometryCollection"===t.type)return
function(t,e){return{type:"GeometryCollection",geometries:t.geometries.map((function(t){return
hr(t,e)}))}}(t,r);var
n;switch(t.type){case"Point":case"MultiPoint":n=gr;break;case"LineString":case"MultiLineString":n=vr;break;case"
Polygon":case"MultiPolygon":case"Sphere":n=mr;break;default:return null}return
e.geoStream(t,r(n)),n.result()}ar.invert=function(t,e){return ct.invert(t/ir,e)};var
pr=[],dr=[],gr={point:function(t,e){pr.push([t,e])},result:function(){var
t=pr.length?pr.length<2?{type:"Point",coordinates:pr[0]}:{type:"MultiPoint",coordinates:pr}:null;return
pr=[],t}},vr={lineStart:cr,point:function(t,e){pr.push([t,e])},lineEnd:function(){pr.length&&(dr.push(pr),pr=[])},res
ult:function(){var
t=dr.length?dr.length<2?{type:"LineString",coordinates:dr[0]}:{type:"MultiLineString",coordinates:dr}:null;return
dr=[],t}},mr={polygonStart:cr,lineStart:cr,point:function(t,e){pr.push([t,e])},lineEnd:function(){var
t=pr.length;if(t){do{pr.push(pr[0].slice())}while(++t<4);dr.push(pr),pr=[]}},polygonEnd:cr,result:function(){if(!dr.l
ength)return null;var t=[],e=[];return dr.forEach((function(r){!function(t){if((e=t.length)<4)return!1;for(var
e,r=0,n=t[e-1][1]*t[0][0]-t[e-1][0]*t[0][1];++r<e;)n+=t[r-1][1]*t[r][0]-t[r-1][0]*t[r][1];return
n<=0}(r)?e.push(r):t.push([r])})),e.forEach((function(e){var r=e[0];t.some((function(t){if(function(t,e){for(var
r=e[0],n=e[1],i=!1,a=0,o=t.length,s=o-1;a<o;s=a++){var l=t[a],c=l[0],u=l[1],f=t[s],h=f[0],p=f[1];u>n^p>n&&r<(h-
c)*(n-u)/(p-u)+c&&(i=!i)}return i}(t[0],r))return
t.push(e),!0}))||t.push([e])})),dr=[],t.length?t.length>1?{type:"MultiPolygon",coordinates:t}:{type:"Polygon",coordi
nates:t[0]}:null}};function yr(t){var r=t(b,0)[0]-t(-b,0)[0];function i(e,i){var a=n(e)<b,o=t(a?e:e>0?e-
x:e+x,i),s=(o[0]-o[1])*w,l=(o[0]+o[1])*w;if(a)return[s,l];var c=r*w,u=s>0^l>0?-1:1;return[u*s-d(l)*c,u*l-
d(s)*c]}return t.invert&&(i.invert=function(e,i){var a=(e+i)*w,o=(i-e)*w,s=n(a)<.5*r&&n(o)<.5*r;if(!s){var
l=r*w,c=a>0^o>0?-1:1,u=-c*e+(o>0?1:-1)*l,f=-c*i+(a>0?1:-1)*l;a=(-u-f)*w,o=(u-f)*w}var h=t.invert(a,o);return
s||(h[0]+=a>0?x:-x),h}),e.geoProjection(i).rotate([-90,-90,45]).clipAngle(179.999)}function xr(){return
yr(Vt).scale(111.48)}function br(t){var e=g(t);function r(r,n){var a=e?v(r*e/2)/e:r/2;if(!n)return[2*a,-t];var
s=2*i(a*g(n)),l=1/v(n);return[g(s)*l,n+(1-o(s))*l-t]}return
r.invert=function(r,a){if(n(a+=t)<m)return[e?2*i(e*r/2)/e:r,0];var s,l=r*r+a*a,c=0,u=10;do{var f=v(c),h=1/o(c),p=l-
2*a*c+c*c;c-=s=(f*p+2*(c-a))/(2+p*h*h+2*(c-a)*f)}while(n(s)>m&&--u>0);var
d=r*(f=v(c)),y=v(n(a)<n(c+1/f)?.5*E(d):.5*L(d)+x/4)/g(c);return[e?2*i(e*y)/e:2*y,c]},r}var _r=[[.9986,-
.062],[1,0],[.9986,.062],[.9954,.124],[.99,.186],[.9822,.248],[.973,.31],[.96,.372],[.9427,.434],[.9216,.4958],[.8962,.
5571],[.8679,.6176],[.835,.6769],[.7986,.7346],[.7597,.7903],[.7186,.8435],[.6732,.8936],[.6213,.9394],[.5722,.976
1],[.5322,1]];function wr(t,e){var r,i=f(18,36*n(e)/x),a=l(i),o=i-
a,s=(r=_r[a])[0],c=r[1],u=(r=_r[++a])[0],h=r[1],p=(r=_r[f(19,++a)])[0],d=r[1];return[t*(u+o*(p-s)/2+o*o*(p-
2*u+s)/2),(e>0?b:-b)*(h+o*(d-c)/2+o*o*(d-2*h+c)/2)]}function Tr(t,e){var r=function(t){function e(e,r){var
n=o(r),i=(t-1)/(t-n*o(e));return[i*n*g(e),i*g(r)]}return e.invert=function(e,r){var n=e*e+r*r,i=C(n),o=(t-C(1-
n*(t+1)/(t-1)))/((t-1)/i+i/(t-1));return[a(e*o,i*C(1-o*o)),i?E(r*o/i):0]},e}(t);if(!e)return r;var n=o(e),i=g(e);function
s(e,a){var o=r(e,a),s=o[1],l=s*i/(t-1)+n;return[o[0]*n/l,s/l]}return s.invert=function(e,a){var o=(t-1)/(t-1-a*i);return
r.invert(o*e,o*a*n)},s}_r.forEach((function(t){t[1]*=1.0144})),wr.invert=function(t,e){var
r=e/b,i=90*r,a=f(18,n(i/5)),o=u(0,l(a));do{var s=_r[o][1],c=_r[o+1][1],h=_r[f(19,o+2)][1],p=h-s,d=h-
2*c+s,g=2*(n(r)-c)/p,v=d/p,m=g*(1-v*g*(1-2*v*g));if(m>=0||1===o){i=(e>=0?5:-5)*(m+a);var
x,_=50;do{m=(a=f(18,n(i)/5))-(o=l(a)),s=_r[o][1],c=_r[o+1][1],h=_r[f(19,o+2)][1],i-=(x=(e>=0?b:-b)*(c+m*(h-

s)/2+m*m*(h-2*c+s)/2)-e)*M}while(n(x)>y&&--_>0);break}}while(--o>=0);var w=_r[o][0],T=_r[o+1][0],k=_r[f(19,o+2)][0];return[t/(T+m*(k-w)/2+m*m*(k-2*T+w)/2),i*S]};var kr=-180,Ar=-179.9999,Mr=179.9999,Sr=-89.9999,Er=89.9999;function Lr(t){return t.length>0}function Cr(t){return-90===t||90===t?[0,t]:[kr,(e=t,Math.floor(1e4*e)/1e4)];var e}function Pr(t){var e=t[0],r=t[1],n=!1;return e<=Ar?(e=kr,n=!0):e>=Mr&&(e=180,n=!0),r<=Sr?(r=-90,n=!0):r>=Er&&(r=90,n=!0),n?[e,r]:t}function Ir(t){return t.map(Pr)}function Or(t,e,r){for(var n=0,i=t.length;n<i;++n){var a=t[n].slice();r.push({index:-1,polygon:e,ring:a});for(var o=0,s=a.length;o<s;++o){var l=a[o],c=l[0],u=l[1];if(c<=Ar||c>=Mr||u<=Sr||u>=Er){a[o]=Pr(l);for(var f=o+1;f<s;++f){var h=a[f],p=h[0],d=h[1];if(p>Ar&&p<Mr&&d>Sr&&d<Er)break}if(f===o+1)continue;if(o){var g={index:-1,polygon:e,ring:a.slice(0,o+1)};g.ring[g.ring.length-1]=Cr(u),r[r.length-1]=g}else r.pop();if(f>=s)break;r.push({index:-1,polygon:e,ring:a=a.slice(f-1)}),a[0]=Cr(a[0][1]),o=-1,s=a.length}}}function zr(t){var e,r,n,i,a,o,s=t.length,l={},c={};for(e=0;e<s;++e)n=(r=t[e]).ring[0],a=r.ring[r.ring.length-1],n[0]!==a[0]||n[1]!==a[1]?(r.index=e,l[n]=c[a]=r):(r.polygon.push(r.ring),t[e]=null);for(e=0;e<s;++e)if(r=t[e]){if(n=r.ring[0],a=r.ring[r.ring.length-1],i=c[n],o=l[a],delete l[n],delete c[a],n[0]===a[0]&&n[1]===a[1]){r.polygon.push(r.ring);continue}i?(delete c[n],delete l[i.ring[0]],i.ring.pop(),t[i.index]=null,r={index:-1,polygon:i.polygon,ring:i.ring.concat(r.ring)},i===o?r.polygon.push(r.ring):(r.index=s++,t.push(l[r.ring[0]]=c[r.ring[r.ring.length-1]]=r))):o?(delete l[a],delete c[o.ring[o.ring.length-1]],r.ring.pop(),r={index:s++,polygon:o.polygon,ring:r.ring.concat(o.ring)},t[o.index]=null,t.push(l[r.ring[0]]=c[r.ring[r.ring.length-1]]=r)):(r.ring.push(r.ring[0]),r.polygon.push(r.ring))}}function Dr(t){var e={type:"Feature",geometry:Rr(t.geometry)};return null!=t.id&&(e.id=t.id),null!=t.bbox&&(e.bbox=t.bbox),null!=t.properties&&(e.properties=t.properties),e}function Rr(t){if(null==t)return t;var e,r,n,i;switch(t.type){case"GeometryCollection":e={type:"GeometryCollection",geometries:t.geometries.map(Rr)};break;case"Point":e={type:"Point",coordinates:Pr(t.coordinates)};break;case"MultiPoint":case"LineString":e={type:t.type,coordinates:Ir(t.coordinates)};break;case"MultiLineString":e={type:"MultiLineString",coordinates:t.coordinates.map(Ir)};break;case"Polygon":var a=[];Or(t.coordinates,a,r=[]),zr(r),e={type:"Polygon",coordinates:a};break;case"MultiPolygon":r=[],n=-1,i=t.coordinates.length;for(var o=new Array(i);++n<i;)Or(t.coordinates[n],o[n]=[],r);zr(r),e={type:"MultiPolygon",coordinates:o.filter(Lr)};break;default:return t}return null!=t.bbox&&(e.bbox=t.bbox),e}function Fr(t,e){var r=v(e/2),n=g(_*r);return[t*(.74482-.34588*n*n),1.70711*r]}function Br(t,r,n){var i=e.geoInterpolate(r,n),a=i(.5),o=e.geoRotation([-a[0],-a[1]])(r),s=i.distance/2,l=-E(g(o[1]*S)/g(s)),c=[-a[0],-a[1],-(o[0]>0?x-l:l)*M],u=e.geoProjection(t(s)).rotate(c),f=e.geoRotation(c),h=u.center;return delete u.rotate,u.center=function(t){return arguments.length?h(f(t)):f.invert(h())},u.clipAngle(90)}function Nr(t){var r=o(t);function n(t,n){var i=e.geoGnomonicRaw(t,n);return i[0]*=r,i}return n.invert=function(t,n){return e.geoGnomonicRaw.invert(t/r,n)},n}function jr(t,e){return Br(Nr,t,e)}function Ur(t){if(!(t*=2))return e.geoAzimuthalEquidistantRaw;var r=-t/2,n=-r,i=t*t,s=v(n),l=.5/g(n);function c(e,a){var s=L(o(a)*o(e-r)),l=L(o(a)*o(e-n));return[((s*=s)-(l*=l))/(2*t),(a<0?-1:1)*C(4*i*l-(i-s+l)*(i-s+l))/(2*t)]}return c.invert=function(t,e){var i,c,u=e*e,f=o(C(u+(i=t+r)*i)),h=o(C(u+(i=t+n)*i));return[a(c=f-h,i=(f+h)*s),(e<0?-1:1)*L(C(i*i+c*c)*l)]},c}function Vr(t,e){return Br(Ur,t,e)}function qr(t,e){if(n(e)<m)return[t,0];var r=n(e/b),i=E(r);if(n(t)<m||n(n(e)-b)<m)return[0,d(e)*x*v(i/2)];var a=o(i),s=n(x/t-t/x)/2,l=s*s,c=a/(r+a-1),u=c*(2/r-1),f=u*u,h=f+l,p=c-f,g=l+c;return[d(t)*x*(s*p+C(l*p*p-h*(c*c-f)))/h,d(e)*x*(u*g-s*C((l+1)*h-g*g))/h]}function Hr(t,e){if(n(e)<m)return[t,0];var r=n(e/b),i=E(r);if(n(t)<m||n(n(e)-b)<m)return[0,d(e)*x*v(i/2)];var a=o(i),s=n(x/t-t/x)/2,l=s*s,c=a*(C(1+l)-s*a)/(1+l*r*r);return[d(t)*x*c,d(e)*x*C(1-c*(2*s+c))]}function Gr(t,e){if(n(e)<m)return[t,0];var r=e/b,i=E(r);if(n(t)<m||n(n(e)-b)<m)return[0,x*v(i/2)];var a=(x/t-t/x)/2,s=r/(1+o(i));return[x*(d(t)*C(a*a+1-s*s)-a),x*s]}function Yr(t,e){if(!e)return[t,0];var r=n(e);if(!t||r===b)return[0,e];var i=r/b,a=i*i,o=(8*i-a*(a+2)-5)/(2*a*(i-

1)),s=o*o,l=i*o,c=a+s+2*l,u=i+3*o,f=t/b,h=f+1/f,p=d(n(t)-b)*C(h*h-4),g=p*p,v=(p*(c+s-1)+2*C(c*(a+s*g-1)+(1-a)*(a*(u*u+4*s)+12*l*s+4*s*s)))/(4*c+g);return[d(t)*b*v,d(e)*b*C(1+p*n(v)-v*v)]}function Wr(t,e,r,n){var i=x/3;t=u(t,m),e=u(e,m),t=f(t,b),e=f(e,x-m),r=u(r,0),r=f(r,99.999999);var s=(n=u(n,m))/100,l=L((r/100+1)*o(i))/i,c=g(t)/g(l*b),h=e/x,p=C(s*g(t/2)/g(e/2));return function(t,e,r,n,i){function s(a,s){var l=r*g(n*s),c=C(1-l*l),u=C(2/(1+c*o(a*=i)));return[t*c*u*g(a),e*l*u]}return s.invert=function(o,s){var l=o/t,c=s/e,u=C(l*l+c*c),f=2*E(u/2);return[a(o*v(f),t*u)/i,u&&E(s*g(f)/(e*r*u))/n]},s}(p/C(h*c*l),1/(p*C(h*c*l)),c,l,h)}function Xr(){var t=65*S,r=60*S,n=20,i=200,a=e.geoProjectionMutator(Wr),o=a(t,r,n,i);return o.poleline=function(e){return arguments.length?a(t=+e*S,r,n,i):t*M},o.parallels=function(e){return arguments.length?a(t,r=+e*S,n,i):r*M},o.inflation=function(e){return arguments.length?a(t,r,n=+e,i):n},o.ratio=function(e){return arguments.length?a(t,r,n,i=+e):i},o.scale(163.775)}Fr.invert=function(t,e){var r=e/1.70711,n=g(_*r);return[t/(.74482-.34588*n*n),2*i(r)]},qr.invert=function(t,e){if(n(e)<m)return[t,0];if(n(t)<m)return[0,b*g(2*i(e/x))];var r=(t/=x)*t,a=(e/=x)*e,s=r+a,l=s*s,c=-n(e)*(1+s),u=c-2*a+r,f=-2*c+1+2*a+l,h=a/f+(2*u*u*u/(f*f*f)-9*c*u/(f*f))/27,p=(c-u*u/(3*f))/f,v=2*C(-p/3),y=L(3*h/(p*v))/3;return[x*(s-1+C(1+2*(r-a)+l))/(2*t),d(e)*x*(-v*o(y+x/3)-u/(3*f))]},Hr.invert=function(t,e){if(!t)return[0,b*g(2*i(e/x))];var r=n(t/x),o=(1-r*r-(e/=x)*e)/(2*r),s=C(o*o+1);return[d(t)*x*(s-o),d(e)*b*g(2*a(C((1-2*o*r)*(o+s)-r),C(s+o+r)))]},Gr.invert=function(t,e){if(!e)return[t,0];var r=e/x,n=(x*x*(1-r*r)-t*t)/(2*x*t);return[t?x*(d(t)*C(n*n+1)-n):0,b*g(2*i(r))]},Yr.invert=function(t,e){var r;if(!t||!e)return[t,e];e/=x;var i=d(t)*t/b,a=(i*i-1+4*e*e)/n(i),o=a*a,s=2*e,l=50;do{var c=s*s,u=(8*s-c*(c+2)-5)/(2*c*(s-1)),f=(3*s-c*s-10)/(2*c*s),h=u*u,p=s*u,g=s+u,v=g*g,y=s+3*u,_=-2*g*(4*p*h+(1-4*c+3*c*c)*(1+f)+h*(14*c-6-o+(8*c-8-2*o)*f)+p*(12*c-8+(10*c-10-o)*f)),w=C(v*(c+h*o-1)+(1-c)*(c*(y*y+4*h)+h*(12*p+4*h)));s-=r=(a*(v+h-1)+2*w-i*(4*v+o))/(a*(2*u*f+2*g*(1+f))+_/w-8*g*(a*(-1+h+v)+2*w)*(1+f)/(o+4*v))}while(r>m&&--l>0);return[d(t)*(C(a*a+4)+a)*x/4,b*s]};var Zr=4*x+3*C(3),Jr=2*C(2*x*C(3)/Zr),Kr=W(Jr*C(3)/x,Jr,Zr/6);function Qr(t,e){return[t*C(1-3*e*e/(x*x)),e]}function $r(t,e){var r=o(e),n=o(t)*r,i=1-n,s=o(t=a(g(t)*r,-g(e))),l=g(t);return[l*(r=C(1-n*n))-s*i,-s*r-l*i]}function tn(t,e){var r=z(t,e);return[(r[0]+t/b)/2,(r[1]+e)/2]}Qr.invert=function(t,e){return[t/C(1-3*e*e/(x*x)),e]},$r.invert=function(t,e){var r=(t*t+e*e)/-2,n=C(-r*(2+r)),i=e*r+t*n,o=t*r-e*n,s=C(o*o+i*i);return[a(n*i,s*(1+r)),s?-E(n*o/s):0]},tn.invert=function(t,e){var r=t,i=e,a=25;do{var s,l=o(i),c=g(i),u=g(2*i),f=c*c,h=l*l,p=g(r),d=o(r/2),v=g(r/2),y=v*v,x=1-h*d*d,_=x?L(l*d)*C(s=1/x):s=0,w=.5*(2*_*l*v+r/b)-t,T=.5*(_*c+i)-e,k=.5*s*(h*y+_*l*d*f)+.5/b,A=s*(p*u/4-_*c*v),M=.125*s*(u*v-_*c*h*p),S=.5*s*(f*d+_*y*l)+.5,E=A*M-S*k,P=(T*A-w*S)/E,I=(w*M-T*k)/E;r-=P,i-=I}while((n(P)>m||n(I)>m)&&--a>0);return[r,i]},t.geoNaturalEarth=e.geoNaturalEarth1,t.geoNaturalEarthRaw=e.geoNaturalEarth1Raw,t.geoAiry=function(){var t=b,r=e.geoProjectionMutator(O),n=r(t);return n.radius=function(e){return arguments.length?r(t=e*S):t*M},n.scale(179.976).clipAngle(147)},t.geoAiryRaw=O,t.geoAitoff=function(){return e.geoProjection(z).scale(152.63)},t.geoAitoffRaw=z,t.geoArmadillo=function(){var t=20*S,r=t>=0?1:-1,n=v(r*t),i=e.geoProjectionMutator(D),s=i(t),l=s.stream;return s.parallel=function(e){return arguments.length?(n=v((r=(t=e*S)>=0?1:-1)*t),i(t)):t*M},s.stream=function(e){var i=s.rotate(),c=l(e),u=(s.rotate([0,0]),l(e)),f=s.precision();return s.rotate(i),c.sphere=function(){u.polygonStart(),u.lineStart();for(var e=-180*r;r*e<180;e+=90*r)u.point(e,90*r);if(t)for(;r*(e-=3*r*f)>=-180;)u.point(e,r*-a(o(e*S/2),n)*M);u.lineEnd(),u.polygonEnd()},c},s.scale(218.695).center([0,28.0974])},t.geoArmadilloRaw=D,t.geoAugust=function(){return e.geoProjection(R).scale(66.1603)},t.geoAugustRaw=R,t.geoBaker=function(){return e.geoProjection(N).scale(112.314)},t.geoBakerRaw=N,t.geoBerghaus=function(){var t=5,r=e.geoProjectionMutator(j),n=r(t),i=n.stream,s=.01,l=-o(s*S),c=g(s*S);return n.lobes=function(e){return arguments.length?r(t=+e):t},n.stream=function(e){var r=n.rotate(),u=i(e),f=(n.rotate([0,0]),i(e));return n.rotate(r),u.sphere=function(){f.polygonStart(),f.lineStart();for(var e=0,r=360/t,n=2*x/t,i=90-180/t,u=b;e<t;++e,i-

=r,u-=n)f.point(a(c*o(u),l)*M,E(c*g(u))*M),i<-90?(f.point(-90,-180-i-s),f.point(-90,-180-i+s)):(f.point(90,i+s),f.point(90,i-s));f.lineEnd(),f.polygonEnd()},u},n.scale(87.8076).center([0,17.1875]).clipAngle(179.999)},t.geoBerghausRaw=j,t.geoBertin1953=function(){return e.geoProjection(G()).rotate([-16.5,-42]).scale(176.57).center([7.93,.09])},t.geoBertin1953Raw=G,t.geoBoggs=function(){return e.geoProjection(K).scale(160.857)},t.geoBoggsRaw=K,t.geoBonne=function(){return Q(tt).scale(123.082).center([0,26.1441]).parallel(45)},t.geoBonneRaw=tt,t.geoBottomley=function(){var t=.5,r=e.geoProjectionMutator(et),n=r(t);return n.fraction=function(e){return arguments.length?r(t=+e):t},n.scale(158.837)},t.geoBottomleyRaw=et,t.geoBromley=function(){return e.geoProjection(rt).scale(152.63)},t.geoBromleyRaw=rt,t.geoChamberlin=lt,t.geoChamberlinRaw=ot,t.geoChamberlinAfrica=function(){return lt([0,22],[45,22],[22.5,-22]).scale(380).center([22.5,2])},t.geoCollignon=function(){return e.geoProjection(ct).scale(95.6464).center([0,30])},t.geoCollignonRaw=ct,t.geoCraig=function(){return Q(ut).scale(249.828).clipAngle(90)},t.geoCraigRaw=ut,t.geoCraster=function(){return e.geoProjection(ht).scale(156.19)},t.geoCrasterRaw=ht,t.geoCylindricalEqualArea=function(){return Q(pt).parallel(38.58).scale(195.044)},t.geoCylindricalEqualAreaRaw=pt,t.geoCylindricalStereographic=function(){return Q(dt).scale(124.75)},t.geoCylindricalStereographicRaw=dt,t.geoEckert1=function(){return e.geoProjection(gt).scale(165.664)},t.geoEckert1Raw=gt,t.geoEckert2=function(){return e.geoProjection(vt).scale(165.664)},t.geoEckert2Raw=vt,t.geoEckert3=function(){return e.geoProjection(mt).scale(180.739)},t.geoEckert3Raw=mt,t.geoEckert4=function(){return e.geoProjection(yt).scale(180.739)},t.geoEckert4Raw=yt,t.geoEckert5=function(){return e.geoProjection(xt).scale(173.044)},t.geoEckert5Raw=xt,t.geoEckert6=function(){return e.geoProjection(bt).scale(173.044)},t.geoEckert6Raw=bt,t.geoEisenlohr=function(){return e.geoProjection(wt).scale(62.5271)},t.geoEisenlohrRaw=wt,t.geoFahey=function(){return e.geoProjection(kt).scale(137.152)},t.geoFaheyRaw=kt,t.geoFoucaut=function(){return e.geoProjection(At).scale(135.264)},t.geoFoucautRaw=At,t.geoFoucautSinusoidal=function(){var t=.5,r=e.geoProjectionMutator(Mt),n=r(t);return n.alpha=function(e){return arguments.length?r(t=+e):t},n.scale(168.725)},t.geoFoucautSinusoidalRaw=Mt,t.geoGilbert=function(t){null==t&&(t=e.geoOrthographic);var r=t(),n=e.geoEquirectangular().scale(M).precision(0).clipAngle(null).translate([0,0]);function i(t){return r(St(t))}function a(t){i[t]=function(){return arguments.length?(r[t].apply(r,arguments),i):r[t]()}}return r.invert&&(i.invert=function(t){return Et(r.invert(t))}),i.stream=function(t){var e=r.stream(t),i=n.stream({point:function(t,r){e.point(t/2,E(v(-r/2*S))*M)},lineStart:function(){e.lineStart()},lineEnd:function(){e.lineEnd()},polygonStart:function(){e.polygonStart()},polygonEnd:function(){e.polygonEnd()}});return i.sphere=e.sphere,i},i.rotate=function(t){return arguments.length?(n.rotate(t),i):n.rotate()},i.center=function(t){return arguments.length?(r.center(St(t)),i):Et(r.center())},a("angle"),a("clipAngle"),a("clipExtent"),a("fitExtent"),a("fitHeight"),a("fitSize"),a("fitWidth"),a("scale"),a("translate"),a("precision"),i.scale(249.5)},t.geoGingery=function(){var t=6,r=30*S,n=o(r),i=g(r),s=e.geoProjectionMutator(Lt),l=s(r,t),c=l.stream,u=-o(.01*S),f=g(.01*S);return l.radius=function(e){return arguments.length?(n=o(r=e*S),i=g(r),s(r,t)):r*M},l.lobes=function(e){return arguments.length?s(r,t=+e):t},l.stream=function(e){var r=l.rotate(),s=c(e),h=(l.rotate([0,0]),c(e));return l.rotate(r),s.sphere=function(){h.polygonStart(),h.lineStart();for(var e=0,r=2*x/t,s=0;e<t;++e,s-=r)h.point(a(f*o(s),u)*M,E(f*g(s))*M),h.point(a(i*o(s-r/2),n)*M,E(i*g(s-r/2))*M);h.lineEnd(),h.polygonEnd()},s},l.rotate([90,-40]).scale(91.7095).clipAngle(179.999)},t.geoGingeryRaw=Lt,t.geoGinzburg4=function(){return e.geoProjection(Ot).scale(149.995)},t.geoGinzburg4Raw=Ot,t.geoGinzburg5=function(){return e.geoProjection(zt).scale(153.93)},t.geoGinzburg5Raw=zt,t.geoGinzburg6=function(){return e.geoProjection(Dt).scale(130.945)},t.geoGinzburg6Raw=Dt,t.geoGinzburg8=function(){return

e.geoProjection(Rt).scale(131.747)},t.geoGinzburg8Raw=Rt,t.geoGinzburg9=function(){return
e.geoProjection(Ft).scale(131.087)},t.geoGinzburg9Raw=Ft,t.geoGringorten=function(){return
e.geoProjection(Bt(Nt)).scale(239.75)},t.geoGringortenRaw=Nt,t.geoGuyou=function(){return
e.geoProjection(Bt(Vt)).scale(151.496)},t.geoGuyouRaw=Vt,t.geoHammer=function(){var
t=2,r=e.geoProjectionMutator(U),n=r(t);return n.coefficient=function(e){return
arguments.length?r(t=+e):t},n.scale(169.529)},t.geoHammerRaw=U,t.geoHammerRetroazimuthal=function(){var
t=0,r=e.geoProjectionMutator(qt),n=r(t),i=n.rotate,a=n.stream,o=e.geoCircle();return
n.parallel=function(e){if(!arguments.length)return t*M;var i=n.rotate();return
r(t=e*S).rotate(i)},n.rotate=function(e){return arguments.length?(i.call(n,[e[0],e[1]-t*M]),o.center([-e[0],-
e[1]]),n):((e=i.call(n))[1]+=t*M,e)},n.stream=function(t){return(t=a(t)).sphere=function(){t.polygonStart();var
e,r=o.radius(89.99)().coordinates[0],n=r.length-1,i=-
1;for(t.lineStart();++i<n;)t.point((e=r[i])[0],e[1]);for(t.lineEnd(),n=(r=o.radius(90.01)().coordinates[0]).length-
1,t.lineStart();--
i>=0;)t.point((e=r[i])[0],e[1]);t.lineEnd(),t.polygonEnd()},t},n.scale(79.4187).parallel(45).clipAngle(179.999)},t.geo
HammerRetroazimuthalRaw=qt,t.geoHealpix=function(){var
t=4,n=e.geoProjectionMutator(Wt),i=n(t),a=i.stream;return i.lobes=function(e){return
arguments.length?n(t=+e):t},i.stream=function(n){var o=i.rotate(),s=a(n),l=(i.rotate([0,0]),a(n));return
i.rotate(o),s.sphere=function(){var n,i;e.geoStream((n=180/t,i=[].concat(r.range(-
180,180+n/2,n).map(Xt),r.range(180,-180-n/2,-
n).map(Zt)),{type:"Polygon",coordinates:[180===n?i.map(Jt):i]}),l)},s},i.scale(239.75)},t.geoHealpixRaw=Wt,t.ge
oHill=function(){var t=1,r=e.geoProjectionMutator(Kt),n=r(t);return n.ratio=function(e){return
arguments.length?r(t=+e):t},n.scale(167.774).center([0,18.67])},t.geoHillRaw=Kt,t.geoHomolosine=function(){retu
rn e.geoProjection(ee).scale(152.63)},t.geoHomolosineRaw=ee,t.geoHufnagel=function(){var
t=1,r=0,n=45*S,i=2,a=e.geoProjectionMutator(re),o=a(t,r,n,i);return o.a=function(e){return
arguments.length?a(t=+e,r,n,i):t},o.b=function(e){return
arguments.length?a(t,r=+e,n,i):r},o.psiMax=function(e){return
arguments.length?a(t,r,n=+e*S,i):n*M},o.ratio=function(e){return
arguments.length?a(t,r,n,i=+e):i},o.scale(180.739)},t.geoHufnagelRaw=re,t.geoHyperelliptical=function(){var
t=0,r=2.5,n=1.183136,i=e.geoProjectionMutator(ae),a=i(t,r,n);return a.alpha=function(e){return
arguments.length?i(t=+e,r,n):t},a.k=function(e){return arguments.length?i(t,r=+e,n):r},a.gamma=function(e){return
arguments.length?i(t,r,n=+e):n},a.scale(152.63)},t.geoHyperellipticalRaw=ae,t.geoInterrupt=ce,t.geoInterruptedBog
gs=function(){return ce(K,ue).scale(160.857)},t.geoInterruptedHomolosine=function(){return
ce(ee,fe).scale(152.63)},t.geoInterruptedMollweide=function(){return
ce(X,he).scale(169.529)},t.geoInterruptedMollweideHemispheres=function(){return
ce(X,pe).scale(169.529).rotate([20,0])},t.geoInterruptedSinuMollweide=function(){return ce(te,de,H).rotate([-20,-
55]).scale(164.263).center([0,-5.4036])},t.geoInterruptedSinusoidal=function(){return
ce($,ge).scale(152.63).rotate([-20,0])},t.geoKavrayskiy7=function(){return
e.geoProjection(ve).scale(158.837)},t.geoKavrayskiy7Raw=ve,t.geoLagrange=function(){var
t=.5,r=e.geoProjectionMutator(me),n=r(t);return n.spacing=function(e){return
arguments.length?r(t=+e):t},n.scale(124.75)},t.geoLagrangeRaw=me,t.geoLarrivee=function(){return
e.geoProjection(xe).scale(97.2672)},t.geoLarriveeRaw=xe,t.geoLaskowski=function(){return
e.geoProjection(be).scale(139.98)},t.geoLaskowskiRaw=be,t.geoLittrow=function(){return
e.geoProjection(_e).scale(144.049).clipAngle(89.999)},t.geoLittrowRaw=_e,t.geoLoximuthal=function(){return
Q(we).parallel(40).scale(158.837)},t.geoLoximuthalRaw=we,t.geoMiller=function(){return
e.geoProjection(Te).scale(108.318)},t.geoMillerRaw=Te,t.geoModifiedStereographic=Ce,t.geoModifiedStereograph
icRaw=ke,t.geoModifiedStereographicAlaska=function(){return Ce(Ae,[152,-64]).scale(1400).center([-
160.908,62.4864]).clipAngle(30).angle(7.8)},t.geoModifiedStereographicGs48=function(){return Ce(Me,[95,-
38]).scale(1e3).clipAngle(55).center([-96.5563,38.8675])},t.geoModifiedStereographicGs50=function(){return

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Ce(Se,[120,-45]).scale(359.513).clipAngle(55).center([-
117.474,53.0628])},t.geoModifiedStereographicMiller=function(){return Ce(Ee,[-20,-
18]).scale(209.091).center([20,16.7214]).clipAngle(82)},t.geoModifiedStereographicLee=function(){return
Ce(Le,[165,10]).scale(250).clipAngle(130).center([-165,-10])},t.geoMollweide=function(){return
e.geoProjection(X).scale(169.529)},t.geoMollweideRaw=X,t.geoMtFlatPolarParabolic=function(){return
e.geoProjection(Oe).scale(164.859)},t.geoMtFlatPolarParabolicRaw=Oe,t.geoMtFlatPolarQuartic=function(){return
e.geoProjection(ze).scale(188.209)},t.geoMtFlatPolarQuarticRaw=ze,t.geoMtFlatPolarSinusoidal=function(){return
e.geoProjection(De).scale(166.518)},t.geoMtFlatPolarSinusoidalRaw=De,t.geoNaturalEarth2=function(){return
e.geoProjection(Re).scale(175.295)},t.geoNaturalEarth2Raw=Re,t.geoNellHammer=function(){return
e.geoProjection(Fe).scale(152.63)},t.geoNellHammerRaw=Fe,t.geoInterruptedQuarticAuthalic=function(){return
ce(U(1/0),Be).rotate([20,0]).scale(152.63)},t.geoNicolosi=function(){return
e.geoProjection(Ne).scale(127.267)},t.geoNicolosiRaw=Ne,t.geoPatterson=function(){return
e.geoProjection(Ge).scale(139.319)},t.geoPattersonRaw=Ge,t.geoPolyconic=function(){return
e.geoProjection(Ye).scale(103.74)},t.geoPolyconicRaw=Ye,t.geoPolyhedral=Qe,t.geoPolyhedralButterfly=function(
t){t=t||function(t){var r=e.geoCentroid({type:"MultiPoint",coordinates:t});return
e.geoGnomonic().scale(1).translate([0,0]).rotate([-r[0],-r[1]])};var
r=nr.map((function(e){return{face:e,project:t(e)}}));return[-1,0,0,1,0,1,4,5].forEach((function(t,e){var
n=r[t];n&&(n.children||(n.children=[])).push(r[e])})),Qe(r[0],(function(t,e){return r[t<-
x/2?e<0?6:4:t<0?e<0?2:0:t<x/2?e<0?3:1:e<0?7:5]})).angle(-
30).scale(101.858).center([0,45])},t.geoPolyhedralCollignon=function(t){t=t||function(t){var
r=e.geoCentroid({type:"MultiPoint",coordinates:t});return
e.geoProjection(ar).translate([0,0]).scale(1).rotate(r[1]>0?[-r[0],0]:[180-r[0],180])};var
r=nr.map((function(e){return{face:e,project:t(e)}}));return[-1,0,0,1,0,1,4,5].forEach((function(t,e){var
n=r[t];n&&(n.children||(n.children=[])).push(r[e])})),Qe(r[0],(function(t,e){return r[t<-
x/2?e<0?6:4:t<0?e<0?2:0:t<x/2?e<0?3:1:e<0?7:5]})).angle(-
30).scale(121.906).center([0,48.5904])},t.geoPolyhedralWaterman=function(t){t=t||function(t){var
r=6===t.length?e.geoCentroid({type:"MultiPoint",coordinates:t}):t[0];return
e.geoGnomonic().scale(1).translate([0,0]).rotate([-r[0],-r[1]])};var r=nr.map((function(t){for(var
e,r=t.map(lr),n=r.length,i=r[n-
1],a=[],o=0;o<n;++o)e=r[o],a.push(sr([.9486832980505138*i[0]+.31622776601683794*e[0],.9486832980505138*i
[1]+.31622776601683794*e[1],.9486832980505138*i[2]+.31622776601683794*e[2]]),sr([.9486832980505138*e[0
]+.31622776601683794*i[0],.9486832980505138*e[1]+.31622776601683794*i[1],.9486832980505138*e[2]+.316
22776601683794*i[2]])),i=e;return a})),n=[],i=[-1,0,0,1,0,1,4,5];r.forEach((function(t,e){for(var
a=nr[e],o=a.length,s=n[e]=[],l=0;l<o;++l)r.push([a[l],t[(2*l+2)%(2*o)],t[(2*l+1)%(2*o)]]),i.push(e),s.push((c=lr(t[(
2*l+2)%(2*o)]),u=lr(t[(2*l+1)%(2*o)]),[c[1]*u[2]-c[2]*u[1],c[2]*u[0]-c[0]*u[2],c[0]*u[1]-c[1]*u[0]]));var
c,u}));var a=r.map((function(e){return{project:t(e),face:e}}));return i.forEach((function(t,e){var
r=a[t];r&&(r.children||(r.children=[])).push(a[e])})),Qe(a[0],(function(t,e){var r=o(e),i=[r*o(t),r*g(t),g(e)],s=t<-
x/2?e<0?6:4:t<0?e<0?2:0:t<x/2?e<0?3:1:e<0?7:5,l=n[s];return
a[or(l[0],i)<0?8+3*s:or(l[1],i)<0?8+3*s+1:or(l[2],i)<0?8+3*s+2:s]})).angle(-
30).scale(110.625).center([0,45])},t.geoProject=function(t,e){var r,n=e.stream;if(!n)throw new Error("invalid
projection");switch(t&&t.type){case"Feature":r=fr;break;case"FeatureCollection":r=ur;break;default:r=hr}return
r(t,n)},t.geoGringortenQuincuncial=function(){return
yr(Nt).scale(176.423)},t.geoPeirceQuincuncial=xr,t.geoPierceQuincuncial=xr,t.geoQuantize=function(t,e){if(!(0<=(
e=+e)&&e<=20))throw new Error("invalid digits");function r(t){var r=t.length,n=2,i=new
Array(r);for(i[0]=+t[0].toFixed(e),i[1]=+t[1].toFixed(e);n<r;)i[n]=t[n],++n;return i}function n(t){return
t.map(r)}function i(t){for(var e=r(t[0]),n=[e],i=1;i<t.length;i++){var
a=r(t[i]);(a.length>2||a[0]!=e[0]||a[1]!=e[1])&&(n.push(a),e=a)}return
1===n.length&&t.length>1&&n.push(r(t[t.length-1])),n}function a(t){return t.map(i)}function
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o(t){if(null==t)return t;var
e;switch(t.type){case"GeometryCollection":e={type:"GeometryCollection",geometries:t.geometries.map(o)};break;
case"Point":e={type:"Point",coordinates:r(t.coordinates)};break;case"MultiPoint":e={type:t.type,coordinates:n(t.coo
rdinates)};break;case"LineString":e={type:t.type,coordinates:i(t.coordinates)};break;case"MultiLineString":case"Po
lygon":e={type:t.type,coordinates:a(t.coordinates)};break;case"MultiPolygon":e={type:"MultiPolygon",coordinates:
t.coordinates.map(a)};break;default:return t}return null!=t.bbox&&(e.bbox=t.bbox),e}function s(t){var
e={type:"Feature",properties:t.properties,geometry:o(t.geometry)};return
null!=t.id&&(e.id=t.id),null!=t.bbox&&(e.bbox=t.bbox),e}if(null!=t)switch(t.type){case"Feature":return
s(t);case"FeatureCollection":var l={type:"FeatureCollection",features:t.features.map(s)};return
null!=t.bbox&&(l.bbox=t.bbox),l;default:return o(t)}return
t},t.geoQuincuncial=yr,t.geoRectangularPolyconic=function(){return
Q(br).scale(131.215)},t.geoRectangularPolyconicRaw=br,t.geoRobinson=function(){return
e.geoProjection(wr).scale(152.63)},t.geoRobinsonRaw=wr,t.geoSatellite=function(){var
t=2,r=0,n=e.geoProjectionMutator(Tr),i=n(t,r);return i.distance=function(e){return
arguments.length?n(t=+e,r):t},i.tilt=function(e){return
arguments.length?n(t,r=e*S):r*M},i.scale(432.147).clipAngle(L(1/t)*M-1e-
6)},t.geoSatelliteRaw=Tr,t.geoSinuMollweide=function(){return e.geoProjection(te).rotate([-20,-
55]).scale(164.263).center([0,-5.4036])},t.geoSinuMollweideRaw=te,t.geoSinusoidal=function(){return
e.geoProjection($).scale(152.63)},t.geoSinusoidalRaw=$,t.geoStitch=function(t){if(null==t)return
t;switch(t.type){case"Feature":return Dr(t);case"FeatureCollection":var
e={type:"FeatureCollection",features:t.features.map(Dr)};return null!=t.bbox&&(e.bbox=t.bbox),e;default:return
Rr(t)}},t.geoTimes=function(){return
e.geoProjection(Fr).scale(146.153)},t.geoTimesRaw=Fr,t.geoTwoPointAzimuthal=jr,t.geoTwoPointAzimuthalRaw
=Nr,t.geoTwoPointAzimuthalUsa=function(){return jr([-158,21.5],[-
77,39]).clipAngle(60).scale(400)},t.geoTwoPointEquidistant=Vr,t.geoTwoPointEquidistantRaw=Ur,t.geoTwoPoint
EquidistantUsa=function(){return Vr([-158,21.5],[-
77,39]).clipAngle(130).scale(122.571)},t.geoVanDerGrinten=function(){return
e.geoProjection(qr).scale(79.4183)},t.geoVanDerGrintenRaw=qr,t.geoVanDerGrinten2=function(){return
e.geoProjection(Hr).scale(79.4183)},t.geoVanDerGrinten2Raw=Hr,t.geoVanDerGrinten3=function(){return
e.geoProjection(Gr).scale(79.4183)},t.geoVanDerGrinten3Raw=Gr,t.geoVanDerGrinten4=function(){return
e.geoProjection(Yr).scale(127.16)},t.geoVanDerGrinten4Raw=Yr,t.geoWagner=Xr,t.geoWagner7=function(){retur
n
Xr().poleline(65).parallels(60).inflation(0).ratio(200).scale(172.633)},t.geoWagnerRaw=Wr,t.geoWagner4=function
(){return e.geoProjection(Kr).scale(176.84)},t.geoWagner4Raw=Kr,t.geoWagner6=function(){return
e.geoProjection(Qr).scale(152.63)},t.geoWagner6Raw=Qr,t.geoWiechel=function(){return
e.geoProjection($r).rotate([0,-
90,45]).scale(124.75).clipAngle(179.999)},t.geoWiechelRaw=$r,t.geoWinkel3=function(){return
e.geoProjection(tn).scale(158.837)},t.geoWinkel3Raw=tn,Object.defineProperty(t,"__esModule",{value:!0})},"obje
ct"==typeof r&&void 0!==e?i(r,t("d3-geo"),t("d3-array")):i(n.d3=n.d3||{},n.d3,n.d3)},{"d3-array":107,"d3-
geo":114}],114:[function(t,e,r){var n,i;n=this,i=function(t,e){"use strict";function r(){return new n}function
n(){this.reset()}n.prototype={constructor:n,reset:function(){this.s=this.t=0},add:function(t){a(i,t,this.t),a(this,i.s,this.
s),this.s?this.t+=i.t:this.s=i.t},valueOf:function(){return this.s}};var i=new n;function a(t,e,r){var n=t.s=e+r,i=n-
e,a=n-i;t.t=e-a+(r-i)}var o=1e-6,s=1e-
12,l=Math.PI,c=l/2,u=l/4,f=2*l,h=180/l,p=l/180,d=Math.abs,g=Math.atan,v=Math.atan2,m=Math.cos,y=Math.ceil,x
=Math.exp,b=Math.log,_=Math.pow,w=Math.sin,T=Math.sign||function(t){return t>0?1:t<0?-
1:0},k=Math.sqrt,A=Math.tan;function M(t){return t>1?0:t<-1?l:Math.acos(t)}function S(t){return t>1?c:t<-1?-
c:Math.asin(t)}function E(t){return(t=w(t/2))*t}function L(){}function
C(t,e){t&&I.hasOwnProperty(t.type)&&I[t.type](t,e)}var
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P={Feature:function(t,e){C(t.geometry,e)},FeatureCollection:function(t,e){for(var r=t.features,n=-1,i=r.length;++n<i;)C(r[n].geometry,e)}},I={Sphere:function(t,e){e.sphere()},Point:function(t,e){t=t.coordinates,e.point(t[0],t[1],t[2])},MultiPoint:function(t,e){for(var r=t.coordinates,n=-1,i=r.length;++n<i;)t=r[n],e.point(t[0],t[1],t[2])},LineString:function(t,e){O(t.coordinates,e,0)},MultiLineString:function(t,e){for(var r=t.coordinates,n=-1,i=r.length;++n<i;)O(r[n],e,0)},Polygon:function(t,e){z(t.coordinates,e)},MultiPolygon:function(t,e){for(var r=t.coordinates,n=-1,i=r.length;++n<i;)z(r[n],e)},GeometryCollection:function(t,e){for(var r=t.geometries,n=-1,i=r.length;++n<i;)C(r[n],e)}};function O(t,e,r){var n,i=-1,a=t.length-r;for(e.lineStart();++i<a;)n=t[i],e.point(n[0],n[1],n[2]);e.lineEnd()}function z(t,e){var r=-1,n=t.length;for(e.polygonStart();++r<n;)O(t[r],e,1);e.polygonEnd()}function D(t,e){t&&P.hasOwnProperty(t.type)?P[t.type](t,e):C(t,e)}var R,F,B,N,j,U=r(),V=r(),q={point:L,lineStart:L,lineEnd:L,polygonStart:function(){U.reset(),q.lineStart=H,q.lineEnd=G},polygonEnd:function(){var t=+U;V.add(t<0?f+t:t),this.lineStart=this.lineEnd=this.point=L},sphere:function(){V.add(f)}};function H(){q.point=Y}function G(){W(R,F)}function Y(t,e){q.point=W,R=t,F=e,B=t*=p,N=m(e=(e*=p)/2+u),j=w(e)}function W(t,e){var r=(t*=p)-B,n=r>=0?1:-1,i=n*r,a=m(e=(e*=p)/2+u),o=w(e),s=j*o,l=N*a+s*m(i),c=s*n*w(i);U.add(v(c,l)),B=t,N=a,j=o}function X(t){return[v(t[1],t[0]),S(t[2])]}function Z(t){var e=t[0],r=t[1],n=m(r);return[n*m(e),n*w(e),w(r)]}function J(t,e){return t[0]*e[0]+t[1]*e[1]+t[2]*e[2]}function K(t,e){return[t[1]*e[2]-t[2]*e[1],t[2]*e[0]-t[0]*e[2],t[0]*e[1]-t[1]*e[0]]}function Q(t,e){t[0]+=e[0],t[1]+=e[1],t[2]+=e[2]}function $(t,e){return[t[0]*e,t[1]*e,t[2]*e]}function tt(t){var e=k(t[0]*t[0]+t[1]*t[1]+t[2]*t[2]);t[0]/=e,t[1]/=e,t[2]/=e}var et,rt,nt,it,at,ot,st,lt,ct,ut,ft,ht,pt,dt,gt,vt,mt,yt,xt,bt,_t,wt,Tt,kt,At,Mt,St=r(),Et={point:Lt,lineStart:Pt,lineEnd:It,polygonStart:function(){Et.point=Ot,Et.lineStart=zt,Et.lineEnd=Dt,St.reset(),q.polygonStart()},polygonEnd:function(){q.polygonEnd(),Et.point=Lt,Et.lineStart=Pt,Et.lineEnd=It,U<0?(et=-(nt=180),rt=-(it=90)):St>o?it=90:St<-o&&(rt=-90),ut[0]=et,ut[1]=nt},sphere:function(){et=-(nt=180),rt=-(it=90)}};function Lt(t,e){ct.push(ut=[et=t,nt=t]),e<rt&&(rt=e),e>it&&(it=e)}function Ct(t,e){var r=Z([t*p,e*p]);if(lt){var n=K(lt,r),i=K([n[1],-n[0],0],n);tt(i),i=X(i);var a,o=t-at,s=o>0?1:-1,l=i[0]*h*s,c=d(o)>180;c^(s*at<l&&l<s*t)?(a=i[1]*h)>it&&(it=a):c^(s*at<(l=(l+360)%360-180)&&l<s*t)?(a=-i[1]*h)<rt&&(rt=a):(e<rt&&(rt=e),e>it&&(it=e)),c?t<at?Rt(et,t)>Rt(et,nt)&&(nt=t):Rt(t,nt)>Rt(et,nt)&&(et=t):nt>=et?(t<et&&(et=t),t>nt&&(nt=t)):t>at?Rt(et,t)>Rt(et,nt)&&(nt=t):Rt(t,nt)>Rt(et,nt)&&(et=t)}else ct.push(ut=[et=t,nt=t]);e<rt&&(rt=e),e>it&&(it=e),lt=r,at=t}function Pt(){Et.point=Ct}function It(){ut[0]=et,ut[1]=nt,Et.point=Lt,lt=null}function Ot(t,e){if(lt){var r=t-at;St.add(d(r)>180?r+(r>0?360:-360):r)}else ot=t,st=e;q.point(t,e),Ct(t,e)}function zt(){q.lineStart()}function Dt(){Ot(ot,st),q.lineEnd(),d(St)>o&&(et=-(nt=180)),ut[0]=et,ut[1]=nt,lt=null}function Rt(t,e){return(e-=t)<0?e+360:e}function Ft(t,e){return t[0]-e[0]}function Bt(t,e){return t[0]<=t[1]?t[0]<=e&&e<=t[1]:e<t[0]||t[1]<e}var Nt={sphere:L,point:jt,lineStart:Vt,lineEnd:Gt,polygonStart:function(){Nt.lineStart=Yt,Nt.lineEnd=Wt},polygonEnd:function(){Nt.lineStart=Vt,Nt.lineEnd=Gt}};function jt(t,e){t*=p;var r=m(e*=p);Ut(r*m(t),r*w(t),w(e))}function Ut(t,e,r){++ft,pt+=(t-pt)/ft,dt+=(e-dt)/ft,gt+=(r-gt)/ft}function Vt(){Nt.point=qt}function qt(t,e){t*=p;var r=m(e*=p);kt=r*m(t),At=r*w(t),Mt=w(e),Nt.point=Ht,Ut(kt,At,Mt)}function Ht(t,e){t*=p;var r=m(e*=p),n=r*m(t),i=r*w(t),a=w(e),o=v(k((o=At*a-Mt*i)*o+(o=Mt*n-kt*a)*o+(o=kt*i-At*n)*o),kt*n+At*i+Mt*a);ht+=o,vt+=o*(kt+(kt=n)),mt+=o*(At+(At=i)),yt+=o*(Mt+(Mt=a)),Ut(kt,At,Mt)}function Gt(){Nt.point=jt}function Yt(){Nt.point=Xt}function Wt(){Zt(wt,Tt),Nt.point=jt}function Xt(t,e){wt=t,Tt=e,t*=p,e*=p,Nt.point=Zt;var r=m(e);kt=r*m(t),At=r*w(t),Mt=w(e),Ut(kt,At,Mt)}function Zt(t,e){t*=p;var r=m(e*=p),n=r*m(t),i=r*w(t),a=w(e),o=At*a-Mt*i,s=Mt*n-kt*a,l=kt*i-At*n,c=k(o*o+s*s+l*l),u=S(c),f=c&&-u/c;xt+=f*o,bt+=f*s,_t+=f*l,ht+=u,vt+=u*(kt+(kt=n)),mt+=u*(At+(At=i)),yt+=u*(Mt+(Mt=a)),Ut(kt,At,Mt)}function Jt(t){return function(){return t}}function Kt(t,e){function r(r,n){return r=t(r,n),e(r[0],r[1])}return t.invert&&e.invert&&(r.invert=function(r,n){return(r=e.invert(r,n))&&t.invert(r[0],r[1])}),r}function

Qt(t,e){return[d(t)>l?t+Math.round(-t/f)*f:t,e]}function
$t(t,e,r){return(t%=f)?e||r?Kt(ee(t),re(e,r)):ee(t):e||r?re(e,r):Qt}function te(t){return function(e,r){return[(e+=t)>l?e-f:e<-l?e+f:e,r]}}function ee(t){var e=te(t);return e.invert=te(-t),e}function re(t,e){var r=m(t),n=w(t),i=m(e),a=w(e);function o(t,e){var o=m(e),s=m(t)*o,l=w(t)*o,c=w(e),u=c*r+s*n;return[v(l*i-u*a,s*r-c*n),S(u*i+l*a)]}return o.invert=function(t,e){var o=m(e),s=m(t)*o,l=w(t)*o,c=w(e),u=c*i-l*a;return[v(l*i+c*a,s*r+u*n),S(u*r-s*n)]},o}function ne(t){function
e(e){return(e=t(e[0]*p,e[1]*p))[0]*=h,e[1]*=h,e}return
t=$t(t[0]*p,t[1]*p,t.length>2?t[2]*p:0),e.invert=function(e){return(e=t.invert(e[0]*p,e[1]*p))[0]*=h,e[1]*=h,e},e}function ie(t,e,r,n,i,a){if(r){var o=m(e),s=w(e),l=n*r;null==i?(i=e+n*f,a=e-l/2):(i=ae(o,i),a=ae(o,a),(n>0?i<a:i>a)&&(i+=n*f));for(var c,u=i;n>0?u>a:u<a;u-=l)c=X([o,-s*m(u),-s*w(u)]),t.point(c[0],c[1])}}function ae(t,e){(e=Z(e))[0]-=t,tt(e);var r=M(-e[1]);return((-e[2]<0?-r:r)+f-o)%f}function oe(){var
t,e=[];return{point:function(e,r,n){t.push([e,r,n])},lineStart:function(){e.push(t=[])},lineEnd:L,rejoin:function(){e.length>1&&e.push(e.pop().concat(e.shift()))},result:function(){var r=e;return e=[],t=null,r}}}function se(t,e){return d(t[0]-e[0])<o&&d(t[1]-e[1])<o}function
le(t,e,r,n){this.x=t,this.z=e,this.o=r,this.e=n,this.v=!1,this.n=this.p=null}function ce(t,e,r,n,i){var
a,o,s=[],l=[];if(t.forEach((function(t){if(!((e=t.length-1)<=0)){var
e,r,n=t[0],o=t[e];if(se(n,o)){if(!n[2]&&!o[2]){for(i.lineStart(),a=0;a<e;++a)i.point((n=t[a])[0],n[1]);return void i.lineEnd()}o[0]+=2e-6}s.push(r=new le(n,t,null,!0)),l.push(r.o=new le(n,null,r,!1)),s.push(r=new le(o,t,null,!1)),l.push(r.o=new
le(o,null,r,!0))}})),s.length){for(l.sort(e),ue(s),ue(l),a=0,o=l.length;a<o;++a)l[a].e=r=!r;for(var c,u,f=s[0];;){for(var h=f,p=!0;h.v;)if((h=h.n)===f)return;c=h.z,i.lineStart();do{if(h.v=h.o.v=!0,h.e){if(p)for(a=0,o=c.length;a<o;++a)i.point((u=c[a])[0],u[1]);else n(h.x,h.n.x,1,i);h=h.n}else{if(p)for(c=h.p.z,a=c.length-1;a>=0;--a)i.point((u=c[a])[0],u[1]);else n(h.x,h.p.x,-1,i);h=h.p}c=(h=h.o).z,p=!p}while(!h.v);i.lineEnd()}}}function ue(t){if(e=t.length){for(var e,r,n=0,i=t[0];++n<e;)i.n=r=t[n],r.p=i,i=r;i.n=r=t[0],r.p=i}}Qt.invert=Qt;var fe=r();function he(t){return d(t[0])<=l?t[0]:T(t[0])*((d(t[0])+l)%f-l)}function pe(t,e){var
r=he(e),n=e[1],i=w(n),a=[w(r),-m(r),0],s=0,h=0;fe.reset(),1===i?n=c+o:-1===i&&(n=-c-o);for(var p=0,d=t.length;p<d;++p)if(y=(g=t[p]).length)for(var g,y,x=g[y-1],b=he(x),_=x[1]/2+u,T=w(_),k=m(_),A=0;A<y;++A,b=E,T=C,k=P,x=M){var
M=g[A],E=he(M),L=M[1]/2+u,C=w(L),P=m(L),I=E-b,O=I>=0?1:-1,z=O*I,D=z>l,R=T*C;if(fe.add(v(R*O*w(z),k*P+R*m(z))),s+=D?I+O*f:I,D^b>=r^E>=r){var
F=K(Z(x),Z(M));tt(F);var B=K(a,F);tt(B);var N=(D^I>=0?-1:1)*S(B[2]);(n>N||n===N&&(F[0]||F[1]))&&(h+=D^I>=0?1:-1)}}return(s<-o||s<o&&fe<-o)^1&h}function de(t,r,n,i){return function(a){var
o,s,l,c=r(a),u=oe(),f=r(u),h=!1,p={point:d,lineStart:v,lineEnd:m,polygonStart:function(){p.point=y,p.lineStart=x,p.lineEnd=b,s=[],o=[]},polygonEnd:function(){p.point=d,p.lineStart=v,p.lineEnd=m,s=e.merge(s);var
t=pe(o,i);s.length?(h||(a.polygonStart(),h=!0),ce(s,ve,t,n,a)):t&&(h||(a.polygonStart(),h=!0),a.lineStart(),n(null,null,1,a),a.lineEnd()),h&&(a.polygonEnd(),h=!1),s=o=null},sphere:function(){a.polygonStart(),a.lineStart(),n(null,null,1,a),a.lineEnd(),a.polygonEnd()}};function d(e,r){t(e,r)&&a.point(e,r)}function g(t,e){c.point(t,e)}function
v(){p.point=g,c.lineStart()}function m(){p.point=d,c.lineEnd()}function y(t,e){l.push([t,e]),f.point(t,e)}function
x(){f.lineStart(),l=[]}function b(){y(l[0][0],l[0][1]),f.lineEnd();var
t,e,r,n,i=f.clean(),c=u.result(),p=c.length;if(l.pop(),o.push(l),l=null,p)if(1&i){if((e=(r=c[0]).length-1)>0){for(h||(a.polygonStart(),h=!0),a.lineStart(),t=0;t<e;++t)a.point((n=r[t])[0],n[1]);a.lineEnd()}}else
p>1&&2&i&&c.push(c.pop().concat(c.shift())),s.push(c.filter(ge))}return p}}function ge(t){return
t.length>1}function ve(t,e){return((t=t.x)[0]<0?t[1]-c-o:c-t[1])-((e=e.x)[0]<0?e[1]-c-o:c-e[1])}var
me=de((function(){return!0}),(function(t){var
e,r=NaN,n=NaN,i=NaN;return{lineStart:function(){t.lineStart(),e=1},point:function(a,s){var u=a>0?l:-l,f=d(a-r);d(f-l)<o?(t.point(r,n=(n+s)/2>0?c:-

c),t.point(i,n),t.lineEnd(),t.lineStart(),t.point(u,n),t.point(a,n),e=0):i!==u&&f>=l&&(d(r-i)<o&&(r-=i*o),d(a-u)<o&&(a-=u*o),n=function(t,e,r,n){var i,a,s=w(t-r);return d(s)>o?g((w(e)*(a=m(n))*w(r)-w(n)*(i=m(e))*w(t))/(i*a*s)):(e+n)/2}(r,n,a,s),t.point(i,n),t.lineEnd(),t.lineStart(),t.point(u,n),e=0),t.point(r=a,n=s),i=u},lineEnd:function(){t.lineEnd(),r=n=NaN},clean:function(){return 2-e}}}),(function(t,e,r,n){var i;if(null==t)i=r*c,n.point(-l,i),n.point(0,i),n.point(l,i),n.point(l,0),n.point(l,-i),n.point(0,-i),n.point(-l,-i),n.point(-l,0),n.point(-l,i);else if(d(t[0]-e[0])>o){var a=t[0]<e[0]?l:-l;i=r*a/2,n.point(-a,i),n.point(0,i),n.point(a,i)}else n.point(e[0],e[1])}),[-l,-c]);function ye(t){var e=m(t),r=6*p,n=e>0,i=d(e)>o;function a(t,r){return m(t)*m(r)>e}function s(t,r,n){var i=[1,0,0],a=K(Z(t),Z(r)),s=J(a,a),c=a[0],u=s-c*c;if(!u)return!n&&t;var f=e*s/u,h=-e*c/u,p=K(i,a),g=$(i,f);Q(g,$(a,h));var v=p,m=J(g,v),y=J(v,v),x=m*m-y*(J(g,g)-1);if(!(x<0)){var b=k(x),_=$(v,(-m-b)/y);if(Q(_,g),_=X(_),!n)return _;var w,T=t[0],A=r[0],M=t[1],S=r[1];A<T&&(w=T,T=A,A=w);var E=A-T,L=d(E-l)<o;if(!L&&S<M&&(w=M,M=S,S=w),L||E<o?L?M+S>0^_[1]<(d(_[0]-T)<o?M:S):M<=_[1]&&_[1]<=S:E>l^(T<=_[0]&&_[0]<=A)){var C=$(v,(-m+b)/y);return Q(C,g),[_,X(C)]}}}function c(e,r){var i=n?t:l-t,a=0;return e<-i?a|=1:e>i&&(a|=2),r<-i?a|=4:r>i&&(a|=8),a}return de(a,(function(t){var e,r,o,u,f;return{lineStart:function(){u=o=!1,f=1},point:function(h,p){var d,g=[h,p],v=a(h,p),m=n?v?0:c(h,p):v?c(h+(h<0?l:-l),p):0;if(!e&&(u=o=v)&&t.lineStart(),v!==o&&(!(d=s(e,g))||se(e,d)||se(g,d))&&(g[2]=1),v!==o)f=0,v?(t.lineStart(),d=s(g,e),t.point(d[0],d[1])):(d=s(e,g),t.point(d[0],d[1],2),t.lineEnd()),e=d;else if(i&&e&&n^v){var y;m&r||!(y=s(g,e,!0))||(f=0,n?(t.lineStart(),t.point(y[0][0],y[0][1]),t.point(y[1][0],y[1][1]),t.lineEnd()):(t.point(y[1][0],y[1][1]),t.lineEnd(),t.lineStart(),t.point(y[0][0],y[0][1],3)))}!v||e&&se(e,g)||t.point(g[0],g[1]),e=g,o=v,r=m},lineEnd:function(){o&&t.lineEnd(),e=null},clean:function(){return f|(u&&o)<<1}}}),(function(e,n,i,a){ie(a,t,r,i,e,n)}),n?[0,-t]:[-l,t-l])}var xe=1e9,be=-xe;function _e(t,r,n,i){function a(e,a){return t<=e&&e<=n&&r<=a&&a<=i}function s(e,a,o,s){var c=0,f=0;if(null==e||(c=l(e,o))!==(f=l(a,o))||u(e,a)<0^o>0)do{s.point(0===c||3===c?t:n,c>1?i:r)}while((c=(c+o+4)%4)!==f);else s.point(a[0],a[1])}function l(e,i){return d(e[0]-t)<o?i>0?0:3:d(e[0]-n)<o?i>0?2:1:d(e[1]-r)<o?i>0?1:0:i>0?3:2}function c(t,e){return u(t.x,e.x)}function u(t,e){var r=l(t,1),n=l(e,1);return r!==n?r-n:0===r?e[1]-t[1]:1===r?t[0]-e[0]:2===r?t[1]-e[1]:e[0]-t[0]}return function(o){var l,u,f,h,p,d,g,v,m,y,x,b=o,_=oe(),w={point:T,lineStart:function(){w.point=k,u&&u.push(f=[]),y=!0,m=!1,g=v=NaN},lineEnd:function(){l&&(k(h,p),d&&m&&_.rejoin(),l.push(_.result())),w.point=T,m&&b.lineEnd()},polygonStart:function(){b=_,l=[],u=[],x=!0},polygonEnd:function(){var r=function(){for(var e=0,r=0,n=u.length;r<n;++r)for(var a,o,s=u[r],l=1,c=s.length,f=s[0],h=f[0],p=f[1];l<c;++l)a=h,o=p,h=(f=s[l])[0],p=f[1],o<=i?p>i&&(h-a)*(i-o)>(p-o)*(t-a)&&++e:p<=i&&(h-a)*(i-o)<(p-o)*(t-a)&&--e;return e}(),n=x&&r,a=(l=e.merge(l)).length;(n||a)&&(o.polygonStart(),n&&(o.lineStart(),s(null,null,1,o),o.lineEnd()),a&&ce(l,c,r,s,o),o.polygonEnd()),b=o,l=u=f=null}};function T(t,e){a(t,e)&&b.point(t,e)}function k(e,o){var s=a(e,o);if(u&&f.push([e,o]),y)h=e,p=o,d=s,y=!1,s&&(b.lineStart(),b.point(e,o));else if(s&&m)b.point(e,o);else{var l=[g=Math.max(be,Math.min(xe,g)),v=Math.max(be,Math.min(xe,v))],c=[e=Math.max(be,Math.min(xe,e)),o=Math.max(be,Math.min(xe,o))];!function(t,e,r,n,i,a){var o,s=t[0],l=t[1],c=0,u=1,f=e[0]-s,h=e[1]-l;if(o=r-s,f||!(o>0)){if(o/=f,f<0){if(o<c)return;o<u&&(u=o)}else if(f>0){if(o>u)return;o>c&&(c=o)}if(o=i-s,f||!(o<0)){if(o/=f,f<0){if(o>u)return;o>c&&(c=o)}else if(f>0){if(o<c)return;o<u&&(u=o)}if(o=n-l,h||!(o>0)){if(o/=h,h<0){if(o<c)return;o<u&&(u=o)}else if(h>0){if(o>u)return;o>c&&(c=o)}if(o=a-l,h||!(o<0)){if(o/=h,h<0){if(o>u)return;o>c&&(c=o)}else if(h>0){if(o<c)return;o<u&&(u=o)}return c>0&&(t[0]=s+c*f,t[1]=l+c*h),u<1&&(e[0]=s+u*f,e[1]=l+u*h),!0}}}}}(l,c,t,r,n,i)?s&&(b.lineStart(),b.point(e,o),x=!1):(m||(b.lineStart(),b.point(l[0],l[1])),b.point(c[0],c[1]),s||b.lineEnd(),x=!1)}g=e,v=o,m=s}return w}}var we,Te,ke,Ae=r(),Me={sphere:L,point:L,lineStart:function(){Me.point=Ee,Me.lineEnd=Se},lineEnd:L,polygonStart:L,polygonEnd:L};function Se(){Me.point=Me.lineEnd=L}function Ee(t,e){we=t*=p,Te=w(e*=p),ke=m(e),Me.point=Le}function Le(t,e){t*=p;var r=w(e*=p),n=m(e),i=d(t-we),a=m(i),o=n*w(i),s=ke*r-Te*n*a,l=Te*r+ke*n*a;Ae.add(v(k(o*o+s*s),l)),we=t,Te=r,ke=n}function Ce(t){return Ae.reset(),D(t,Me),+Ae}var Pe=[null,null],Ie={type:"LineString",coordinates:Pe};function

Oe(t,e){return Pe[0]=t,Pe[1]=e,Ce(Ie)}var ze={Feature:function(t,e){return
Re(t.geometry,e)},FeatureCollection:function(t,e){for(var r=t.features,n=-
1,i=r.length;++n<i;)if(Re(r[n].geometry,e))return!0;return!1}},De={Sphere:function(){return!0},Point:function(t,e){
return Fe(t.coordinates,e)},MultiPoint:function(t,e){for(var r=t.coordinates,n=-
1,i=r.length;++n<i;)if(Fe(r[n],e))return!0;return!1},LineString:function(t,e){return
Be(t.coordinates,e)},MultiLineString:function(t,e){for(var r=t.coordinates,n=-
1,i=r.length;++n<i;)if(Be(r[n],e))return!0;return!1},Polygon:function(t,e){return
Ne(t.coordinates,e)},MultiPolygon:function(t,e){for(var r=t.coordinates,n=-
1,i=r.length;++n<i;)if(Ne(r[n],e))return!0;return!1},GeometryCollection:function(t,e){for(var r=t.geometries,n=-
1,i=r.length;++n<i;)if(Re(r[n],e))return!0;return!1}};function
Re(t,e){return!(!t||!De.hasOwnProperty(t.type))&&De[t.type](t,e)}function Fe(t,e){return 0===Oe(t,e)}function
Be(t,e){for(var r,n,i,a=0,o=t.length;a<o;a++){if(0===(n=Oe(t[a],e)))return!0;if(a>0&&(i=Oe(t[a],t[a-
1]))>0&&r<=i&&n<=i&&(r+n-i)*(1-Math.pow((r-n)/i,2))<s*i)return!0;r=n}return!1}function
Ne(t,e){return!!pe(t.map(je),Ue(e))}function je(t){return(t=t.map(Ue)).pop(),t}function
Ue(t){return[t[0]*p,t[1]*p]}function Ve(t,r,n){var i=e.range(t,r-o,n).concat(r);return function(t){return
i.map((function(e){return[t,e]}))}}function qe(t,r,n){var i=e.range(t,r-o,n).concat(r);return function(t){return
i.map((function(e){return[e,t]}))}}function He(){var t,r,n,i,a,s,l,c,u,f,h,p,g=10,v=g,m=90,x=360,b=2.5;function
_(){return{type:"MultiLineString",coordinates:w()}}function w(){return
e.range(y(i/m)*m,n,m).map(h).concat(e.range(y(c/x)*x,l,x).map(p)).concat(e.range(y(r/g)*g,t,g).filter((function(t){r
eturn d(t%m)>o})).map(u)).concat(e.range(y(s/v)*v,a,v).filter((function(t){return d(t%x)>o})).map(f))}return
_.lines=function(){return
w().map((function(t){return{type:"LineString",coordinates:t}}))},_.outline=function(){return{type:"Polygon",coord
inates:[h(i).concat(p(l).slice(1),h(n).reverse().slice(1),p(c).reverse().slice(1))]}},_.extent=function(t){return
arguments.length?_.extentMajor(t).extentMinor(t):_.extentMinor()},_.extentMajor=function(t){return
arguments.length?(i=+t[0][0],n=+t[1][0],c=+t[0][1],l=+t[1][1],i>n&&(t=i,i=n,n=t),c>l&&(t=c,c=l,l=t),_.precision(b)
):[[i,c],[n,l]]},_.extentMinor=function(e){return
arguments.length?(r=+e[0][0],t=+e[1][0],s=+e[0][1],a=+e[1][1],r>t&&(e=r,r=t,t=e),s>a&&(e=s,s=a,a=e),_.precision
(b)):[[r,s],[t,a]]},_.step=function(t){return
arguments.length?_.stepMajor(t).stepMinor(t):_.stepMinor()},_.stepMajor=function(t){return
arguments.length?(m=+t[0],x=+t[1],_):[m,x]},_.stepMinor=function(t){return
arguments.length?(g=+t[0],v=+t[1],_):[g,v]},_.precision=function(e){return
arguments.length?(b=+e,u=Ve(s,a,90),f=qe(r,t,b),h=Ve(c,l,90),p=qe(i,n,b),_):b},_.extentMajor([[-180,-
89.999999],[180,89.999999]]).extentMinor([[-180,-80.000001],[180,80.000001]])}function Ge(t){return t}var
Ye,We,Xe,Ze,Je=r(),Ke=r(),Qe={point:L,lineStart:L,lineEnd:L,polygonStart:function(){Qe.lineStart=$e,Qe.lineEnd
=rr},polygonEnd:function(){Qe.lineStart=Qe.lineEnd=Qe.point=L,Je.add(d(Ke)),Ke.reset()},result:function(){var
t=Je/2;return Je.reset(),t}};function $e(){Qe.point=tr}function tr(t,e){Qe.point=er,Ye=Xe=t,We=Ze=e}function
er(t,e){Ke.add(Ze*t-Xe*e),Xe=t,Ze=e}function rr(){er(Ye,We)}var nr,ir,ar,or,sr=1/0,lr=sr,cr=-
sr,ur=cr,fr={point:function(t,e){t<sr&&(sr=t),t>cr&&(cr=t),e<lr&&(lr=e),e>ur&&(ur=e)},lineStart:L,lineEnd:L,pol
ygonStart:L,polygonEnd:L,result:function(){var t=[[sr,lr],[cr,ur]];return cr=ur=-
(lr=sr=1/0),t}},hr=0,pr=0,dr=0,gr=0,vr=0,mr=0,yr=0,xr=0,br=0,_r={point:wr,lineStart:Tr,lineEnd:Mr,polygonStart:f
unction(){_r.lineStart=Sr,_r.lineEnd=Er},polygonEnd:function(){_r.point=wr,_r.lineStart=Tr,_r.lineEnd=Mr},result
:function(){var t=br?[yr/br,xr/br]:mr?[gr/mr,vr/mr]:dr?[hr/dr,pr/dr]:[NaN,NaN];return
hr=pr=dr=gr=vr=mr=yr=xr=br=0,t}};function wr(t,e){hr+=t,pr+=e,++dr}function Tr(){_r.point=kr}function
kr(t,e){_r.point=Ar,wr(ar=t,or=e)}function Ar(t,e){var r=t-ar,n=e-
or,i=k(r*r+n*n);gr+=i*(ar+t)/2,vr+=i*(or+e)/2,mr+=i,wr(ar=t,or=e)}function Mr(){_r.point=wr}function
Sr(){_r.point=Lr}function Er(){Cr(nr,ir)}function Lr(t,e){_r.point=Cr,wr(nr=ar=t,ir=or=e)}function Cr(t,e){var r=t-
ar,n=e-or,i=k(r*r+n*n);gr+=i*(ar+t)/2,vr+=i*(or+e)/2,mr+=i,yr+=(i=or*t-
ar*e)*(ar+t),xr+=i*(or+e),br+=3*i,wr(ar=t,or=e)}function

Pr(t){this._context=t}Pr.prototype={_radius:4.5,pointRadius:function(t){return this._radius=t,this},polygonStart:function(){this._line=0},polygonEnd:function(){this._line=NaN},lineStart:function(){this._point=0},lineEnd:function(){0===this._line&&this._context.closePath(),this._point=NaN},point:function(t,e){switch(this._point){case 0:this._context.moveTo(t,e),this._point=1;break;case 1:this._context.lineTo(t,e);break;default:this._context.moveTo(t+this._radius,e),this._context.arc(t,e,this._radius,0,f)}},result:L};var Ir,Or,zr,Dr,Rr,Fr=r(),Br={point:L,lineStart:function(){Br.point=Nr},lineEnd:function(){Ir&&jr(Or,zr),Br.point=L},polygonStart:function(){Ir=!0},polygonEnd:function(){Ir=null},result:function(){var t=+Fr;return Fr.reset(),t}};function Nr(t,e){Br.point=jr,Or=Dr=t,zr=Rr=e}function jr(t,e){Dr-=t,Rr-=e,Fr.add(k(Dr*Dr+Rr*Rr)),Dr=t,Rr=e}function Ur(){this._string=[]}function Vr(t){return"m0,"+t+"a"+t+","+t+" 0 1,1 0,"+-2*t+"a"+t+","+t+" 0 1,1 0,"+2*t+"z"}function qr(t){return function(e){var r=new Hr;for(var n in t)r[n]=t[n];return r.stream=e,r}}function Hr(){}function Gr(t,e,r){var n=t.clipExtent&&t.clipExtent();return t.scale(150).translate([0,0]),null!=n&&t.clipExtent(null),D(r,t.stream(fr)),e(fr.result()),null!=n&&t.clipExtent(n),t}function Yr(t,e,r){return Gr(t,(function(r){var n=e[1][0]-e[0][0],i=e[1][1]-e[0][1],a=Math.min(n/(r[1][0]-r[0][0]),i/(r[1][1]-r[0][1])),o=+e[0][0]+(n-a*(r[1][0]+r[0][0]))/2,s=+e[0][1]+(i-a*(r[1][1]+r[0][1]))/2;t.scale(150*a).translate([o,s])}),r)}function Wr(t,e,r){return Yr(t,[[0,0],e],r)}function Xr(t,e,r){return Gr(t,(function(r){var n=+e,i=n/(r[1][0]-r[0][0]),a=(n-i*(r[1][0]+r[0][0]))/2,o=-i*r[0][1];t.scale(150*i).translate([a,o])}),r)}function Zr(t,e,r){return Gr(t,(function(r){var n=+e,i=n/(r[1][1]-r[0][1]),a=-i*r[0][0],o=(n-i*(r[1][1]+r[0][1]))/2;t.scale(150*i).translate([a,o])}),r)}Ur.prototype={_radius:4.5,_circle:Vr(4.5),pointRadius:function(t){return(t=+t)!==this._radius&&(this._radius=t,this._circle=null),this},polygonStart:function(){this._line=0},polygonEnd:function(){this._line=NaN},lineStart:function(){this._point=0},lineEnd:function(){0===this._line&&this._string.push("Z"),this._point=NaN},point:function(t,e){switch(this._point){case 0:this._string.push("M",t,",",e),this._point=1;break;case 1:this._string.push("L",t,",",e);break;default:null==this._circle&&(this._circle=Vr(this._radius)),this._string.push("M",t,",",e,this._circle)}},result:function(){if(this._string.length){var t=this._string.join("");return this._string=[],t}return null}},Hr.prototype={constructor:Hr,point:function(t,e){this.stream.point(t,e)},sphere:function(){this.stream.sphere()},lineStart:function(){this.stream.lineStart()},lineEnd:function(){this.stream.lineEnd()},polygonStart:function(){this.stream.polygonStart()},polygonEnd:function(){this.stream.polygonEnd()}};var Jr=m(30*p);function Kr(t,e){return+e?function(t,e){function r(n,i,a,s,l,c,u,f,h,p,g,m,y,x){var b=u-n,_=f-i,w=b*b+_*_;if(w>4*e&&y--){var T=s+p,A=l+g,M=c+m,E=k(T*T+A*A+M*M),L=S(M/=E),C=d(d(M)-1)<o||d(a-h)<o?(a+h)/2:v(A,T),P=t(C,L),I=P[0],O=P[1],z=I-n,D=O-i,R=_*z-b*D;(R*R/w>e||d((b*z+_*D)/w-.5)>.3||s*p+l*g+c*m<Jr)&&(r(n,i,a,s,l,c,I,O,C,T/=E,A/=E,M,y,x),x.point(I,O),r(I,O,C,T,A,M,u,f,h,p,g,m,y,x))}}return function(e){var n,i,a,o,s,l,c,u,f,h,p,d,g={point:v,lineStart:m,lineEnd:x,polygonStart:function(){e.polygonStart(),g.lineStart=b},polygonEnd:function(){e.polygonEnd(),g.lineStart=m}};function v(r,n){r=t(r,n),e.point(r[0],r[1])}function m(){u=NaN,g.point=y,e.lineStart()}function y(n,i){var a=Z([n,i]),o=t(n,i);r(u,f,c,h,p,d,u=o[0],f=o[1],c=n,h=a[0],p=a[1],d=a[2],16,e),e.point(u,f)}function x(){g.point=v,e.lineEnd()}function b(){m(),g.point=_,g.lineEnd=w}function _(t,e){y(n=t,e),i=u,a=f,o=h,s=p,l=d,g.point=y}function w(){r(u,f,c,h,p,d,i,a,n,o,s,l,16,e),g.lineEnd=x,x()}return g}}(t,e):function(t){return qr({point:function(e,r){e=t(e,r),this.stream.point(e[0],e[1])}})}(t)}var Qr=qr({point:function(t,e){this.stream.point(t*p,e*p)}});function $r(t,e,r,n,i){function a(a,o){return[e+t*(a*=n),r-t*(o*=i)]}return a.invert=function(a,o){return[(a-e)/t*n,(r-o)/t*i]},a}function tn(t,e,r,n,i,a){var o=m(a),s=w(a),l=o*t,c=s*t,u=o/t,f=s/t,h=(s*r-o*e)/t,p=(s*e+o*r)/t;function d(t,a){return[l*(t*=n)-c*(a*=i)+e,r-c*t-l*a]}return d.invert=function(t,e){return[n*(u*t-f*e+h),i*(p-f*t-u*e)]},d}function en(t){return rn((function(){return t}))()}function rn(t){var e,r,n,i,a,o,s,l,c,u,f=150,d=480,g=250,v=0,m=0,y=0,x=0,b=0,_=0,w=1,T=1,A=null,M=me,S=null,E=Ge,L=.5;functio

n C(t){return l(t[0]*p,t[1]*p)}function P(t){return(t=l.invert(t[0],t[1]))&&[t[0]*h,t[1]*h]}function I(){var t=tn(f,0,0,w,T,_).apply(null,e(v,m)),n=(_?tn:$r)(f,d-t[0],g-t[1],w,T,_);return r=$t(y,x,b),s=Kt(e,n),l=Kt(r,s),o=Kr(s,L),O()}function O(){return c=u=null,C}return C.stream=function(t){return c&&u===t?c:c=Qr(function(t){return qr({point:function(e,r){var n=t(e,r);return this.stream.point(n[0],n[1])}})}(r)(M(o(E(u=t()))))},C.preclip=function(t){return arguments.length?(M=t,A=void 0,O()):M},C.postclip=function(t){return arguments.length?(E=t,S=n=i=a=null,O()):E},C.clipAngle=function(t){return arguments.length?(M=+t?ye(A=t*p):(A=null,me),O()):A*h},C.clipExtent=function(t){return arguments.length?(E=null==t?(S=n=i=a=null,Ge):_e(S=+t[0][0],n=+t[0][1],i=+t[1][0],a=+t[1][1]),O()):null==S?null:[[S,n],[i,a]]},C.scale=function(t){return arguments.length?(f=+t,I()):f},C.translate=function(t){return arguments.length?(d=+t[0],g=+t[1],I()):[d,g]},C.center=function(t){return arguments.length?(v=t[0]%360*p,m=t[1]%360*p,I()):[v*h,m*h]},C.rotate=function(t){return arguments.length?(y=t[0]%360*p,x=t[1]%360*p,b=t.length>2?t[2]%360*p:0,I()):[y*h,x*h,b*h]},C.angle=function(t){return arguments.length?(_=t%360*p,I()):_*h},C.reflectX=function(t){return arguments.length?(w=t?-1:1,I()):w<0},C.reflectY=function(t){return arguments.length?(T=t?-1:1,I()):T<0},C.precision=function(t){return arguments.length?(o=Kr(s,L=t*t),O()):k(L)},C.fitExtent=function(t,e){return Yr(C,t,e)},C.fitSize=function(t,e){return Wr(C,t,e)},C.fitWidth=function(t,e){return Xr(C,t,e)},C.fitHeight=function(t,e){return Zr(C,t,e)},function(){return e=t.apply(this,arguments),C.invert=e.invert&&P,I()}}function nn(t){var e=0,r=l/3,n=rn(t),i=n(e,r);return i.parallels=function(t){return arguments.length?n(e=t[0]*p,r=t[1]*p):[e*h,r*h]},i}function an(t,e){var r=w(t),n=(r+w(e))/2;if(d(n)<o)return function(t){var e=m(t);function r(t,r){return[t*e,w(r)/e]}return r.invert=function(t,r){return[t/e,S(r*e)]},r}(t);var i=1+r*(2*n-r),a=k(i)/n;function s(t,e){var r=k(i-2*n*w(e))/n;return[r*w(t*=n),a-r*m(t)]}return s.invert=function(t,e){var r=a-e,o=v(t,d(r))*T(r);return r*n<0&&(o-=l*T(t)*T(r)),[o/n,S((i-(t*t+r*r)*n*n)/(2*n))]},s}function on(){return nn(an).scale(155.424).center([0,33.6442])}function sn(){return on().parallels([29.5,45.5]).scale(1070).translate([480,250]).rotate([96,0]).center([-.6,38.7])}function ln(t){return function(e,r){var n=m(e),i=m(r),a=t(n*i);return[a*i*w(e),a*w(r)]}}function cn(t){return function(e,r){var n=k(e*e+r*r),i=t(n),a=w(i),o=m(i);return[v(e*a,n*o),S(n&&r*a/n)]}}var un=ln((function(t){return k(2/(1+t))}));un.invert=cn((function(t){return 2*S(t/2)}));var fn=ln((function(t){return(t=M(t))&&t/w(t)}));function hn(t,e){return[t,b(A((c+e)/2))]}function pn(t){var e,r,n,i=en(t),a=i.center,o=i.scale,s=i.translate,c=i.clipExtent,u=null;function f(){var a=l*o(),s=i(ne(i.rotate()).invert([0,0]));return c(null==u?[[s[0]-a,s[1]-a],[s[0]+a,s[1]+a]]:t===hn?[[Math.max(s[0]-a,u),e],[Math.min(s[0]+a,r),n]]:[[u,Math.max(s[1]-a,e)],[r,Math.min(s[1]+a,n)]])}return i.scale=function(t){return arguments.length?(o(t),f()):o()},i.translate=function(t){return arguments.length?(s(t),f()):s()},i.center=function(t){return arguments.length?(a(t),f()):a()},i.clipExtent=function(t){return arguments.length?(null==t?u=e=r=n=null:(u=+t[0][0],e=+t[0][1],r=+t[1][0],n=+t[1][1]),f()):null==u?null:[[u,e],[r,n]]},f()}function dn(t){return A((c+t)/2)}function gn(t,e){var r=m(t),n=t===e?w(t):b(r/m(e))/b(dn(e)/dn(t)),i=r*_(dn(t),n)/n;if(!n)return hn;function a(t,e){i>0?e<-c+o&&(e=-c+o):e>c-o&&(e=c-o);var r=i/_(dn(e),n);return[r*w(n*t),i-r*m(n*t)]}return a.invert=function(t,e){var r=i-e,a=T(n)*k(t*t+r*r),o=v(t,d(r))*T(r);return r*n<0&&(o-=l*T(t)*T(r)),[o/n,2*g(_(i/a,1/n))-c]},a}function vn(t,e){return[t,e]}function mn(t,e){var r=m(t),n=t===e?w(t):(r-m(e))/(e-t),i=r/n+t;if(d(n)<o)return vn;function a(t,e){var r=i-e,a=n*t;return[r*w(a),i-r*m(a)]}return a.invert=function(t,e){var r=i-e,a=v(t,d(r))*T(r);return r*n<0&&(a-=l*T(t)*T(r)),[a/n,i-T(n)*k(t*t+r*r)]},a}fn.invert=cn((function(t){return t})),hn.invert=function(t,e){return[t,2*g(x(e))-c]},vn.invert=vn;var yn=1.340264,xn=-.081106,bn=893e-6,_n=.003796,wn=k(3)/2;function Tn(t,e){var r=S(wn*w(e)),n=r*r,i=n*n*n;return[t*m(r)/(wn*(yn+3*xn*n+i*(7*bn+9*_n*n))),r*(yn+xn*n+i*(bn+_n*n))]}function kn(t,e){var r=m(e),n=m(t)*r;return[r*w(t)/n,w(e)/n]}function An(t,e){var r=e*e,n=r*r;return[t*(.8707-

.131979*r+n*(n*(.003971*r-.001529*n)-.013791)),e*(1.007226+r*(.015085+n*(.028874*r-.044475-.005916*n)))]}function Mn(t,e){return[m(e)*w(t),w(e)]}function Sn(t,e){var r=m(e),n=1+m(t)*r;return[r*w(t)/n,w(e)/n]}function En(t,e){return[b(A((c+e)/2)),-t]}Tn.invert=function(t,e){for(var r,n=e,i=n*n,a=i*i*i,o=0;o<12&&(a=(i=(n-=r=(n*(yn+xn*i+a*(bn+_n*i))-e)/(yn+3*xn*i+a*(7*bn+9*_n*i)))*n)*i*i,!(d(r)<s));++o);return[wn*t*(yn+3*xn*i+a*(7*bn+9*_n*i))/m(n),S(w(n)/wn)]},kn.invert=cn(g),An.invert=function(t,e){var r,n=e,i=25;do{var a=n*n,s=a*a;n-=r=(n*(1.007226+a*(.015085+s*(.028874*a-.044475-.005916*s)))-e)/(1.007226+a*(.045255+s*(.259866*a-.311325-.005916*11*s)))}while(d(r)>o&&--i>0);return[t/(.8707+(a=n*n)*(a*(a*a*a*(.003971-.001529*a)-.013791)-.131979)),n]},Mn.invert=cn(S),Sn.invert=cn((function(t){return 2*g(t)})),En.invert=function(t,e){return[-e,2*g(x(t))-c]},t.geoAlbers=sn,t.geoAlbersUsa=function(){var t,e,r,n,i,a,s=sn(),l=on().rotate([154,0]).center([-2,58.5]).parallels([55,65]),c=on().rotate([157,0]).center([-3,19.9]).parallels([8,18]),u={point:function(t,e){a=[t,e]}};function f(t){var e=t[0],o=t[1];return a=null,r.point(e,o),a||(n.point(e,o),a)||(i.point(e,o),a)}function h(){return t=e=null,f}return f.invert=function(t){var e=s.scale(),r=s.translate(),n=(t[0]-r[0])/e,i=(t[1]-r[1])/e;return(i>=.12&&i<.234&&n>=-.425&&n<-.214?l:i>=.166&&i<.234&&n>=-.214&&n<-.115?c:s).invert(t)},f.stream=function(r){return t&&e===r?t:(n=[s.stream(e=r),l.stream(r),c.stream(r)],i=n.length,t={point:function(t,e){for(var r=-1;++r<i;)n[r].point(t,e)},sphere:function(){for(var t=-1;++t<i;)n[t].sphere()},lineStart:function(){for(var t=-1;++t<i;)n[t].lineStart()},lineEnd:function(){for(var t=-1;++t<i;)n[t].lineEnd()},polygonStart:function(){for(var t=-1;++t<i;)n[t].polygonStart()},polygonEnd:function(){for(var t=-1;++t<i;)n[t].polygonEnd()}});var n,i},f.precision=function(t){return arguments.length?(s.precision(t),l.precision(t),c.precision(t),h()):s.precision()},f.scale=function(t){return arguments.length?(s.scale(t),l.scale(.35*t),c.scale(t),f.translate(s.translate())):s.scale()},f.translate=function(t){if(!arguments.length)return s.translate();var e=s.scale(),a=+t[0],f=+t[1];return r=s.translate(t).clipExtent([[a-.455*e,f-.238*e],[a+.455*e,f+.238*e]]).stream(u),n=l.translate([a-.307*e,f+.201*e]).clipExtent([[a-.425*e+o,f+.12*e+o],[a-.214*e-o,f+.234*e-o]]).stream(u),i=c.translate([a-.205*e,f+.212*e]).clipExtent([[a-.214*e+o,f+.166*e+o],[a-.115*e-o,f+.234*e-o]]).stream(u),h()},f.fitExtent=function(t,e){return Yr(f,t,e)},f.fitSize=function(t,e){return Wr(f,t,e)},f.fitWidth=function(t,e){return Xr(f,t,e)},f.fitHeight=function(t,e){return Zr(f,t,e)},f.scale(1070)},t.geoArea=function(t){return V.reset(),D(t,q),2*V},t.geoAzimuthalEqualArea=function(){return en(un).scale(124.75).clipAngle(179.999)},t.geoAzimuthalEqualAreaRaw=un,t.geoAzimuthalEquidistant=function(){return en(fn).scale(79.4188).clipAngle(179.999)},t.geoAzimuthalEquidistantRaw=fn,t.geoBounds=function(t){var e,r,n,i,a,o,s;if(it=nt=-(et=rt=1/0),ct=[],D(t,Et),r=ct.length){for(ct.sort(Ft),e=1,a=[n=ct[0]];e<r;++e)Bt(n,(i=ct[e])[0])||Bt(n,i[1])?(Rt(n[0],i[1])>Rt(n[0],n[1])&&(n[1]=i[1]),Rt(i[0],n[1])>Rt(n[0],n[1])&&(n[0]=i[0])):a.push(n=i);for(o=-1/0,e=0,n=a[r=a.length-1];e<=r;n=i,++e)i=a[e],(s=Rt(n[1],i[0]))>o&&(o=s,et=i[0],nt=n[1])}return ct=ut=null,et===1/0||rt===1/0?[[NaN,NaN],[NaN,NaN]]:[[et,rt],[nt,it]]},t.geoCentroid=function(t){ft=ht=pt=dt=gt=vt=mt=yt=xt=bt=_t=0,D(t,Nt);var e=xt,r=bt,n=_t,i=e*e+r*r+n*n;return i<s&&(e=vt,r=mt,n=yt,ht<o&&(e=pt,r=dt,n=gt),(i=e*e+r*r+n*n)<s)?[NaN,NaN]:[v(r,e)*h,S(n/k(i))*h]},t.geoCircle=function(){var t,e,r=Jt([0,0]),n=Jt(90),i=Jt(6),a={point:function(r,n){t.push(r=e(r,n)),r[0]*=h,r[1]*=h}};function o(){var o=r.apply(this,arguments),s=n.apply(this,arguments)*p,l=i.apply(this,arguments)*p;return t=[],e=$t(-o[0]*p,-o[1]*p,0).invert,ie(a,s,l,1),o={type:"Polygon",coordinates:[t]},t=e=null,o}return o.center=function(t){return arguments.length?(r="function"==typeof t?t:Jt([+t[0],+t[1]]),o):r},o.radius=function(t){return arguments.length?(n="function"==typeof t?t:Jt(+t),o):n},o.precision=function(t){return arguments.length?(i="function"==typeof t?t:Jt(+t),o):i},o},t.geoClipAntimeridian=me,t.geoClipCircle=ye,t.geoClipExtent=function(){var t,e,r,n=0,i=0,a=960,o=500;return r={stream:function(r){return t&&e===r?t:t=_e(n,i,a,o)(e=r)},extent:function(s){return arguments.length?(n=+s[0][0],i=+s[0][1],a=+s[1][0],o=+s[1][1],t=e=null,r):[[n,i],[a,o]]}},t.geoClipRectangle=_e,t.

geoConicConformal=function(){return
nn(gn).scale(109.5).parallels([30,30])},t.geoConicConformalRaw=gn,t.geoConicEqualArea=on,t.geoConicEqualAreaRaw=an,t.geoConicEquidistant=function(){return
nn(mn).scale(131.154).center([0,13.9389])},t.geoConicEquidistantRaw=mn,t.geoContains=function(t,e){return(t&&ze.hasOwnProperty(t.type)?ze[t.type]:Re)(t,e)},t.geoDistance=Oe,t.geoEqualEarth=function(){return
en(Tn).scale(177.158)},t.geoEqualEarthRaw=Tn,t.geoEquirectangular=function(){return
en(vn).scale(152.63)},t.geoEquirectangularRaw=vn,t.geoGnomonic=function(){return
en(kn).scale(144.049).clipAngle(60)},t.geoGnomonicRaw=kn,t.geoGraticule=He,t.geoGraticule10=function(){return He()()},t.geoIdentity=function(){var
t,e,r,n,i,a,o,s=1,l=0,c=0,u=1,f=1,d=0,g=null,v=1,y=1,x=qr({point:function(t,e){var
r=T([t,e]);this.stream.point(r[0],r[1])}}),b=Ge;function _(){return v=s*u,y=s*f,a=o=null,T}function T(r){var
n=r[0]*v,i=r[1]*y;if(d){var a=i*t-n*e;n=n*t+i*e,i=a}return[n+l,i+c]}return T.invert=function(r){var n=r[0]-l,i=r[1]-c;if(d){var a=i*t+n*e;n=n*t-i*e,i=a}return[n/v,i/y]},T.stream=function(t){return
a&&o===t?a:a=x(b(o=t))},T.postclip=function(t){return
arguments.length?(b=t,g=r=n=i=null,_()):b},T.clipExtent=function(t){return
arguments.length?(b=null==t?(g=r=n=i=null,Ge):_e(g=+t[0][0],r=+t[0][1],n=+t[1][0],i=+t[1][1]),_()):null==g?null:[[g,r],[n,i]]},T.scale=function(t){return arguments.length?(s=+t,_()):s},T.translate=function(t){return
arguments.length?(l=+t[0],c=+t[1],_()):[l,c]},T.angle=function(r){return
arguments.length?(e=w(d=r%360*p),t=m(d),_()):d*h},T.reflectX=function(t){return arguments.length?(u=t?-1:1,_()):u<0},T.reflectY=function(t){return arguments.length?(f=t?-1:1,_()):f<0},T.fitExtent=function(t,e){return
Yr(T,t,e)},T.fitSize=function(t,e){return Wr(T,t,e)},T.fitWidth=function(t,e){return
Xr(T,t,e)},T.fitHeight=function(t,e){return Zr(T,t,e)},T},t.geoInterpolate=function(t,e){var
r=t[0]*p,n=t[1]*p,i=e[0]*p,a=e[1]*p,o=m(n),s=w(n),l=m(a),c=w(a),u=o*m(r),f=o*w(r),d=l*m(i),g=l*w(i),y=2*S(k(E(a-n)+o*l*E(i-r))),x=w(y),b=y?function(t){var e=w(t*=y)/x,r=w(y-t)/x,n=r*u+e*d,i=r*f+e*g,a=r*s+e*c;return[v(i,n)*h,v(a,k(n*n+i*i))*h]}:function(){return[r*h,n*h]};return
b.distance=y,b},t.geoLength=Ce,t.geoMercator=function(){return
pn(hn).scale(961/f)},t.geoMercatorRaw=hn,t.geoNaturalEarth1=function(){return
en(An).scale(175.295)},t.geoNaturalEarth1Raw=An,t.geoOrthographic=function(){return
en(Mn).scale(249.5).clipAngle(90.000001)},t.geoOrthographicRaw=Mn,t.geoPath=function(t,e){var
r,n,i=4.5;function a(t){return t&&("function"==typeof
i&&n.pointRadius(+i.apply(this,arguments)),D(t,r(n))),n.result()}return a.area=function(t){return
D(t,r(Qe)),Qe.result()},a.measure=function(t){return D(t,r(Br)),Br.result()},a.bounds=function(t){return
D(t,r(fr)),fr.result()},a.centroid=function(t){return D(t,r(_r)),_r.result()},a.projection=function(e){return
arguments.length?(r=null==e?(t=null,Ge):(t=e).stream,a):t},a.context=function(t){return
arguments.length?(n=null==t?(e=null,new Ur):new Pr(e=t),"function"!=typeof
i&&n.pointRadius(i),a):e},a.pointRadius=function(t){return arguments.length?(i="function"==typeof
t?t:(n.pointRadius(+t),+t),a):i},a.projection(t).context(e)},t.geoProjection=en,t.geoProjectionMutator=rn,t.geoRotation=ne,t.geoStereographic=function(){return
en(Sn).scale(250).clipAngle(142)},t.geoStereographicRaw=Sn,t.geoStream=D,t.geoTransform=function(t){return{stream:qr(t)}},t.geoTransverseMercator=function(){var t=pn(En),e=t.center,r=t.rotate;return
t.center=function(t){return arguments.length?e([-t[1],t[0]]):[(t=e())[1],-t[0]]},t.rotate=function(t){return
arguments.length?r([t[0],t[1],t.length>2?t[2]+90:90]):[(t=r())[0],t[1],t[2]-90]},r([0,0,90]).scale(159.155)},t.geoTransverseMercatorRaw=En,Object.defineProperty(t,"__esModule",{value:!0})},"object"==typeof r&&void 0!==e?i(r,t("d3-array")):i((n=n||self).d3=n.d3||{},n.d3)},{"d3-array":107}],115:[function(t,e,r){var n;n=this,function(t){"use strict";function e(t,e){return
t.parent===e.parent?1:2}function r(t,e){return t+e.x}function n(t,e){return Math.max(t,e.y)}function i(t){var
e=0,r=t.children,n=r&&r.length;if(n)for(;--n>=0;)e+=r[n].value;else e=1;t.value=e}function a(t,e){var
r,n,i,a,s,u=new

c(t),f=+t.value&&(u.value=t.value),h=[u];for(null==e&&(e=o);r=h.pop();)if(f&&(r.value=+r.data.value),(i=e(r.data))&&(s=i.length))for(r.children=new Array(s),a=s-1;a>=0;--a)h.push(n=r.children[a]=new c(i[a])),n.parent=r,n.depth=r.depth+1;return u.eachBefore(l)}function o(t){return t.children}function s(t){t.data=t.data.data}function l(t){var e=0;do{t.height=e}while((t=t.parent)&&t.height<++e)}function c(t){this.data=t,this.depth=this.height=0,this.parent=null}c.prototype=a.prototype={constructor:c,count:function(){return this.eachAfter(i)},each:function(t){var e,r,n,i,a=this,o=[a];do{for(e=o.reverse(),o=[];a=e.pop();)if(t(a),r=a.children)for(n=0,i=r.length;n<i;++n)o.push(r[n])}while(o.length);return this},eachAfter:function(t){for(var e,r,n,i=this,a=[i],o=[];i=a.pop();)if(o.push(i),e=i.children)for(r=0,n=e.length;r<n;++r)a.push(e[r]);for(;i=o.pop();)t(i);return this},eachBefore:function(t){for(var e,r,n=this,i=[n];n=i.pop();)if(t(n),e=n.children)for(r=e.length-1;r>=0;--r)i.push(e[r]);return this},sum:function(t){return this.eachAfter((function(e){for(var r=+t(e.data)||0,n=e.children,i=n&&n.length;--i>=0;)r+=n[i].value;e.value=r}))},sort:function(t){return this.eachBefore((function(e){e.children&&e.children.sort(t)}))},path:function(t){for(var e=this,r=function(t,e){if(t===e)return t;var r=t.ancestors(),n=e.ancestors(),i=null;for(t=r.pop(),e=n.pop();t===e;)i=t,t=r.pop(),e=n.pop();return i}(e,t),n=[e];e!==r;)e=e.parent,n.push(e);for(var i=n.length;t!==r;)n.splice(i,0,t),t=t.parent;return n},ancestors:function(){for(var t=this,e=[t];t=t.parent;)e.push(t);return e},descendants:function(){var t=[];return this.each((function(e){t.push(e)})),t},leaves:function(){var t=[];return this.eachBefore((function(e){e.children||t.push(e)})),t},links:function(){var t=this,e=[];return t.each((function(r){r!==t&&e.push({source:r.parent,target:r})})),e},copy:function(){return a(this).eachBefore(s)}};var u=Array.prototype.slice;function f(t){for(var e,r,n=0,i=(t=function(t){for(var e,r,n=t.length;n;)r=Math.random()*n--|0,e=t[n],t[n]=t[r],t[r]=e;return t}(u.call(t))).length,a=[];n<i;)e=t[n],r&&d(r,e)?++n:(r=v(a=h(a,e)),n=0);return r}function h(t,e){var r,n;if(g(e,t))return[e];for(r=0;r<t.length;++r)if(p(e,t[r])&&g(m(t[r],e),t))return[t[r],e];for(r=0;r<t.length-1;++r)for(n=r+1;n<t.length;++n)if(p(m(t[r],t[n]),e)&&p(m(t[r],e),t[n])&&p(m(t[n],e),t[r])&&g(y(t[r],t[n],e),t))return[t[r],t[n],e];throw new Error}function p(t,e){var r=t.r-e.r,n=e.x-t.x,i=e.y-t.y;return r<0||r*r<n*n+i*i}function d(t,e){var r=t.r-e.r+1e-6,n=e.x-t.x,i=e.y-t.y;return r>0&&r*r>n*n+i*i}function g(t,e){for(var r=0;r<e.length;++r)if(!d(t,e[r]))return!1;return!0}function v(t){switch(t.length){case 1:return{x:(e=t[0]).x,y:e.y,r:e.r};case 2:return m(t[0],t[1]);case 3:return y(t[0],t[1],t[2])}var e}function m(t,e){var r=t.x,n=t.y,i=t.r,a=e.x,o=e.y,s=e.r,l=a-r,c=o-n,u=s-i,f=Math.sqrt(l*l+c*c);return{x:(r+a+l/f*u)/2,y:(n+o+c/f*u)/2,r:(f+i+s)/2}}function y(t,e,r){var n=t.x,i=t.y,a=t.r,o=e.x,s=e.y,l=e.r,c=r.x,u=r.y,f=r.r,h=n-o,p=n-c,d=i-s,g=i-u,v=l-a,m=f-a,y=n*n+i*i-a*a,x=y-o*o-s*s+l*l,b=y-c*c-u*u+f*f,_=p*d-h*g,w=(d*b-g*x)/(2*_)-n,T=(g*v-d*m)/_,k=(p*x-h*b)/(2*_)-i,A=(h*m-p*v)/_,M=T*T+A*A-1,S=2*(a+w*T+k*A),E=w*w+k*k-a*a,L=-(M?(S+Math.sqrt(S*S-4*M*E))/(2*M):E/S);return{x:n+w+T*L,y:i+k+A*L,r:L}}function x(t,e,r){var n,i,a,o,s=t.x-e.x,l=t.y-e.y,c=s*s+l*l;c?(i=e.r+r.r,i*=i,o=t.r+r.r,i>(o*=o)?(n=(c+o-i)/(2*c),a=Math.sqrt(Math.max(0,o/c-n*n)),r.x=t.x-n*s-a*l,r.y=t.y-n*l+a*s):(n=(c+i-o)/(2*c),a=Math.sqrt(Math.max(0,i/c-n*n)),r.x=e.x+n*s-a*l,r.y=e.y+n*l+a*s)):(r.x=e.x+r.r,r.y=e.y)}function b(t,e){var r=t.r+e.r-1e-6,n=e.x-t.x,i=e.y-t.y;return r>0&&r*r>n*n+i*i}function _(t){var e=t._,r=t.next._,n=e.r+r.r,i=(e.x*r.r+r.x*e.r)/n,a=(e.y*r.r+r.y*e.r)/n;return i*i+a*a}function w(t){this._=t,this.next=null,this.previous=null}function T(t){if(!(i=t.length))return 0;var e,r,n,i,a,o,s,l,c,u,h;if((e=t[0]).x=0,e.y=0,!(i>1))return e.r;if(r=t[1],e.x=-r.r,r.x=e.r,r.y=0,!(i>2))return e.r+r.r;x(r,e,n=t[2]),e=new w(e),r=new w(r),n=new w(n),e.next=n.previous=r,r.next=e.previous=n,n.next=r.previous=e;t:for(s=3;s<i;++s){x(e._,r._,n=t[s]),n=new w(n),l=r.next,c=e.previous,u=r._.r,h=e._.r;do{if(u<=h){if(b(l._,n._)){r=l,e.next=r,r.previous=e,--s;continue t}u+=l._.r,l=l.next}else{if(b(c._,n._)){(e=c).next=r,r.previous=e,--s;continue t}h+=c._.r,c=c.previous}}while(l!==c.next);for(n.previous=e,n.next=r,e.next=r.previous=r=n,a=_(e);(n=n.next)!==r;)(o=_(n))<a&&(e=n,a=o);r=e.next}for(e=[r._],n=r;(n=n.next)!==r;)e.push(n._);for(n=f(e),s=0;s<i;++s)(e=t[s]).x-=n.x,e.y-=n.y;return n.r}function k(t){return null==t?null:A(t)}function A(t){if("function"!=typeof t)throw new

Error;return t}function M(){return 0}function S(t){return function(){return t}}function E(t){return Math.sqrt(t.value)}function L(t){return function(e){e.children||(e.r=Math.max(0,+t(e)||0))}}function C(t,e){return function(r){if(n=r.children){var n,i,a,o=n.length,s=t(r)*e||0;if(s)for(i=0;i<o;++i)n[i].r+=s;if(a=T(n),s)for(i=0;i<o;++i)n[i].r-=s;r.r=a+s}}}function P(t){return function(e){var r=e.parent;e.r*=t,r&&(e.x=r.x+t*e.x,e.y=r.y+t*e.y)}}function I(t){t.x0=Math.round(t.x0),t.y0=Math.round(t.y0),t.x1=Math.round(t.x1),t.y1=Math.round(t.y1)}function O(t,e,r,n,i){for(var a,o=t.children,s=-1,l=o.length,c=t.value&&(n-e)/t.value;++s<l;)(a=o[s]).y0=r,a.y1=i,a.x0=e,a.x1=e+=a.value*c}var z={depth:-1},D={};function R(t){return t.id}function F(t){return t.parentId}function B(t,e){return t.parent===e.parent?1:2}function N(t){var e=t.children;return e?e[0]:t.t}function j(t){var e=t.children;return e?e[e.length-1]:t.t}function U(t,e,r){var n=r/(e.i-t.i);e.c-=n,e.s+=r,t.c+=n,e.z+=r,e.m+=r}function V(t,e,r){return t.a.parent===e.parent?t.a:r}function q(t,e){this._=t,this.parent=null,this.children=null,this.A=null,this.a=this,this.z=0,this.m=0,this.c=0,this.s=0,this.t=null,this.i=e}function H(t,e,r,n,i){for(var a,o=t.children,s=-1,l=o.length,c=t.value&&(i-r)/t.value;++s<l;)(a=o[s]).x0=e,a.x1=n,a.y0=r,a.y1=r+=a.value*c}q.prototype=Object.create(c.prototype);var G=(1+Math.sqrt(5))/2;function Y(t,e,r,n,i,a){for(var o,s,l,c,u,f,h,p,d,g,v,m=[],y=e.children,x=0,b=0,_=y.length,w=e.value;x<_;){l=i-r,c=a-n;do{u=y[b++].value}while(!u&&b<_);for(f=h=u,v=u*u*(g=Math.max(c/l,l/c)/(w*t)),d=Math.max(h/v,v/f);b<_;++b){if(u+=s=y[b].value,s<f&&(f=s),s>h&&(h=s),v=u*u*g,(p=Math.max(h/v,v/f))>d){u-=s;break}d=p}m.push(o={value:u,dice:l<c,children:y.slice(x,b)}),o.dice?O(o,r,n,i,w?n+=c*u/w:a):H(o,r,n,w?r+=l*u/w:i,a),w-=u,x=b}return m}var W=function t(e){function r(t,r,n,i,a){Y(e,t,r,n,i,a)}return r.ratio=function(e){return t((e=+e)>1?e:1)},r}(G),X=function t(e){function r(t,r,n,i,a){if((o=t._squarify)&&o.ratio===e)for(var o,s,l,c,u,f=-1,h=o.length,p=t.value;++f<h;){for(l=(s=o[f]).children,c=s.value=0,u=l.length;c<u;++c)s.value+=l[c].value;s.dice?O(s,r,n,i,n+=(a-n)*s.value/p):H(s,r,n,r+=(i-r)*s.value/p,a),p-=s.value}else t._squarify=o=Y(e,t,r,n,i,a),o.ratio=e}return r.ratio=function(e){return t((e=+e)>1?e:1)},r}(G);t.cluster=function(){var t=e,i=1,a=1,o=!1;function s(e){var s,l=0;e.eachAfter((function(e){var i=e.children;i?(e.x=function(t){return t.reduce(r,0)/t.length}(i),e.y=function(t){return 1+t.reduce(n,0)}(i)):(e.x=s?l+=t(e,s):0,e.y=0,s=e)}));var c=function(t){for(var e;e=t.children;)t=e[0];return t}(e),u=function(t){for(var e;e=t.children;)t=e[e.length-1];return t}(e),f=c.x-t(c,u)/2,h=u.x+t(u,c)/2;return e.eachAfter(o?function(t){t.x=(t.x-e.x)*i,t.y=(e.y-t.y)*a}:function(t){t.x=(t.x-f)/(h-f)*i,t.y=(1-(e.y?t.y/e.y:1))*a})}return s.separation=function(e){return arguments.length?(t=e,s):t},s.size=function(t){return arguments.length?(o=!1,i=+t[0],a=+t[1],s):o?null:[i,a]},s.nodeSize=function(t){return arguments.length?(o=!0,i=+t[0],a=+t[1],s):o?[i,a]:null},s},t.hierarchy=a,t.pack=function(){var t=null,e=1,r=1,n=M;function i(i){return i.x=e/2,i.y=r/2,t?i.eachBefore(L(t)).eachAfter(C(n,.5)).eachBefore(P(1)):i.eachBefore(L(E)).eachAfter(C(M,1)).eachAfter(C(n,i.r/Math.min(e,r))).eachBefore(P(Math.min(e,r)/(2*i.r))),i}return i.radius=function(e){return arguments.length?(t=k(e),i):t},i.size=function(t){return arguments.length?(e=+t[0],r=+t[1],i):[e,r]},i.padding=function(t){return arguments.length?(n="function"==typeof t?t:S(+t),i):n},i},t.packEnclose=f,t.packSiblings=function(t){return T(t),t},t.partition=function(){var t=1,e=1,r=0,n=!1;function i(i){var a=i.height+1;return i.x0=i.y0=r,i.x1=t,i.y1=e/a,i.eachBefore(function(t,e){return function(n){n.children&&O(n,n.x0,t*(n.depth+1)/e,n.x1,t*(n.depth+2)/e);var i=n.x0,a=n.y0,o=n.x1-r,s=n.y1-r;o<i&&(i=o=(i+o)/2),s<a&&(a=s=(a+s)/2),n.x0=i,n.y0=a,n.x1=o,n.y1=s}}(e,a)),n&&i.eachBefore(I),i}return i.round=function(t){return arguments.length?(n=!!t,i):n},i.size=function(r){return arguments.length?(t=+r[0],e=+r[1],i):[t,e]},i.padding=function(t){return arguments.length?(r=+t,i):r},i},t.stratify=function(){var t=R,e=F;function r(r){var n,i,a,o,s,u,f,h=r.length,p=new Array(h),d={};for(i=0;i<h;++i)n=r[i],s=p[i]=new c(n),null!=(u=t(n,i,r))&&(u+="")&&(d[f="$"+(s.id=u)]=f in d?D:s);for(i=0;i<h;++i)if(s=p[i],null!=(u=e(r[i],i,r))&&(u+="")){if(!(o=d["$"+u]))throw new Error("missing: "+u);if(o===D)throw new Error("ambiguous:

"+u);o.children?o.children.push(s):o.children=[s],s.parent=o}else{if(a)throw new Error("multiple roots");a=s}if(!a)throw new Error("no root");if(a.parent=z,a.eachBefore((function(t){t.depth=t.parent.depth+1,--h})).eachBefore(l),a.parent=null,h>0)throw new Error("cycle");return a}return r.id=function(e){return arguments.length?(t=A(e),r):t},r.parentId=function(t){return arguments.length?(e=A(t),r):e},r},t.tree=function(){var t=B,e=1,r=1,n=null;function i(i){var l=function(t){for(var e,r,n,i,a,o=new q(t,0),s=[o];e=s.pop();)if(n=e._.children)for(e.children=new Array(a=n.length),i=a-1;i>=0;--i)s.push(r=e.children[i]=new q(n[i],i)),r.parent=e;return(o.parent=new q(null,0)).children=[o],o}(i);if(l.eachAfter(a),l.parent.m=-l.z,l.eachBefore(o),n)i.eachBefore(s);else{var c=i,u=i,f=i;i.eachBefore((function(t){t.x<c.x&&(c=t),t.x>u.x&&(u=t),t.depth>f.depth&&(f=t)}));var h=c===u?1:t(c,u)/2,p=h-c.x,d=e/(u.x+h+p),g=r/(f.depth||1);i.eachBefore((function(t){t.x=(t.x+p)*d,t.y=t.depth*g}))}return i}function a(e){var r=e.children,n=e.parent.children,i=e.i?n[e.i-1]:null;if(r){!function(t){for(var e,r=0,n=0,i=t.children,a=i.length;--a>=0;)(e=i[a]).z+=r,e.m+=r,r+=e.s+(n+=e.c)}(e);var a=(r[0].z+r[r.length-1].z)/2;i?(e.z=i.z+t(e._,i._),e.m=e.z-a):e.z=a}else i&&(e.z=i.z+t(e._,i._));e.parent.A=function(e,r,n){if(r){for(var i,a=e,o=e,s=r,l=a.parent.children[0],c=a.m,u=o.m,f=s.m,h=l.m;s=j(s),a=N(a),s&&a;)l=N(l),(o=j(o)).a=e,(i=s.z+f-a.z-c+t(s._,a._))>0&&(U(V(s,e,n),e,i),c+=i,u+=i),f+=s.m,c+=a.m,h+=l.m,u+=o.m;s&&!j(o)&&(o.t=s,o.m+=f-u),a&&!N(l)&&(l.t=a,l.m+=c-h,n=e)}return n}(e,i,e.parent.A||n[0])}function o(t){t._.x=t.z+t.parent.m,t.m+=t.parent.m}function s(t){t.x*=e,t.y=t.depth*r}return i.separation=function(e){return arguments.length?(t=e,i):t},i.size=function(t){return arguments.length?(n=!1,e=+t[0],r=+t[1],i):n?null:[e,r]},i.nodeSize=function(t){return arguments.length?(n=!0,e=+t[0],r=+t[1],i):n?[e,r]:null},i},t.treemap=function(){var t=W,e=!1,r=1,n=1,i=[0],a=M,o=M,s=M,l=M,c=M;function u(t){return t.x0=t.y0=0,t.x1=r,t.y1=n,t.eachBefore(f),i=[0],e&&t.eachBefore(I),t}function f(e){var r=i[e.depth],n=e.x0+r,u=e.y0+r,f=e.x1-r,h=e.y1-r;f<n&&(n=f=(n+f)/2),h<u&&(u=h=(u+h)/2),e.x0=n,e.y0=u,e.x1=f,e.y1=h,e.children&&(r=i[e.depth+1]=a(e)/2,n+=c(e)-r,u+=o(e)-r,(f-=s(e)-r)<n&&(n=f=(n+f)/2),(h-=l(e)-r)<u&&(u=h=(u+h)/2),t(e,n,u,f,h))}return u.round=function(t){return arguments.length?(e=!!t,u):e},u.size=function(t){return arguments.length?(r=+t[0],n=+t[1],u):[r,n]},u.tile=function(e){return arguments.length?(t=A(e),u):t},u.padding=function(t){return arguments.length?u.paddingInner(t).paddingOuter(t):u.paddingInner()},u.paddingInner=function(t){return arguments.length?(a="function"==typeof t?t:S(+t),u):a},u.paddingOuter=function(t){return arguments.length?u.paddingTop(t).paddingRight(t).paddingBottom(t).paddingLeft(t):u.paddingTop()},u.paddingTop=function(t){return arguments.length?(o="function"==typeof t?t:S(+t),u):o},u.paddingRight=function(t){return arguments.length?(s="function"==typeof t?t:S(+t),u):s},u.paddingBottom=function(t){return arguments.length?(l="function"==typeof t?t:S(+t),u):l},u.paddingLeft=function(t){return arguments.length?(c="function"==typeof t?t:S(+t),u):c},u},t.treemapBinary=function(t,e,r,n,i){var a,o,s=t.children,l=s.length,c=new Array(l+1);for(c[0]=o=a=0;a<l;++a)c[a+1]=o+=s[a].value;!function t(e,r,n,i,a,o,l){if(e>=r-1){var u=s[e];return u.x0=i,u.y0=a,u.x1=o,void(u.y1=l)}for(var f=c[e],h=n/2+f,p=e+1,d=r-1;p<d;){var g=p+d>>>1;c[g]<h?p=g+1:d=g}h-c[p-1]<c[p]-h&&e+1<p&&--p;var v=c[p]-f,m=n-v;if(o-i>l-a){var y=(i*m+o*v)/n;t(e,p,v,i,a,y,l),t(p,r,m,y,a,o,l)}else{var x=(a*m+l*v)/n;t(e,p,v,i,a,o,x),t(p,r,m,i,x,o,l)}}(0,l,t.value,e,r,n,i)},t.treemapDice=O,t.treemapResquarify=X,t.treemapSlice=H,t.treemapSliceDice=function(t,e,r,n,i){(1&t.depth?H:O)(t,e,r,n,i)},t.treemapSquarify=W,Object.defineProperty(t,"__esModule",{value:!0})}("object"==typeof r&&void 0!==e?r:(n=n||self).d3=n.d3||{})},{}],116:[function(t,e,r){var n,i;n=this,i=function(t,e){"use strict";function r(t,e,r,n,i){var a=t*t,o=a*t;return((1-3*t+3*a-o)*e+(4-6*a+3*o)*r+(1+3*t+3*a-3*o)*n+o*i)/6}function n(t){var e=t.length-1;return function(n){var i=n<=0?n=0:n>=1?(n=1,e-1):Math.floor(n*e),a=t[i],o=t[i+1],s=i>0?t[i-1]:2*a-o,l=i<e-1?t[i+2]:2*o-a;return r((n-i/e)*e,s,a,o,l)}}function i(t){var e=t.length;return function(n){var i=Math.floor(((n%=1)<0?++n:n)*e),a=t[(i+e-1)%e],o=t[i%e],s=t[(i+1)%e],l=t[(i+2)%e];return r((n-

i/e)*e,a,o,s,l)}}function a(t){return function(){return t}}function o(t,e){return function(r){return t+r*e}}function s(t,e){var r=e-t;return r?o(t,r>180||r<-180?r-360*Math.round(r/360):r):a(isNaN(t)?e:t)}function l(t){return 1==(t=+t)?c:function(e,r){return r-e?function(t,e,r){return t=Math.pow(t,r),e=Math.pow(e,r)-t,r=1/r,function(n){return Math.pow(t+n*e,r)}}(e,r,t):a(isNaN(e)?r:e)}}function c(t,e){var r=e-t;return r?o(t,r):a(isNaN(t)?e:t)}var u=function t(r){var n=l(r);function i(t,r){var i=n((t=e.rgb(t)).r,(r=e.rgb(r)).r),a=n(t.g,r.g),o=n(t.b,r.b),s=c(t.opacity,r.opacity);return function(e){return t.r=i(e),t.g=a(e),t.b=o(e),t.opacity=s(e),t+""}}return i.gamma=t,i}(1);function f(t){return function(r){var n,i,a=r.length,o=new Array(a),s=new Array(a),l=new Array(a);for(n=0;n<a;++n)i=e.rgb(r[n]),o[n]=i.r||0,s[n]=i.g||0,l[n]=i.b||0;return o=t(o),s=t(s),l=t(l),i.opacity=1,function(t){return i.r=o(t),i.g=s(t),i.b=l(t),i+""}}}var h=f(n),p=f(i);function d(t,e){e||(e=[]);var r,n=t?Math.min(e.length,t.length):0,i=e.slice();return function(a){for(r=0;r<n;++r)i[r]=t[r]*(1-a)+e[r]*a;return i}}function g(t){return ArrayBuffer.isView(t)&&!(t instanceof DataView)}function v(t,e){var r,n=e?e.length:0,i=t?Math.min(n,t.length):0,a=new Array(i),o=new Array(n);for(r=0;r<i;++r)a[r]=T(t[r],e[r]);for(;r<n;++r)o[r]=e[r];return function(t){for(r=0;r<i;++r)o[r]=a[r](t);return o}}function m(t,e){var r=new Date;return t=+t,e=+e,function(n){return r.setTime(t*(1-n)+e*n),r}}function y(t,e){return t=+t,e=+e,function(r){return t*(1-r)+e*r}}function x(t,e){var r,n={},i={};for(r in null!==t&&"object"==typeof t||(t={}),null!==e&&"object"==typeof e||(e={}),e)r in t?n[r]=T(t[r],e[r]):i[r]=e[r];return function(t){for(r in n)i[r]=n[r](t);return i}}var b=/[-+]?(?:\d+\.?\d*|\.?\d+)(?:[eE][-+]?\d+)?/g,_=new RegExp(b.source,"g");function w(t,e){var r,n,i,a=b.lastIndex=_.lastIndex=0,o=-1,s=[],l=[];for(t+="",e+="";(r=b.exec(t))&&(n=_.exec(e));)(i=n.index)>a&&(i=e.slice(a,i),s[o]?s[o]+=i:s[++o]=i),(r=r[0])===(n=n[0])?s[o]?s[o]+=n:s[++o]=n:(s[++o]=null,l.push({i:o,x:y(r,n)})),a=_.lastIndex;return a<e.length&&(i=e.slice(a),s[o]?s[o]+=i:s[++o]=i),s.length<2?l[0]?function(t){return function(e){return t(e)+""}}(l[0].x):function(t){return function(){return t}}(e):(e=l.length,function(t){for(var r,n=0;n<e;++n)s[(r=l[n]).i]=r.x(t);return s.join("")})}function T(t,r){var n,i=typeof r;return null==r||"boolean"===i?a(r):("number"===i?y:"string"===i?(n=e.color(r))?(r=n,u):w:r instanceof e.color?u:r instanceof Date?m:g(r)?d:Array.isArray(r)?v:"function"!=typeof r.valueOf&&"function"!=typeof r.toString||isNaN(r)?x:y)(t,r)}var k,A,M,S,E=180/Math.PI,L={translateX:0,translateY:0,rotate:0,skewX:0,scaleX:1,scaleY:1};function C(t,e,r,n,i,a){var o,s,l;return(o=Math.sqrt(t*t+e*e))&&(t/=o,e/=o),(l=t*r+e*n)&&(r-=t*l,n-=e*l),(s=Math.sqrt(r*r+n*n))&&(r/=s,n/=s,l/=s),t*n<e*r&&(t=-t,e=-e,l=-l,o=-o),{translateX:i,translateY:a,rotate:Math.atan2(e,t)*E,skewX:Math.atan(l)*E,scaleX:o,scaleY:s}}function P(t,e,r,n){function i(t){return t.length?t.pop()+" ":""}return function(a,o){var s=[],l=[];return a=t(a),o=t(o),function(t,n,i,a,o,s){if(t!==i||n!==a){var l=o.push("translate(",null,e,null,r);s.push({i:l-4,x:y(t,i)},{i:l-2,x:y(n,a)})}else(i||a)&&o.push("translate("+i+e+a+r)}(a.translateX,a.translateY,o.translateX,o.translateY,s,l),function(t,e,r,a){t!==e?(t-e>180?e+=360:e-t>180&&(t+=360),a.push({i:r.push(i(r)+"rotate(",null,n)-2,x:y(t,e)})):e&&r.push(i(r)+"rotate("+e+n)}(a.rotate,o.rotate,s,l),function(t,e,r,a){t!==e?a.push({i:r.push(i(r)+"skewX(",null,n)-2,x:y(t,e)}):e&&r.push(i(r)+"skewX("+e+n)}(a.skewX,o.skewX,s,l),function(t,e,r,n,a,o){if(t!==r||e!==n){var s=a.push(i(a)+"scale(",null,",",null,")");o.push({i:s-4,x:y(t,r)},{i:s-2,x:y(e,n)})}else 1===r&&1===n||a.push(i(a)+"scale("+r+","+n+")")}(a.scaleX,a.scaleY,o.scaleX,o.scaleY,s,l),a=o=null,function(t){for(var e,r=-1,n=l.length;++r<n;)s[(e=l[r]).i]=e.x(t);return s.join("")}}}var I=P((function(t){return"none"===t?L:(k||(k=document.createElement("DIV"),A=document.documentElement,M=document.defaultView),k.style.transform=t,t=M.getComputedStyle(A.appendChild(k),null).getPropertyValue("transform"),A.removeChild(k),C(+(t=t.slice(7,-1).split(","))[0],+t[1],+t[2],+t[3],+t[4],+t[5]))}),"px, ","px)","deg)"),O=P((function(t){return null==t?L:(S||(S=document.createElementNS("http://www.w3.org/2000/svg","g")),S.setAttribute("transform",t),(t=S.transform.baseVal.consolidate())?C((t=t.matrix).a,t.b,t.c,t.d,t.e,t.f):L)}),", ",")",")"),z=Math.SQRT2;function D(t){return((t=Math.exp(t))+1/t)/2}function R(t){return function(r,n){var

i=t((r=e.hsl(r)).h,(n=e.hsl(n)).h),a=c(r.s,n.s),o=c(r.l,n.l),s=c(r.opacity,n.opacity);return function(t){return r.h=i(t),r.s=a(t),r.l=o(t),r.opacity=s(t),r+""}}}var F=R(s),B=R(c);function N(t){return function(r,n){var i=t((r=e.hcl(r)).h,(n=e.hcl(n)).h),a=c(r.c,n.c),o=c(r.l,n.l),s=c(r.opacity,n.opacity);return function(t){return r.h=i(t),r.c=a(t),r.l=o(t),r.opacity=s(t),r+""}}}var j=N(s),U=N(c);function V(t){return function r(n){function i(r,i){var a=t((r=e.cubehelix(r)).h,(i=e.cubehelix(i)).h),o=c(r.s,i.s),s=c(r.l,i.l),l=c(r.opacity,i.opacity);return function(t){return r.h=a(t),r.s=o(t),r.l=s(Math.pow(t,n)),r.opacity=l(t),r+""}}return n=+n,i.gamma=r,i}(1)}var q=V(s),H=V(c);t.interpolate=T,t.interpolateArray=function(t,e){return(g(e)?d:v)(t,e)},t.interpolateBasis=n,t.interpolateBasisClosed=i,t.interpolateCubehelix=q,t.interpolateCubehelixLong=H,t.interpolateDate=m,t.interpolateDiscrete=function(t){var e=t.length;return function(r){return t[Math.max(0,Math.min(e-1,Math.floor(r*e)))]}},t.interpolateHcl=j,t.interpolateHclLong=U,t.interpolateHsl=F,t.interpolateHslLong=B,t.interpolateHue=function(t,e){var r=s(+t,+e);return function(t){var e=r(t);return e-360*Math.floor(e/360)}},t.interpolateLab=function(t,r){var n=c((t=e.lab(t)).l,(r=e.lab(r)).l),i=c(t.a,r.a),a=c(t.b,r.b),o=c(t.opacity,r.opacity);return function(e){return t.l=n(e),t.a=i(e),t.b=a(e),t.opacity=o(e),t+""}},t.interpolateNumber=y,t.interpolateNumberArray=d,t.interpolateObject=x,t.interpolateRgb=u,t.interpolateRgbBasis=h,t.interpolateRgbBasisClosed=p,t.interpolateRound=function(t,e){return t=+t,e=+e,function(r){return Math.round(t*(1-r)+e*r)}},t.interpolateString=w,t.interpolateTransformCss=I,t.interpolateTransformSvg=O,t.interpolateZoom=function(t,e){var r,n,i=t[0],a=t[1],o=t[2],s=e[0],l=e[1],c=e[2],u=s-i,f=l-a,h=u*u+f*f;if(h<1e-12)n=Math.log(c/o)/z,r=function(t){return[i+t*u,a+t*f,o*Math.exp(z*t*n)]};else{var p=Math.sqrt(h),d=(c*c-o*o+4*h)/(2*o*2*p),g=(c*c-o*o-4*h)/(2*c*2*p),v=Math.log(Math.sqrt(d*d+1)-d),m=Math.log(Math.sqrt(g*g+1)-g);n=(m-v)/z,r=function(t){var e,r=t*n,s=D(v),l=o/(2*p)*(s*(e=z*r+v,((e=Math.exp(2*e))-1)/(e+1))-function(t){return((t=Math.exp(t))-1/t)/2}(v));return[i+l*u,a+l*f,o*s/D(z*r+v)]}}return r.duration=1e3*n,r},t.piecewise=function(t,e){for(var r=0,n=e.length-1,i=e[0],a=new Array(n<0?0:n);r<n;)a[r]=t(i,i=e[++r]);return function(t){var e=Math.max(0,Math.min(n-1,Math.floor(t*=n)));return a[e](t-e)}},t.quantize=function(t,e){for(var r=new Array(e),n=0;n<e;++n)r[n]=t(n/(e-1));return r},Object.defineProperty(t,"__esModule",{value:!0})},"object"==typeof r&&void 0!==e?i(r,t("d3-color")):i((n=n||self).d3=n.d3||{},n.d3)},{"d3-color":109}],117:[function(t,e,r){var n;n=this,function(t){"use strict";var e=Math.PI,r=2*e,n=1e-6,i=r-n;function a(){this._x0=this._y0=this._x1=this._y1=null,this._=""}function o(){return new a}a.prototype=o.prototype={constructor:a,moveTo:function(t,e){this._+="M"+(this._x0=this._x1=+t)+","+(this._y0=this._y1=+e)},closePath:function(){null!==this._x1&&(this._x1=this._x0,this._y1=this._y0,this._+="Z")},lineTo:function(t,e){this._+="L"+(this._x1=+t)+","+(this._y1=+e)},quadraticCurveTo:function(t,e,r,n){this._+="Q"++t+","+ +e+","+(this._x1=+r)+","+(this._y1=+n)},bezierCurveTo:function(t,e,r,n,i,a){this._+="C"+ +t+","+ +e+","++r+","+ +n+","+(this._x1=+i)+","+(this._y1=+a)},arcTo:function(t,r,i,a,o){t=+t,r=+r,i=+i,a=+a,o=+o;var s=this._x1,l=this._y1,c=i-t,u=a-r,f=s-t,h=l-r,p=f*f+h*h;if(o<0)throw new Error("negative radius: "+o);if(null===this._x1)this._+="M"+(this._x1=t)+","+(this._y1=r);else if(p>n)if(Math.abs(h*c-u*f)>n&&o){var d=i-s,g=a-l,v=c*c+u*u,m=d*d+g*g,y=Math.sqrt(v),x=Math.sqrt(p),b=o*Math.tan((e-Math.acos((v+p-m)/(2*y*x)))/2),_=b/x,w=b/y;Math.abs(_-1)>n&&(this._+="L"+(t+_*f)+","+(r+_*h)),this._+="A"+o+","+o+",0,0,"++(h*d>f*g)+","+(this._x1=t+w*c)+","+(this._y1=r+w*u)}else this._+="L"+(this._x1=t)+","+(this._y1=r)},arc:function(t,a,o,s,l,c){t=+t,a=+a,c=!!c;var u=(o=+o)*Math.cos(s),f=o*Math.sin(s),h=t+u,p=a+f,d=1^c,g=c?s-l:l-s;if(o<0)throw new Error("negative radius: "+o);null===this._x1?this._+="M"+h+","+p:(Math.abs(this._x1-h)>n||Math.abs(this._y1-p)>n)&&(this._+="L"+h+","+p),o&&(g<0&&(g=g%r+r),g>i?this._+="A"+o+","+o+",0,1,"+d+","+(t-u)+","+(a-f)+"A"+o+","+o+",0,1,"+d+","+(this._x1=h)+","+(this._y1=p):g>n&&(this._+="A"+o+","+o+",0,"++(g>=e)+","+d+","+(this._x1=t+o*Math.cos(l))+","+(this._y1=a+o*Math.sin(l))))},rect:function(t,e,r,n){this._+="M"+(this._x0=this._x1=+t)+","+(this._y0=this._y1=+e)+"h"+ +r+"v"+ +n+"h"+-r+"Z"},toString:function(){return this._}},t.path=o,Object.defineProperty(t,"__esModule",{value:!0})}("object"==typeof r&&void

0!==e?r:(n=n||self).d3=n.d3||{})},{}],118:[function(t,e,r){var n;n=this,function(t){"use strict";function e(t,e,r,n){if(isNaN(e)||isNaN(r))return t;var i,a,o,s,l,c,u,f,h,p=t._root,d={data:n},g=t._x0,v=t._y0,m=t._x1,y=t._y1;if(!p)return t._root=d,t;for(;p.length;)if((c=e>=(a=(g+m)/2))?g=a:m=a,(u=r>=(o=(v+y)/2))?v=o:y=o,i=p,!(p=p[f=u<<1|c]))return i[f]=d,t;if(s=+t._x.call(null,p.data),l=+t._y.call(null,p.data),e===s&&r===l)return d.next=p,i?i[f]=d:t._root=d,t;do{i=i?i[f]=new Array(4):t._root=new Array(4),(c=e>=(a=(g+m)/2))?g=a:m=a,(u=r>=(o=(v+y)/2))?v=o:y=o}while((f=u<<1|c)==(h=(l>=o)<<1|s>=a));return i[h]=p,i[f]=d,t}function r(t,e,r,n,i){this.node=t,this.x0=e,this.y0=r,this.x1=n,this.y1=i}function n(t){return t[0]}function i(t){return t[1]}function a(t,e,r){var a=new o(null==e?n:e,null==r?i:r,NaN,NaN,NaN,NaN);return null==t?a:a.addAll(t)}function o(t,e,r,n,i,a){this._x=t,this._y=e,this._x0=r,this._y0=n,this._x1=i,this._y1=a,this._root=void 0}function s(t){for(var e={data:t.data},r=e;t=t.next;)r=r.next={data:t.data};return e}var l=a.prototype=o.prototype;l.copy=function(){var t,e,r=new o(this._x,this._y,this._x0,this._y0,this._x1,this._y1),n=this._root;if(!n)return r;if(!n.length)return r._root=s(n),r;for(t=[{source:n,target:r._root=new Array(4)}];n=t.pop();)for(var i=0;i<4;++i)(e=n.source[i])&&(e.length?t.push({source:e,target:n.target[i]=new Array(4)}):n.target[i]=s(e));return r},l.add=function(t){var r=+this._x.call(null,t),n=+this._y.call(null,t);return e(this.cover(r,n),r,n,t)},l.addAll=function(t){var r,n,i,a,o=t.length,s=new Array(o),l=new Array(o),c=1/0,u=1/0,f=-1/0,h=-1/0;for(n=0;n<o;++n)isNaN(i=+this._x.call(null,r=t[n]))||isNaN(a=+this._y.call(null,r))||(s[n]=i,l[n]=a,i<c&&(c=i),i>f&&(f=i),a<u&&(u=a),a>h&&(h=a));if(c>f||u>h)return this;for(this.cover(c,u).cover(f,h),n=0;n<o;++n)e(this,s[n],l[n],t[n]);return this},l.cover=function(t,e){if(isNaN(t=+t)||isNaN(e=+e))return this;var r=this._x0,n=this._y0,i=this._x1,a=this._y1;if(isNaN(r))i=(r=Math.floor(t))+1,a=(n=Math.floor(e))+1;else{for(var o,s,l=i-r,c=this._root;r>t||t>=i||n>e||e>=a;)switch(s=(e<n)<<1|t<r,(o=new Array(4))[s]=c,c=o,l*=2,s){case 0:i=r+l,a=n+l;break;case 1:r=i-l,a=n+l;break;case 2:i=r+l,n=a-l;break;case 3:r=i-l,n=a-l}this._root&&this._root.length&&(this._root=c)}return this._x0=r,this._y0=n,this._x1=i,this._y1=a,this},l.data=function(){var t=[];return this.visit((function(e){if(!e.length)do{t.push(e.data)}while(e=e.next)})),t},l.extent=function(t){return arguments.length?this.cover(+t[0][0],+t[0][1]).cover(+t[1][0],+t[1][1]):isNaN(this._x0)?void 0:[[this._x0,this._y0],[this._x1,this._y1]]},l.find=function(t,e,n){var i,a,o,s,l,c,u,f=this._x0,h=this._y0,p=this._x1,d=this._y1,g=[],v=this._root;for(v&&g.push(new r(v,f,h,p,d)),null==n?n=1/0:(f=t-n,h=e-n,p=t+n,d=e+n,n*=n);c=g.pop();)if(!(!(v=c.node)||(a=c.x0)>p||(o=c.y0)>d||(s=c.x1)<f||(l=c.y1)<h))if(v.length){var m=(a+s)/2,y=(o+l)/2;g.push(new r(v[3],m,y,s,l),new r(v[2],a,y,m,l),new r(v[1],m,o,s,y),new r(v[0],a,o,m,y)),(u=(e>=y)<<1|t>=m)&&(c=g[g.length-1],g[g.length-1]=g[g.length-1-u],g[g.length-1-u]=c)}else{var x=t-+this._x.call(null,v.data),b=e-+this._y.call(null,v.data),_=x*x+b*b;if(_<n){var w=Math.sqrt(n=_);f=t-w,h=e-w,p=t+w,d=e+w,i=v.data}}return i},l.remove=function(t){if(isNaN(a=+this._x.call(null,t))||isNaN(o=+this._y.call(null,t)))return this;var e,r,n,i,a,o,s,l,c,u,f,h,p=this._root,d=this._x0,g=this._y0,v=this._x1,m=this._y1;if(!p)return this;if(p.length)for(;;){if((c=a>=(s=(d+v)/2))?d=s:v=s,(u=o>=(l=(g+m)/2))?g=l:m=l,e=p,!(p=p[f=u<<1|c]))return this;if(!p.length)break;(e[f+1&3]||e[f+2&3]||e[f+3&3])&&(r=e,h=f)}for(;p.data!==t;)if(n=p,!(p=p.next))return this;return(i=p.next)&&delete p.next,n?(i?n.next=i:delete n.next,this):e?(i?e[f]=i:delete e[f],(p=e[0]||e[1]||e[2]||e[3])&&p===(e[3]||e[2]||e[1]||e[0])&&!p.length&&(r?r[h]=p:this._root=p),this):(this._root=i,this)},l.removeAll=function(t){for(var e=0,r=t.length;e<r;++e)this.remove(t[e]);return this},l.root=function(){return this._root},l.size=function(){var t=0;return this.visit((function(e){if(!e.length)do{++t}while(e=e.next)})),t},l.visit=function(t){var e,n,i,a,o,s,l=[],c=this._root;for(c&&l.push(new r(c,this._x0,this._y0,this._x1,this._y1));e=l.pop();)if(!t(c=e.node,i=e.x0,a=e.y0,o=e.x1,s=e.y1)&&c.length){var

u=(i+o)/2,f=(a+s)/2;(n=c[3])&&l.push(new r(n,u,f,o,s)),(n=c[2])&&l.push(new r(n,i,f,u,s)),(n=c[1])&&l.push(new r(n,u,a,o,f)),(n=c[0])&&l.push(new r(n,i,a,u,f))}return this},l.visitAfter=function(t){var e,n=[],i=[];for(this._root&&n.push(new r(this._root,this._x0,this._y0,this._x1,this._y1));e=n.pop();){var a=e.node;if(a.length){var o,s=e.x0,l=e.y0,c=e.x1,u=e.y1,f=(s+c)/2,h=(l+u)/2;(o=a[0])&&n.push(new r(o,s,l,f,h)),(o=a[1])&&n.push(new r(o,f,l,c,h)),(o=a[2])&&n.push(new r(o,s,h,f,u)),(o=a[3])&&n.push(new r(o,f,h,c,u))}i.push(e)}for(;e=i.pop();)t(e.node,e.x0,e.y0,e.x1,e.y1);return this},l.x=function(t){return arguments.length?(this._x=t,this):this._x},l.y=function(t){return arguments.length?(this._y=t,this):this._y},t.quadtree=a,Object.defineProperty(t,"__esModule",{value:!0})}("object"==typeof r&&void 0!==e?r:(n=n||self).d3=n.d3||{})},{}],119:[function(t,e,r){var n,i;n=this,i=function(t,e){"use strict";function r(t){return function(){return t}}var n=Math.abs,i=Math.atan2,a=Math.cos,o=Math.max,s=Math.min,l=Math.sin,c=Math.sqrt,u=1e-12,f=Math.PI,h=f/2,p=2*f;function d(t){return t>1?0:t<-1?f:Math.acos(t)}function g(t){return t>=1?h:t<=-1?-h:Math.asin(t)}function v(t){return t.innerRadius}function m(t){return t.outerRadius}function y(t){return t.startAngle}function x(t){return t.endAngle}function b(t){return t&&t.padAngle}function _(t,e,r,n,i,a,o,s){var l=r-t,c=n-e,f=o-i,h=s-a,p=h*l-f*c;if(!(p*p<u))return[t+(p=(f*(e-a)-h*(t-i))/p)*l,e+p*c]}function w(t,e,r,n,i,a,s){var l=t-r,u=e-n,f=(s?a:-a)/c(l*l+u*u),h=f*u,p=-f*l,d=t+h,g=e+p,v=r+h,m=n+p,y=(d+v)/2,x=(g+m)/2,b=v-d,_=m-g,w=b*b+_*_,T=i-a,k=d*m-v*g,A=(_<0?-1:1)*c(o(0,T*T*w-k*k)),M=(k*_-b*A)/w,S=(-k*b-_*A)/w,E=(k*_+b*A)/w,L=(-k*b+_*A)/w,C=M-y,P=S-x,I=E-y,O=L-x;return C*C+P*P>I*I+O*O&&(M=E,S=L),{cx:M,cy:S,x01:-h,y01:-p,x11:M*(i/T-1),y11:S*(i/T-1)}}function T(t){this._context=t}function k(t){return new T(t)}function A(t){return t[0]}function M(t){return t[1]}function S(){var t=A,n=M,i=r(!0),a=null,o=k,s=null;function l(r){var l,c,u,f=r.length,h=!1;for(null==a&&(s=o(u=e.path())),l=0;l<=f;++l)!(l<f&&i(c=r[l],l,r))===h&&((h=!h)?s.lineStart():s.lineEnd()),h&&s.point(+t(c,l,r),+n(c,l,r));if(u)return s=null,u+""||null}return l.x=function(e){return arguments.length?(t="function"==typeof e?e:r(+e),l):t},l.y=function(t){return arguments.length?(n="function"==typeof t?t:r(+t),l):n},l.defined=function(t){return arguments.length?(i="function"==typeof t?t:r(!!t),l):i},l.curve=function(t){return arguments.length?(o=t,null!=a&&(s=o(a)),l):o},l.context=function(t){return arguments.length?(null==t?a=s=null:s=o(a=t),l):a},l}function E(){var t=A,n=null,i=r(0),a=M,o=r(!0),s=null,l=k,c=null;function u(r){var u,f,h,p,d,g=r.length,v=!1,m=new Array(g),y=new Array(g);for(null==s&&(c=l(d=e.path())),u=0;u<=g;++u){if(!(u<g&&o(p=r[u],u,r))===v)if(v=!v)f=u,c.areaStart(),c.lineStart();else{for(c.lineEnd(),c.lineStart(),h=u-1;h>=f;--h)c.point(m[h],y[h]);c.lineEnd(),c.areaEnd()}v&&(m[u]=+t(p,u,r),y[u]=+i(p,u,r),c.point(n?+n(p,u,r):m[u],a?+a(p,u,r):y[u]))}if(d)return c=null,d+""||null}function f(){return S().defined(o).curve(l).context(s)}return u.x=function(e){return arguments.length?(t="function"==typeof e?e:r(+e),n=null,u):t},u.x0=function(e){return arguments.length?(t="function"==typeof e?e:r(+e),u):t},u.x1=function(t){return arguments.length?(n=null==t?null:"function"==typeof t?t:r(+t),u):n},u.y=function(t){return arguments.length?(i="function"==typeof t?t:r(+t),a=null,u):i},u.y0=function(t){return arguments.length?(i="function"==typeof t?t:r(+t),u):i},u.y1=function(t){return arguments.length?(a=null==t?null:"function"==typeof t?t:r(+t),u):a},u.lineX0=u.lineY0=function(){return f().x(t).y(i)},u.lineY1=function(){return f().x(t).y(a)},u.lineX1=function(){return f().x(n).y(i)},u.defined=function(t){return arguments.length?(o="function"==typeof t?t:r(!!t),u):o},u.curve=function(t){return arguments.length?(l=t,null!=s&&(c=l(s)),u):l},u.context=function(t){return arguments.length?(null==t?s=c=null:c=l(s=t),u):s},u}function L(t,e){return e<t?-1:e>t?1:e>=t?0:NaN}function C(t){return t}T.prototype={areaStart:function(){this._line=0},areaEnd:function(){this._line=NaN},lineStart:function(){this._point=0},lineEnd:function(){(this._line||0!==this._line&&1===this._point)&&this._context.closePath(),this._line=1-this._line},point:function(t,e){switch(t=+t,e=+e,this._point){case

0:this._point=1,this._line?this._context.lineTo(t,e):this._context.moveTo(t,e);break;case 1:this._point=2;default:this._context.lineTo(t,e)}}};var P=O(k);function I(t){this._curve=t}function O(t){function e(e){return new I(t(e))}return e._curve=t,e}function z(t){var e=t.curve;return t.angle=t.x,delete t.x,t.radius=t.y,delete t.y,t.curve=function(t){return arguments.length?e(O(t)):e()._curve},t}function D(){return z(S().curve(P))}function R(){var t=E().curve(P),e=t.curve,r=t.lineX0,n=t.lineX1,i=t.lineY0,a=t.lineY1;return t.angle=t.x,delete t.x,t.startAngle=t.x0,delete t.x0,t.endAngle=t.x1,delete t.x1,t.radius=t.y,delete t.y,t.innerRadius=t.y0,delete t.y0,t.outerRadius=t.y1,delete t.y1,t.lineStartAngle=function(){return z(r())},delete t.lineX0,t.lineEndAngle=function(){return z(n())},delete t.lineX1,t.lineInnerRadius=function(){return z(i())},delete t.lineY0,t.lineOuterRadius=function(){return z(a())},delete t.lineY1,t.curve=function(t){return arguments.length?e(O(t)):e()._curve},t}function F(t,e){return[(e=+e)*Math.cos(t-=Math.PI/2),e*Math.sin(t)]}I.prototype={areaStart:function(){this._curve.areaStart()},areaEnd:function(){this._curve.areaEnd()},lineStart:function(){this._curve.lineStart()},lineEnd:function(){this._curve.lineEnd()},point:function(t,e){this._curve.point(e*Math.sin(t),e*-Math.cos(t))}};var B=Array.prototype.slice;function N(t){return t.source}function j(t){return t.target}function U(t){var n=N,i=j,a=A,o=M,s=null;function l(){var r,l=B.call(arguments),c=n.apply(this,l),u=i.apply(this,l);if(s||(s=r=e.path()),t(s,+a.apply(this,(l[0]=c,l)),+o.apply(this,l),+a.apply(this,(l[0]=u,l)),+o.apply(this,l)),r)return s=null,r+""||null}return l.source=function(t){return arguments.length?(n=t,l):n},l.target=function(t){return arguments.length?(i=t,l):i},l.x=function(t){return arguments.length?(a="function"==typeof t?t:r(+t),l):a},l.y=function(t){return arguments.length?(o="function"==typeof t?t:r(+t),l):o},l.context=function(t){return arguments.length?(s=null==t?null:t,l):s},l}function V(t,e,r,n,i){t.moveTo(e,r),t.bezierCurveTo(e=(e+n)/2,r,e,i,n,i)}function q(t,e,r,n,i){t.moveTo(e,r),t.bezierCurveTo(e,r=(r+i)/2,n,r,n,i)}function H(t,e,r,n,i){var a=F(e,r),o=F(e,r=(r+i)/2),s=F(n,r),l=F(n,i);t.moveTo(a[0],a[1]),t.bezierCurveTo(o[0],o[1],s[0],s[1],l[0],l[1])}var G={draw:function(t,e){var r=Math.sqrt(e/f);t.moveTo(r,0),t.arc(0,0,r,0,p)}},Y={draw:function(t,e){var r=Math.sqrt(e/5)/2;t.moveTo(-3*r,-r),t.lineTo(-r,-r),t.lineTo(-r,-3*r),t.lineTo(r,-3*r),t.lineTo(r,-r),t.lineTo(3*r,-r),t.lineTo(3*r,r),t.lineTo(r,r),t.lineTo(r,3*r),t.lineTo(-r,3*r),t.lineTo(-r,r),t.lineTo(-3*r,r),t.closePath()}},W=Math.sqrt(1/3),X=2*W,Z={draw:function(t,e){var r=Math.sqrt(e/X),n=r*W;t.moveTo(0,-r),t.lineTo(n,0),t.lineTo(0,r),t.lineTo(-n,0),t.closePath()}},J=Math.sin(f/10)/Math.sin(7*f/10),K=Math.sin(p/10)*J,Q=-Math.cos(p/10)*J,$={draw:function(t,e){var r=Math.sqrt(.8908130915292852*e),n=K*r,i=Q*r;t.moveTo(0,-r),t.lineTo(n,i);for(var a=1;a<5;++a){var o=p*a/5,s=Math.cos(o),l=Math.sin(o);t.lineTo(l*r,-s*r),t.lineTo(s*n-l*i,l*n+s*i)}t.closePath()}},tt={draw:function(t,e){var r=Math.sqrt(e),n=-r/2;t.rect(n,n,r,r)}},et=Math.sqrt(3),rt={draw:function(t,e){var r=-Math.sqrt(e/(3*et));t.moveTo(0,2*r),t.lineTo(-et*r,-r),t.lineTo(et*r,-r),t.closePath()}},nt=-.5,it=Math.sqrt(3)/2,at=1/Math.sqrt(12),ot=3*(at/2+1),st={draw:function(t,e){var r=Math.sqrt(e/ot),n=r/2,i=r*at,a=n,o=r*at+r,s=-a,l=o;t.moveTo(n,i),t.lineTo(a,o),t.lineTo(s,l),t.lineTo(nt*n-it*i,it*n+nt*i),t.lineTo(nt*a-it*o,it*a+nt*o),t.lineTo(nt*s-it*l,it*s+nt*l),t.lineTo(nt*n+it*i,nt*i-it*n),t.lineTo(nt*a+it*o,nt*o-it*a),t.lineTo(nt*s+it*l,nt*l-it*s),t.closePath()}},lt=[G,Y,Z,tt,$,rt,st];function ct(){}function ut(t,e,r){t._context.bezierCurveTo((2*t._x0+t._x1)/3,(2*t._y0+t._y1)/3,(t._x0+2*t._x1)/3,(t._y0+2*t._y1)/3,(t._x0+4*t._x1+e)/6,(t._y0+4*t._y1+r)/6)}function ft(t){this._context=t}function ht(t){this._context=t}function pt(t){this._context=t}function dt(t,e){this._basis=new ft(t),this._beta=e}ft.prototype={areaStart:function(){this._line=0},areaEnd:function(){this._line=NaN},lineStart:function(){this._x0=this._x1=this._y0=this._y1=NaN,this._point=0},lineEnd:function(){switch(this._point){case 3:ut(this,this._x1,this._y1);case 2:this._context.lineTo(this._x1,this._y1)}(this._line||0!==this._line&&1===this._point)&&this._context.closePath(),this._line=1-this._line},point:function(t,e){switch(t=+t,e=+e,this._point){case 0:this._point=1,this._line?this._context.lineTo(t,e):this._context.moveTo(t,e);break;case 1:this._point=2;break;case

2:this._point=3,this._context.lineTo((5*this._x0+this._x1)/6,(5*this._y0+this._y1)/6);default:ut(this,t,e)}this._x0=this._x1,this._x1=t,this._y0=this._y1,this._y1=e}},ht.prototype={areaStart:ct,areaEnd:ct,lineStart:function(){this._x0=this._x1=this._x2=this._x3=this._x4=this._y0=this._y1=this._y2=this._y3=this._y4=NaN,this._point=0},lineEnd:function(){switch(this._point){case 1:this._context.moveTo(this._x2,this._y2),this._context.closePath();break;case 2:this._context.moveTo((this._x2+2*this._x3)/3,(this._y2+2*this._y3)/3),this._context.lineTo((this._x3+2*this._x2)/3,(this._y3+2*this._y2)/3),this._context.closePath();break;case 3:this.point(this._x2,this._y2),this.point(this._x3,this._y3),this.point(this._x4,this._y4)}},point:function(t,e){switch(t=+t,e=+e,this._point){case 0:this._point=1,this._x2=t,this._y2=e;break;case 1:this._point=2,this._x3=t,this._y3=e;break;case 2:this._point=3,this._x4=t,this._y4=e,this._context.moveTo((this._x0+4*this._x1+t)/6,(this._y0+4*this._y1+e)/6);break;default:ut(this,t,e)}this._x0=this._x1,this._x1=t,this._y0=this._y1,this._y1=e}},pt.prototype={areaStart:function(){this._line=0},areaEnd:function(){this._line=NaN},lineStart:function(){this._x0=this._x1=this._y0=this._y1=NaN,this._point=0},lineEnd:function(){(this._line||0!==this._line&&3===this._point)&&this._context.closePath(),this._line=1-this._line},point:function(t,e){switch(t=+t,e=+e,this._point){case 0:this._point=1;break;case 1:this._point=2;break;case 2:this._point=3;var r=(this._x0+4*this._x1+t)/6,n=(this._y0+4*this._y1+e)/6;this._line?this._context.lineTo(r,n):this._context.moveTo(r,n);break;case 3:this._point=4;default:ut(this,t,e)}this._x0=this._x1,this._x1=t,this._y0=this._y1,this._y1=e}},dt.prototype={lineStart:function(){this._x=[],this._y=[],this._basis.lineStart()},lineEnd:function(){var t=this._x,e=this._y,r=t.length-1;if(r>0)for(var n,i=t[0],a=e[0],o=t[r]-i,s=e[r]-a,l=-1;++l<=r;)n=l/r,this._basis.point(this._beta*t[l]+(1-this._beta)*(i+n*o),this._beta*e[l]+(1-this._beta)*(a+n*s));this._x=this._y=null,this._basis.lineEnd()},point:function(t,e){this._x.push(+t),this._y.push(+e)}};var gt=function t(e){function r(t){return 1===e?new ft(t):new dt(t,e)}return r.beta=function(e){return t(+e)},r}(.85);function vt(t,e,r){t._context.bezierCurveTo(t._x1+t._k*(t._x2-t._x0),t._y1+t._k*(t._y2-t._y0),t._x2+t._k*(t._x1-e),t._y2+t._k*(t._y1-r),t._x2,t._y2)}function mt(t,e){this._context=t,this._k=(1-e)/6}mt.prototype={areaStart:function(){this._line=0},areaEnd:function(){this._line=NaN},lineStart:function(){this._x0=this._x1=this._x2=this._y0=this._y1=this._y2=NaN,this._point=0},lineEnd:function(){switch(this._point){case 2:this._context.lineTo(this._x2,this._y2);break;case 3:vt(this,this._x1,this._y1)}(this._line||0!==this._line&&1===this._point)&&this._context.closePath(),this._line=1-this._line},point:function(t,e){switch(t=+t,e=+e,this._point){case 0:this._point=1,this._line?this._context.lineTo(t,e):this._context.moveTo(t,e);break;case 1:this._point=2,this._x1=t,this._y1=e;break;case 2:this._point=3;default:vt(this,t,e)}this._x0=this._x1,this._x1=this._x2,this._x2=t,this._y0=this._y1,this._y1=this._y2,this._y2=e}};var yt=function t(e){function r(t){return new mt(t,e)}return r.tension=function(e){return t(+e)},r}(0);function xt(t,e){this._context=t,this._k=(1-e)/6}xt.prototype={areaStart:ct,areaEnd:ct,lineStart:function(){this._x0=this._x1=this._x2=this._x3=this._x4=this._x5=this._y0=this._y1=this._y2=this._y3=this._y4=this._y5=NaN,this._point=0},lineEnd:function(){switch(this._point){case 1:this._context.moveTo(this._x3,this._y3),this._context.closePath();break;case 2:this._context.lineTo(this._x3,this._y3),this._context.closePath();break;case 3:this.point(this._x3,this._y3),this.point(this._x4,this._y4),this.point(this._x5,this._y5)}},point:function(t,e){switch(t=+t,e=+e,this._point){case 0:this._point=1,this._x3=t,this._y3=e;break;case 1:this._point=2,this._context.moveTo(this._x4=t,this._y4=e);break;case 2:this._point=3,this._x5=t,this._y5=e;break;default:vt(this,t,e)}this._x0=this._x1,this._x1=this._x2,this._x2=t,this._y0=this._y1,this._y1=this._y2,this._y2=e}};var bt=function t(e){function r(t){return new xt(t,e)}return r.tension=function(e){return t(+e)},r}(0);function _t(t,e){this._context=t,this._k=(1-e)/6}_t.prototype={areaStart:function(){this._line=0},areaEnd:function(){this._line=NaN},lineStart:function(){this._x0=this._x1=this._x2=this._y0=this._y1=this._y2=NaN,this._point=0},lineEnd:function(){(this._line||0!==this._line&&3===this._point)&&this._context.closePath(),this._line=1-

this._line},point:function(t,e){switch(t=+t,e=+e,this._point){case 0:this._point=1;break;case 1:this._point=2;break;case 2:this._point=3,this._line?this._context.lineTo(this._x2,this._y2):this._context.moveTo(this._x2,this._y2);break;case 3:this._point=4;default:vt(this,t,e)}this._x0=this._x1,this._x1=this._x2,this._x2=t,this._y0=this._y1,this._y1=this._y2,this._y2=e}};var wt=function t(e){function r(t){return new _t(t,e)}return r.tension=function(e){return t(+e)},r}(0);function Tt(t,e,r){var n=t._x1,i=t._y1,a=t._x2,o=t._y2;if(t._l01_a>u){var s=2*t._l01_2a+3*t._l01_a*t._l12_a+t._l12_2a,l=3*t._l01_a*(t._l01_a+t._l12_a);n=(n*s-t._x0*t._l12_2a+t._x2*t._l01_2a)/l,i=(i*s-t._y0*t._l12_2a+t._y2*t._l01_2a)/l}if(t._l23_a>u){var c=2*t._l23_2a+3*t._l23_a*t._l12_a+t._l12_2a,f=3*t._l23_a*(t._l23_a+t._l12_a);a=(a*c+t._x1*t._l23_2a-e*t._l12_2a)/f,o=(o*c+t._y1*t._l23_2a-r*t._l12_2a)/f}t._context.bezierCurveTo(n,i,a,o,t._x2,t._y2)}function kt(t,e){this._context=t,this._alpha=e}kt.prototype={areaStart:function(){this._line=0},areaEnd:function(){this._line=NaN},lineStart:function(){this._x0=this._x1=this._x2=this._y0=this._y1=this._y2=NaN,this._l01_a=this._l12_a=this._l23_a=this._l01_2a=this._l12_2a=this._l23_2a=this._point=0},lineEnd:function(){switch(this._point){case 2:this._context.lineTo(this._x2,this._y2);break;case 3:this.point(this._x2,this._y2)}(this._line||0!==this._line&&1===this._point)&&this._context.closePath(),this._line=1-this._line},point:function(t,e){if(t=+t,e=+e,this._point){var r=this._x2-t,n=this._y2-e;this._l23_a=Math.sqrt(this._l23_2a=Math.pow(r*r+n*n,this._alpha))}switch(this._point){case 0:this._point=1,this._line?this._context.lineTo(t,e):this._context.moveTo(t,e);break;case 1:this._point=2;break;case 2:this._point=3;default:Tt(this,t,e)}this._l01_a=this._l12_a,this._l12_a=this._l23_a,this._l01_2a=this._l12_2a,this._l12_2a=this._l23_2a,this._x0=this._x1,this._x1=this._x2,this._x2=t,this._y0=this._y1,this._y1=this._y2,this._y2=e}};var At=function t(e){function r(t){return e?new kt(t,e):new mt(t,0)}return r.alpha=function(e){return t(+e)},r}(.5);function Mt(t,e){this._context=t,this._alpha=e}Mt.prototype={areaStart:ct,areaEnd:ct,lineStart:function(){this._x0=this._x1=this._x2=this._x3=this._x4=this._x5=this._y0=this._y1=this._y2=this._y3=this._y4=this._y5=NaN,this._l01_a=this._l12_a=this._l23_a=this._l01_2a=this._l12_2a=this._l23_2a=this._point=0},lineEnd:function(){switch(this._point){case 1:this._context.moveTo(this._x3,this._y3),this._context.closePath();break;case 2:this._context.lineTo(this._x3,this._y3),this._context.closePath();break;case 3:this.point(this._x3,this._y3),this.point(this._x4,this._y4),this.point(this._x5,this._y5)}},point:function(t,e){if(t=+t,e=+e,this._point){var r=this._x2-t,n=this._y2-e;this._l23_a=Math.sqrt(this._l23_2a=Math.pow(r*r+n*n,this._alpha))}switch(this._point){case 0:this._point=1,this._x3=t,this._y3=e;break;case 1:this._point=2,this._context.moveTo(this._x4=t,this._y4=e);break;case 2:this._point=3,this._x5=t,this._y5=e;break;default:Tt(this,t,e)}this._l01_a=this._l12_a,this._l12_a=this._l23_a,this._l01_2a=this._l12_2a,this._l12_2a=this._l23_2a,this._x0=this._x1,this._x1=this._x2,this._x2=t,this._y0=this._y1,this._y1=this._y2,this._y2=e}};var St=function t(e){function r(t){return e?new Mt(t,e):new xt(t,0)}return r.alpha=function(e){return t(+e)},r}(.5);function Et(t,e){this._context=t,this._alpha=e}Et.prototype={areaStart:function(){this._line=0},areaEnd:function(){this._line=NaN},lineStart:function(){this._x0=this._x1=this._x2=this._y0=this._y1=this._y2=NaN,this._l01_a=this._l12_a=this._l23_a=this._l01_2a=this._l12_2a=this._l23_2a=this._point=0},lineEnd:function(){(this._line||0!==this._line&&3===this._point)&&this._context.closePath(),this._line=1-this._line},point:function(t,e){if(t=+t,e=+e,this._point){var r=this._x2-t,n=this._y2-e;this._l23_a=Math.sqrt(this._l23_2a=Math.pow(r*r+n*n,this._alpha))}switch(this._point){case 0:this._point=1;break;case 1:this._point=2;break;case 2:this._point=3,this._line?this._context.lineTo(this._x2,this._y2):this._context.moveTo(this._x2,this._y2);break;case 3:this._point=4;default:Tt(this,t,e)}this._l01_a=this._l12_a,this._l12_a=this._l23_a,this._l01_2a=this._l12_2a,this._l12_2a=this._l23_2a,this._x0=this._x1,this._x1=this._x2,this._x2=t,this._y0=this._y1,this._y1=this._y2,this._y2=e}};var Lt=function t(e){function r(t){return e?new Et(t,e):new _t(t,0)}return r.alpha=function(e){return t(+e)},r}(.5);function Ct(t){this._context=t}function Pt(t){return t<0?-1:1}function It(t,e,r){var n=t._x1-t._x0,i=e-

t._x1,a=(t._y1-t._y0)/(n||i<0&&-0),o=(r-t._y1)/(i||n<0&&-0),s=(a*i+o*n)/(n+i);return(Pt(a)+Pt(o))*Math.min(Math.abs(a),Math.abs(o),.5*Math.abs(s))||0}function Ot(t,e){var r=t._x1-t._x0;return r?(3*(t._y1-t._y0)/r-e)/2:e}function zt(t,e,r){var n=t._x0,i=t._y0,a=t._x1,o=t._y1,s=(a-n)/3;t._context.bezierCurveTo(n+s,i+s*e,a-s,o-s*r,a,o)}function Dt(t){this._context=t}function Rt(t){this._context=new Ft(t)}function Ft(t){this._context=t}function Bt(t){this._context=t}function Nt(t){var e,r,n=t.length-1,i=new Array(n),a=new Array(n),o=new Array(n);for(i[0]=0,a[0]=2,o[0]=t[0]+2*t[1],e=1;e<n-1;++e)i[e]=1,a[e]=4,o[e]=4*t[e]+2*t[e+1];for(i[n-1]=2,a[n-1]=7,o[n-1]=8*t[n-1]+t[n],e=1;e<n;++e)r=i[e]/a[e-1],a[e]-=r,o[e]-=r*o[e-1];for(i[n-1]=o[n-1]/a[n-1],e=n-2;e>=0;--e)i[e]=(o[e]-i[e+1])/a[e];for(a[n-1]=(t[n]+i[n-1])/2,e=0;e<n-1;++e)a[e]=2*t[e+1]-i[e+1];return[i,a]}function jt(t,e){this._context=t,this._t=e}function Ut(t,e){if((i=t.length)>1)for(var r,n,i,a=1,o=t[e[0]],s=o.length;a<i;++a)for(n=o,o=t[e[a]],r=0;r<s;++r)o[r][1]+=o[r][0]=isNaN(n[r][1])?n[r][0]:n[r][1]}function Vt(t){for(var e=t.length,r=new Array(e);--e>=0;)r[e]=e;return r}function qt(t,e){return t[e]}function Ht(t){var e=t.map(Gt);return Vt(t).sort((function(t,r){return e[t]-e[r]}))}function Gt(t){for(var e,r=-1,n=0,i=t.length,a=-1/0;++r<i;)(e=+t[r][1])>a&&(a=e,n=r);return n}function Yt(t){var e=t.map(Wt);return Vt(t).sort((function(t,r){return e[t]-e[r]}))}function Wt(t){for(var e,r=0,n=-1,i=t.length;++n<i;)(e=+t[n][1])&&(r+=e);return r}Ct.prototype={areaStart:ct,areaEnd:ct,lineStart:function(){this._point=0},lineEnd:function(){this._point&&this._context.closePath()},point:function(t,e){t=+t,e=+e,this._point?this._context.lineTo(t,e):(this._point=1,this._context.moveTo(t,e))}},Dt.prototype={areaStart:function(){this._line=0},areaEnd:function(){this._line=NaN},lineStart:function(){this._x0=this._x1=this._y0=this._y1=this._t0=NaN,this._point=0},lineEnd:function(){switch(this._point){case 2:this._context.lineTo(this._x1,this._y1);break;case 3:zt(this,this._t0,Ot(this,this._t0))}(this._line||0!==this._line&&1===this._point)&&this._context.closePath(),this._line=1-this._line},point:function(t,e){var r=NaN;if(e=+e,(t=+t)!==this._x1||e!==this._y1){switch(this._point){case 0:this._point=1,this._line?this._context.lineTo(t,e):this._context.moveTo(t,e);break;case 1:this._point=2;break;case 2:this._point=3,zt(this,Ot(this,r=It(this,t,e)),r);break;default:zt(this,this._t0,r=It(this,t,e))}this._x0=this._x1,this._x1=t,this._y0=this._y1,this._y1=e,this._t0=r}}},(Rt.prototype=Object.create(Dt.prototype)).point=function(t,e){Dt.prototype.point.call(this,e,t)},Ft.prototype={moveTo:function(t,e){this._context.moveTo(e,t)},closePath:function(){this._context.closePath()},lineTo:function(t,e){this._context.lineTo(e,t)},bezierCurveTo:function(t,e,r,n,i,a){this._context.bezierCurveTo(e,t,n,r,a,i)}},Bt.prototype={areaStart:function(){this._line=0},areaEnd:function(){this._line=NaN},lineStart:function(){this._x=[],this._y=[]},lineEnd:function(){var t=this._x,e=this._y,r=t.length;if(r)if(this._line?this._context.lineTo(t[0],e[0]):this._context.moveTo(t[0],e[0]),2===r)this._context.lineTo(t[1],e[1]);else for(var n=Nt(t),i=Nt(e),a=0,o=1;o<r;++a,++o)this._context.bezierCurveTo(n[0][a],i[0][a],n[1][a],i[1][a],t[o],e[o]);(this._line||0!==this._line&&1===r)&&this._context.closePath(),this._line=1-this._line,this._x=this._y=null},point:function(t,e){this._x.push(+t),this._y.push(+e)}},jt.prototype={areaStart:function(){this._line=0},areaEnd:function(){this._line=NaN},lineStart:function(){this._x=this._y=NaN,this._point=0},lineEnd:function(){0<this._t&&this._t<1&&2===this._point&&this._context.lineTo(this._x,this._y),(this._line||0!==this._line&&1===this._point)&&this._context.closePath(),this._line>=0&&(this._t=1-this._t,this._line=1-this._line)},point:function(t,e){switch(t=+t,e=+e,this._point){case 0:this._point=1,this._line?this._context.lineTo(t,e):this._context.moveTo(t,e);break;case 1:this._point=2;default:if(this._t<=0)this._context.lineTo(this._x,e),this._context.lineTo(t,e);else{var r=this._x*(1-this._t)+t*this._t;this._context.lineTo(r,this._y),this._context.lineTo(r,e)}this._x=t,this._y=e}},t.arc=function(){var t=v,o=m,T=r(0),k=null,A=y,M=x,S=b,E=null;function L(){var r,v,m=+t.apply(this,arguments),y=+o.apply(this,arguments),x=A.apply(this,arguments)-h,b=M.apply(this,arguments)-h,L=n(b-x),C=b>x;if(E||(E=r=e.path()),y<m&&(v=y,y=m,m=v),y>u)if(L>p-u)E.moveTo(y*a(x),y*l(x)),E.arc(0,0,y,x,b,!C),m>u&&(E.moveTo(m*a(b),m*l(b)),E.arc(0,0,m,b,x,C));else{var P,I,O=x,z=b,D=x,R=b,F=L,B=L,N=S.apply(this,arguments)/2,j=N>u&&(k?+k.apply(this,arguments):c(m*m+y*y)),U=s(n(y-m)/2,+T.apply(this,arguments)),V=U,q=U;if(j>u){var H=g(j/m*l(N)),G=g(j/y*l(N));(F-

=2*H)>u?(D+=H*=C?1:-1,R-=H):(F=0,D=R=(x+b)/2),(B-=2*G)>u?(O+=G*=C?1:-1,z-
=G):(B=0,O=z=(x+b)/2)}var Y=y*a(O),W=y*l(O),X=m*a(R),Z=m*l(R);if(U>u){var
J,K=y*a(z),Q=y*l(z),$=m*a(D),tt=m*l(D);if(L<f&&(J=_(Y,W,$,tt,K,Q,X,Z))){var et=Y-J[0],rt=W-J[1],nt=K-
J[0],it=Q-J[1],at=1/l(d((et*nt+rt*it)/(c(et*et+rt*rt)*c(nt*nt+it*it)))/2),ot=c(J[0]*J[0]+J[1]*J[1]);V=s(U,(m-ot)/(at-
1)),q=s(U,(y-
ot)/(at+1))}}B>u?q>u?(P=w($,tt,Y,W,y,q,C),I=w(K,Q,X,Z,y,q,C),E.moveTo(P.cx+P.x01,P.cy+P.y01),q<U?E.arc(P
.cx,P.cy,q,i(P.y01,P.x01),i(I.y01,I.x01),!C):(E.arc(P.cx,P.cy,q,i(P.y01,P.x01),i(P.y11,P.x11),!C),E.arc(0,0,y,i(P.cy+
P.y11,P.cx+P.x11),i(I.cy+I.y11,I.cx+I.x11),!C),E.arc(I.cx,I.cy,q,i(I.y11,I.x11),i(I.y01,I.x01),!C))):(E.moveTo(Y,W),
E.arc(0,0,y,O,z,!C)):E.moveTo(Y,W),m>u&&F>u?V>u?(P=w(X,Z,K,Q,m,-V,C),I=w(Y,W,$,tt,m,-
V,C),E.lineTo(P.cx+P.x01,P.cy+P.y01),V<U?E.arc(P.cx,P.cy,V,i(P.y01,P.x01),i(I.y01,I.x01),!C):(E.arc(P.cx,P.cy,V
,i(P.y01,P.x01),i(P.y11,P.x11),!C),E.arc(0,0,m,i(P.cy+P.y11,P.cx+P.x11),i(I.cy+I.y11,I.cx+I.x11),C),E.arc(I.cx,I.cy,
V,i(I.y11,I.x11),i(I.y01,I.x01),!C))):E.arc(0,0,m,R,D,C):E.lineTo(X,Z)}else E.moveTo(0,0);if(E.closePath(),r)return
E=null,r+""||null}return L.centroid=function(){var e=(+t.apply(this,arguments)+
+o.apply(this,arguments))/2,r=(+A.apply(this,arguments)+ +M.apply(this,arguments))/2-
f/2;return[a(r)*e,l(r)*e]},L.innerRadius=function(e){return arguments.length?(t="function"==typeof
e?e:r(+e),L):t},L.outerRadius=function(t){return arguments.length?(o="function"==typeof
t?t:r(+t),L):o},L.cornerRadius=function(t){return arguments.length?(T="function"==typeof
t?t:r(+t),L):T},L.padRadius=function(t){return arguments.length?(k=null==t?null:"function"==typeof
t?t:r(+t),L):k},L.startAngle=function(t){return arguments.length?(A="function"==typeof
t?t:r(+t),L):A},L.endAngle=function(t){return arguments.length?(M="function"==typeof
t?t:r(+t),L):M},L.padAngle=function(t){return arguments.length?(S="function"==typeof
t?t:r(+t),L):S},L.context=function(t){return
arguments.length?(E=null==t?null:t,L):E},L},t.area=E,t.areaRadial=R,t.curveBasis=function(t){return new
ft(t)},t.curveBasisClosed=function(t){return new ht(t)},t.curveBasisOpen=function(t){return new
pt(t)},t.curveBundle=gt,t.curveCardinal=yt,t.curveCardinalClosed=bt,t.curveCardinalOpen=wt,t.curveCatmullRom=
At,t.curveCatmullRomClosed=St,t.curveCatmullRomOpen=Lt,t.curveLinear=k,t.curveLinearClosed=function(t){ret
urn new Ct(t)},t.curveMonotoneX=function(t){return new Dt(t)},t.curveMonotoneY=function(t){return new
Rt(t)},t.curveNatural=function(t){return new Bt(t)},t.curveStep=function(t){return new
jt(t,.5)},t.curveStepAfter=function(t){return new jt(t,1)},t.curveStepBefore=function(t){return new
jt(t,0)},t.line=S,t.lineRadial=D,t.linkHorizontal=function(){return U(V)},t.linkRadial=function(){var t=U(H);return
t.angle=t.x,delete t.x,t.radius=t.y,delete t.y,t},t.linkVertical=function(){return U(q)},t.pie=function(){var
t=C,e=L,n=null,i=r(0),a=r(p),o=r(0);function s(r){var s,l,c,u,f,h=r.length,d=0,g=new Array(h),v=new
Array(h),m=+i.apply(this,arguments),y=Math.min(p,Math.max(-p,a.apply(this,arguments)-
m)),x=Math.min(Math.abs(y)/h,o.apply(this,arguments)),b=x*(y<0?-
1:1);for(s=0;s<h;++s)(f=v[g[s]=s]=+t(r[s],s,r))>0&&(d+=f);for(null!=e?g.sort((function(t,r){return
e(v[t],v[r])})):null!=n&&g.sort((function(t,e){return n(r[t],r[e])})),s=0,c=d?(y-
h*b)/d:0;s<h;++s,m=u)l=g[s],u=m+((f=v[l])>0?f*c:0)+b,v[l]={data:r[l],index:s,value:f,startAngle:m,endAngle:u,pa
dAngle:x};return v}return s.value=function(e){return arguments.length?(t="function"==typeof
e?e:r(+e),s):t},s.sortValues=function(t){return arguments.length?(e=t,n=null,s):e},s.sort=function(t){return
arguments.length?(n=t,e=null,s):n},s.startAngle=function(t){return arguments.length?(i="function"==typeof
t?t:r(+t),s):i},s.endAngle=function(t){return arguments.length?(a="function"==typeof
t?t:r(+t),s):a},s.padAngle=function(t){return arguments.length?(o="function"==typeof
t?t:r(+t),s):o},s},t.pointRadial=F,t.radialArea=R,t.radialLine=D,t.stack=function(){var
t=r([]),e=Vt,n=Ut,i=qt;function a(r){var a,o,s=t.apply(this,arguments),l=r.length,c=s.length,u=new
Array(c);for(a=0;a<c;++a){for(var f,h=s[a],p=u[a]=new
Array(l),d=0;d<l;++d)p[d]=f=[0,+i(r[d],h,d,r)],f.data=r[d];p.key=h}for(a=0,o=e(u);a<c;++a)u[o[a]].index=a;return
n(u,o),u}return a.keys=function(e){return arguments.length?(t="function"==typeof
e?e:r(B.call(e)),a):t},a.value=function(t){return arguments.length?(i="function"==typeof

t?t:r(+t),a):i},a.order=function(t){return arguments.length?(e=null==t?Vt:"function"==typeof t?t:r(B.call(t)),a):e},a.offset=function(t){return arguments.length?(n=null==t?Ut:t,a):n},a},t.stackOffsetDiverging=function(t,e){if((s=t.length)>0)for(var r,n,i,a,o,s,l=0,c=t[e[0]].length;l<c;++l)for(a=o=0,r=0;r<s;++r)(i=(n=t[e[r]][l])[1]-n[0])>0?(n[0]=a,n[1]=a+=i):i<0?(n[1]=o,n[0]=o+=i):(n[0]=0,n[1]=i)},t.stackOffsetExpand=function(t,e){if((n=t.length)>0){for(var r,n,i,a=0,o=t[0].length;a<o;++a){for(i=r=0;r<n;++r)i+=t[r][a][1]||0;if(i)for(r=0;r<n;++r)t[r][a][1]/=i}Ut(t,e)}},t.stackOffsetNone=Ut,t.stackOffsetSilhouette=function(t,e){if((r=t.length)>0){for(var r,n=0,i=t[e[0]],a=i.length;n<a;++n){for(var o=0,s=0;o<r;++o)s+=t[o][n][1]||0;i[n][1]+=i[n][0]=-s/2}Ut(t,e)}},t.stackOffsetWiggle=function(t,e){if((i=t.length)>0&&(n=(r=t[e[0]]).length)>0){for(var r,n,i,a=0,o=1;o<n;++o){for(var s=0,l=0,c=0;s<i;++s){for(var u=t[e[s]],f=u[o][1]||0,h=(f-(u[o-1][1]||0))/2,p=0;p<s;++p){var d=t[e[p]];h+=(d[o][1]||0)-(d[o-1][1]||0)}l+=f,c+=h*f}r[o-1][1]+=r[o-1][0]=a,l&&(a-=c/l)}r[o-1][1]+=r[o-1][0]=a,Ut(t,e)}},t.stackOrderAppearance=Ht,t.stackOrderAscending=Yt,t.stackOrderDescending=function(t){return Yt(t).reverse()},t.stackOrderInsideOut=function(t){var e,r,n=t.length,i=t.map(Wt),a=Ht(t),o=0,s=0,l=[],c=[];for(e=0;e<n;++e)r=a[e],o<s?(o+=i[r],l.push(r)):(s+=i[r],c.push(r));return c.reverse().concat(l)},t.stackOrderNone=Vt,t.stackOrderReverse=function(t){return Vt(t).reverse()},t.symbol=function(){var t=r(G),n=r(64),i=null;function a(){var r;if(i||(i=r=e.path()),t.apply(this,arguments).draw(i,+n.apply(this,arguments)),r)return i=null,r+""||null}return a.type=function(e){return arguments.length?(t="function"==typeof e?e:r(e),a):t},a.size=function(t){return arguments.length?(n="function"==typeof t?t:r(+t),a):n},a.context=function(t){return arguments.length?(i=null==t?null:t,a):i},a},t.symbolCircle=G,t.symbolCross=Y,t.symbolDiamond=Z,t.symbolSquare=tt,t.symbolStar=$,t.symbolTriangle=rt,t.symbolWye=st,t.symbols=lt,Object.defineProperty(t,"__esModule",{value:!0})},"object"==typeof r&&void 0!==e?i(r,t("d3-path")):i((n=n||self).d3=n.d3||{},n.d3)},{"d3-path":117}],120:[function(t,e,r){var n,i;n=this,i=function(t,e){"use strict";function r(t){if(0<=t.y&&t.y<100){var e=new Date(-1,t.m,t.d,t.H,t.M,t.S,t.L);return e.setFullYear(t.y),e}return new Date(t.y,t.m,t.d,t.H,t.M,t.S,t.L)}function n(t){if(0<=t.y&&t.y<100){var e=new Date(Date.UTC(-1,t.m,t.d,t.H,t.M,t.S,t.L));return e.setUTCFullYear(t.y),e}return new Date(Date.UTC(t.y,t.m,t.d,t.H,t.M,t.S,t.L))}function i(t,e,r){return{y:t,m:e,d:r,H:0,M:0,S:0,L:0}}function a(t){var a=t.dateTime,o=t.date,l=t.time,c=t.periods,u=t.days,f=t.shortDays,h=t.months,yt=t.shortMonths,xt=p(c),bt=d(c),_t=p(u),wt=d(u),Tt=p(f),kt=d(f),At=p(h),Mt=d(h),St=p(yt),Et=d(yt),Lt={a:function(t){return f[t.getDay()]},A:function(t){return u[t.getDay()]},b:function(t){return yt[t.getMonth()]},B:function(t){return h[t.getMonth()]},c:null,d:D,e:D,f:j,H:R,I:F,j:B,L:N,m:U,M:V,p:function(t){return c[+(t.getHours()>=12)]},q:function(t){return 1+~~(t.getMonth()/3)},Q:vt,s:mt,S:q,u:H,U:G,V:Y,w:W,W:X,x:null,X:null,y:Z,Y:J,Z:K,"%":gt},Ct={a:function(t){return f[t.getUTCDay()]},A:function(t){return u[t.getUTCDay()]},b:function(t){return yt[t.getUTCMonth()]},B:function(t){return h[t.getUTCMonth()]},c:null,d:Q,e:Q,f:nt,H:$,I:tt,j:et,L:rt,m:it,M:at,p:function(t){return c[+(t.getUTCHours()>=12)]},q:function(t){return 1+~~(t.getUTCMonth()/3)},Q:vt,s:mt,S:ot,u:st,U:lt,V:ct,w:ut,W:ft,x:null,X:null,y:ht,Y:pt,Z:dt,"%":gt},Pt={a:function(t,e,r){var n=Tt.exec(e.slice(r));return n?(t.w=kt[n[0].toLowerCase()],r+n[0].length):-1},A:function(t,e,r){var n=_t.exec(e.slice(r));return n?(t.w=wt[n[0].toLowerCase()],r+n[0].length):-1},b:function(t,e,r){var n=St.exec(e.slice(r));return n?(t.m=Et[n[0].toLowerCase()],r+n[0].length):-1},B:function(t,e,r){var n=At.exec(e.slice(r));return n?(t.m=Mt[n[0].toLowerCase()],r+n[0].length):-1},c:function(t,e,r){return zt(t,a,e,r)},d:A,e:A,f:P,H:S,I:S,j:M,L:C,m:k,M:E,p:function(t,e,r){var n=xt.exec(e.slice(r));return n?(t.p=bt[n[0].toLowerCase()],r+n[0].length):-1},q:T,Q:O,s:z,S:L,u:v,U:m,V:y,w:g,W:x,x:function(t,e,r){return zt(t,o,e,r)},X:function(t,e,r){return zt(t,l,e,r)},y:_,Y:b,Z:w,"%":I};function It(t,e){return function(r){var n,i,a,o=[],l=-1,c=0,u=t.length;for(r instanceof Date||(r=new

Date(+r));++l<u;)37===t.charCodeAt(l)&&(o.push(t.slice(c,l)),null!=(i=s[n=t.charAt(++l)])?n=t.charAt(++l):i="e"===n?" ":"0",(a=e[n])&&(n=a(r,i)),o.push(n),c=l+1);return o.push(t.slice(c,l)),o.join("")}}function Ot(t,a){return function(o){var s,l,c=i(1900,void 0,1);if(zt(c,t,o+="",0)!=o.length)return null;if("Q"in c)return new Date(c.Q);if("s"in c)return new Date(1e3*c.s+("L"in c?c.L:0));if(a&&!("Z"in c)&&(c.Z=0),"p"in c&&(c.H=c.H%12+12*c.p),void 0===c.m&&(c.m="q"in c?c.q:0),"V"in c){if(c.V<1||c.V>53)return null;"w"in c||(c.w=1),"Z"in c?(l=(s=n(i(c.y,0,1))).getUTCDay(),s=l>4||0===l?e.utcMonday.ceil(s):e.utcMonday(s),s=e.utcDay.offset(s,7*(c.V-1)),c.y=s.getUTCFullYear(),c.m=s.getUTCMonth(),c.d=s.getUTCDate()+(c.w+6)%7):(l=(s=r(i(c.y,0,1))).getDay(),s=l>4||0===l?e.timeMonday.ceil(s):e.timeMonday(s),s=e.timeDay.offset(s,7*(c.V-1)),c.y=s.getFullYear(),c.m=s.getMonth(),c.d=s.getDate()+(c.w+6)%7)}else("W"in c||"U"in c)&&("w"in c||(c.w="u"in c?c.u%7:"W"in c?1:0),l="Z"in c?n(i(c.y,0,1)).getUTCDay():r(i(c.y,0,1)).getDay(),c.m=0,c.d="W"in c?(c.w+6)%7+7*c.W-(l+5)%7:c.w+7*c.U-(l+6)%7);return"Z"in c?(c.H+=c.Z/100|0,c.M+=c.Z%100,n(c)):r(c)}}function zt(t,e,r,n){for(var i,a,o=0,l=e.length,c=r.length;o<l;){if(n>=c)return-1;if(37===(i=e.charCodeAt(o++))){if(i=e.charAt(o++),!(a=Pt[i in s?e.charAt(o++):i])||(n=a(t,r,n))<0)return-1}else if(i!=r.charCodeAt(n++))return-1}return n}return Lt.x=It(o,Lt),Lt.X=It(l,Lt),Lt.c=It(a,Lt),Ct.x=It(o,Ct),Ct.X=It(l,Ct),Ct.c=It(a,Ct),{format:function(t){var e=It(t+="",Lt);return e.toString=function(){return t},e},parse:function(t){var e=Ot(t+="",!1);return e.toString=function(){return t},e},utcFormat:function(t){var e=It(t+="",Ct);return e.toString=function(){return t},e},utcParse:function(t){var e=Ot(t+="",!0);return e.toString=function(){return t},e}}}var o,s={"-":"",_:" ",0:"0"},l=/^\s*\d+/,c=/^%/,u=/[\\^$*+?|[\](){}]/g;function f(t,e,r){var n=t<0?"-":"",i=(n?-t:t)+"",a=i.length;return n+(a<r?new Array(r-a+1).join(e)+i:i)}function h(t){return t.replace(u,"\\$&")}function p(t){return new RegExp("^(?:"+t.map(h).join("|")+")","i")}function d(t){for(var e={},r=-1,n=t.length;++r<n;)e[t[r].toLowerCase()]=r;return e}function g(t,e,r){var n=l.exec(e.slice(r,r+1));return n?(t.w=+n[0],r+n[0].length):-1}function v(t,e,r){var n=l.exec(e.slice(r,r+1));return n?(t.u=+n[0],r+n[0].length):-1}function m(t,e,r){var n=l.exec(e.slice(r,r+2));return n?(t.U=+n[0],r+n[0].length):-1}function y(t,e,r){var n=l.exec(e.slice(r,r+2));return n?(t.V=+n[0],r+n[0].length):-1}function x(t,e,r){var n=l.exec(e.slice(r,r+2));return n?(t.W=+n[0],r+n[0].length):-1}function b(t,e,r){var n=l.exec(e.slice(r,r+4));return n?(t.y=+n[0],r+n[0].length):-1}function _(t,e,r){var n=l.exec(e.slice(r,r+2));return n?(t.y=+n[0]+(+n[0]>68?1900:2e3),r+n[0].length):-1}function w(t,e,r){var n=/^(Z)|([+-]\d\d)(?::?(\d\d))?/.exec(e.slice(r,r+6));return n?(t.Z=n[1]?0:-(n[2]+(n[3]||"00")),r+n[0].length):-1}function T(t,e,r){var n=l.exec(e.slice(r,r+1));return n?(t.q=3*n[0]-3,r+n[0].length):-1}function k(t,e,r){var n=l.exec(e.slice(r,r+2));return n?(t.m=n[0]-1,r+n[0].length):-1}function A(t,e,r){var n=l.exec(e.slice(r,r+2));return n?(t.d=+n[0],r+n[0].length):-1}function M(t,e,r){var n=l.exec(e.slice(r,r+3));return n?(t.m=0,t.d=+n[0],r+n[0].length):-1}function S(t,e,r){var n=l.exec(e.slice(r,r+2));return n?(t.H=+n[0],r+n[0].length):-1}function E(t,e,r){var n=l.exec(e.slice(r,r+2));return n?(t.M=+n[0],r+n[0].length):-1}function L(t,e,r){var n=l.exec(e.slice(r,r+2));return n?(t.S=+n[0],r+n[0].length):-1}function C(t,e,r){var n=l.exec(e.slice(r,r+3));return n?(t.L=+n[0],r+n[0].length):-1}function P(t,e,r){var n=l.exec(e.slice(r,r+6));return n?(t.L=Math.floor(n[0]/1e3),r+n[0].length):-1}function I(t,e,r){var n=c.exec(e.slice(r,r+1));return n?r+n[0].length:-1}function O(t,e,r){var n=l.exec(e.slice(r));return n?(t.Q=+n[0],r+n[0].length):-1}function z(t,e,r){var n=l.exec(e.slice(r));return n?(t.s=+n[0],r+n[0].length):-1}function D(t,e){return f(t.getDate(),e,2)}function R(t,e){return f(t.getHours(),e,2)}function F(t,e){return f(t.getHours()%12||12,e,2)}function B(t,r){return f(1+e.timeDay.count(e.timeYear(t),t),r,3)}function N(t,e){return f(t.getMilliseconds(),e,3)}function j(t,e){return N(t,e)+"000"}function U(t,e){return f(t.getMonth()+1,e,2)}function V(t,e){return f(t.getMinutes(),e,2)}function q(t,e){return f(t.getSeconds(),e,2)}function H(t){var e=t.getDay();return 0===e?7:e}function G(t,r){return f(e.timeSunday.count(e.timeYear(t)-1,t),r,2)}function Y(t,r){var n=t.getDay();return t=n>=4||0===n?e.timeThursday(t):e.timeThursday.ceil(t),f(e.timeThursday.count(e.timeYear(t),t)+(4===e.timeYear(t).getDay()),r,2)}function W(t){return t.getDay()}function X(t,r){return f(e.timeMonday.count(e.timeYear(t)-1,t),r,2)}function Z(t,e){return f(t.getFullYear()%100,e,2)}function J(t,e){return

f(t.getFullYear()%1e4,e,4)}function K(t){var e=t.getTimezoneOffset();return(e>0?"-":(e*=-1,"+"))+f(e/60|0,"0",2)+f(e%60,"0",2)}function Q(t,e){return f(t.getUTCDate(),e,2)}function $(t,e){return f(t.getUTCHours(),e,2)}function tt(t,e){return f(t.getUTCHours()%12||12,e,2)}function et(t,r){return f(1+e.utcDay.count(e.utcYear(t),t),r,3)}function rt(t,e){return f(t.getUTCMilliseconds(),e,3)}function nt(t,e){return rt(t,e)+"000"}function it(t,e){return f(t.getUTCMonth()+1,e,2)}function at(t,e){return f(t.getUTCMinutes(),e,2)}function ot(t,e){return f(t.getUTCSeconds(),e,2)}function st(t){var e=t.getUTCDay();return 0===e?7:e}function lt(t,r){return f(e.utcSunday.count(e.utcYear(t)-1,t),r,2)}function ct(t,r){var n=t.getUTCDay();return t=n>=4||0===n?e.utcThursday(t):e.utcThursday.ceil(t),f(e.utcThursday.count(e.utcYear(t),t)+(4===e.utcYear(t).getUTCDay()),r,2)}function ut(t){return t.getUTCDay()}function ft(t,r){return f(e.utcMonday.count(e.utcYear(t)-1,t),r,2)}function ht(t,e){return f(t.getUTCFullYear()%100,e,2)}function pt(t,e){return f(t.getUTCFullYear()%1e4,e,4)}function dt(){return"+0000"}function gt(){return"%"}function vt(t){return+t}function mt(t){return Math.floor(+t/1e3)}function yt(e){return o=a(e),t.timeFormat=o.format,t.timeParse=o.parse,t.utcFormat=o.utcFormat,t.utcParse=o.utcParse,o}yt({dateTime:"%x, %X",date:"%-m/%-d/%Y",time:"%-I:%M:%S %p",periods:["AM","PM"],days:["Sunday","Monday","Tuesday","Wednesday","Thursday","Friday","Saturday"],shortDays:["Sun","Mon","Tue","Wed","Thu","Fri","Sat"],months:["January","February","March","April","May","June","July","August","September","October","November","December"],shortMonths:["Jan","Feb","Mar","Apr","May","Jun","Jul","Aug","Sep","Oct","Nov","Dec"]});var xt="%Y-%m-%dT%H:%M:%S.%LZ",bt=Date.prototype.toISOString?function(t){return t.toISOString()}:t.utcFormat(xt),_t=+new Date("2000-01-01T00:00:00.000Z")?function(t){var e=new Date(t);return isNaN(e)?null:e}:t.utcParse(xt);t.isoFormat=bt,t.isoParse=_t,t.timeFormatDefaultLocale=yt,t.timeFormatLocale=a,Object.defineProperty(t,"__esModule",{value:!0})},"object"==typeof r&&void 0!==e?i(r,t("d3-time")):i((n=n||self).d3=n.d3||{},n.d3)},{"d3-time":121}],121:[function(t,e,r){var n;n=this,function(t){"use strict";var e=new Date,r=new Date;function n(t,i,a,o){function s(e){return t(e=0===arguments.length?new Date:new Date(+e)),e}return s.floor=function(e){return t(e=new Date(+e)),e},s.ceil=function(e){return t(e=new Date(e-1)),i(e,1),t(e),e},s.round=function(t){var e=s(t),r=s.ceil(t);return t-e<r-t?e:r},s.offset=function(t,e){return i(t=new Date(+t),null==e?1:Math.floor(e)),t},s.range=function(e,r,n){var a,o=[];if(e=s.ceil(e),n=null==n?1:Math.floor(n),!(e<r&&n>0))return o;do{o.push(a=new Date(+e)),i(e,n),t(e)}while(a<e&&e<r);return o},s.filter=function(e){return n((function(r){if(r>=r)for(;t(r),!e(r);)r.setTime(r-1)}),(function(t,r){if(t>=t)if(r<0)for(;++r<=0;)for(;i(t,-1),!e(t););else for(;--r>=0;)for(;i(t,1),!e(t););}))},a&&(s.count=function(n,i){return e.setTime(+n),r.setTime(+i),t(e),t(r),Math.floor(a(e,r))},s.every=function(t){return t=Math.floor(t),isFinite(t)&&t>0?t>1?s.filter(o?function(e){return o(e)%t==0}:function(e){return s.count(0,e)%t==0}):s:null}),s}var i=n((function(){}),(function(t,e){t.setTime(+t+e)}),(function(t,e){return e-t}));i.every=function(t){return t=Math.floor(t),isFinite(t)&&t>0?t>1?n((function(e){e.setTime(Math.floor(e/t)*t)}),(function(e,r){e.setTime(+e+r*t)}),(function(e,r){return(r-e)/t})):i:null};var a=i.range,o=1e3,s=6e4,l=36e5,c=864e5,u=6048e5,f=n((function(t){t.setTime(t-t.getMilliseconds())}),(function(t,e){t.setTime(+t+e*o)}),(function(t,e){return(e-t)/o}),(function(t){return t.getUTCSeconds()})),h=f.range,p=n((function(t){t.setTime(t-t.getMilliseconds()-t.getSeconds()*o)}),(function(t,e){t.setTime(+t+e*s)}),(function(t,e){return(e-t)/s}),(function(t){return t.getMinutes()})),d=p.range,g=n((function(t){t.setTime(t-t.getMilliseconds()-t.getSeconds()*o-t.getMinutes()*s)}),(function(t,e){t.setTime(+t+e*l)}),(function(t,e){return(e-t)/l}),(function(t){return t.getHours()})),v=g.range,m=n((function(t){t.setHours(0,0,0,0)}),(function(t,e){t.setDate(t.getDate()+e)}),(function(t,e){return(e-t-(e.getTimezoneOffset()-t.getTimezoneOffset())*s)/c}),(function(t){return t.getDate()-1})),y=m.range;function x(t){return n((function(e){e.setDate(e.getDate()-(e.getDay()+7-t)%7),e.setHours(0,0,0,0)}),(function(t,e){t.setDate(t.getDate()+7*e)}),(function(t,e){return(e-t-

(e.getTimezoneOffset()-t.getTimezoneOffset())*s)/u}))}var
b=x(0),_=x(1),w=x(2),T=x(3),k=x(4),A=x(5),M=x(6),S=b.range,E=_.range,L=w.range,C=T.range,P=k.range,I=A.range,O=M.range,z=n((function(t){t.setDate(1),t.setHours(0,0,0,0)}),(function(t,e){t.setMonth(t.getMonth()+e)}),(function(t,e){return e.getMonth()-t.getMonth()+12*(e.getFullYear()-t.getFullYear())}),(function(t){return t.getMonth()})),D=z.range,R=n((function(t){t.setMonth(0,1),t.setHours(0,0,0,0)}),(function(t,e){t.setFullYear(t.getFullYear()+e)}),(function(t,e){return e.getFullYear()-t.getFullYear()}),(function(t){return t.getFullYear()}));R.every=function(t){return isFinite(t=Math.floor(t))&&t>0?n((function(e){e.setFullYear(Math.floor(e.getFullYear()/t)*t),e.setMonth(0,1),e.setHours(0,0,0,0)}),(function(e,r){e.setFullYear(e.getFullYear()+r*t)})):null};var
F=R.range,B=n((function(t){t.setUTCSeconds(0,0)}),(function(t,e){t.setTime(+t+e*s)}),(function(t,e){return(e-t)/s}),(function(t){return t.getUTCMinutes()})),N=B.range,j=n((function(t){t.setUTCMinutes(0,0,0)}),(function(t,e){t.setTime(+t+e*l)}),(function(t,e){return(e-t)/l}),(function(t){return t.getUTCHours()})),U=j.range,V=n((function(t){t.setUTCHours(0,0,0,0)}),(function(t,e){t.setUTCDate(t.getUTCDate()+e)}),(function(t,e){return(e-t)/c}),(function(t){return t.getUTCDate()-1})),q=V.range;function H(t){return n((function(e){e.setUTCDate(e.getUTCDate()-(e.getUTCDay()+7-t)%7),e.setUTCHours(0,0,0,0)}),(function(t,e){t.setUTCDate(t.getUTCDate()+7*e)}),(function(t,e){return(e-t)/u}))}var
G=H(0),Y=H(1),W=H(2),X=H(3),Z=H(4),J=H(5),K=H(6),Q=G.range,$=Y.range,tt=W.range,et=X.range,rt=Z.range,nt=J.range,it=K.range,at=n((function(t){t.setUTCDate(1),t.setUTCHours(0,0,0,0)}),(function(t,e){t.setUTCMonth(t.getUTCMonth()+e)}),(function(t,e){return e.getUTCMonth()-t.getUTCMonth()+12*(e.getUTCFullYear()-t.getUTCFullYear())}),(function(t){return t.getUTCMonth()})),ot=at.range,st=n((function(t){t.setUTCMonth(0,1),t.setUTCHours(0,0,0,0)}),(function(t,e){t.setUTCFullYear(t.getUTCFullYear()+e)}),(function(t,e){return e.getUTCFullYear()-t.getUTCFullYear()}),(function(t){return t.getUTCFullYear()}));st.every=function(t){return isFinite(t=Math.floor(t))&&t>0?n((function(e){e.setUTCFullYear(Math.floor(e.getUTCFullYear()/t)*t),e.setUTCMonth(0,1),e.setUTCHours(0,0,0,0)}),(function(e,r){e.setUTCFullYear(e.getUTCFullYear()+r*t)})):null};var
lt=st.range;t.timeDay=m,t.timeDays=y,t.timeFriday=A,t.timeFridays=I,t.timeHour=g,t.timeHours=v,t.timeInterval=n,t.timeMillisecond=i,t.timeMilliseconds=a,t.timeMinute=p,t.timeMinutes=d,t.timeMonday=_,t.timeMondays=E,t.timeMonth=z,t.timeMonths=D,t.timeSaturday=M,t.timeSaturdays=O,t.timeSecond=f,t.timeSeconds=h,t.timeSunday=b,t.timeSundays=S,t.timeThursday=k,t.timeThursdays=P,t.timeTuesday=w,t.timeTuesdays=L,t.timeWednesday=T,t.timeWednesdays=C,t.timeWeek=b,t.timeWeeks=S,t.timeYear=R,t.timeYears=F,t.utcDay=V,t.utcDays=q,t.utcFriday=J,t.utcFridays=nt,t.utcHour=j,t.utcHours=U,t.utcMillisecond=i,t.utcMilliseconds=a,t.utcMinute=B,t.utcMinutes=N,t.utcMonday=Y,t.utcMondays=$,t.utcMonth=at,t.utcMonths=ot,t.utcSaturday=K,t.utcSaturdays=it,t.utcSecond=f,t.utcSeconds=h,t.utcSunday=G,t.utcSundays=Q,t.utcThursday=Z,t.utcThursdays=rt,t.utcTuesday=W,t.utcTuesdays=tt,t.utcWednesday=X,t.utcWednesdays=et,t.utcWeek=G,t.utcWeeks=Q,t.utcYear=st,t.utcYears=lt,Object.defineProperty(t,"__esModule",{value:!0})}("object"==typeof r&&void
0!==e?r:(n=n||self).d3=n.d3||{})},{}],122:[function(t,e,r){arguments[4][121][0].apply(r,arguments)},{dup:121}],123:[function(t,e,r){var n;n=this,function(t){"use strict";var e,r,n=0,i=0,a=0,o=0,s=0,l=0,c="object"==typeof performance&&performance.now?performance:Date,u="object"==typeof window&&window.requestAnimationFrame?window.requestAnimationFrame.bind(window):function(t){setTimeout(t,17)};function f(){return s||(u(h),s=c.now()+l)}function h(){s=0}function p(){this._call=this._time=this._next=null}function d(t,e,r){var n=new p;return n.restart(t,e,r),n}function g(){f(),++n;for(var t,r=e;r;)(t=s-r._time)>=0&&r._call.call(null,t),r=r._next;--n}function v(){s=(o=c.now())+l,n=i=0;try{g()}finally{n=0,function(){for(var t,n,i=e,a=1/0;i;)i._call?(a>i._time&&(a=i._time),t=i,i=i._next):(n=i._next,i._next=null,i=t?t._next=n:e=n);r=t,y(a)}(),s=0}}function m(){var t=c.now(),e=t-o;e>1e3&&(l-=e,o=t)}function y(t){n||(i&&(i=clearTimeout(i)),t-s>24?(t<1/0&&(i=setTimeout(v,t-c.now()-

l)),a&&(a=clearInterval(a))):(a||(o=c.now(),a=setInterval(m,1e3)),n=1,u(v)))}p.prototype=d.prototype={constructor:p,restart:function(t,n,i){if("function"!=typeof t)throw new TypeError("callback is not a function");i=(null==i?f():+i)+(null==n?0:+n),this._next||r===this||(r?r._next=this:e=this,r=this),this._call=t,this._time=i,y()},stop:function(){this._call&&(this._call=null,this._time=1/0,y())}},t.interval=function(t,e,r){var n=new p,i=e;return null==e?(n.restart(t,e,r),n):(e=+e,r=null==r?f():+r,n.restart((function a(o){o+=i,n.restart(a,i+=e,r),t(o)}),e,r),n)},t.now=f,t.timeout=function(t,e,r){var n=new p;return e=null==e?0:+e,n.restart((function(r){n.stop(),t(r+e)}),e,r),n},t.timer=d,t.timerFlush=g,Object.defineProperty(t,"__esModule",{value:!0})}("object"==typeof r&&void 0!==e?r:(n=n||self).d3=n.d3||{})},{}],124:[function(t,e,r){e.exports=function(){for(var t=0;t<arguments.length;t++)if(void 0!==arguments[t])return arguments[t]}},{}],125:[function(t,e,r){"use strict";e.exports=a;var n=(a.canvas=document.createElement("canvas")).getContext("2d"),i=o([32,126]);function a(t,e){Array.isArray(t)&&(t=t.join(", "));var r,a={},s=16,l=.05;e&&(2===e.length&&"number"==typeof e[0]?r=o(e):Array.isArray(e)?r=e:(e.o?r=o(e.o):e.pairs&&(r=e.pairs),e.fontSize&&(s=e.fontSize),null!=e.threshold&&(l=e.threshold))),r||(r=i),n.font=s+"px "+t;for(var c=0;c<r.length;c++){var u=r[c],f=n.measureText(u[0]).width+n.measureText(u[1]).width,h=n.measureText(u).width;if(Math.abs(f-h)>s*l){var p=(h-f)/s;a[u]=1e3*p}}return a}function o(t){for(var e=[],r=t[0];r<=t[1];r++)for(var n=String.fromCharCode(r),i=t[0];i<t[1];i++){var a=n+String.fromCharCode(i);e.push(a)}return e}a.createPairs=o,a.ascii=i},{}],126:[function(t,e,r){var n=t("abs-svg-path"),i=t("normalize-svg-path"),a={M:"moveTo",C:"bezierCurveTo"};e.exports=function(t,e){t.beginPath(),i(n(e)).forEach((function(e){var r=e[0],n=e.slice(1);t[a[r]].apply(t,n)})),t.closePath()}},{"abs-svg-path":70,"normalize-svg-path":246}],127:[function(t,e,r){e.exports=function(t){switch(t){case"int8":return Int8Array;case"int16":return Int16Array;case"int32":return Int32Array;case"uint8":return Uint8Array;case"uint16":return Uint16Array;case"uint32":return Uint32Array;case"float32":return Float32Array;case"float64":return Float64Array;case"array":return Array;case"uint8_clamped":return Uint8ClampedArray}}},{}],128:[function(t,e,r){"use strict";function n(t,e,r){var i=0|t[r];if(i<=0)return[];var a,o=new Array(i);if(r===t.length-1)for(a=0;a<i;++a)o[a]=e;else for(a=0;a<i;++a)o[a]=n(t,e,r+1);return o}e.exports=function(t,e){switch(void 0===e&&(e=0),typeof t){case"number":if(t>0)return function(t,e){var r,n;for(r=new Array(t),n=0;n<t;++n)r[n]=e;return r}(0|t,e);break;case"object":if("number"==typeof t.length)return n(t,e,0)}return[]}},{}],129:[function(t,e,r){"use strict";function n(t,e,r){r=r||2;var n,s,l,c,u,p,d,v=e&&e.length,m=v?e[0]*r:t.length,y=i(t,0,m,r,!0),x=[];if(!y||y.next===y.prev)return x;if(v&&(y=function(t,e,r,n){var o,s,l,c=[];for(o=0,s=e.length;o<s;o++)(l=i(t,e[o]*n,o<s-1?e[o+1]*n:t.length,n,!1))===l.next&&(l.steiner=!0),c.push(g(l));for(c.sort(f),o=0;o<c.length;o++)h(c[o],r),r=a(r,r.next);return r}(t,e,y,r)),t.length>80*r){n=l=t[0],s=c=t[1];for(var b=r;b<m;b+=r)(u=t[b])<n&&(n=u),(p=t[b+1])<s&&(s=p),u>l&&(l=u),p>c&&(c=p);d=0!==(d=Math.max(l-n,c-s))?1/d:0}return o(y,x,r,n,s,d),x}function i(t,e,r,n,i){var a,o;if(i===E(t,e,r,n)>0)for(a=e;a<r;a+=n)o=A(a,t[a],t[a+1],o);else for(a=r-n;a>=e;a-=n)o=A(a,t[a],t[a+1],o);return o&&x(o,o.next)&&(M(o),o=o.next),o}function a(t,e){if(!t)return t;e||(e=t);var r,n=t;do{if(r=!1,n.steiner||!x(n,n.next)&&0!==y(n.prev,n,n.next))n=n.next;else{if(M(n),(n=e=n.prev)===n.next)break;r=!0}}while(r||n!==e);return e}function o(t,e,r,n,i,f,h){if(t){!h&&f&&function(t,e,r,n){var i=t;do{null===i.z&&(i.z=d(i.x,i.y,e,r,n)),i.prevZ=i.prev,i.nextZ=i.next,i=i.next}while(i!==t);i.prevZ.nextZ=null,i.prevZ=null,function(t){var e,r,n,i,a,o,s,l,c=1;do{for(r=t,t=null,a=null,o=0;r;){for(o++,n=r,s=0,e=0;e<c&&(s++,n=n.nextZ);e++);for(l=c;s>0||l>0&&n;)0!==s&&(0===l||!n||r.z<=n.z)?(i=r,r=r.nextZ,s--):(i=n,n=n.nextZ,l--),a?a.nextZ=i:t=i,i.prevZ=a,a=i;r=n}a.nextZ=null,c*=2}while(o>1)}(i)}(t,n,i,f);for(var p,g,v=t;t.prev!==t.next;)if(p=t.prev,g=t.next,f?l(t,n,i,f):s(t))e.push(p.i/r),e.push(t.i/r),e.push(g.i/r),M(t),t=g.next,v=g.next;else if((t=g)===v){h?1===h?o(t=c(a(t),e,r),e,r,n,i,f,2):2===h&&u(t,e,r,n,i,f):o(a(t),e,r,n,i,f,1);break}}}function s(t){var e=t.prev,r=t,n=t.next;if(y(e,r,n)>=0)return!1;for(var i=t.next.next;i!==t.prev;){if(v(e.x,e.y,r.x,r.y,n.x,n.y,i.x,i.y)&&y(i.prev,i,i.next)>=0)return!1;i=i.next}return!0}functi

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on l(t,e,r,n){var i=t.prev,a=t,o=t.next;if(y(i,a,o)>=0)return!1;for(var
s=i.x<a.x?i.x<o.x?i.x:o.x:a.x<o.x?a.x:o.x,l=i.y<a.y?i.y<o.y?i.y:o.y:a.y<o.y?a.y:o.y,c=i.x>a.x?i.x>o.x?i.x:o.x:a.x>o.x
?a.x:o.x,u=i.y>a.y?i.y>o.y?i.y:o.y:a.y>o.y?a.y:o.y,f=d(s,l,e,r,n),h=d(c,u,e,r,n),p=t.prevZ,g=t.nextZ;p&&p.z>=f&&g
&&g.z<=h;){if(p!==t.prev&&p!==t.next&&v(i.x,i.y,a.x,a.y,o.x,o.y,p.x,p.y)&&y(p.prev,p,p.next)>=0)return!1;if(p=
p.prevZ,g!==t.prev&&g!==t.next&&v(i.x,i.y,a.x,a.y,o.x,o.y,g.x,g.y)&&y(g.prev,g,g.next)>=0)return!1;g=g.nextZ}f
or(;p&&p.z>=f;){if(p!==t.prev&&p!==t.next&&v(i.x,i.y,a.x,a.y,o.x,o.y,p.x,p.y)&&y(p.prev,p,p.next)>=0)return!1;
p=p.prevZ}for(;g&&g.z<=h;){if(g!==t.prev&&g!==t.next&&v(i.x,i.y,a.x,a.y,o.x,o.y,g.x,g.y)&&y(g.prev,g,g.next)>
=0)return!1;g=g.nextZ}return!0}function c(t,e,r){var n=t;do{var
i=n.prev,o=n.next.next;!x(i,o)&&b(i,n,n.next,o)&&T(i,o)&&T(o,i)&&(e.push(i.i/r),e.push(n.i/r),e.push(o.i/r),M(n),
M(n.next),n=t=o),n=n.next}while(n!==t);return a(n)}function u(t,e,r,n,i,s){var l=t;do{for(var
c=l.next.next;c!==l.prev;){if(l.i!==c.i&&m(l,c)){var u=k(l,c);return l=a(l,l.next),u=a(u,u.next),o(l,e,r,n,i,s),void
o(u,e,r,n,i,s)}c=c.next}l=l.next}while(l!==t)}function f(t,e){return t.x-e.x}function h(t,e){if(e=function(t,e){var
r,n=e,i=t.x,a=t.y,o=-1/0;do{if(a<=n.y&&a>=n.next.y&&n.next.y!==n.y){var s=n.x+(a-n.y)*(n.next.x-n.x)/(n.next.y-
n.y);if(s<=i&&s>o){if(o=s,s===i){if(a===n.y)return n;if(a===n.next.y)return
n.next}r=n.x<n.next.x?n:n.next}}n=n.next}while(n!==e);if(!r)return null;if(i===o)return r;var
l,c=r,u=r.x,f=r.y,h=1/0;n=r;do{i>=n.x&&n.x>=u&&i!==n.x&&v(a<f?i:o,a,u,f,a<f?o:i,a,n.x,n.y)&&(l=Math.abs(a-
n.y)/(i-n.x),T(n,t)&&(l<h||l===h&&(n.x>r.x||n.x===r.x&&p(r,n)))&&(r=n,h=l)),n=n.next}while(n!==c);return
r}(t,e)){var r=k(e,t);a(e,e.next),a(r,r.next)}}function p(t,e){return
y(t.prev,t,e.prev)<0&&y(e.next,t,t.next)<0}function
d(t,e,r,n,i){return(t=1431655765&((t=858993459&((t=252645135&((t=16711935&((t=32767*(t-
r)*i)|t<<8))|t<<4))|t<<2))|t<<1))|(e=1431655765&((e=858993459&((e=252645135&((e=16711935&((e=32767*(e-
n)*i)|e<<8))|e<<4))|e<<2))|e<<1))<<1}function g(t){var
e=t,r=t;do{(e.x<r.x||e.x===r.x&&e.y<r.y)&&(r=e),e=e.next}while(e!==t);return r}function v(t,e,r,n,i,a,o,s){return(i-
o)*(e-s)-(t-o)*(a-s)>=0&&(t-o)*(n-s)-(r-o)*(e-s)>=0&&(r-o)*(a-s)-(i-o)*(n-s)>=0}function m(t,e){return
t.next.i!==e.i&&t.prev.i!==e.i&&!function(t,e){var
r=t;do{if(r.i!==t.i&&r.next.i!==t.i&&r.i!==e.i&&r.next.i!==e.i&&b(r,r.next,t,e))return!0;r=r.next}while(r!==t);retu
rn!1}(t,e)&&(T(t,e)&&T(e,t)&&function(t,e){var
r=t,n=!1,i=(t.x+e.x)/2,a=(t.y+e.y)/2;do{r.y>a!=r.next.y>a&&r.next.y!==r.y&&i<(r.next.x-r.x)*(a-r.y)/(r.next.y-
r.y)+r.x&&(n=!n),r=r.next}while(r!==t);return
n}(t,e)&&(y(t.prev,t,e.prev)||y(t,e.prev,e))||x(t,e)&&y(t.prev,t,t.next)>0&&y(e.prev,e,e.next)>0)}function
y(t,e,r){return(e.y-t.y)*(r.x-e.x)-(e.x-t.x)*(r.y-e.y)}function x(t,e){return t.x===e.x&&t.y===e.y}function
b(t,e,r,n){var i=w(y(t,e,r)),a=w(y(t,e,n)),o=w(y(r,n,t)),s=w(y(r,n,e));return
i!==a&&o!==s||!(0!==i||!_(t,r,e))||!(0!==a||!_(t,n,e))||!(0!==o||!_(r,t,n))||!(0!==s||!_(r,e,n))}function _(t,e,r){return
e.x<=Math.max(t.x,r.x)&&e.x>=Math.min(t.x,r.x)&&e.y<=Math.max(t.y,r.y)&&e.y>=Math.min(t.y,r.y)}function
w(t){return t>0?1:t<0?-1:0}function T(t,e){return
y(t.prev,t,t.next)<0?y(t,e,t.next)>=0&&y(t,t.prev,e)>=0:y(t,e,t.prev)<0||y(t,t.next,e)<0}function k(t,e){var r=new
S(t.i,t.x,t.y),n=new S(e.i,e.x,e.y),i=t.next,a=e.prev;return
t.next=e,e.prev=t,r.next=i,i.prev=r,n.next=r,r.prev=n,a.next=n,n.prev=a,n}function A(t,e,r,n){var i=new
S(t,e,r);return n?(i.next=n.next,i.prev=n,n.next.prev=i,n.next=i):(i.prev=i,i.next=i),i}function
M(t){t.next.prev=t.prev,t.prev.next=t.next,t.prevZ&&(t.prevZ.nextZ=t.nextZ),t.nextZ&&(t.nextZ.prevZ=t.prevZ)}fu
nction
S(t,e,r){this.i=t,this.x=e,this.y=r,this.prev=null,this.next=null,this.z=null,this.prevZ=null,this.nextZ=null,this.steiner
=!1}function E(t,e,r,n){for(var i=0,a=e,o=r-n;a<r;a+=n)i+=(t[o]-t[a])*(t[a+1]+t[o+1]),o=a;return
i}e.exports=n,e.exports.default=n,n.deviation=function(t,e,r,n){var
i=e&&e.length,a=i?e[0]*r:t.length,o=Math.abs(E(t,0,a,r));if(i)for(var s=0,l=e.length;s<l;s++){var c=e[s]*r,u=s<l-
1?e[s+1]*r:t.length;o-=Math.abs(E(t,c,u,r))}var f=0;for(s=0;s<n.length;s+=3){var
h=n[s]*r,p=n[s+1]*r,d=n[s+2]*r;f+=Math.abs((t[h]-t[d])*(t[p+1]-t[h+1])-(t[h]-t[p])*(t[d+1]-t[h+1]))}return
0===o&&0===f?0:Math.abs((f-o)/o)},n.flatten=function(t){for(var
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e=t[0][0].length,r={vertices:[],holes:[],dimensions:e},n=0,i=0;i<t.length;i++){for(var a=0;a<t[i].length;a++)for(var o=0;o<e;o++)r.vertices.push(t[i][a][o]);i>0&&(n+=t[i-1].length,r.holes.push(n))}return r}},{}],130:[function(t,e,r){var n=t("strongly-connected-components");e.exports=function(t,e){var r,i=[],a=[],o=[],s={},l=[];function c(t){o[t]=!1,s.hasOwnProperty(t)&&Object.keys(s[t]).forEach((function(e){delete s[t][e],o[e]&&c(e)}))}function u(t){var e,n,i=!1;for(a.push(t),o[t]=!0,e=0;e<l[t].length;e++)(n=l[t][e])===r?(f(r,a),i=!0):o[n]||(i=u(n));if(i)c(t);else for(e=0;e<l[t].length;e++){n=l[t][e];var h=s[n];h||(h={},s[n]=h),h[n]=!0}return a.pop(),i}function f(t,r){var n=[].concat(r).concat(t);e?e(u):i.push(n)}function h(e){!function(e){for(var r=0;r<t.length;r++)r<e&&(t[r]=[]),t[r]=t[r].filter((function(t){return t>=e}))}(e);for(var r,i=n(t).components.filter((function(t){return t.length>1})),a=1/0,o=0;o<i.length;o++)for(var s=0;s<i[o].length;s++)i[o][s]<a&&(a=i[o][s],r=o);var l=i[r];return!!l&&{leastVertex:a,adjList:t.map((function(t,e){return-1===l.indexOf(e)?[]:t.filter((function(t){return-1!==l.indexOf(t)}))}))}}r=0;for(var p=t.length;r<p;){var d=h(r);if(r=d.leastVertex,l=d.adjList){for(var g=0;g<l.length;g++)for(var v=0;v<l[g].length;v++){var m=l[g][v];o[+m]=!1,s[m]={}}u(r),r+=1}else r=p}return e?void 0:i}},{"strongly-connected-components":306}],131:[function(t,e,r){"use strict";var n=t("../../object/valid-value");e.exports=function(){return n(this).length=0,this}},{"../../object/valid-value":162}],132:[function(t,e,r){"use strict";e.exports=t("./is-implemented")()?Array.from:t("./shim")},{"./is-implemented":133,"./shim":134}],133:[function(t,e,r){"use strict";e.exports=function(){var t,e,r=Array.from;return"function"==typeof r&&(e=r(t=["raz","dwa"]),Boolean(e&&e!==t&&"dwa"===e[1]))}},{}],134:[function(t,e,r){"use strict";var n=t("es6-symbol").iterator,i=t("../../function/is-arguments"),a=t("../../function/is-function"),o=t("../../number/to-pos-integer"),s=t("../../object/valid-callable"),l=t("../../object/valid-value"),c=t("../../object/is-value"),u=t("../../string/is-string"),f=Array.isArray,h=Function.prototype.call,p={configurable:!0,enumerable:!0,writable:!0,value:null},d=Object.defineProperty;e.exports=function(t){var e,r,g,v,m,y,x,b,_,w,T=arguments[1],k=arguments[2];if(t=Object(l(t)),c(T)&&s(T),this&&this!==Array&&a(this))e=this;else{if(!T){if(i(t))return 1!==(m=t.length)?Array.apply(null,t):((v=new Array(1))[0]=t[0],v);if(f(t)){for(v=new Array(m=t.length),r=0;r<m;++r)v[r]=t[r];return v}}v=[]}if(!f(t))if(void 0!==(_=t[n])){for(x=s(_).call(t),e&&(v=new e),b=x.next(),r=0;!b.done;)w=T?h.call(T,k,b.value,r):b.value,e?(p.value=w,d(v,r,p)):v[r]=w,b=x.next(),++r;m=r}else if(u(t)){for(m=t.length,e&&(v=new e),r=0,g=0;r<m;++r)w=t[r],r+1<m&&(y=w.charCodeAt(0))>=55296&&y<=56319&&(w+=t[++r]),w=T?h.call(T,k,w,g):w,e?(p.value=w,d(v,g,p)):v[g]=w,++g;m=g}if(void 0===m)for(m=o(t.length),e&&(v=new e(m)),r=0;r<m;++r)w=T?h.call(T,k,t[r],r):t[r],e?(p.value=w,d(v,r,p)):v[r]=w;return e&&(p.value=null,v.length=m),v}},{"../../function/is-arguments":135,"../../function/is-function":136,"../../number/to-pos-integer":142,"../../object/is-value":151,"../../object/valid-callable":160,"../../object/valid-value":162,"../../string/is-string":166,"es6-symbol":175}],135:[function(t,e,r){"use strict";var n=Object.prototype.toString,i=n.call(function(){return arguments}());e.exports=function(t){return n.call(t)===i}},{}],136:[function(t,e,r){"use strict";var n=Object.prototype.toString,i=RegExp.prototype.test.bind(/^[object [A-Za-z0-9]*Function]$/);e.exports=function(t){return"function"==typeof t&&i(n.call(t))}},{}],137:[function(t,e,r){"use strict";e.exports=function(){}},{}],138:[function(t,e,r){"use strict";e.exports=t("./is-implemented")()?Math.sign:t("./shim")},{"./is-implemented":139,"./shim":140}],139:[function(t,e,r){"use strict";e.exports=function(){var t=Math.sign;return"function"==typeof t&&1===t(10)&&-1===t(-20)}},{}],140:[function(t,e,r){"use strict";e.exports=function(t){return t=Number(t),isNaN(t)||0===t?t:t>0?1:-1}},{}],141:[function(t,e,r){"use strict";var n=t("../math/sign"),i=Math.abs,a=Math.floor;e.exports=function(t){return isNaN(t)?0:0!==(t=Number(t))&&isFinite(t)?n(t)*a(i(t)):t}},{"../math/sign":138}],142:[function(t,e,r){"use strict";var n=t("./to-integer"),i=Math.max;e.exports=function(t){return i(0,n(t))}},{"./to-

integer":141}],143:[function(t,e,r){"use strict";var n=t("./valid-callable"),i=t("./valid-value"),a=Function.prototype.bind,o=Function.prototype.call,s=Object.keys,l=Object.prototype.propertyIsEnumerable;e.exports=function(t,e){return function(r,c){var u,f=arguments[2],h=arguments[3];return r=Object(i(r)),n(c),u=s(r),h&&u.sort("function"==typeof h?a.call(h,r):void 0),"function"!=typeof t&&(t=u[t]),o.call(t,u,(function(t,n){return l.call(r,t)?o.call(c,f,r[t],t,r,n):e}))}}},{"./valid-callable":160,"./valid-value":162}],144:[function(t,e,r){"use strict";e.exports=t("./is-implemented")()?Object.assign:t("./shim")},{"./is-implemented":145,"./shim":146}],145:[function(t,e,r){"use strict";e.exports=function(){var t,e=Object.assign;return"function"==typeof e&&(e(t={foo:"raz"},{bar:"dwa"},{trzy:"trzy"}),t.foo+t.bar+t.trzy==="razdwatrzy")}},{}],146:[function(t,e,r){"use strict";var n=t("../keys"),i=t("../valid-value"),a=Math.max;e.exports=function(t,e){var r,o,s,l=a(arguments.length,2);for(t=Object(i(t)),s=function(n){try{t[n]=e[n]}catch(t){r||(r=t)}},o=1;o<l;++o)n(e=arguments[o]).forEach(s);if(void 0!==r)throw r;return t}},{"../keys":152,"../valid-value":162}],147:[function(t,e,r){"use strict";var n=t("../array/from"),i=t("./assign"),a=t("./valid-value");e.exports=function(t){var e=Object(a(t)),r=arguments[1],o=Object(arguments[2]);if(e!==t&&!r)return e;var s={};return r?n(r,(function(e){(o.ensure||e in t)&&(s[e]=t[e])})):i(s,t),s}},{"../array/from":132,"./assign":144,"./valid-value":162}],148:[function(t,e,r){"use strict";var n,i,a,o,s=Object.create;t("./set-prototype-of/is-implemented")()||(n=t("./set-prototype-of/shim")),e.exports=n?1!==n.level?s:(i={},a={},o={configurable:!1,enumerable:!1,writable:!0,value:void 0},Object.getOwnPropertyNames(Object.prototype).forEach((function(t){a[t]="__proto__"!==t?o:{configurable:!0,enumerable:!1,writable:!0,value:void 0}})),Object.defineProperties(i,a),Object.defineProperty(n,"nullPolyfill",{configurable:!1,enumerable:!1,writable:!1,value:i}),function(t,e){return s(null===t?i:t,e)}):s},{"./set-prototype-of/is-implemented":158,"./set-prototype-of/shim":159}],149:[function(t,e,r){"use strict";e.exports=t("./_iterate")("forEach")},{"./_iterate":143}],150:[function(t,e,r){"use strict";var n=t("./is-value"),i={function:!0,object:!0};e.exports=function(t){return n(t)&&i[typeof t]||!1}},{"./is-value":151}],151:[function(t,e,r){"use strict";var n=t("../function/noop")();e.exports=function(t){return t!==n&&null!==t}},{"../function/noop":137}],152:[function(t,e,r){"use strict";e.exports=t("./is-implemented")()?Object.keys:t("./shim")},{"./is-implemented":153,"./shim":154}],153:[function(t,e,r){"use strict";e.exports=function(){try{return Object.keys("primitive"),!0}catch(t){return!1}}},{}],154:[function(t,e,r){"use strict";var n=t("../is-value"),i=Object.keys;e.exports=function(t){return i(n(t)?Object(t):t)}},{"../is-value":151}],155:[function(t,e,r){"use strict";var n=t("./valid-callable"),i=t("./for-each"),a=Function.prototype.call;e.exports=function(t,e){var r={},o=arguments[2];return n(e),i(t,(function(t,n,i,s){r[n]=a.call(e,o,t,n,i,s)})),r}},{"./for-each":149,"./valid-callable":160}],156:[function(t,e,r){"use strict";var n=t("./is-value"),i=Array.prototype.forEach,a=Object.create,o=function(t,e){var r;for(r in t)e[r]=t[r]};e.exports=function(t){var e=a(null);return i.call(arguments,(function(t){n(t)&&o(Object(t),e)})),e}},{"./is-value":151}],157:[function(t,e,r){"use strict";e.exports=t("./is-implemented")()?Object.setPrototypeOf:t("./shim")},{"./is-implemented":158,"./shim":159}],158:[function(t,e,r){"use strict";var n=Object.create,i=Object.getPrototypeOf,a={};e.exports=function(){var t=Object.setPrototypeOf;return"function"==typeof t&&i(t((arguments[0]||n)(null),a))===a}},{}],159:[function(t,e,r){"use strict";var n,i,a,o,s=t("../is-object"),l=t("../valid-value"),c=Object.prototype.isPrototypeOf,u=Object.defineProperty,f={configurable:!0,enumerable:!1,writable:!0,value:void 0};n=function(t,e){if(l(t),null===e||s(e))return t;throw new TypeError("Prototype must be null or an object")},e.exports=(i=function(){var t,e=Object.create(null),r={},n=Object.getOwnPropertyDescriptor(Object.prototype,"__proto__");if(n){try{(t=n.set).call(e,r)}catch(t){}if(Object.getPrototypeOf(e)===r)return{set:t,level:2}}return

e.__proto__=r,Object.getPrototypeOf(e)===r?{level:2}:((e={}).__proto__=r,Object.getPrototypeOf(e)===r&&{level:1})})())?(2===i.level?i.set?(o=i.set,a=function(t,e){return o.call(n(t,e),e),t}):a=function(t,e){return n(t,e).__proto__=e,t}:a=function t(e,r){var i;return n(e,r),(i=c.call(t.nullPolyfill,e))&&delete t.nullPolyfill.__proto__,null===r&&(r=t.nullPolyfill),e.__proto__=r,i&&u(t.nullPolyfill,"__proto__",f),e},Object.defineProperty(a,"level",{configurable:!1,enumerable:!1,writable:!1,value:i.level})):null,t("../create")},{"../create":148,"../is-object":150,"../valid-value":162}],160:[function(t,e,r){"use strict";e.exports=function(t){if("function"!=typeof t)throw new TypeError(t+" is not a function");return t}},{}],161:[function(t,e,r){"use strict";var n=t("./is-object");e.exports=function(t){if(!n(t))throw new TypeError(t+" is not an Object");return t}},{"./is-object":150}],162:[function(t,e,r){"use strict";var n=t("./is-value");e.exports=function(t){if(!n(t))throw new TypeError("Cannot use null or undefined");return t}},{"./is-value":151}],163:[function(t,e,r){"use strict";e.exports=t("./is-implemented")()?String.prototype.contains:t("./shim")},{"./is-implemented":164,"./shim":165}],164:[function(t,e,r){"use strict";var n="razdwatrzy";e.exports=function(){return"function"==typeof n.contains&&!0===n.contains("dwa")&&!1===n.contains("foo")}},{}],165:[function(t,e,r){"use strict";var n=String.prototype.indexOf;e.exports=function(t){return n.call(this,t,arguments[1])>-1}},{}],166:[function(t,e,r){"use strict";var n=Object.prototype.toString,i=n.call("");e.exports=function(t){return"string"==typeof t||t&&"object"==typeof t&&(t instanceof String||n.call(t)===i)||!1}},{}],167:[function(t,e,r){"use strict";var n=Object.create(null),i=Math.random;e.exports=function(){var t;do{t=i().toString(36).slice(2)}while(n[t]);return t}},{}],168:[function(t,e,r){"use strict";var n,i=t("es5-ext/object/set-prototype-of"),a=t("es5-ext/string/#/contains"),o=t("d"),s=t("es6-symbol"),l=t("./"),c=Object.defineProperty;n=e.exports=function(t,e){if(!(this instanceof n))throw new TypeError("Constructor requires 'new'");l.call(this,t),e=e?a.call(e,"key+value")?"key+value":a.call(e,"key")?"key":"value":"value",c(this,"__kind__",o("",e))},i&&i(n,l),delete n.prototype.constructor,n.prototype=Object.create(l.prototype,{_resolve:o((function(t){return"value"===this.__kind__?this.__list__[t]:"key+value"===this.__kind__?[t,this.__list__[t]]:t}))}),c(n.prototype,s.toStringTag,o("c","Array Iterator"))},{"./":171,d:106,"es5-ext/object/set-prototype-of":157,"es5-ext/string/#/contains":163,"es6-symbol":175}],169:[function(t,e,r){"use strict";var n=t("es5-ext/function/is-arguments"),i=t("es5-ext/object/valid-callable"),a=t("es5-ext/string/is-string"),o=t("./get"),s=Array.isArray,l=Function.prototype.call,c=Array.prototype.some;e.exports=function(t,e){var r,u,f,h,p,d,g,v,m=arguments[2];if(s(t)||n(t)?r="array":a(t)?r="string":t=o(t),i(e),f=function(){h=!0},"array"!==r)if("string"!==r)for(u=t.next();!u.done;){if(l.call(e,m,u.value,f),h)return;u=t.next()}else for(d=t.length,p=0;p<d&&(g=t[p],p+1<d&&(v=g.charCodeAt(0))>=55296&&v<=56319&&(g+=t[++p]),l.call(e,m,g,f),!h);++p);else c.call(t,(function(t){return l.call(e,m,t,f),h}))}},{"./get":170,"es5-ext/function/is-arguments":135,"es5-ext/object/valid-callable":160,"es5-ext/string/is-string":166}],170:[function(t,e,r){"use strict";var n=t("es5-ext/function/is-arguments"),i=t("es5-ext/string/is-string"),a=t("./array"),o=t("./string"),s=t("./valid-iterable"),l=t("es6-symbol").iterator;e.exports=function(t){return"function"==typeof s(t)[l]?t[l]():n(t)?new a(t):i(t)?new o(t):new a(t)}},{"./array":168,"./string":173,"./valid-iterable":174,"es5-ext/function/is-arguments":135,"es5-ext/string/is-string":166,"es6-symbol":175}],171:[function(t,e,r){"use strict";var n,i=t("es5-ext/array/#/clear"),a=t("es5-ext/object/assign"),o=t("es5-ext/object/valid-callable"),s=t("es5-ext/object/valid-value"),l=t("d"),c=t("d/auto-bind"),u=t("es6-symbol"),f=Object.defineProperty,h=Object.defineProperties;e.exports=n=function(t,e){if(!(this instanceof n))throw new TypeError("Constructor requires 'new'");h(this,{__list__:l("w",s(t)),__context__:l("w",e),__nextIndex__:l("w",0)}),e&&(o(e.on),e.on("_add",this._onAdd),e.on("_delete",this._onDelete),e.on("_clear",this._onClear))},delete n.prototype.constructor,h(n.prototype,a({_next:l((function(){var t;if(this.__list__)return this.__redo__&&void

0!==(t=this.__redo__.shift())?t:this.__nextIndex__<this.__list__.length?this.__nextIndex__++:void this._unBind()})),next:l((function(){return this._createResult(this._next())})),_createResult:l((function(t){return void 0===t?{done:!0,value:void 0}:{done:!1,value:this._resolve(t)}})),_resolve:l((function(t){return this.__list__[t]})),_unBind:l((function(){this.__list__=null,delete this.__redo__,this.__context__&&(this.__context__.off("_add",this._onAdd),this.__context__.off("_delete",this._onDelete),this.__context__.off("_clear",this._onClear),this.__context__=null)})),toString:l((function(){return"[object "+(this[u.toStringTag]||"Object")+"]"}))},c({_onAdd:l((function(t){t>=this.__nextIndex__||(++this.__nextIndex__,this.__redo__?(this.__redo__.forEach((function(e,r){e>=t&&(this.__redo__[r]=++e)}),this),this.__redo__.push(t)):f(this,"__redo__",l("c",[t])))})),_onDelete:l((function(t){var e;t>=this.__nextIndex__||(--this.__nextIndex__,this.__redo__&&(-1!==(e=this.__redo__.indexOf(t))&&this.__redo__.splice(e,1),this.__redo__.forEach((function(e,r){e>t&&(this.__redo__[r]=--e)}),this))})),_onClear:l((function(){this.__redo__&&i.call(this.__redo__),this.__nextIndex__=0}))})),f(n.prototype,u.iterator,l((function(){return this})))},{d:106,"d/auto-bind":105,"es5-ext/array/#/clear":131,"es5-ext/object/assign":144,"es5-ext/object/valid-callable":160,"es5-ext/object/valid-value":162,"es6-symbol":175}],172:[function(t,e,r){"use strict";var n=t("es5-ext/function/is-arguments"),i=t("es5-ext/object/is-value"),a=t("es5-ext/string/is-string"),o=t("es6-symbol").iterator,s=Array.isArray;e.exports=function(t){return!(!i(t)||!s(t)&&!a(t)&&!n(t)&&"function"!=typeof t[o])}},{"es5-ext/function/is-arguments":135,"es5-ext/object/is-value":151,"es5-ext/string/is-string":166,"es6-symbol":175}],173:[function(t,e,r){"use strict";var n,i=t("es5-ext/object/set-prototype-of"),a=t("d"),o=t("es6-symbol"),s=t("./"),l=Object.defineProperty;n=e.exports=function(t){if(!(this instanceof n))throw new TypeError("Constructor requires 'new'");t=String(t),s.call(this,t),l(this,"__length__",a("",t.length))},i&&i(n,s),delete n.prototype.constructor,n.prototype=Object.create(s.prototype,{_next:a((function(){if(this.__list__)return this.__nextIndex__<this.__length__?this.__nextIndex__++:void this._unBind()})),_resolve:a((function(t){var e,r=this.__list__[t];return this.__nextIndex__===this.__length__?r:(e=r.charCodeAt(0))>=55296&&e<=56319?r+this.__list__[this.__nextIndex__++]:r}))}),l(n.prototype,o.toStringTag,a("c","String Iterator"))},{"./":171,d:106,"es5-ext/object/set-prototype-of":157,"es6-symbol":175}],174:[function(t,e,r){"use strict";var n=t("./is-iterable");e.exports=function(t){if(!n(t))throw new TypeError(t+" is not iterable");return t}},{"./is-iterable":172}],175:[function(t,e,r){"use strict";e.exports=t("./is-implemented")()?t("ext/global-this").Symbol:t("./polyfill")},{"./is-implemented":176,"./polyfill":181,"ext/global-this":188}],176:[function(t,e,r){"use strict";var n=t("ext/global-this"),i={object:!0,symbol:!0};e.exports=function(){var t,e=n.Symbol;if("function"!=typeof e)return!1;t=e("test symbol");try{String(t)}catch(t){return!1}return!!i[typeof e.iterator]&&!!i[typeof e.toPrimitive]&&!!i[typeof e.toStringTag]}},{"ext/global-this":188}],177:[function(t,e,r){"use strict";e.exports=function(t){return!!t&&("symbol"==typeof t||!!t.constructor&&"Symbol"===t.constructor.name&&"Symbol"===t[t.constructor.toStringTag])}},{}],178:[function(t,e,r){"use strict";var n=t("d"),i=Object.create,a=Object.defineProperty,o=Object.prototype,s=i(null);e.exports=function(t){for(var e,r,i=0;s[t+(i||"")];)++i;return s[t+=i||""]=!0,a(o,e="@@"+t,n.gs(null,(function(t){r||(r=!0,a(this,e,n(t)),r=!1)}))),e}},{d:106}],179:[function(t,e,r){"use strict";var n=t("d"),i=t("ext/global-this").Symbol;e.exports=function(t){return Object.defineProperties(t,{hasInstance:n("",i&&i.hasInstance||t("hasInstance")),isConcatSpreadable:n("",i&&i.isConcatSpreadable||t("isConcatSpreadable")),iterator:n("",i&&i.iterator||t("iterator")),match:n("",i&&i.match||t("match")),replace:n("",i&&i.replace||t("replace")),search:n("",i&&i.search||t("search")),species:n("",i&&i.species||t("species")),split:n("",i&&i.split||t("split")),toPrimitive:n("",i&&i.toPrimitive||t("toPrimitive")),toStringTag:n("",i&&i.toStringTag||t("toStringTag")),unscopables:n("",i&&i.unscopables||t("unscopables"))})}},{d:106,"ext/global-this":188}],180:[function(t,e,r){"use strict";var n=t("d"),i=t("../../../validate-

symbol"),a=Object.create(null);e.exports=function(t){return Object.defineProperties(t,{for:n((function(e){return a[e]?a[e]:a[e]=t(String(e))})),keyFor:n((function(t){var e;for(e in i(t),a)if(a[e]===t)return e}))})}},{"../../../validate-symbol":182,d:106}],181:[function(t,e,r){"use strict";var n,i,a,o=t("d"),s=t("./validate-symbol"),l=t("ext/global-this").Symbol,c=t("./lib/private/generate-name"),u=t("./lib/private/setup/standard-symbols"),f=t("./lib/private/setup/symbol-registry"),h=Object.create,p=Object.defineProperties,d=Object.defineProperty;if("function"==typeof l)try{String(l()),a=!0}catch(t){}else l=null;i=function(t){if(this instanceof i)throw new TypeError("Symbol is not a constructor");return n(t)},e.exports=n=function t(e){var r;if(this instanceof t)throw new TypeError("Symbol is not a constructor");return a?l(e):(r=h(i.prototype),e=void 0===e?"":String(e),p(r,{__description__:o("",e),__name__:o("",c(e))}))},u(n),f(n),p(i.prototype,{constructor:o(n),toString:o("",(function(){return this.__name__}))}),p(n.prototype,{toString:o((function(){return"Symbol ("+s(this).__description__+")"})),valueOf:o((function(){return s(this)}))}),d(n.prototype,n.toPrimitive,o("",(function(){var t=s(this);return"symbol"==typeof t?t:t.toString()}))),d(n.prototype,n.toStringTag,o("c","Symbol")),d(i.prototype,n.toStringTag,o("c",n.prototype[n.toStringTag])),d(i.prototype,n.toPrimitive,o("c",n.prototype[n.toPrimitive]))},{"./lib/private/generate-name":178,"./lib/private/setup/standard-symbols":179,"./lib/private/setup/symbol-registry":180,"./validate-symbol":182,d:106,"ext/global-this":188}],182:[function(t,e,r){"use strict";var n=t("./is-symbol");e.exports=function(t){if(!n(t))throw new TypeError(t+" is not a symbol");return t}},{"./is-symbol":177}],183:[function(t,e,r){"use strict";e.exports=t("./is-implemented")()?WeakMap:t("./polyfill")},{"./is-implemented":184,"./polyfill":186}],184:[function(t,e,r){"use strict";e.exports=function(){var t,e;if("function"!=typeof WeakMap)return!1;try{t=new WeakMap([[e={},"one"],[{},"two"],[{},"three"]])}catch(t){return!1}return"[object WeakMap]"===String(t)&&"function"==typeof t.set&&t.set({},1)===t&&"function"==typeof t.delete&&"function"==typeof t.has&&"one"===t.get(e)}},{}],185:[function(t,e,r){"use strict";e.exports="function"==typeof WeakMap&&"[object WeakMap]"===Object.prototype.toString.call(new WeakMap)},{}],186:[function(t,e,r){"use strict";var n,i=t("es5-ext/object/is-value"),a=t("es5-ext/object/set-prototype-of"),o=t("es5-ext/object/valid-object"),s=t("es5-ext/object/valid-value"),l=t("es5-ext/string/random-uniq"),c=t("d"),u=t("es6-iterator/get"),f=t("es6-iterator/for-of"),h=t("es6-symbol").toStringTag,p=t("./is-native-implemented"),d=Array.isArray,g=Object.defineProperty,v=Object.prototype.hasOwnProperty,m=Object.getPrototypeOf;e.exports=n=function(){var t,e=arguments[0];if(!(this instanceof n))throw new TypeError("Constructor requires 'new'");return t=p&&a&&WeakMap!==n?a(new WeakMap,m(this)):this,i(e)&&(d(e)||(e=u(e)),g(t,"__weakMapData__",c("c","$weakMap$"+l())),e?(f(e,(function(e){s(e),t.set(e[0],e[1])})),t):t},p&&(a&&a(n,WeakMap),n.prototype=Object.create(WeakMap.prototype,{constructor:c(n)})),Object.defineProperties(n.prototype,{delete:c((function(t){return!!v.call(o(t),this.__weakMapData__)&&(delete t[this.__weakMapData__],!0)})),get:c((function(t){if(v.call(o(t),this.__weakMapData__))return t[this.__weakMapData__]})),has:c((function(t){return v.call(o(t),this.__weakMapData__)})),set:c((function(t,e){return g(o(t),this.__weakMapData__,c("c",e)),this})),toString:c((function(){return"[object WeakMap]"}))})),g(n.prototype,h,c("c","WeakMap"))},{"./is-native-implemented":185,d:106,"es5-ext/object/is-value":151,"es5-ext/object/set-prototype-of":157,"es5-ext/object/valid-object":161,"es5-ext/object/valid-value":162,"es5-ext/string/random-uniq":167,"es6-iterator/for-of":169,"es6-iterator/get":170,"es6-symbol":175}],187:[function(t,e,r){var n=function(){if("object"==typeof self&&self)return self;if("object"==typeof window&&window)return window;throw new Error("Unable to resolve global `this`")};e.exports=function(){if(this)return this;try{Object.defineProperty(Object.prototype,"__global__",{get:function(){return this},configurable:!0})}catch(t){return n()}try{return __global__||n()}finally{delete Object.prototype.__global__}}()},{}],188:[function(t,e,r){"use strict";e.exports=t("./is-implemented")()?globalThis:t("./implementation")},{"./implementation":187,"./is-

implemented":189}],189:[function(t,e,r){"use strict";e.exports=function(){return"object"==typeof globalThis&&!!globalThis&&globalThis.Array===Array}},{}],190:[function(t,e,r){"use strict";var n=t("is-string-blank");e.exports=function(t){var e=typeof t;if("string"===e){var r=t;if(0==(t=+t)&&n(r))return!1}else if("number"!==e)return!1;return t-t<1}},{"is-string-blank":237}],191:[function(t,e,r){var n=t("dtype");e.exports=function(t,e,r){if(!t)throw new TypeError("must specify data as first parameter");if(r=0|+(r||0),Array.isArray(t)&&t[0]&&"number"==typeof t[0][0]){var i,a,o,s,l=t[0].length,c=t.length*l;e&&"string"!=typeof e||(e=new(n(e||"float32"))(c+r));var u=e.length-r;if(c!==u)throw new Error("source length "+c+" ("+l+"x"+t.length+") does not match destination length "+u);for(i=0,o=r;i<t.length;i++)for(a=0;a<l;a++)e[o++]=null===t[i][a]?NaN:t[i][a]}else if(e&&"string"!=typeof e)e.set(t,r);else{var f=n(e||"float32");if(Array.isArray(t)||"array"===e)for(i=0,o=r,s=(e=new f(t.length+r)).length;o<s;o++,i++)e[o]=null===t[i]?NaN:t[i];else 0===r?e=new f(t):(e=new f(t.length+r)).set(t,r)}return e}},{dtype:127}],192:[function(t,e,r){"use strict";var n=t("css-font/stringify"),i=[32,126];e.exports=function(t){var e=(t=t||{}).shape?t.shape:t.canvas?[t.canvas.width,t.canvas.height]:[512,512],r=t.canvas||document.createElement("canvas"),a=t.font,o="number"==typeof t.step?[t.step,t.step]:t.step||[32,32],s=t.chars||i;if(a&&"string"!=typeof a&&(a=n(a)),Array.isArray(s)){if(2===s.length&&"number"==typeof s[0]&&"number"==typeof s[1]){for(var l=[],c=s[0],u=0;c<=s[1];c++)l[u++]=String.fromCharCode(c);s=l}}else s=String(s).split("");e=e.slice(),r.width=e[0],r.height=e[1];var f=r.getContext("2d");f.fillStyle="#000",f.fillRect(0,0,r.width,r.height),f.font=a,f.textAlign="center",f.textBaseline="middle",f.fillStyle="#fff";var h=o[0]/2,p=o[1]/2;for(c=0;c<s.length;c++)f.fillText(s[c],h,p),(h+=o[0])>e[0]-o[0]/2&&(h=o[0]/2,p+=o[1]);return r}},{"css-font/stringify":102}],193:[function(t,e,r){"use strict";function n(t,e){e||(e={}),("string"==typeof t||Array.isArray(t))&&(e.family=t);var r=Array.isArray(e.family)?e.family.join(", "):e.family;if(!r)throw Error("`family` must be defined");var s=e.size||e.fontSize||e.em||48,l=e.weight||e.fontWeight||"",c=(t=[e.style||e.fontStyle||"",l,s].join(" ")+"px "+r,e.origin||"top");if(n.cache[r]&&s<=n.cache[r].em)return i(n.cache[r],c);var u=e.canvas||n.canvas,f=u.getContext("2d"),h={upper:void 0!==e.upper?e.upper:"H",lower:void 0!==e.lower?e.lower:"x",descent:void 0!==e.descent?e.descent:"p",ascent:void 0!==e.ascent?e.ascent:"h",tittle:void 0!==e.tittle?e.tittle:"i",overshoot:void 0!==e.overshoot?e.overshoot:"O"},p=Math.ceil(1.5*s);u.height=p,u.width=.5*p,f.font=t;var d="H",g={top:0};f.clearRect(0,0,p,p),f.textBaseline="top",f.fillStyle="black",f.fillText(d,0,0);var v=a(f.getImageData(0,0,p,p));f.clearRect(0,0,p,p),f.textBaseline="bottom",f.fillText(d,0,p);var m=a(f.getImageData(0,0,p,p));g.lineHeight=g.bottom=p-m+v,f.clearRect(0,0,p,p),f.textBaseline="alphabetic",f.fillText(d,0,p);var y=p-a(f.getImageData(0,0,p,p))-1+v;g.baseline=g.alphabetic=y,f.clearRect(0,0,p,p),f.textBaseline="middle",f.fillText(d,0,.5*p);var x=a(f.getImageData(0,0,p,p));g.median=g.middle=p-x-1+v-.5*p,f.clearRect(0,0,p,p),f.textBaseline="hanging",f.fillText(d,0,.5*p);var b=a(f.getImageData(0,0,p,p));g.hanging=p-b-1+v-.5*p,f.clearRect(0,0,p,p),f.textBaseline="ideographic",f.fillText(d,0,p);var _=a(f.getImageData(0,0,p,p));if(g.ideographic=p-_-1+v,h.upper&&(f.clearRect(0,0,p,p),f.textBaseline="top",f.fillText(h.upper,0,0),g.upper=a(f.getImageData(0,0,p,p)),g.capHeight=g.baseline-g.upper),h.lower&&(f.clearRect(0,0,p,p),f.textBaseline="top",f.fillText(h.lower,0,0),g.lower=a(f.getImageData(0,0,p,p)),g.xHeight=g.baseline-g.lower),h.tittle&&(f.clearRect(0,0,p,p),f.textBaseline="top",f.fillText(h.tittle,0,0),g.tittle=a(f.getImageData(0,0,p,p)),h.ascent&&(f.clearRect(0,0,p,p),f.textBaseline="top",f.fillText(h.ascent,0,0),g.ascent=a(f.getImageData(0,0,p,p))),h.descent&&(f.clearRect(0,0,p,p),f.textBaseline="top",f.fillText(h.descent,0,0),g.descent=o(f.getImageData(0,0,p,p))),h.overshoot){f.clearRect(0,0,p,p),f.textBaseline="top",f.fillText(h.overshoot,0,0);var w=o(f.getImageData(0,0,p,p));g.overshoot=w-y}for(var T in g)g[T]/=s;return g.em=s,n.cache[r]=g,i(g,c)}function

i(t,e){var r={};for(var n in"string"==typeof e&&(e=t[e]),t)"em"!==n&&(r[n]=t[n]-e);return r}function a(t){for(var e=t.height,r=t.data,n=3;n<r.length;n+=4)if(0!==r[n])return Math.floor(.25*(n-3)/e)}function o(t){for(var e=t.height,r=t.data,n=r.length-1;n>0;n-=4)if(0!==r[n])return Math.floor(.25*(n-3)/e)}e.exports=n,n.canvas=document.createElement("canvas"),n.cache={}},{}],194:[function(t,e,r){e.exports=function(t,e){if("string"!=typeof t)throw new TypeError("must specify type string");if(e=e||{},"undefined"==typeof document&&!e.canvas)return null;var r=e.canvas||document.createElement("canvas");"number"==typeof e.width&&(r.width=e.width),"number"==typeof e.height&&(r.height=e.height);var n,i=e;try{var a=[t];0===t.indexOf("webgl")&&a.push("experimental-"+t);for(var o=0;o<a.length;o++)if(n=r.getContext(a[o],i))return n}catch(t){n=null}return n||null}},{}],195:[function(t,e,r){e.exports=function(t,e){var r=e[0],n=e[1],i=e[2],a=e[3],o=e[4],s=e[5],l=e[6],c=e[7],u=e[8],f=e[9],h=e[10],p=e[11],d=e[12],g=e[13],v=e[14],m=e[15];return t[0]=s*(h*m-p*v)-f*(l*m-c*v)+g*(l*p-c*h),t[1]=-(n*(h*m-p*v)-f*(i*m-a*v)+g*(i*p-a*h)),t[2]=n*(l*m-c*v)-s*(i*m-a*v)+g*(i*c-a*l),t[3]=-(n*(l*p-c*h)-s*(i*p-a*h)+f*(i*c-a*l)),t[4]=-(o*(h*m-p*v)-u*(l*m-c*v)+d*(l*p-c*h)),t[5]=r*(h*m-p*v)-u*(i*m-a*v)+d*(i*p-a*h),t[6]=-(r*(l*m-c*v)-o*(i*m-a*v)+d*(i*c-a*l)),t[7]=r*(l*p-c*h)-o*(i*p-a*h)+u*(i*c-a*l),t[8]=o*(f*m-p*g)-u*(s*m-c*g)+d*(s*p-c*f),t[9]=-(r*(f*m-p*g)-u*(n*m-a*g)+d*(n*p-a*f)),t[10]=r*(s*m-c*g)-o*(n*m-a*g)+d*(n*c-a*s),t[11]=-(r*(s*p-c*f)-o*(n*p-a*f)+u*(n*c-a*s)),t[12]=-(o*(f*v-h*g)-u*(s*v-l*g)+d*(s*h-l*f)),t[13]=r*(f*v-h*g)-u*(n*v-i*g)+d*(n*h-i*f),t[14]=-(r*(s*v-l*g)-o*(n*v-i*g)+d*(n*l-i*s)),t[15]=r*(s*h-l*f)-o*(n*h-i*f)+u*(n*l-i*s),t}},{}],196:[function(t,e,r){e.exports=function(t){var e=new Float32Array(16);return e[0]=t[0],e[1]=t[1],e[2]=t[2],e[3]=t[3],e[4]=t[4],e[5]=t[5],e[6]=t[6],e[7]=t[7],e[8]=t[8],e[9]=t[9],e[10]=t[10],e[11]=t[11],e[12]=t[12],e[13]=t[13],e[14]=t[14],e[15]=t[15],e}},{}],197:[function(t,e,r){e.exports=function(t,e){return t[0]=e[0],t[1]=e[1],t[2]=e[2],t[3]=e[3],t[4]=e[4],t[5]=e[5],t[6]=e[6],t[7]=e[7],t[8]=e[8],t[9]=e[9],t[10]=e[10],t[11]=e[11],t[12]=e[12],t[13]=e[13],t[14]=e[14],t[15]=e[15],t}},{}],198:[function(t,e,r){e.exports=function(){var t=new Float32Array(16);return t[0]=1,t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=1,t[6]=0,t[7]=0,t[8]=0,t[9]=0,t[10]=1,t[11]=0,t[12]=0,t[13]=0,t[14]=0,t[15]=1,t}},{}],199:[function(t,e,r){e.exports=function(t){var e=t[0],r=t[1],n=t[2],i=t[3],a=t[4],o=t[5],s=t[6],l=t[7],c=t[8],u=t[9],f=t[10],h=t[11],p=t[12],d=t[13],g=t[14],v=t[15];return(e*o-r*a)*(f*v-h*g)-(e*s-n*a)*(u*v-h*d)+(e*l-i*a)*(u*g-f*d)+(r*s-n*o)*(c*v-h*p)-(r*l-i*o)*(c*g-f*p)+(n*l-i*s)*(c*d-u*p)}},{}],200:[function(t,e,r){e.exports=function(t,e){var r=e[0],n=e[1],i=e[2],a=e[3],o=r+r,s=n+n,l=i+i,c=r*o,u=n*o,f=n*s,h=i*o,p=i*s,d=i*l,g=a*o,v=a*s,m=a*l;return t[0]=1-f-d,t[1]=u+m,t[2]=h-v,t[3]=0,t[4]=u-m,t[5]=1-c-d,t[6]=p+g,t[7]=0,t[8]=h+v,t[9]=p-g,t[10]=1-c-f,t[11]=0,t[12]=0,t[13]=0,t[14]=0,t[15]=1,t}},{}],201:[function(t,e,r){e.exports=function(t,e,r){var n,i,a,o=r[0],s=r[1],l=r[2],c=Math.sqrt(o*o+s*s+l*l);return Math.abs(c)<1e-6?null:(o*=c=1/c,s*=c,l*=c,n=Math.sin(e),a=1-(i=Math.cos(e)),t[0]=o*o*a+i,t[1]=s*o*a+l*n,t[2]=l*o*a-s*n,t[3]=0,t[4]=o*s*a-l*n,t[5]=s*s*a+i,t[6]=l*s*a+o*n,t[7]=0,t[8]=o*l*a+s*n,t[9]=s*l*a-o*n,t[10]=l*l*a+i,t[11]=0,t[12]=0,t[13]=0,t[14]=0,t[15]=1,t)}},{}],202:[function(t,e,r){e.exports=function(t,e,r){var n=e[0],i=e[1],a=e[2],o=e[3],s=n+n,l=i+i,c=a+a,u=n*s,f=n*l,h=n*c,p=i*l,d=i*c,g=a*c,v=o*s,m=o*l,y=o*c;return t[0]=1-(p+g),t[1]=f+y,t[2]=h-m,t[3]=0,t[4]=f-y,t[5]=1-(u+g),t[6]=d+v,t[7]=0,t[8]=h+m,t[9]=d-v,t[10]=1-(u+p),t[11]=0,t[12]=r[0],t[13]=r[1],t[14]=r[2],t[15]=1,t}},{}],203:[function(t,e,r){e.exports=function(t,e){return t[0]=e[0],t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=e[1],t[6]=0,t[7]=0,t[8]=0,t[9]=0,t[10]=e[2],t[11]=0,t[12]=0,t[13]=0,t[14]=0,t[15]=1,t}},{}],204:[function(t,e,r){e.exports=function(t,e){return t[0]=1,t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=1,t[6]=0,t[7]=0,t[8]=0,t[9]=0,t[10]=1,t[11]=0,t[12]=e[0],t[13]=e[1],t[14]=e[2],t[15]=1,t}},{}],205:[function(t,e,r){e.exports=function(t,e){var r=Math.sin(e),n=Math.cos(e);return t[0]=1,t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=n,t[6]=r,t[7]=0,t[8]=0,t[9]=-r,t[10]=n,t[11]=0,t[12]=0,t[13]=0,t[14]=0,t[15]=1,t}},{}],206:[function(t,e,r){e.exports=function(t,e){var r=Math.sin(e),n=Math.cos(e);return t[0]=n,t[1]=0,t[2]=-r,t[3]=0,t[4]=0,t[5]=1,t[6]=0,t[7]=0,t[8]=r,t[9]=0,t[10]=n,t[11]=0,t[12]=0,t[13]=0,t[14]=0,t[15]=1,t}},{}],207:[function(t,e,r){e.exports=function(t,e){var r=Math.sin(e),n=Math.cos(e);return t[0]=n,t[1]=r,t[2]=0,t[3]=0,t[4]=-

r,t[5]=n,t[6]=0,t[7]=0,t[8]=0,t[9]=0,t[10]=1,t[11]=0,t[12]=0,t[13]=0,t[14]=0,t[15]=1,t}},{}],208:[function(t,e,r){e.exports=function(t,e,r,n,i,a,o){var s=1/(r-e),l=1/(i-n),c=1/(a-o);return t[0]=2*a*s,t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=2*a*l,t[6]=0,t[7]=0,t[8]=(r+e)*s,t[9]=(i+n)*l,t[10]=(o+a)*c,t[11]=-1,t[12]=0,t[13]=0,t[14]=o*a*2*c,t[15]=0,t}},{}],209:[function(t,e,r){e.exports=function(t){return t[0]=1,t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=1,t[6]=0,t[7]=0,t[8]=0,t[9]=0,t[10]=1,t[11]=0,t[12]=0,t[13]=0,t[14]=0,t[15]=1,t}},{}],210:[function(t,e,r){e.exports={create:t("./create"),clone:t("./clone"),copy:t("./copy"),identity:t("./identity"),transpose:t("./transpose"),invert:t("./invert"),adjoint:t("./adjoint"),determinant:t("./determinant"),multiply:t("./multiply"),translate:t("./translate"),scale:t("./scale"),rotate:t("./rotate"),rotateX:t("./rotateX"),rotateY:t("./rotateY"),rotateZ:t("./rotateZ"),fromRotation:t("./fromRotation"),fromRotationTranslation:t("./fromRotationTranslation"),fromScaling:t("./fromScaling"),fromTranslation:t("./fromTranslation"),fromXRotation:t("./fromXRotation"),fromYRotation:t("./fromYRotation"),fromZRotation:t("./fromZRotation"),fromQuat:t("./fromQuat"),frustum:t("./frustum"),perspective:t("./perspective"),perspectiveFromFieldOfView:t("./perspectiveFromFieldOfView"),ortho:t("./ortho"),lookAt:t("./lookAt"),str:t("./str")}},{"./adjoint":195,"./clone":196,"./copy":197,"./create":198,"./determinant":199,"./fromQuat":200,"./fromRotation":201,"./fromRotationTranslation":202,"./fromScaling":203,"./fromTranslation":204,"./fromXRotation":205,"./fromYRotation":206,"./fromZRotation":207,"./frustum":208,"./identity":209,"./invert":211,"./lookAt":212,"./multiply":213,"./ortho":214,"./perspective":215,"./perspectiveFromFieldOfView":216,"./rotate":217,"./rotateX":218,"./rotateY":219,"./rotateZ":220,"./scale":221,"./str":222,"./translate":223,"./transpose":224}],211:[function(t,e,r){e.exports=function(t,e){var r=e[0],n=e[1],i=e[2],a=e[3],o=e[4],s=e[5],l=e[6],c=e[7],u=e[8],f=e[9],h=e[10],p=e[11],d=e[12],g=e[13],v=e[14],m=e[15],y=r*s-n*o,x=r*l-i*o,b=r*c-a*o,_=n*l-i*s,w=n*c-a*s,T=i*c-a*l,k=u*g-f*d,A=u*v-h*d,M=u*m-p*d,S=f*v-h*g,E=f*m-p*g,L=h*m-p*v,C=y*L-x*E+b*S+_*M-w*A+T*k;return C?(C=1/C,t[0]=(s*L-l*E+c*S)*C,t[1]=(i*E-n*L-a*S)*C,t[2]=(g*T-v*w+m*_)*C,t[3]=(h*w-f*T-p*_)*C,t[4]=(l*M-o*L-c*A)*C,t[5]=(r*L-i*M+a*A)*C,t[6]=(v*b-d*T-m*x)*C,t[7]=(u*T-h*b+p*x)*C,t[8]=(o*E-s*M+c*k)*C,t[9]=(n*M-r*E-a*k)*C,t[10]=(d*w-g*b+m*y)*C,t[11]=(f*b-u*w-p*y)*C,t[12]=(s*A-o*S-l*k)*C,t[13]=(r*S-n*A+i*k)*C,t[14]=(g*x-d*_-v*y)*C,t[15]=(u*_-f*x+h*y)*C,t):null}},{}],212:[function(t,e,r){var n=t("./identity");e.exports=function(t,e,r,i){var a,o,s,l,c,u,f,h,p,d,g=e[0],v=e[1],m=e[2],y=i[0],x=i[1],b=i[2],_=r[0],w=r[1],T=r[2];return Math.abs(g-_)<1e-6&&Math.abs(v-w)<1e-6&&Math.abs(m-T)<1e-6?n(t):(f=g-_,h=v-w,p=m-T,a=x*(p*=d=1/Math.sqrt(f*f+h*h+p*p))-b*(h*=d),o=b*(f*=d)-y*p,s=y*h-x*f,(d=Math.sqrt(a*a+o*o+s*s))?(a*=d=1/d,o*=d,s*=d):(a=0,o=0,s=0),l=h*s-p*o,c=p*a-f*s,u=f*o-h*a,(d=Math.sqrt(l*l+c*c+u*u))?(l*=d=1/d,c*=d,u*=d):(l=0,c=0,u=0),t[0]=a,t[1]=l,t[2]=f,t[3]=0,t[4]=o,t[5]=c,t[6]=h,t[7]=0,t[8]=s,t[9]=u,t[10]=p,t[11]=0,t[12]=-(a*g+o*v+s*m),t[13]=-(l*g+c*v+u*m),t[14]=-(f*g+h*v+p*m),t[15]=1,t)}},{"./identity":209}],213:[function(t,e,r){e.exports=function(t,e,r){var n=e[0],i=e[1],a=e[2],o=e[3],s=e[4],l=e[5],c=e[6],u=e[7],f=e[8],h=e[9],p=e[10],d=e[11],g=e[12],v=e[13],m=e[14],y=e[15],x=r[0],b=r[1],_=r[2],w=r[3];return t[0]=x*n+b*s+_*f+w*g,t[1]=x*i+b*l+_*h+w*v,t[2]=x*a+b*c+_*p+w*m,t[3]=x*o+b*u+_*d+w*y,x=r[4],b=r[5],_=r[6],w=r[7],t[4]=x*n+b*s+_*f+w*g,t[5]=x*i+b*l+_*h+w*v,t[6]=x*a+b*c+_*p+w*m,t[7]=x*o+b*u+_*d+w*y,x=r[8],b=r[9],_=r[10],w=r[11],t[8]=x*n+b*s+_*f+w*g,t[9]=x*i+b*l+_*h+w*v,t[10]=x*a+b*c+_*p+w*m,t[11]=x*o+b*u+_*d+w*y,x=r[12],b=r[13],_=r[14],w=r[15],t[12]=x*n+b*s+_*f+w*g,t[13]=x*i+b*l+_*h+w*v,t[14]=x*a+b*c+_*p+w*m,t[15]=x*o+b*u+_*d+w*y,t}},{}],214:[function(t,e,r){e.exports=function(t,e,r,n,i,a,o){var s=1/(e-r),l=1/(n-i),c=1/(a-o);return t[0]=-2*s,t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=-2*l,t[6]=0,t[7]=0,t[8]=0,t[9]=0,t[10]=2*c,t[11]=0,t[12]=(e+r)*s,t[13]=(i+n)*l,t[14]=(o+a)*c,t[15]=1,t}},{}],215:[function(t,e,r){e.exports=function(t,e,r,n,i){var a=1/Math.tan(e/2),o=1/(n-i);return t[0]=a/r,t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=a,t[6]=0,t[7]=0,t[8]=0,t[9]=0,t[10]=(i+n)*o,t[11]=-1,t[12]=0,t[13]=0,t[14]=2*i*n*o,t[15]=0,t}},{}],216:[function(t,e,r){e.exports=function(t,e,r,n){var i=Math.tan(e.upDegrees*Math.PI/180),a=Math.tan(e.downDegrees*Math.PI/180),o=Math.tan(e.leftDegrees*Math.PI/180),s=Math.tan(e.rightDegrees*Math.PI/180),l=2/(o+s),c=2/(i+a);return t[0]=l,t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=c,t[6]=0,t[7]=0,t[8]=-(o-s)*l*.5,t[9]=(i-a)*c*.5,t[10]=n/(r-n),t[11]=-

1,t[12]=0,t[13]=0,t[14]=n*r/(r-n),t[15]=0,t}},{}],217:[function(t,e,r){e.exports=function(t,e,r,n){var i,a,o,s,l,c,u,f,h,p,d,g,v,m,y,x,b,_,w,T,k,A,M,S,E=n[0],L=n[1],C=n[2],P=Math.sqrt(E*E+L*L+C*C);return Math.abs(P)<1e-6?null:(E*=P=1/P,L*=P,C*=P,i=Math.sin(r),o=1-(a=Math.cos(r)),s=e[0],l=e[1],c=e[2],u=e[3],f=e[4],h=e[5],p=e[6],d=e[7],g=e[8],v=e[9],m=e[10],y=e[11],x=E*E*o+a,b=L*E*o+C*i,_=C*E*o-L*i,w=E*L*o-C*i,T=L*L*o+a,k=C*L*o+E*i,A=E*C*o+L*i,M=L*C*o-E*i,S=C*C*o+a,t[0]=s*x+f*b+g*_,t[1]=l*x+h*b+v*_,t[2]=c*x+p*b+m*_,t[3]=u*x+d*b+y*_,t[4]=s*w+f*T+g*k,t[5]=l*w+h*T+v*k,t[6]=c*w+p*T+m*k,t[7]=u*w+d*T+y*k,t[8]=s*A+f*M+g*S,t[9]=l*A+h*M+v*S,t[10]=c*A+p*M+m*S,t[11]=u*A+d*M+y*S,e!==t&&(t[12]=e[12],t[13]=e[13],t[14]=e[14],t[15]=e[15]),t)}},{}],218:[function(t,e,r){e.exports=function(t,e,r){var n=Math.sin(r),i=Math.cos(r),a=e[4],o=e[5],s=e[6],l=e[7],c=e[8],u=e[9],f=e[10],h=e[11];return e!==t&&(t[0]=e[0],t[1]=e[1],t[2]=e[2],t[3]=e[3],t[12]=e[12],t[13]=e[13],t[14]=e[14],t[15]=e[15]),t[4]=a*i+c*n,t[5]=o*i+u*n,t[6]=s*i+f*n,t[7]=l*i+h*n,t[8]=c*i-a*n,t[9]=u*i-o*n,t[10]=f*i-s*n,t[11]=h*i-l*n,t}},{}],219:[function(t,e,r){e.exports=function(t,e,r){var n=Math.sin(r),i=Math.cos(r),a=e[0],o=e[1],s=e[2],l=e[3],c=e[8],u=e[9],f=e[10],h=e[11];return e!==t&&(t[4]=e[4],t[5]=e[5],t[6]=e[6],t[7]=e[7],t[12]=e[12],t[13]=e[13],t[14]=e[14],t[15]=e[15]),t[0]=a*i-c*n,t[1]=o*i-u*n,t[2]=s*i-f*n,t[3]=l*i-h*n,t[8]=a*n+c*i,t[9]=o*n+u*i,t[10]=s*n+f*i,t[11]=l*n+h*i,t}},{}],220:[function(t,e,r){e.exports=function(t,e,r){var n=Math.sin(r),i=Math.cos(r),a=e[0],o=e[1],s=e[2],l=e[3],c=e[4],u=e[5],f=e[6],h=e[7];return e!==t&&(t[8]=e[8],t[9]=e[9],t[10]=e[10],t[11]=e[11],t[12]=e[12],t[13]=e[13],t[14]=e[14],t[15]=e[15]),t[0]=a*i+c*n,t[1]=o*i+u*n,t[2]=s*i+f*n,t[3]=l*i+h*n,t[4]=c*i-a*n,t[5]=u*i-o*n,t[6]=f*i-s*n,t[7]=h*i-l*n,t}},{}],221:[function(t,e,r){e.exports=function(t,e,r){var n=r[0],i=r[1],a=r[2];return t[0]=e[0]*n,t[1]=e[1]*n,t[2]=e[2]*n,t[3]=e[3]*n,t[4]=e[4]*i,t[5]=e[5]*i,t[6]=e[6]*i,t[7]=e[7]*i,t[8]=e[8]*a,t[9]=e[9]*a,t[10]=e[10]*a,t[11]=e[11]*a,t[12]=e[12],t[13]=e[13],t[14]=e[14],t[15]=e[15],t}},{}],222:[function(t,e,r){e.exports=function(t){return"mat4("+t[0]+", "+t[1]+", "+t[2]+", "+t[3]+", "+t[4]+", "+t[5]+", "+t[6]+", "+t[7]+", "+t[8]+", "+t[9]+", "+t[10]+", "+t[11]+", "+t[12]+", "+t[13]+", "+t[14]+", "+t[15]+")"}},{}],223:[function(t,e,r){e.exports=function(t,e,r){var n,i,a,o,s,l,c,u,f,h,p,d,g=r[0],v=r[1],m=r[2];return e===t?(t[12]=e[0]*g+e[4]*v+e[8]*m+e[12],t[13]=e[1]*g+e[5]*v+e[9]*m+e[13],t[14]=e[2]*g+e[6]*v+e[10]*m+e[14],t[15]=e[3]*g+e[7]*v+e[11]*m+e[15]):(n=e[0],i=e[1],a=e[2],o=e[3],s=e[4],l=e[5],c=e[6],u=e[7],f=e[8],h=e[9],p=e[10],d=e[11],t[0]=n,t[1]=i,t[2]=a,t[3]=o,t[4]=s,t[5]=l,t[6]=c,t[7]=u,t[8]=f,t[9]=h,t[10]=p,t[11]=d,t[12]=n*g+s*v+f*m+e[12],t[13]=i*g+l*v+h*m+e[13],t[14]=a*g+c*v+p*m+e[14],t[15]=o*g+u*v+d*m+e[15]),t}},{}],224:[function(t,e,r){e.exports=function(t,e){if(t===e){var r=e[1],n=e[2],i=e[3],a=e[6],o=e[7],s=e[11];t[1]=e[4],t[2]=e[8],t[3]=e[12],t[4]=r,t[6]=e[9],t[7]=e[13],t[8]=n,t[9]=a,t[11]=e[14],t[12]=i,t[13]=o,t[14]=s}else t[0]=e[0],t[1]=e[4],t[2]=e[8],t[3]=e[12],t[4]=e[1],t[5]=e[5],t[6]=e[9],t[7]=e[13],t[8]=e[2],t[9]=e[6],t[10]=e[10],t[11]=e[14],t[12]=e[3],t[13]=e[7],t[14]=e[11],t[15]=e[15];return t}},{}],225:[function(t,e,r){"use strict";var n=t("css-font"),i=t("pick-by-alias"),a=t("regl"),o=t("gl-util/context"),s=t("es6-weak-map"),l=t("color-normalize"),c=t("font-atlas"),u=t("typedarray-pool"),f=t("parse-rect"),h=t("is-plain-obj"),p=t("parse-unit"),d=t("to-px"),g=t("detect-kerning"),v=t("object-assign"),m=t("font-measure"),y=t("flatten-vertex-data"),x=t("bit-twiddle").nextPow2,b=new s,_=!1;if(document.body){var w=document.body.appendChild(document.createElement("div"));w.style.font="italic small-caps bold condensed 16px/2 cursive",getComputedStyle(w).fontStretch&&(_=!0),document.body.removeChild(w)}var T=function(t){!function(t){return"function"==typeof t&&t._gl&&t.prop&&t.texture&&t.buffer}(t)?this.gl=o(t):(t={regl:t},this.gl=t.regl._gl),this.shader=b.get(this.gl),this.shader?this.regl=this.shader.regl:this.regl=t.regl||a({gl:this.gl}),this.charBuffer=this.regl.buffer({type:"uint8",usage:"stream"}),this.sizeBuffer=this.regl.buffer({type:"float",usage:"stream"}),this.shader||(this.shader=this.createShader(),b.set(this.gl,this.shader)),this.batch=[],this.fontSize=[],this.font=[],this.fontAtlas=[],this.draw=this.shader.draw.bind(this),this.render=function(){this.regl._refresh(),this.draw(this.batch)},this.canvas=this.gl.canvas,this.update(h(t)?t:{})};T.prototype.createShader=function(){var t=this.regl,e=t({blend:{enable:!0,color:[0,0,0,1],func:{srcRGB:"src

alpha",dstRGB:"one minus src alpha",srcAlpha:"one minus dst alpha",dstAlpha:"one"}},stencil:{enable:!1},depth:{enable:!1},count:t.prop("count"),offset:t.prop("offset"),attributes:{charOffset:{offset:4,stride:8,buffer:t.this("sizeBuffer")},width:{offset:0,stride:8,buffer:t.this("sizeBuffer")},char:t.this("charBuffer"),position:t.this("position")},uniforms:{atlasSize:function(t,e){return[e.atlas.width,e.atlas.height]},atlasDim:function(t,e){return[e.atlas.cols,e.atlas.rows]},atlas:function(t,e){return e.atlas.texture},charStep:function(t,e){return e.atlas.step},em:function(t,e){return e.atlas.em},color:t.prop("color"),opacity:t.prop("opacity"),viewport:t.this("viewportArray"),scale:t.this("scale"),align:t.prop("align"),baseline:t.prop("baseline"),translate:t.this("translate"),positionOffset:t.prop("positionOffset")},primitive:"points",viewport:t.this("viewport"),vert:"\n\t\t\tprecision highp float;\n\t\t\tattribute float width, charOffset, char;\n\t\t\tattribute vec2 position;\n\t\t\tuniform float fontSize, charStep, em, align, baseline;\n\t\t\tuniform vec4 viewport;\n\t\t\tuniform vec4 color;\n\t\t\tuniform vec2 atlasSize, atlasDim, scale, translate, positionOffset;\n\t\t\tvarying vec2 charCoord, charId;\n\t\t\tvarying float charWidth;\n\t\t\tvarying vec4 fontColor;\n\t\t\tvoid main () {\n\t\t\t\tvec2 offset = floor(em * (vec2(align + charOffset, baseline)\n\t\t\t\t\t+ vec2(positionOffset.x, -positionOffset.y)))\n\t\t\t\t/ (viewport.zw * scale.xy);\n\n\t\t\tvec2 position = (position + translate) * scale;\n\t\t\tposition += offset * scale;\n\n\t\t\tcharCoord = position * viewport.zw + viewport.xy;\n\n\t\t\tgl_Position = vec4(position * 2. - 1., 0, 1);\n\n\t\t\tgl_PointSize = charStep;\n\n\t\t\tcharId.x = mod(char, atlasDim.x);\n\t\t\tcharId.y = floor(char / atlasDim.x);\n\n\t\t\tcharWidth = width * em;\n\n\t\t\tfontColor = color / 255.;\n\t\t}",frag:"\n\t\tprecision highp float;\n\t\tuniform float fontSize, charStep, opacity;\n\t\tuniform vec2 atlasSize;\n\t\tuniform vec4 viewport;\n\t\tuniform sampler2D atlas;\n\t\tvarying vec4 fontColor;\n\t\tvarying vec2 charCoord, charId;\n\t\tvarying float charWidth;\n\n\t\tfloat lightness(vec4 color) {\n\t\t\treturn color.r * 0.299 + color.g * 0.587 + color.b * 0.114;\n\t\t}\n\n\t\tvoid main () {\n\t\t\tvec2 uv = gl_FragCoord.xy - charCoord + charStep * .5;\n\t\t\tfloat halfCharStep = floor(charStep * .5 + .5);\n\n\t\t\t// invert y and shift by 1px (FF expecially needs that)\n\t\t\tuv.y = charStep - uv.y;\n\n\t\t\t// ignore points outside of character bounding box\n\t\t\tfloat halfCharWidth = ceil(charWidth * .5);\n\t\t\tif (floor(uv.x) > halfCharStep + halfCharWidth ||\n\t\t\t\tfloor(uv.x) < halfCharStep - halfCharWidth) return;\n\n\t\t\tuv += charId * charStep;\n\t\t\tuv = uv / atlasSize;\n\n\t\t\tvec4 color = fontColor;\n\t\t\tvec4 mask = texture2D(atlas, uv);\n\n\t\t\tfloat maskY = lightness(mask);\n\t\t\t// float colorY = lightness(color);\n\t\t\tcolor.a *= maskY;\n\t\t\tcolor.a *= opacity;\n\n\t\t\t// color.a += .1;\n\n\t\t\t// antialiasing, see yiq color space y-channel formula\n\t\t\t// color.rgb += (1. - color.rgb) * (1. - mask.rgb);\n\n\t\t\tgl_FragColor = color;\n\t\t}"});return{regl:t,draw:e,atlas:{}}},T.prototype.update=function(t){var e=this;if("string"==typeof t)t={text:t};else if(!t)return;null!=(t=i(t,{position:"position positions coord coords coordinates",font:"font fontFace fontface typeface cssFont css-font family fontFamily",fontSize:"fontSize fontsize size font-size",text:"text texts chars characters value values symbols",align:"align alignment textAlign textbaseline",baseline:"baseline textBaseline textbaseline",direction:"dir direction textDirection",color:"color colour fill fill-color fillColor textColor textcolor",kerning:"kerning kern",range:"range dataBox",viewport:"vp viewport viewBox viewbox viewPort",opacity:"opacity alpha transparency visible visibility opaque",offset:"offset positionOffset padding shift indent indentation"},!0)).opacity&&(Array.isArray(t.opacity)?this.opacity=t.opacity.map((function(t){return parseFloat(t)})):this.opacity=parseFloat(t.opacity)),null!=t.viewport&&(this.viewport=f(t.viewport),this.viewportArray=[this.viewport.x,this.viewport.y,this.viewport.width,this.viewport.height]),null==this.viewport&&(this.viewport={x:0,y:0,width:this.gl.drawingBufferWidth,height:this.gl.drawingBufferHeight},this.viewportArray=[this.viewport.x,this.viewport.y,this.viewport.width,this.viewport.height]),null!=t.kerning&&(this.kerning=t.kerning),null!=t.offset&&("number"==typeof t.offset&&(t.offset=[t.offset,0]),this.positionOffset=y(t.offset)),t.direction&&(this.direction=t.direction),t.range&&(this.range=t.range,this.scale=[1/(t.range[2]-t.range[0]),1/(t.range[3]-t.range[1])],this.translate=[-t.range[0],-t.range[1]]),t.scale&&(this.scale=t.scale),t.translate&&(this.translate=t.translate),this.scale||(this.scale=[1/this.viewport.width,1/this.viewport.height]),this.translate||(this.translate=[0,0]),this.font.length||t.font||(t.font=T.baseFontSize+"px sans-serif");var

r,a=!1,o=!1;if(t.font&&(Array.isArray(t.font)?t.font:[t.font]).forEach((function(t,r){if("string"==typeof t)try{t=n.parse(t)}catch(e){t=n.parse(T.baseFontSize+"px "+t)}else t=n.parse(n.stringify(t));var i=n.stringify({size:T.baseFontSize,family:t.family,stretch:_?t.stretch:void 0,variant:t.variant,weight:t.weight,style:t.style}),s=p(t.size),l=Math.round(s[0]*d(s[1]));if(l!==e.fontSize[r]&&(o=!0,e.fontSize[r]=l),!(e.font[r]&&i==e.font[r].baseString||(a=!0,e.font[r]=T.fonts[i],e.font[r]))){var c=t.family.join(","),u=[t.style];t.style!=t.variant&&u.push(t.variant),t.variant!=t.weight&&u.push(t.weight),_&&t.weight!=t.stretch&&u.push(t.stretch),e.font[r]={baseString:i,family:c,weight:t.weight,stretch:t.stretch,style:t.style,variant:t.variant,width:{},kerning:{},metrics:m(c,{origin:"top",fontSize:T.baseFontSize,fontStyle:u.join(" ")})},T.fonts[i]=e.font[r]}})),(a||o)&&this.font.forEach((function(r,i){var a=n.stringify({size:e.fontSize[i],family:r.family,stretch:_?r.stretch:void 0,variant:r.variant,weight:r.weight,style:r.style});if(e.fontAtlas[i]=e.shader.atlas[a],!e.fontAtlas[i]){var o=r.metrics;e.shader.atlas[a]=e.fontAtlas[i]={fontString:a,step:2*Math.ceil(e.fontSize[i]*o.bottom*.5),em:e.fontSize[i],cols:0,rows:0,height:0,width:0,chars:[],ids:{},texture:e.regl.texture()}}null==t.text&&(t.text=e.text)})),"string"==typeof t.text&&t.position&&t.position.length>2){for(var s=Array(.5*t.position.length),h=0;h<s.length;h++)s[h]=t.text;t.text=s}if(null!=t.text||a){if(this.textOffsets=[0],Array.isArray(t.text)){this.count=t.text[0].length,this.counts=[this.count];for(var b=1;b<t.text.length;b++)this.textOffsets[b]=this.textOffsets[b-1]+t.text[b-1].length,this.count+=t.text[b].length,this.counts.push(t.text[b].length);this.text=t.text.join("")}else this.text=t.text,this.count=this.text.length,this.counts=[this.count];r=[],this.font.forEach((function(t,n){T.atlasContext.font=t.baseString;for(var i=e.fontAtlas[n],a=0;a<e.text.length;a++){var o=e.text.charAt(a);if(null==i.ids[o]&&(i.ids[o]=i.chars.length,i.chars.push(o),r.push(o)),null==t.width[o]&&(t.width[o]=T.atlasContext.measureText(o).width/T.baseFontSize,e.kerning)){var s=[];for(var l in t.width)s.push(l+o,o+l);v(t.kerning,g(t.family,{pairs:s}))}}}))}if(t.position)if(t.position.length>2){for(var w=!t.position[0].length,k=u.mallocFloat(2*this.count),A=0,M=0;A<this.counts.length;A++){var S=this.counts[A];if(w)for(var E=0;E<S;E++)k[M++]=t.position[2*A],k[M++]=t.position[2*A+1];else for(var L=0;L<S;L++)k[M++]=t.position[A][0],k[M++]=t.position[A][1]}this.position.call?this.position({type:"float",data:k}):this.position=this.regl.buffer({type:"float",data:k}),u.freeFloat(k)}else this.position.destroy&&this.position.destroy(),this.position={constant:t.position};if(t.text||a){var C=u.mallocUint8(this.count),P=u.mallocFloat(2*this.count);this.textWidth=[];for(var I=0,O=0;I<this.counts.length;I++){for(var z=this.counts[I],D=this.font[I]||this.font[0],R=this.fontAtlas[I]||this.fontAtlas[0],F=0;F<z;F++){var B=this.text.charAt(O),N=this.text.charAt(O-1);if(C[O]=R.ids[B],P[2*O]=D.width[B],F){var j=P[2*O-2],U=P[2*O],V=P[2*O-1]+.5*j+.5*U;if(this.kerning){var q=D.kerning[N+B];q&&(V+=.001*q)}P[2*O+1]=V}else P[2*O+1]=.5*P[2*O];O++}this.textWidth.push(P.length?.5*P[2*O-2]+P[2*O-1]:0)}t.align||(t.align=this.align),this.charBuffer({data:C,type:"uint8",usage:"stream"}),this.sizeBuffer({data:P,type:"float",usage:"stream"}),u.freeUint8(C),u.freeFloat(P),r.length&&this.font.forEach((function(t,r){var n=e.fontAtlas[r],i=n.step,a=Math.floor(T.maxAtlasSize/i),o=Math.min(a,n.chars.length),s=Math.ceil(n.chars.length/o),l=x(o*i),u=x(s*i);n.width=l,n.height=u,n.rows=s,n.cols=o,n.em&&n.texture({data:c({canvas:T.atlasCanvas,font:n.fontString,chars:n.chars,shape:[l,u],step:[i,i]})})}))}if(t.align&&(this.align=t.align,this.alignOffset=this.textWidth.map((function(t,r){var n=Array.isArray(e.align)?e.align.length>1?e.align[r]:e.align[0]:e.align;if("number"==typeof n)return n;switch(n){case"right":case"end":return-t;case"center":case"centre":case"middle":return.5*-t}return 0}))),null==this.baseline&&null==t.baseline&&(t.baseline=0),null!=t.baseline&&(this.baseline=t.baseline,Array.isArray(this.baseline)||(this.baseline=[this.baseline]),this.baselineOffset=this.baseline.map((function(t,r){var n=(e.font[r]||e.font[0]).metrics,i=0;return i+=.5*n.bottom,-1*(i+="number"==typeof t?t-n.baseline:-n[t])}))),null!=t.color)if(t.color||(t.color="transparent"),"string"!=typeof t.color&&isNaN(t.color)){var H;if("number"==typeof t.color[0]&&t.color.length>this.counts.length){var G=t.color.length;H=u.mallocUint8(G);for(var Y=(t.color.subarray||t.color.slice).bind(t.color),W=0;W<G;W+=4)H.set(l(Y(W,W+4),"uint8"),W)}else{var

X=t.color.length;H=u.mallocUint8(4*X);for(var
Z=0;Z<X;Z++)H.set(l(t.color[Z]||0,"uint8"),4*Z)}this.color=H}else
this.color=l(t.color,"uint8");if(t.position||t.text||t.color||t.baseline||t.align||t.font||t.offset||t.opacity)if(this.color.length>
4||this.baselineOffset.length>1||this.align&&this.align.length>1||this.fontAtlas.length>1||this.positionOffset.length>2
){var
J=Math.max(.5*this.position.length||0,.25*this.color.length||0,this.baselineOffset.length||0,this.alignOffset.length||0,t
his.font.length||0,this.opacity.length||0,.5*this.positionOffset.length||0);this.batch=Array(J);for(var
K=0;K<this.batch.length;K++)this.batch[K]={count:this.counts.length>1?this.counts[K]:this.counts[0],offset:this.te
xtOffsets.length>1?this.textOffsets[K]:this.textOffsets[0],color:this.color?this.color.length<=4?this.color:this.color.s
ubarray(4*K,4*K+4):[0,0,0,255],opacity:Array.isArray(this.opacity)?this.opacity[K]:this.opacity,baseline:null!=this
.baselineOffset[K]?this.baselineOffset[K]:this.baselineOffset[0],align:this.align?null!=this.alignOffset[K]?this.align
Offset[K]:this.alignOffset[0]:0,atlas:this.fontAtlas[K]||this.fontAtlas[0],positionOffset:this.positionOffset.length>2?t
his.positionOffset.subarray(2*K,2*K+2):this.positionOffset}}else
this.count?this.batch=[{count:this.count,offset:0,color:this.color||[0,0,0,255],opacity:Array.isArray(this.opacity)?this
.opacity[0]:this.opacity,baseline:this.baselineOffset[0],align:this.alignOffset?this.alignOffset[0]:0,atlas:this.fontAtla
s[0],positionOffset:this.positionOffset}]:this.batch=[]},T.prototype.destroy=function(){},T.prototype.kerning=!0,T.
prototype.position={constant:new
Float32Array(2)},T.prototype.translate=null,T.prototype.scale=null,T.prototype.font=null,T.prototype.text="",T.prot
otype.positionOffset=[0,0],T.prototype.opacity=1,T.prototype.color=new
Uint8Array([0,0,0,255]),T.prototype.alignOffset=[0,0],T.maxAtlasSize=1024,T.atlasCanvas=document.createEleme
nt("canvas"),T.atlasContext=T.atlasCanvas.getContext("2d",{alpha:!1}),T.baseFontSize=64,T.fonts={},e.exports=T
},{"bit-twiddle":81,"color-normalize":89,"css-font":99,"detect-kerning":125,"es6-weak-map":183,"flatten-vertex-
data":191,"font-atlas":192,"font-measure":193,"gl-util/context":226,"is-plain-obj":236,"object-assign":247,"parse-
rect":249,"parse-unit":251,"pick-by-alias":253,regl:283,"to-px":314,"typedarray-
pool":327}],226:[function(t,e,n){(function(r){(function(){"use strict";var n=t("pick-by-alias");function
i(t){if(t.container)if(t.container==document.body)document.body.style.width||(t.canvas.width=t.width||t.pixelRatio*r
.innerWidth),document.body.style.height||(t.canvas.height=t.height||t.pixelRatio*r.innerHeight);else{var
e=t.container.getBoundingClientRect();t.canvas.width=t.width||e.right-e.left,t.canvas.height=t.height||e.bottom-
e.top}}function a(t){return"function"==typeof t.getContext&&"width"in t&&"height"in t}function o(){var
t=document.createElement("canvas");return
t.style.position="absolute",t.style.top=0,t.style.left=0,t}e.exports=function(t){if(t?"string"==typeof
t&&(t={container:t}):t={},(t=a(t)||(e=t,"string"==typeof e.nodeName&&"function"==typeof
e.appendChild&&"function"==typeof
e.getBoundingClientRect)?{container:t}:function(t){return"function"==typeof t.drawArrays||"function"==typeof
t.drawElements}(t)?{gl:t}:n(t,{container:"container target element el canvas holder parent parentNode wrapper use
ref root node",gl:"gl context webgl glContext",attrs:"attributes attrs contextAttributes",pixelRatio:"pixelRatio
pxRatio px ratio pxratio pixelratio",width:"w width",height:"h
height"},!0)).pixelRatio||(t.pixelRatio=r.pixelRatio||1),t.gl)return t.gl;var
e;if(t.canvas&&(t.container=t.canvas.parentNode),t.container){if("string"==typeof t.container){var
s=document.querySelector(t.container);if(!s)throw Error("Element "+t.container+" is not
found");t.container=s}a(t.container)?(t.canvas=t.container,t.container=t.canvas.parentNode):t.canvas||(t.canvas=o(),t
.container.appendChild(t.canvas),i(t))}else if(!t.canvas){if("undefined"==typeof document)throw Error("Not DOM
environment. Use headless-
gl.");t.container=document.body||document.documentElement,t.canvas=o(),t.container.appendChild(t.canvas),i(t)}re
turn t.gl||["webgl","experimental-webgl","webgl-
experimental"].some((function(e){try{t.gl=t.canvas.getContext(e,t.attrs)}catch(t){}return
t.gl})),t.gl}).call(this)}).call(this,void 0!==r.g?r.g:"undefined"!=typeof self?self:"undefined"!=typeof
window?window:{})},{"pick-by-alias":253}],227:[function(t,e,r){e.exports=function(t){"string"==typeof

t&&(t=[t]);for(var e=[].slice.call(arguments,1),r=[],n=0;n<t.length-1;n++)r.push(t[n],e[n]||"");return r.push(t[n]),r.join("")}},{}],228:[function(t,e,n){(function(r){(function(){"use strict";var n,i=t("is-browser");n="function"==typeof r.matchMedia?!r.matchMedia("(hover: none)").matches:i,e.exports=n}).call(this)}).call(this,void 0!==r.g?r.g:"undefined"!=typeof self?self:"undefined"!=typeof window?window:{})},{"is-browser":232}],229:[function(t,e,r){"use strict";var n=t("is-browser");e.exports=n&&function(){var t=!1;try{var e=Object.defineProperty({},"passive",{get:function(){t=!0}});window.addEventListener("test",null,e),window.removeEventListener("test",null,e)}catch(e){t=!1}return t}()},{"is-browser":232}],230:[function(t,e,r){r.read=function(t,e,r,n,i){var a,o,s=8*i-n-1,l=(1<<s)-1,c=l>>1,u=-7,f=r?i-1:0,h=r?-1:1,p=t[e+f];for(f+=h,a=p&(1<<-u)-1,p>>=-u,u+=s;u>0;a=256*a+t[e+f],f+=h,u-=8);for(o=a&(1<<-u)-1,a>>=-u,u+=n;u>0;o=256*o+t[e+f],f+=h,u-=8);if(0===a)a=1-c;else{if(a===l)return o?NaN:1/0*(p?-1:1);o+=Math.pow(2,n),a-=c}return(p?-1:1)*o*Math.pow(2,a-n)},r.write=function(t,e,r,n,i,a){var o,s,l,c=8*a-i-1,u=(1<<c)-1,f=u>>1,h=23===i?Math.pow(2,-24)-Math.pow(2,-77):0,p=n?0:a-1,d=n?1:-1,g=e<0||0===e&&1/e<0?1:0;for(e=Math.abs(e),isNaN(e)||e===1/0?(s=isNaN(e)?1:0,o=u):(o=Math.floor(Math.log(e)/Math.LN2),e*(l=Math.pow(2,-o))<1&&(o--,l*=2),(e+=o+f>=1?h/l:h*Math.pow(2,1-f))*l>=2&&(o++,l/=2),o+f>=u?(s=0,o=u):o+f>=1?(s=(e*l-1)*Math.pow(2,i),o+=f):(s=e*Math.pow(2,f-1)*Math.pow(2,i),o=0));i>=8;t[r+p]=255&s,p+=d,s/=256,i-=8);for(o=o<<i|s,c+=i;c>0;t[r+p]=255&o,p+=d,o/=256,c-=8);t[r+p-d]|=128*g}},{}],231:[function(t,e,r){"function"==typeof Object.create?e.exports=function(t,e){e&&(t.super_=e,t.prototype=Object.create(e.prototype,{constructor:{value:t,enumerable:!1,writable:!0,configurable:!0}}))}:e.exports=function(t,e){if(e){t.super_=e;var r=function(){};r.prototype=e.prototype,t.prototype=new r,t.prototype.constructor=t}}},{}],232:[function(t,e,r){e.exports=!0},{}],233:[function(t,e,r){"use strict";e.exports="undefined"!=typeof navigator&&(/MSIE/.test(navigator.userAgent)||/Trident\//.test(navigator.appVersion))},{}],234:[function(t,e,r){"use strict";e.exports=a,e.exports.isMobile=a,e.exports.default=a;var n=/(android|bb\d+|meego).+mobile|avantgo|bada\/|blackberry|blazer|compal|elaine|fennec|hiptop|iemobile|ip(hone|od)|iris|kindle|lge |maemo|midp|mmp|mobile.+firefox|netfront|opera m(ob|in)i|palm(os)?|phone|p(ixi|re)\/|plucker|pocket|psp|series[46]0|symbian|treo|up\.(browser|link)|vodafone|wap|windows (ce|phone)|xda|xiino/i,i=/(android|bb\d+|meego).+mobile|avantgo|bada\/|blackberry|blazer|compal|elaine|fennec|hiptop|iemobile|ip(hone|od)|iris|kindle|lge |maemo|midp|mmp|mobile.+firefox|netfront|opera m(ob|in)i|palm(os)?|phone|p(ixi|re)\/|plucker|pocket|psp|series[46]0|symbian|treo|up\.(browser|link)|vodafone|wap|windows (ce|phone)|xda|xiino|android|ipad|playbook|silk/i;function a(t){t||(t={});var e=t.ua;if(e||"undefined"==typeof navigator||(e=navigator.userAgent),e&&e.headers&&"string"==typeof e.headers["user-agent"]&&(e=e.headers["user-agent"]),"string"!=typeof e)return!1;var r=t.tablet?i.test(e):n.test(e);return!r&&t.tablet&&t.featureDetect&&navigator&&navigator.maxTouchPoints>1&&-1!==e.indexOf("Macintosh")&&-1!==e.indexOf("Safari")&&(r=!0),r}},{}],235:[function(t,e,r){"use strict";e.exports=function(t){var e=typeof t;return null!==t&&("object"===e||"function"===e)}},{}],236:[function(t,e,r){"use strict";var n=Object.prototype.toString;e.exports=function(t){var e;return"[object Object]"===n.call(t)&&(null===(e=Object.getPrototypeOf(t))||e===Object.getPrototypeOf({}))}},{}],237:[function(t,e,r){"use strict";e.exports=function(t){for(var e,r=t.length,n=0;n<r;n++)if(((e=t.charCodeAt(n))<9||e>13)&&32!==e&&133!==e&&160!==e&&5760!==e&&6158!==e&&(e<8192||e>8205)&&8232!==e&&8233!==e&&8239!==e&&8287!==e&&8288!==e&&12288!==e&&65279!==e)return!1;return!0}},{}],238:[function(t,e,r){"use strict";e.exports=function(t){return"string"==typeof t&&(t=t.trim(),!!(/^[mzlhvcsqta]\s*[-+.0-9][^mlhvzcsqta]+/i.test(t)&&/[\dz]$/i.test(t)&&t.length>4))}},{}],239:[function(t,e,r){var n,i;n=this,i=function(){"use strict";var t,e,r;function n(n,i){if(t)if(e){var a="var sharedChunk = {};

("+t+")(sharedChunk); ("+e+")(sharedChunk);",o={};t(o),(r=i(o)).workerUrl=window.URL.createObjectURL(new Blob([a],{type:"text/javascript"}))}else e=i;else t=i}return n(0,(function(t){function e(t,e){return t(e={exports:{}},e.exports),e.exports}var r="1.10.1",n=i;function i(t,e,r,n){this.cx=3*t,this.bx=3*(r-t)-this.cx,this.ax=1-this.cx-this.bx,this.cy=3*e,this.by=3*(n-e)-this.cy,this.ay=1-this.cy-this.by,this.p1x=t,this.p1y=n,this.p2x=r,this.p2y=n}i.prototype.sampleCurveX=function(t){return((this.ax*t+this.bx)*t+this.cx)*t},i.prototype.sampleCurveY=function(t){return((this.ay*t+this.by)*t+this.cy)*t},i.prototype.sampleCurveDerivativeX=function(t){return(3*this.ax*t+2*this.bx)*t+this.cx},i.prototype.solveCurveX=function(t,e){var r,n,i,a,o;for(void 0===e&&(e=1e-6),i=t,o=0;o<8;o++){if(a=this.sampleCurveX(i)-t,Math.abs(a)<e)return i;var s=this.sampleCurveDerivativeX(i);if(Math.abs(s)<1e-6)break;i-=a/s}if((i=t)<(r=0))return r;if(i>(n=1))return n;for(;r<n;){if(a=this.sampleCurveX(i),Math.abs(a-t)<e)return i;t>a?r=i:n=i,i=.5*(n-r)+r}return i},i.prototype.solve=function(t,e){return this.sampleCurveY(this.solveCurveX(t,e))};var a=o;function o(t,e){this.x=t,this.y=e}function s(t,e,r,i){var a=new n(t,e,r,i);return function(t){return a.solve(t)}}o.prototype={clone:function(){return new o(this.x,this.y)},add:function(t){return this.clone()._add(t)},sub:function(t){return this.clone()._sub(t)},multByPoint:function(t){return this.clone()._multByPoint(t)},divByPoint:function(t){return this.clone()._divByPoint(t)},mult:function(t){return this.clone()._mult(t)},div:function(t){return this.clone()._div(t)},rotate:function(t){return this.clone()._rotate(t)},rotateAround:function(t,e){return this.clone()._rotateAround(t,e)},matMult:function(t){return this.clone()._matMult(t)},unit:function(){return this.clone()._unit()},perp:function(){return this.clone()._perp()},round:function(){return this.clone()._round()},mag:function(){return Math.sqrt(this.x*this.x+this.y*this.y)},equals:function(t){return this.x===t.x&&this.y===t.y},dist:function(t){return Math.sqrt(this.distSqr(t))},distSqr:function(t){var e=t.x-this.x,r=t.y-this.y;return e*e+r*r},angle:function(){return Math.atan2(this.y,this.x)},angleTo:function(t){return Math.atan2(this.y-t.y,this.x-t.x)},angleWith:function(t){return this.angleWithSep(t.x,t.y)},angleWithSep:function(t,e){return Math.atan2(this.x*e-this.y*t,this.x*t+this.y*e)},_matMult:function(t){var e=t[0]*this.x+t[1]*this.y,r=t[2]*this.x+t[3]*this.y;return this.x=e,this.y=r,this},_add:function(t){return this.x+=t.x,this.y+=t.y,this},_sub:function(t){return this.x-=t.x,this.y-=t.y,this},_mult:function(t){return this.x*=t,this.y*=t,this},_div:function(t){return this.x/=t,this.y/=t,this},_multByPoint:function(t){return this.x*=t.x,this.y*=t.y,this},_divByPoint:function(t){return this.x/=t.x,this.y/=t.y,this},_unit:function(){return this._div(this.mag()),this},_perp:function(){var t=this.y;return this.y=this.x,this.x=-t,this},_rotate:function(t){var e=Math.cos(t),r=Math.sin(t),n=e*this.x-r*this.y,i=r*this.x+e*this.y;return this.x=n,this.y=i,this},_rotateAround:function(t,e){var r=Math.cos(t),n=Math.sin(t),i=e.x+r*(this.x-e.x)-n*(this.y-e.y),a=e.y+n*(this.x-e.x)+r*(this.y-e.y);return this.x=i,this.y=a,this},_round:function(){return this.x=Math.round(this.x),this.y=Math.round(this.y),this}},o.convert=function(t){return t instanceof o?t:Array.isArray(t)?new o(t[0],t[1]):t};var l=s(.25,.1,.25,1);function c(t,e,r){return Math.min(r,Math.max(e,t))}function u(t,e,r){var n=r-e,i=((t-e)%n+n)%n+e;return i===e?r:i}function f(t){for(var e=[],r=arguments.length-1;r-- >0;)e[r]=arguments[r+1];for(var n=0,i=e;n<i.length;n+=1){var a=i[n];for(var o in a)t[o]=a[o]}return t}var h=1;function p(){return h++}function d(){return function t(e){return e?(e^16*Math.random()>>e/4).toString(16):([1e7]+-[1e3]+-4e3+-8e3+-1e11).replace(/[018]/g,t)}()}function g(t){return!!t&&/^[0-9a-f]{8}-[0-9a-f]{4}-[4][0-9a-f]{3}-[89ab][0-9a-f]{3}-[0-9a-f]{12}$/i.test(t)}function v(t,e){t.forEach((function(t){e[t]&&(e[t]=e[t].bind(e))}))}function m(t,e){return-1!==t.indexOf(e,t.length-e.length)}function y(t,e,r){var n={};for(var i in t)n[i]=e.call(r||this,t[i],i,t);return n}function x(t,e,r){var n={};for(var i in t)e.call(r||this,t[i],i,t)&&(n[i]=t[i]);return n}function b(t){return Array.isArray(t)?t.map(b):"object"==typeof t&&t?y(t,b):t}var _={};function w(t){_[t]||("undefined"!=typeof console&&console.warn(t),_[t]=!0)}function T(t,e,r){return(r.y-t.y)*(e.x-t.x)>(e.y-t.y)*(r.x-t.x)}function k(t){for(var e=0,r=0,n=t.length,i=n-1,a=void 0,o=void 0;r<n;i=r++)a=t[r],e+=((o=t[i]).x-a.x)*(a.y+o.y);return e}function A(){return"undefined"!=typeof WorkerGlobalScope&&"undefined"!=typeof self&&self instanceof WorkerGlobalScope}function M(t){var e={};if(t.replace(/(?:^|(?:\s*\,\s*))([^\x00-\x20\(\)<>@\,;\:\\"\/\[\]\?\=\{\}\x7F]+)(?:\=(?:([^\x00-

\x20\()<>@\,;:\\"\/\[\]\?\=\{\}\x7F]+)|(?:\"((?:[^"\\]|\\.)*)\")))?/g,(function(t,r,n,i){var a=n||i;return e[r]=!a||a.toLowerCase(),""})),e["max-age"]){var r=parseInt(e["max-age"],10);isNaN(r)?delete e["max-age"]:e["max-age"]=r}return e}var S=null;function E(t){if(null==S){var e=t.navigator?t.navigator.userAgent:null;S=!!t.safari||!(!e||!(/\b(iPad|iPhone|iPod)\b/.test(e)||e.match("Safari")&&!e.match("Chrome")))}return S}function L(t){try{var e=self[t];return e.setItem("_mapbox_test_",1),e.removeItem("_mapbox_test_"),!0}catch(t){return!1}}var C,P,I,O,z=self.performance&&self.performance.now?self.performance.now.bind(self.performance):Date.now.bind(Date),D=self.requestAnimationFrame||self.mozRequestAnimationFrame||self.webkitRequestAnimationFrame||self.msRequestAnimationFrame,R=self.cancelAnimationFrame||self.mozCancelAnimationFrame||self.webkitCancelAnimationFrame||self.msCancelAnimationFrame,F={now:z,frame:function(t){var e=D(t);return{cancel:function(){return R(e)}}},getImageData:function(t,e){void 0===e&&(e=0);var r=self.document.createElement("canvas"),n=r.getContext("2d");if(!n)throw new Error("failed to create canvas 2d context");return r.width=t.width,r.height=t.height,n.drawImage(t,0,0,t.width,t.height),n.getImageData(-e,-e,t.width+2*e,t.height+2*e)},resolveURL:function(t){return C||(C=self.document.createElement("a")),C.href=t,C.href},hardwareConcurrency:self.navigator.hardwareConcurrency||4,get devicePixelRatio(){return self.devicePixelRatio},get prefersReducedMotion(){return!!self.matchMedia&&(null==P&&(P=self.matchMedia("(prefers-reduced-motion: reduce)")),P.matches)}},B={API_URL:"https://api.mapbox.com",get EVENTS_URL(){return this.API_URL?0===this.API_URL.indexOf("https://api.mapbox.cn")?"https://events.mapbox.cn/events/v2":0===this.API_URL.indexOf("https://api.mapbox.com")?"https://events.mapbox.com/events/v2":null:null},FEEDBACK_URL:"https://apps.mapbox.com/feedback",REQUIRE_ACCESS_TOKEN:!0,ACCESS_TOKEN:null,MAX_PARALLEL_IMAGE_REQUESTS:16},N={supported:!1,testSupport:function(t){!j&&O&&(U?V(t):I=t)}},j=!1,U=!1;function V(t){var e=t.createTexture();t.bindTexture(t.TEXTURE_2D,e);try{if(t.texImage2D(t.TEXTURE_2D,0,t.RGBA,t.RGBA,t.UNSIGNED_BYTE,O),t.isContextLost())return;N.supported=!0}catch(t){}t.deleteTexture(e),j=!0}self.document&&((O=self.document.createElement("img")).onload=function(){I&&V(I),I=null,U=!0},O.onerror=function(){j=!0,I=null},O.src="");var q="01",H=function(t,e){this._transformRequestFn=t,this._customAccessToken=e,this._createSkuToken()};function G(t){return 0===t.indexOf("mapbox:")}H.prototype._createSkuToken=function(){var t=function(){for(var t="",e=0;e<10;e++)t+="0123456789abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ"[Math.floor(62*Math.random())];return{token:["1",q,t].join(""),tokenExpiresAt:Date.now()+432e5}}();this._skuToken=t.token,this._skuTokenExpiresAt=t.tokenExpiresAt},H.prototype._isSkuTokenExpired=function(){return Date.now()>this._skuTokenExpiresAt},H.prototype.transformRequest=function(t,e){return this._transformRequestFn&&this._transformRequestFn(t,e)||{url:t}},H.prototype.normalizeStyleURL=function(t,e){if(!G(t))return t;var r=Z(t);return r.path="/styles/v1"+r.path,this._makeAPIURL(r,this._customAccessToken||e)},H.prototype.normalizeGlyphsURL=function(t,e){if(!G(t))return t;var r=Z(t);return r.path="/fonts/v1"+r.path,this._makeAPIURL(r,this._customAccessToken||e)},H.prototype.normalizeSourceURL=function(t,e){if(!G(t))return t;var r=Z(t);return r.path="/v4/"+r.authority+".json",r.params.push("secure"),this._makeAPIURL(r,this._customAccessToken||e)},H.prototype.normalizeSpriteURL=function(t,e,r,n){var i=Z(t);return G(t)?(i.path="/styles/v1"+i.path+"/sprite"+e+r,this._makeAPIURL(i,this._customAccessToken||n)):(i.path+=""+e+r,J(i))},H.prototype.normalizeTileURL=function(t,e){if(this._isSkuTokenExpired()&&this._createSkuToken(),t&&!G(t))return t;var r=Z(t),n=F.devicePixelRatio>=2||512===e?"@2x":"",i=N.supported?".webp":"$1";r.path=r.path.replace(/(\.(png|jpg)\d*)(?=$)/,""+n+i),r.path=r.path.replace(/^.+\/v4\//,"/"),r.path="/v4"+r.path;var a=this._customAccessToken||function(t){for(var e=0,r=t;e<r.length;e+=1){var

n=r[e].match(/^access_token=(.*)$/);if(n)return n[1]}return null}(r.params)||B.ACCESS_TOKEN;return B.REQUIRE_ACCESS_TOKEN&&a&&this._skuToken&&r.params.push("sku="+this._skuToken),this._makeAPIURL(r,a)},H.prototype.canonicalizeTileURL=function(t,e){var r=Z(t);if(!r.path.match(/(^\/v4\/)/)||!r.path.match(/\.[\w]+$/))return t;var n="mapbox://tiles/";n+=r.path.replace("/v4/","");var i=r.params;return e&&(i=i.filter((function(t){return!t.match(/^access_token=/)}))),i.length&&(n+="?"+i.join("&")),n},H.prototype.canonicalizeTileset=function(t,e){for(var r=!!e&&G(e),n=[],i=0,a=t.tiles||[];i<a.length;i+=1){var o=a[i];W(o)?n.push(this.canonicalizeTileURL(o,r)):n.push(o)}return n},H.prototype._makeAPIURL=function(t,e){var r="See https://www.mapbox.com/api-documentation/#access-tokens-and-token-scopes",n=Z(B.API_URL);if(t.protocol=n.protocol,t.authority=n.authority,"/"!==n.path&&(t.path=""+n.path+t.path),!B.REQUIRE_ACCESS_TOKEN)return J(t);if(!(e=e||B.ACCESS_TOKEN))throw new Error("An API access token is required to use Mapbox GL. "+r);if("s"===e[0])throw new Error("Use a public access token (pk.*) with Mapbox GL, not a secret access token (sk.*). "+r);return t.params=t.params.filter((function(t){return-1===t.indexOf("access_token")})),t.params.push("access_token="+e),J(t)};var Y=/^((https?:)?\/\/)?([^\/]+\.)?mapbox\.c(n|om)(\/|\?|$)/i;function W(t){return Y.test(t)}var X=/^(\w+):\/\/([^/?]*)(\/[^?]+)?\??(.+)?/;function Z(t){var e=t.match(X);if(!e)throw new Error("Unable to parse URL object");return{protocol:e[1],authority:e[2],path:e[3]||"/",params:e[4]?e[4].split("&"):[]}}function J(t){var e=t.params.length?"?"+t.params.join("&"):"";return t.protocol+"://"+t.authority+t.path+e}var K="mapbox.eventData";function Q(t){if(!t)return null;var e,r=t.split(".");if(!r||3!==r.length)return null;try{return JSON.parse((e=r[1],decodeURIComponent(self.atob(e).split("").map((function(t){return"%"+("00"+t.charCodeAt(0).toString(16)).slice(-2)})).join(""))))}catch(t){return null}}var $=function(t){this.type=t,this.anonId=null,this.eventData={},this.queue=[],this.pendingRequest=null};$.prototype.getStorageKey=function(t){var e,r,n=Q(B.ACCESS_TOKEN);return e=n&&n.u?(r=n.u,self.btoa(encodeURIComponent(r).replace(/%([0-9A-F]{2})/g,(function(t,e){return String.fromCharCode(Number("0x"+e))})))):B.ACCESS_TOKEN||"",t?K+"."+t+":"+e:K+":"+e},$.prototype.fetchEventData=function(){var t=L("localStorage"),e=this.getStorageKey(),r=this.getStorageKey("uuid");if(t)try{var n=self.localStorage.getItem(e);n&&(this.eventData=JSON.parse(n));var i=self.localStorage.getItem(r);i&&(this.anonId=i)}catch(t){w("Unable to read from LocalStorage")}},$.prototype.saveEventData=function(){var t=L("localStorage"),e=this.getStorageKey(),r=this.getStorageKey("uuid");if(t)try{self.localStorage.setItem(r,this.anonId),Object.keys(this.eventData).length>=1&&self.localStorage.setItem(e,JSON.stringify(this.eventData))}catch(t){w("Unable to write to LocalStorage")}},$.prototype.processRequests=function(t){},$.prototype.postEvent=function(t,e,n,i){var a=this;if(B.EVENTS_URL){var o=Z(B.EVENTS_URL);o.params.push("access_token="+(i||B.ACCESS_TOKEN||""));var s={event:this.type,created:new Date(t).toISOString(),sdkIdentifier:"mapbox-gl-js",sdkVersion:r,skuId:q,userId:this.anonId},l=e?f(s,e):s,c={url:J(o),headers:{"Content-Type":"text/plain"},body:JSON.stringify([l])};this.pendingRequest=At(c,(function(t){a.pendingRequest=null,n(t),a.saveEventData(),a.processRequests(i)}))}},$.prototype.queueRequest=function(t,e){this.queue.push(t),this.processRequests(e)};var tt,et,rt=function(t){function e(){t.call(this,"map.load"),this.success={},this.skuToken=""}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.postMapLoadEvent=function(t,e,r,n){this.skuToken=r,(B.EVENTS_URL&&n||B.ACCESS_TOKEN&&Array.isArray(t)&&t.some((function(t){return G(t)||W(t)})))&&this.queueRequest({id:e,timestamp:Date.now()},n)},e.prototype.processRequests=function(t){var e=this;if(!this.pendingRequest&&0!==this.queue.length){var r=this.queue.shift(),n=r.id,i=r.timestamp;n&&this.success[n]||(this.anonId||this.fetchEventData(),g(this.anonId)||(this.anonId=d()),this.postEvent(i,{skuToken:this.skuToken},(function(t){t||n&&(e.success[n]=!0)}),t))}},e}($),nt=new(

function(t){function e(e){t.call(this,"appUserTurnstile"),this._customAccessToken=e}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.postTurnstileEvent=function(t,e){B.EVENTS_URL&&B.ACCESS_TOKEN&&Array.isArray(t)&&t.some((function(t){return G(t)||W(t)}))&&this.queueRequest(Date.now(),e)},e.prototype.processRequests=function(t){var e=this;if(!this.pendingRequest&&0!==this.queue.length){this.anonId&&this.eventData.lastSuccess&&this.eventData.tokenU||this.fetchEventData();var r=Q(B.ACCESS_TOKEN),n=r?r.u:B.ACCESS_TOKEN,i=n!==this.eventData.tokenU;g(this.anonId)||(this.anonId=d(),i=!0);var a=this.queue.shift();if(this.eventData.lastSuccess){var o=new Date(this.eventData.lastSuccess),s=new Date(a),l=(a-this.eventData.lastSuccess)/864e5;i=i||l>=1||l<-1||o.getDate()!==s.getDate()}else i=!0;if(!i)return this.processRequests();this.postEvent(a,{"enabled.telemetry":!1},(function(t){t||(e.eventData.lastSuccess=a,e.eventData.tokenU=n)}),t)}},e}($)),it=nt.postTurnstileEvent.bind(nt),at=new rt,ot=at.postMapLoadEvent.bind(at),st="mapbox-tiles",lt=500,ct=50;function ut(){self.caches&&!tt&&(tt=self.caches.open(st))}function ft(t,e,r){if(ut(),tt){var n={status:e.status,statusText:e.statusText,headers:new self.Headers};e.headers.forEach((function(t,e){return n.headers.set(e,t)}));var i=M(e.headers.get("Cache-Control")||"");i["no-store"]||(i["max-age"]&&n.headers.set("Expires",new Date(r+1e3*i["max-age"]).toUTCString()),new Date(n.headers.get("Expires")).getTime()-r<42e4||function(t,e){if(void 0===et)try{new Response(new ReadableStream),et=!0}catch(t){et=!1}et?e(t.body):t.blob().then(e)}(e,(function(e){var r=new self.Response(e,n);ut(),tt&&tt.then((function(e){return e.put(ht(t.url),r)})).catch((function(t){return w(t.message)}))}))))}}function ht(t){var e=t.indexOf("?");return e<0?t:t.slice(0,e)}function pt(t,e){if(ut(),!tt)return e(null);var r=ht(t.url);tt.then((function(t){t.match(r).then((function(n){var i=function(t){if(!t)return!1;var e=new Date(t.headers.get("Expires")||0),r=M(t.headers.get("Cache-Control")||"");return e>Date.now()&&!r["no-cache"]}(n);t.delete(r),i&&t.put(r,n.clone()),e(null,n,i)})).catch(e)})).catch(e)}var dt,gt=1/0;function vt(){return null==dt&&(dt=self.OffscreenCanvas&&new self.OffscreenCanvas(1,1).getContext("2d")&&"function"==typeof self.createImageBitmap),dt}var mt={Unknown:"Unknown",Style:"Style",Source:"Source",Tile:"Tile",Glyphs:"Glyphs",SpriteImage:"SpriteImage",SpriteJSON:"SpriteJSON",Image:"Image"};"function"==typeof Object.freeze&&Object.freeze(mt);var yt=function(t){function e(e,r,n){401===r&&W(n)&&(e+=": you may have provided an invalid Mapbox access token. See https://www.mapbox.com/api-documentation/#access-tokens-and-token-scopes"),t.call(this,e),this.status=r,this.url=n,this.name=this.constructor.name,this.message=e}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.toString=function(){return this.name+": "+this.message+" ("+this.status+"): "+this.url},e}(Error),xt=A()?function(){return self.worker&&self.worker.referrer}:function(){return("blob:"===self.location.protocol?self.parent:self).location.href};function bt(t,e){var r,n=new self.AbortController,i=new self.Request(t.url,{method:t.method||"GET",body:t.body,credentials:t.credentials,headers:t.headers,referrer:xt(),signal:n.signal}),a=!1,o=!1,s=(r=i.url).indexOf("sku=")>0&&W(r);"json"===t.type&&i.headers.set("Accept","application/json");var l=function(r,n,a){if(!o){if(r&&"SecurityError"!==r.message&&w(r),n&&a)return c(n);var l=Date.now();self.fetch(i).then((function(r){if(r.ok){var n=s?r.clone():null;return c(r,n,l)}return e(new yt(r.statusText,r.status,t.url))})).catch((function(t){20!==t.code&&e(new Error(t.message))}))}},c=function(r,n,s){("arrayBuffer"===t.type?r.arrayBuffer():"json"===t.type?r.json():r.text()).then((function(t){o||(n&&s&&ft(i,n,s),a=!0,e(null,t,r.headers.get("Cache-Control"),r.headers.get("Expires")))})).catch((function(t){o||e(new Error(t.message))}))};return s?pt(i,l):l(null,null),{cancel:function(){o=!0,a||n.abort()}}}var _t,wt,Tt=function(t,e){if(r=t.url,!(/^file:/.test(r)||/^file:/.test(xt())&&!/^\w+:/.test(r))){if(self.fetch&&self.Request&&self.AbortController&&self.Request.prototype.hasOwnProperty("signal"))return bt(t,e);if(A()&&self.worker&&self.worker.actor)return self.worker.actor.send("getResource",t,e,void 0,!0)}var r;return function(t,e){var r=new self.XMLHttpRequest;for(var n in r.open(t.method||"GET",t.url,!0),"arrayBuffer"===t.type&&(r.responseType="arraybuffer"),t.headers)r.setRequestH

eader(n,t.headers[n]);return"json"===t.type&&(r.responseType="text",r.setRequestHeader("Accept","application/json")),r.withCredentials="include"===t.credentials,r.onerror=function(){e(new Error(r.statusText))},r.onload=function(){if((r.status>=200&&r.status<300||0===r.status)&&null!==r.response){var n=r.response;if("json"===t.type)try{n=JSON.parse(r.response)}catch(t){return e(t)}e(null,n,r.getResponseHeader("Cache-Control"),r.getResponseHeader("Expires"))}else e(new yt(r.statusText,r.status,t.url))},r.send(t.body),{cancel:function(){return r.abort()}}(t,e)},kt=function(t,e){return Tt(f(t,{type:"arrayBuffer"}),e)},At=function(t,e){return Tt(f(t,{method:"POST"}),e)};_t=[],wt=0;var Mt=function(t,e){if(N.supported&&(t.headers||(t.headers={}),t.headers.accept="image/webp,*/*"),wt>=B.MAX_PARALLEL_IMAGE_REQUESTS){var r={requestParameters:t,callback:e,cancelled:!1,cancel:function(){this.cancelled=!0}};return _t.push(r),r}wt++;var n=!1,i=function(){if(!n)for(n=!0,wt--;_t.length&&wt<B.MAX_PARALLEL_IMAGE_REQUESTS;){var t=_t.shift(),e=t.requestParameters,r=t.callback;t.cancelled||(t.cancel=Mt(e,r).cancel)}},a=kt(t,(function(t,r,n,a){i(),t?e(t):r&&(vt()?function(t,e){var r=new self.Blob([new Uint8Array(t)],{type:"image/png"});self.createImageBitmap(r).then((function(t){e(null,t)})).catch((function(t){e(new Error("Could not load image because of "+t.message+". Please make sure to use a supported image type such as PNG or JPEG. Note that SVGs are not supported."))}))}(r,e):function(t,e,r,n){var i=new self.Image,a=self.URL;i.onload=function(){e(null,i),a.revokeObjectURL(i.src)},i.onerror=function(){return e(new Error("Could not load image. Please make sure to use a supported image type such as PNG or JPEG. Note that SVGs are not supported."))};var o=new self.Blob([new Uint8Array(t)],{type:"image/png"});i.cacheControl=r,i.expires=n,i.src=t.byteLength?a.createObjectURL(o):""}(r,e,n,a))}));return{cancel:function(){a.cancel(),i()}}};function St(t,e,r){r[t]&&-1!==r[t].indexOf(e)||(r[t]=r[t]||[],r[t].push(e))}function Et(t,e,r){if(r&&r[t]){var n=r[t].indexOf(e);-1!==n&&r[t].splice(n,1)}}var Lt=function(t,e){void 0===e&&(e={}),f(this,e),this.type=t},Ct=function(t){function e(e,r){void 0===r&&(r={}),t.call(this,"error",f({error:e},r))}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e}(Lt),Pt=function(){};Pt.prototype.on=function(t,e){return this._listeners=this._listeners||{},St(t,e,this._listeners),this},Pt.prototype.off=function(t,e){return Et(t,e,this._listeners),Et(t,e,this._oneTimeListeners),this},Pt.prototype.once=function(t,e){return this._oneTimeListeners=this._oneTimeListeners||{},St(t,e,this._oneTimeListeners),this},Pt.prototype.fire=function(t,e){"string"==typeof t&&(t=new Lt(t,e||{}));var r=t.type;if(this.listens(r)){t.target=this;for(var n=0,i=this._listeners&&this._listeners[r]?this._listeners[r].slice():[];n<i.length;n+=1)i[n].call(this,t);for(var a=0,o=this._oneTimeListeners&&this._oneTimeListeners[r]?this._oneTimeListeners[r].slice():[];a<o.length;a+=1){var s=o[a];Et(r,s,this._oneTimeListeners),s.call(this,t)}var l=this._eventedParent;l&&(f(t,"function"==typeof this._eventedParentData?this._eventedParentData():this._eventedParentData),l.fire(t))}else t instanceof Ct&&console.error(t.error);return this},Pt.prototype.listens=function(t){return this._listeners&&this._listeners[t]&&this._listeners[t].length>0||this._oneTimeListeners&&this._oneTimeListeners[t]&&this._oneTimeListeners[t].length>0||this._eventedParent&&this._eventedParent.listens(t)},Pt.prototype.setEventedParent=function(t,e){return this._eventedParent=t,this._eventedParentData=e,this};var It={$version:8,$root:{version:{required:!0,type:"enum",values:[8]},name:{type:"string"},metadata:{type:"*"},center:{type:"array",value:"number"},zoom:{type:"number"},bearing:{type:"number",default:0,period:360,units:"degrees"},pitch:{type:"number",default:0,units:"degrees"},light:{type:"light"},sources:{required:!0,type:"sources"},sprite:{type:"string"},glyphs:{type:"string"},transition:{type:"transition"},layers:{required:!0,type:"array",value:"layer"}},sources:{"*":{type:"source"}},source:["source_vector","source_raster","source_raster_dem","source_geojson","source_video","source_image"],source_vector:{type:{required:!0,type:"enum",values:{vector:{}}},url:{type:"string"},tiles:{type:"array",value:"string"},bounds:{type:"array",value:"number",length:4,default:[-180,-85.051129,180,85.051129]},scheme:{type:"enum",values:{xyz:{},tms:{}},default:"xyz"},minzoom:{type:"number",default:0},maxzoom:{type:"number",default:22},attribution:{type:"string"},promoteId:{type:"promoteId"},"*":{ty

pe:"*"}},source_raster:{type:{required:!0,type:"enum",values:{raster:{}}},url:{type:"string"},tiles:{type:"array",value:"string"},bounds:{type:"array",value:"number",length:4,default:[-180,-85.051129,180,85.051129]},minzoom:{type:"number",default:0},maxzoom:{type:"number",default:22},tileSize:{type:"number",default:512,units:"pixels"},scheme:{type:"enum",values:{xyz:{},tms:{}},default:"xyz"},attribution:{type:"string"},"*":{type:"*"}},source_raster_dem:{type:{required:!0,type:"enum",values:{"raster-dem":{}}},url:{type:"string"},tiles:{type:"array",value:"string"},bounds:{type:"array",value:"number",length:4,default:[-180,-85.051129,180,85.051129]},minzoom:{type:"number",default:0},maxzoom:{type:"number",default:22},tileSize:{type:"number",default:512,units:"pixels"},attribution:{type:"string"},encoding:{type:"enum",values:{terrarium:{},mapbox:{}},default:"mapbox"},"*":{type:"*"}},source_geojson:{type:{required:!0,type:"enum",values:{geojson:{}}},data:{type:"*"},maxzoom:{type:"number",default:18},attribution:{type:"string"},buffer:{type:"number",default:128,maximum:512,minimum:0},tolerance:{type:"number",default:.375},cluster:{type:"boolean",default:!1},clusterRadius:{type:"number",default:50,minimum:0},clusterMaxZoom:{type:"number"},clusterProperties:{type:"*"},lineMetrics:{type:"boolean",default:!1},generateId:{type:"boolean",default:!1},promoteId:{type:"promoteId"}},source_video:{type:{required:!0,type:"enum",values:{video:{}}},urls:{required:!0,type:"array",value:"string"},coordinates:{required:!0,type:"array",length:4,value:{type:"array",length:2,value:"number"}}},source_image:{type:{required:!0,type:"enum",values:{image:{}}},url:{required:!0,type:"string"},coordinates:{required:!0,type:"array",length:4,value:{type:"array",length:2,value:"number"}}},layer:{id:{type:"string",required:!0},type:{type:"enum",values:{fill:{},line:{},symbol:{},circle:{},heatmap:{},"fill-extrusion":{},raster:{},hillshade:{},background:{}},required:!0},metadata:{type:"*"},source:{type:"string"},"source-layer":{type:"string"},minzoom:{type:"number",minimum:0,maximum:24},maxzoom:{type:"number",minimum:0,maximum:24},filter:{type:"filter"},layout:{type:"layout"},paint:{type:"paint"}},layout:["layout_fill","layout_line","layout_circle","layout_heatmap","layout_fill-extrusion","layout_symbol","layout_raster","layout_hillshade","layout_background"],layout_background:{visibility:{type:"enum",values:{visible:{},none:{}},default:"visible","property-type":"constant"}},layout_fill:{"fill-sort-key":{type:"number",expression:{interpolated:!1,parameters:["zoom","feature"]},"property-type":"data-driven"},visibility:{type:"enum",values:{visible:{},none:{}},default:"visible","property-type":"constant"}},layout_circle:{"circle-sort-key":{type:"number",expression:{interpolated:!1,parameters:["zoom","feature"]},"property-type":"data-driven"},visibility:{type:"enum",values:{visible:{},none:{}},default:"visible","property-type":"constant"}},layout_heatmap:{visibility:{type:"enum",values:{visible:{},none:{}},default:"visible","property-type":"constant"}},"layout_fill-extrusion":{visibility:{type:"enum",values:{visible:{},none:{}},default:"visible","property-type":"constant"}},layout_line:{"line-cap":{type:"enum",values:{butt:{},round:{},square:{}},default:"butt",expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"line-join":{type:"enum",values:{bevel:{},round:{},miter:{}},default:"miter",expression:{interpolated:!1,parameters:["zoom","feature"]},"property-type":"data-driven"},"line-miter-limit":{type:"number",default:2,requires:[{"line-join":"miter"}],expression:{interpolated:!0,parameters:["zoom"]},"property-type":"data-constant"},"line-round-limit":{type:"number",default:1.05,requires:[{"line-join":"round"}],expression:{interpolated:!0,parameters:["zoom"]},"property-type":"data-constant"},"line-sort-key":{type:"number",expression:{interpolated:!1,parameters:["zoom","feature"]},"property-type":"data-driven"},visibility:{type:"enum",values:{visible:{},none:{}},default:"visible","property-type":"constant"}},layout_symbol:{"symbol-placement":{type:"enum",values:{point:{},line:{},"line-center":{}},default:"point",expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"symbol-spacing":{type:"number",default:250,minimum:1,units:"pixels",requires:[{"symbol-placement":"line"}],expression:{interpolated:!0,parameters:["zoom"]},"property-type":"data-constant"},"symbol-

avoid-edges":{type:"boolean",default:!1,expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"symbol-sort-key":{type:"number",expression:{interpolated:!1,parameters:["zoom","feature"]},"property-type":"data-driven"},"symbol-z-order":{type:"enum",values:{auto:{},"viewport-y":{},source:{}},default:"auto",expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"icon-allow-overlap":{type:"boolean",default:!1,requires:["icon-image"],expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"icon-ignore-placement":{type:"boolean",default:!1,requires:["icon-image"],expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"icon-optional":{type:"boolean",default:!1,requires:["icon-image","text-field"],expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"icon-rotation-alignment":{type:"enum",values:{map:{},viewport:{},auto:{}},default:"auto",requires:["icon-image"],expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"icon-size":{type:"number",default:1,minimum:0,units:"factor of the original icon size",requires:["icon-image"],expression:{interpolated:!0,parameters:["zoom","feature"]},"property-type":"data-driven"},"icon-text-fit":{type:"enum",values:{none:{},width:{},height:{},both:{}},default:"none",requires:["icon-image","text-field"],expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"icon-text-fit-padding":{type:"array",value:"number",length:4,default:[0,0,0,0],units:"pixels",requires:["icon-image","text-field",{"icon-text-fit":["both","width","height"]}],expression:{interpolated:!0,parameters:["zoom"]},"property-type":"data-constant"},"icon-image":{type:"resolvedImage",tokens:!0,expression:{interpolated:!1,parameters:["zoom","feature"]},"property-type":"data-driven"},"icon-rotate":{type:"number",default:0,period:360,units:"degrees",requires:["icon-image"],expression:{interpolated:!0,parameters:["zoom","feature"]},"property-type":"data-driven"},"icon-padding":{type:"number",default:2,minimum:0,units:"pixels",requires:["icon-image"],expression:{interpolated:!0,parameters:["zoom"]},"property-type":"data-constant"},"icon-keep-upright":{type:"boolean",default:!1,requires:["icon-image",{"icon-rotation-alignment":"map"},{"symbol-placement":["line","line-center"]}],expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"icon-offset":{type:"array",value:"number",length:2,default:[0,0],requires:["icon-image"],expression:{interpolated:!0,parameters:["zoom","feature"]},"property-type":"data-driven"},"icon-anchor":{type:"enum",values:{center:{},left:{},right:{},top:{},bottom:{},"top-left":{},"top-right":{},"bottom-left":{},"bottom-right":{}},default:"center",requires:["icon-image"],expression:{interpolated:!1,parameters:["zoom","feature"]},"property-type":"data-driven"},"icon-pitch-alignment":{type:"enum",values:{map:{},viewport:{},auto:{}},default:"auto",requires:["icon-image"],expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"text-pitch-alignment":{type:"enum",values:{map:{},viewport:{},auto:{}},default:"auto",requires:["text-field"],expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"text-rotation-alignment":{type:"enum",values:{map:{},viewport:{},auto:{}},default:"auto",requires:["text-field"],expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"text-field":{type:"formatted",default:"",tokens:!0,expression:{interpolated:!1,parameters:["zoom","feature"]},"property-type":"data-driven"},"text-font":{type:"array",value:"string",default:["Open Sans Regular","Arial Unicode MS Regular"],requires:["text-field"],expression:{interpolated:!1,parameters:["zoom","feature"]},"property-type":"data-driven"},"text-size":{type:"number",default:16,minimum:0,units:"pixels",requires:["text-field"],expression:{interpolated:!0,parameters:["zoom","feature"]},"property-type":"data-driven"},"text-max-width":{type:"number",default:10,minimum:0,units:"ems",requires:["text-field"],expression:{interpolated:!0,parameters:["zoom","feature"]},"property-type":"data-driven"},"text-line-height":{type:"number",default:1.2,units:"ems",requires:["text-field"],expression:{interpolated:!0,parameters:["zoom"]},"property-type":"data-constant"},"text-letter-spacing":{type:"number",default:0,units:"ems",requires:["text-

field"],expression:{interpolated:!0,parameters:["zoom","feature"]},"property-type":"data-driven"},"text-justify":{type:"enum",values:{auto:{},left:{},center:{},right:{}},default:"center",requires:["text-field"],expression:{interpolated:!1,parameters:["zoom","feature"]},"property-type":"data-driven"},"text-radial-offset":{type:"number",units:"ems",default:0,requires:["text-field"],"property-type":"data-driven",expression:{interpolated:!0,parameters:["zoom","feature"]}},"text-variable-anchor":{type:"array",value:"enum",values:{center:{},left:{},right:{},top:{},bottom:{},"top-left":{},"top-right":{},"bottom-left":{},"bottom-right":{}},requires:["text-field",{"symbol-placement":["point"]}],expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"text-anchor":{type:"enum",values:{center:{},left:{},right:{},top:{},bottom:{},"top-left":{},"top-right":{},"bottom-left":{},"bottom-right":{}},default:"center",requires:["text-field",{"!":"text-variable-anchor"}],expression:{interpolated:!1,parameters:["zoom","feature"]},"property-type":"data-driven"},"text-max-angle":{type:"number",default:45,units:"degrees",requires:["text-field",{"symbol-placement":["line","line-center"]}],expression:{interpolated:!0,parameters:["zoom"]},"property-type":"data-constant"},"text-writing-mode":{type:"array",value:"enum",values:{horizontal:{},vertical:{}},requires:["text-field",{"symbol-placement":["point"]}],expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"text-rotate":{type:"number",default:0,period:360,units:"degrees",requires:["text-field"],expression:{interpolated:!0,parameters:["zoom","feature"]},"property-type":"data-driven"},"text-padding":{type:"number",default:2,minimum:0,units:"pixels",requires:["text-field"],expression:{interpolated:!0,parameters:["zoom"]},"property-type":"data-constant"},"text-keep-upright":{type:"boolean",default:!0,requires:["text-field",{"text-rotation-alignment":"map"},{"symbol-placement":["line","line-center"]}],expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"text-transform":{type:"enum",values:{none:{},uppercase:{},lowercase:{}},default:"none",requires:["text-field"],expression:{interpolated:!1,parameters:["zoom","feature"]},"property-type":"data-driven"},"text-offset":{type:"array",value:"number",units:"ems",length:2,default:[0,0],requires:["text-field",{"!":"text-radial-offset"}],expression:{interpolated:!0,parameters:["zoom","feature"]},"property-type":"data-driven"},"text-allow-overlap":{type:"boolean",default:!1,requires:["text-field"],expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"text-ignore-placement":{type:"boolean",default:!1,requires:["text-field"],expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},"text-optional":{type:"boolean",default:!1,requires:["text-field","icon-image"],expression:{interpolated:!1,parameters:["zoom"]},"property-type":"data-constant"},visibility:{type:"enum",values:{visible:{},none:{}},default:"visible","property-type":"constant"}},layout_raster:{visibility:{type:"enum",values:{visible:{},none:{}},default:"visible","property-type":"constant"}},layout_hillshade:{visibility:{type:"enum",values:{visible:{},none:{}},default:"visible","property-type":"constant"}},filter:{type:"array",value:"*"},filter_operator:{type:"enum",values:{"==":{},"!=":{},">":{},">=":{},"<":{},"<=":{},in:{},"!in":{},all:{},any:{},none:{},has:{},"!has":{},within:{}}},geometry_type:{type:"enum",values:{Point:{},LineString:{},Polygon:{}}},function:{expression:{type:"expression"},stops:{type:"array",value:"function_stop"},base:{type:"number",default:1,minimum:0},property:{type:"string",default:"$zoom"},type:{type:"enum",values:{identity:{},exponential:{},interval:{},categorical:{}},default:"exponential"},colorSpace:{type:"enum",values:{rgb:{},lab:{},hcl:{}},default:"rgb"},default:{type:"*",required:!1}},function_stop:{type:"array",minimum:0,maximum:24,value:["number","color"],length:2},expression:{type:"array",value:"*",minimum:1},expression_name:{type:"enum",values:{let:{group:"Variable binding"},var:{group:"Variable binding"},literal:{group:"Types"},array:{group:"Types"},at:{group:"Lookup"},in:{group:"Lookup"},"index-of":{group:"Lookup"},slice:{group:"Lookup"},case:{group:"Decision"},match:{group:"Decision"},coalesce:{group:"Decision"},step:{group:"Ramps, scales, curves"},interpolate:{group:"Ramps, scales, curves"},"interpolate-hcl":{group:"Ramps, scales, curves"},"interpolate-lab":{group:"Ramps, scales,

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ngth:{group:"Lookup"},properties:{group:"Feature data"},"feature-state":{group:"Feature data"},"geometry-
type":{group:"Feature data"},id:{group:"Feature data"},zoom:{group:"Zoom"},"heatmap-
density":{group:"Heatmap"},"line-progress":{group:"Feature data"},accumulated:{group:"Feature
data"},"+":{group:"Math"},"*":{group:"Math"},"-
":{group:"Math"},"/":{group:"Math"},"%":{group:"Math"},"^":{group:"Math"},sqrt:{group:"Math"},log10:{group:
"Math"},ln:{group:"Math"},log2:{group:"Math"},sin:{group:"Math"},cos:{group:"Math"},tan:{group:"Math"},asin
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p:"Math"},abs:{group:"Math"},ceil:{group:"Math"},floor:{group:"Math"},distance:{group:"Math"},"==":{group:"
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Number||t instanceof String||t instanceof Boolean)){var e={};for(var r in t)e[r]=Ft(t[r]);return e}return Rt(t)}var Bt=function(t){function e(e,r){t.call(this,r),this.message=r,this.key=e}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e}(Error),Nt=function(t,e){void 0===e&&(e=[]),this.parent=t,this.bindings={};for(var r=0,n=e;r<n.length;r+=1){var i=n[r],a=i[0],o=i[1];this.bindings[a]=o}};Nt.prototype.concat=function(t){return new Nt(this,t)},Nt.prototype.get=function(t){if(this.bindings[t])return this.bindings[t];if(this.parent)return this.parent.get(t);throw new Error(t+" not found in scope.")},Nt.prototype.has=function(t){return!!this.bindings[t]||!!this.parent&&this.parent.has(t)};var jt={kind:"null"},Ut={kind:"number"},Vt={kind:"string"},qt={kind:"boolean"},Ht={kind:"color"},Gt={kind:"object"},Yt={kind:"value"},Wt={kind:"collator"},Xt={kind:"formatted"},Zt={kind:"resolvedImage"};function Jt(t,e){return{kind:"array",itemType:t,N:e}}function Kt(t){if("array"===t.kind){var e=Kt(t.itemType);return"number"==typeof t.N?"array<"+e+", "+t.N+">":"value"===t.itemType.kind?"array":"array<"+e+">"}return t.kind}var Qt=[jt,Ut,Vt,qt,Ht,Xt,Gt,Jt(Yt),Zt];function $t(t,e){if("error"===e.kind)return null;if("array"===t.kind){if("array"===e.kind&&(0===e.N&&"value"===e.itemType.kind||!$t(t.itemType,e.itemType))&&("number"!=typeof t.N||t.N===e.N))return null}else{if(t.kind===e.kind)return null;if("value"===t.kind)for(var r=0,n=Qt;r<n.length;r+=1)if(!$t(n[r],e))return null}return"Expected "+Kt(t)+" but found "+Kt(e)+" instead."}function te(t,e){return e.some((function(e){return e.kind===t.kind}))}function ee(t,e){return e.some((function(e){return"null"===e?null===t:"array"===e?Array.isArray(t):"object"===e?t&&!Array.isArray(t)&&"object"==typeof t:e===typeof t}))}var re=e((function(t,e){var r={transparent:[0,0,0,0],aliceblue:[240,248,255,1],antiquewhite:[250,235,215,1],aqua:[0,255,255,1],aquamarine:[127,255,212,1],azure:[240,255,255,1],beige:[245,245,220,1],bisque:[255,228,196,1],black:[0,0,0,1],blanchedalmond:[255,235,205,1],blue:[0,0,255,1],blueviolet:[138,43,226,1],brown:[165,42,42,1],burlywood:[222,184,135,1],cadetblue:[95,158,160,1],chartreuse:[127,255,0,1],chocolate:[210,105,30,1],coral:[255,127,80,1],cornflowerblue:[100,149,237,1],cornsilk:[255,248,220,1],crimson:[220,20,60,1],cyan:[0,255,255,1],darkblue:[0,0,139,1],darkcyan:[0,139,139,1],darkgoldenrod:[184,134,11,1],darkgray:[169,169,169,1],darkgreen:[0,100,0,1],darkgrey:[169,169,169,1],darkkhaki:[189,183,107,1],darkmagenta:[139,0,139,1],darkolivegreen:[85,107,47,1],darkorange:[255,140,0,1],darkorchid:[153,50,204,1],darkred:[139,0,0,1],darksalmon:[233,150,122,1],darkseagreen:[143,188,143,1],darkslateblue:[72,61,139,1],darkslategray:[47,79,79,1],darkslategrey:[47,79,79,1],darkturquoise:[0,206,209,1],darkviolet:[148,0,211,1],deeppink:[255,20,147,1],deepskyblue:[0,191,255,1],dimgray:[105,105,105,1],dimgrey:[105,105,105,1],dodgerblue:[30,144,255,1],firebrick:[178,34,34,1],floralwhite:[255,250,240,1],forestgreen:[34,139,34,1],fuchsia:[255,0,255,1],gainsboro:[220,220,220,1],ghostwhite:[248,248,255,1],gold:[255,215,0,1],goldenrod:[218,165,32,1],gray:[128,128,128,1],green:[0,128,0,1],greenyellow:[173,255,47,1],grey:[128,128,128,1],honeydew:[240,255,240,1],hotpink:[255,105,180,1],indianred:[205,92,92,1],indigo:[75,0,130,1],ivory:[255,255,240,1],khaki:[240,230,140,1],lavender:[230,230,250,1],lavenderblush:[255,240,245,1],lawngreen:[124,252,0,1],lemonchiffon:[255,250,205,1],lightblue:[173,216,230,1],lightcoral:[240,128,128,1],lightcyan:[224,255,255,1],lightgoldenrodyellow:[250,250,210,1],lightgray:[211,211,211,1],lightgreen:[144,238,144,1],lightgrey:[211,211,211,1],lightpink:[255,182,193,1],lightsalmon:[255,160,122,1],lightseagreen:[32,178,170,1],lightskyblue:[135,206,250,1],lightslategray:[119,136,153,1],lightslategrey:[119,136,153,1],lightsteelblue:[176,196,222,1],lightyellow:[255,255,224,1],lime:[0,255,0,1],limegreen:[50,205,50,1],linen:[250,240,230,1],magenta:[255,0,255,1],maroon:[128,0,0,1],mediumaquamarine:[102,205,170,1],mediumblue:[0,0,205,1],mediumorchid:[186,85,211,1],mediumpurple:[147,112,219,1],mediumseagreen:[60,179,113,1],mediumslateblue:[123,104,238,1],mediumspringgreen:[0,250,154,1],mediumturquoise:[72,209,204,1],mediumvioletred:[199,21,133,1],midnightblue:[25,25,112,1],mintcream:[245,255,250,1],mistyrose:[255,228,225,1],moccasin:[255,228,181,1],navajowhite:[255,222,173,1],navy:[0,0,128,1],oldlace:[253,245,230,1],olive:[128,128,0,1],olivedrab:[107,142,35,1],orange:[255,165,0,1],orangered:[255,69,0,1],orchid:[218,112,214,1],palegoldenrod:[238,232,170,1],palegreen:[152,251,152,1],paleturquoise:[175,238,238,1],palevioletred:[219,112,147,1],papayawhip:[255,239,213,1],peachpuff:[255,218,185,1],peru:[205,133,63,1],pink:[255,192,203,1],plum:[221,160,221,1],powderblue:[176,224,230,1],purple:[128,0,128

,1],rebeccapurple:[102,51,153,1],red:[255,0,0,1],rosybrown:[188,143,143,1],royalblue:[65,105,225,1],saddlebrown:[139,69,19,1],salmon:[250,128,114,1],sandybrown:[244,164,96,1],seagreen:[46,139,87,1],seashell:[255,245,238,1],sienna:[160,82,45,1],silver:[192,192,192,1],skyblue:[135,206,235,1],slateblue:[106,90,205,1],slategray:[112,128,144,1],slategrey:[112,128,144,1],snow:[255,250,250,1],springgreen:[0,255,127,1],steelblue:[70,130,180,1],tan:[210,180,140,1],teal:[0,128,128,1],thistle:[216,191,216,1],tomato:[255,99,71,1],turquoise:[64,224,208,1],violet:[238,130,238,1],wheat:[245,222,179,1],white:[255,255,255,1],whitesmoke:[245,245,245,1],yellow:[255,255,0,1],yellowgreen:[154,205,50,1]};function n(t){return(t=Math.round(t))<0?0:t>255?255:t}function i(t){return t<0?0:t>1?1:t}function a(t){return"%"===t[t.length-1]?n(parseFloat(t)/100*255):n(parseInt(t))}function o(t){return"%"===t[t.length-1]?i(parseFloat(t)/100):i(parseFloat(t))}function s(t,e,r){return r<0?r+=1:r>1&&(r-=1),6*r<1?t+(e-t)*r*6:2*r<1?e:3*r<2?t+(e-t)*(2/3-r)*6:t}try{e.parseCSSColor=function(t){var e,i=t.replace(/ /g,"").toLowerCase();if(i in r)return r[i].slice();if("#"===i[0])return 4===i.length?(e=parseInt(i.substr(1),16))>=0&&e<=4095?[(3840&e)>>4|(3840&e)>>8,240&e|(240&e)>>4,15&e|(15&e)<<4,1]:null:7===i.length&&(e=parseInt(i.substr(1),16))>=0&&e<=16777215?[(16711680&e)>>16,(65280&e)>>8,255&e,1]:null;var l=i.indexOf("("),c=i.indexOf(")");if(-1!==l&&c+1===i.length){var u=i.substr(0,l),f=i.substr(l+1,c-(l+1)).split(","),h=1;switch(u){case"rgba":if(4!==f.length)return null;h=o(f.pop());case"rgb":return 3!==f.length?null:[a(f[0]),a(f[1]),a(f[2]),h];case"hsla":if(4!==f.length)return null;h=o(f.pop());case"hsl":if(3!==f.length)return null;var p=(parseFloat(f[0])%360+360)%360/360,d=o(f[1]),g=o(f[2]),v=g<=.5?g*(d+1):g+d-g*d,m=2*g-v;return[n(255*s(m,v,p+1/3)),n(255*s(m,v,p)),n(255*s(m,v,p-1/3)),h];default:return null}}return null}}catch(t){}})).parseCSSColor,ne=function(t,e,r,n){void 0===n&&(n=1),this.r=t,this.g=e,this.b=r,this.a=n};ne.parse=function(t){if(t){if(t instanceof ne)return t;if("string"==typeof t){var e=re(t);if(e)return new ne(e[0]/255*e[3],e[1]/255*e[3],e[2]/255*e[3],e[3])}}},ne.prototype.toString=function(){var t=this.toArray(),e=t[0],r=t[1],n=t[2],i=t[3];return"rgba("+Math.round(e)+","+Math.round(r)+","+Math.round(n)+","+i+")"},ne.prototype.toArray=function(){var t=this,e=t.r,r=t.g,n=t.b,i=t.a;return 0===i?[0,0,0,0]:[255*e/i,255*r/i,255*n/i,i]},ne.black=new ne(0,0,0,1),ne.white=new ne(1,1,1,1),ne.transparent=new ne(0,0,0,0),ne.red=new ne(1,0,0,1);var ie=function(t,e,r){this.sensitivity=t?e?"variant":"case":e?"accent":"base",this.locale=r,this.collator=new Intl.Collator(this.locale?this.locale:[],{sensitivity:this.sensitivity,usage:"search"})};ie.prototype.compare=function(t,e){return this.collator.compare(t,e)},ie.prototype.resolvedLocale=function(){return new Intl.Collator(this.locale?this.locale:[]).resolvedOptions().locale};var ae=function(t,e,r,n,i){this.text=t,this.image=e,this.scale=r,this.fontStack=n,this.textColor=i},oe=function(t){this.sections=t};oe.fromString=function(t){return new oe([new ae(t,null,null,null,null)])},oe.prototype.isEmpty=function(){return 0===this.sections.length||!this.sections.some((function(t){return 0!==t.text.length||t.image&&0!==t.image.name.length}))},oe.factory=function(t){return t instanceof oe?t:oe.fromString(t)},oe.prototype.toString=function(){return 0===this.sections.length?"":this.sections.map((function(t){return t.text})).join("")},oe.prototype.serialize=function(){for(var t=["format"],e=0,r=this.sections;e<r.length;e+=1){var n=r[e];if(n.image)t.push(["image",n.image.name]);else{t.push(n.text);var i={};n.fontStack&&(i["text-font"]=["literal",n.fontStack.split(",")]),n.scale&&(i["font-scale"]=n.scale),n.textColor&&(i["text-color"]=["rgba"].concat(n.textColor.toArray())),t.push(i)}}return t};var se=function(t){this.name=t.name,this.available=t.available};function le(t,e,r,n){return"number"==typeof t&&t>=0&&t<=255&&"number"==typeof e&&e>=0&&e<=255&&"number"==typeof r&&r>=0&&r<=255?void 0===n||"number"==typeof n&&n>=0&&n<=1?null:"Invalid rgba value ["+[t,e,r,n].join(", ")+"]: 'a' must be between 0 and 1.":"Invalid rgba value ["+("number"==typeof n?[t,e,r,n]:[t,e,r]).join(", ")+"]: 'r', 'g', and 'b' must be between 0 and 255."}function ce(t){if(null===t)return!0;if("string"==typeof t)return!0;if("boolean"==typeof t)return!0;if("number"==typeof t)return!0;if(t instanceof ne)return!0;if(t instanceof ie)return!0;if(t instanceof

oe)return!0;if(t instanceof se)return!0;if(Array.isArray(t)){for(var e=0,r=t;e<r.length;e+=1)if(!ce(r[e]))return!1;return!0}if("object"==typeof t){for(var n in t)if(!ce(t[n]))return!1;return!0}return!1}function ue(t){if(null===t)return jt;if("string"==typeof t)return Vt;if("boolean"==typeof t)return qt;if("number"==typeof t)return Ut;if(t instanceof ne)return Ht;if(t instanceof ie)return Wt;if(t instanceof oe)return Xt;if(t instanceof se)return Zt;if(Array.isArray(t)){for(var e,r=t.length,n=0,i=t;n<i.length;n+=1){var a=ue(i[n]);if(e){if(e===a)continue;e=Yt;break}e=a}return Jt(e||Yt,r)}return Gt}function fe(t){var e=typeof t;return null===t?"":"string"===e||"number"===e||"boolean"===e?String(t):t instanceof ne||t instanceof oe||t instanceof se?t.toString():JSON.stringify(t)}se.prototype.toString=function(){return this.name},se.fromString=function(t){return t?new se({name:t,available:!1}):null},se.prototype.serialize=function(){return["image",this.name]};var he=function(t,e){this.type=t,this.value=e};he.parse=function(t,e){if(2!==t.length)return e.error("'literal' expression requires exactly one argument, but found "+(t.length-1)+" instead.");if(!ce(t[1]))return e.error("invalid value");var r=t[1],n=ue(r),i=e.expectedType;return"array"!==n.kind||0!==n.N||!i||"array"!==i.kind||"number"==typeof i.N&&0!==i.N||(n=i),new he(n,r)},he.prototype.evaluate=function(){return this.value},he.prototype.eachChild=function(){},he.prototype.outputDefined=function(){return!0},he.prototype.serialize=function(){return"array"===this.type.kind||"object"===this.type.kind?["literal",this.value]:this.value instanceof ne?["rgba"].concat(this.value.toArray()):this.value instanceof oe?this.value.serialize():this.value};var pe=function(t){this.name="ExpressionEvaluationError",this.message=t};pe.prototype.toJSON=function(){return this.message};var de={string:Vt,number:Ut,boolean:qt,object:Gt},ge=function(t,e){this.type=t,this.args=e};ge.parse=function(t,e){if(t.length<2)return e.error("Expected at least one argument.");var r,n=1,i=t[0];if("array"===i){var a,o;if(t.length>2){var s=t[1];if("string"!=typeof s||!(s in de)||"object"===s)return e.error('The item type argument of "array" must be one of string, number, boolean',1);a=de[s],n++}else a=Yt;if(t.length>3){if(null!==t[2]&&("number"!=typeof t[2]||t[2]<0||t[2]!==Math.floor(t[2])))return e.error('The length argument to "array" must be a positive integer literal',2);o=t[2],n++}r=Jt(a,o)}else r=de[i];for(var l=[];n<t.length;n++){var c=e.parse(t[n],n,Yt);if(!c)return null;l.push(c)}return new ge(r,l)},ge.prototype.evaluate=function(t){for(var e=0;e<this.args.length;e++){var r=this.args[e].evaluate(t);if(!$t(this.type,ue(r)))return r;if(e===this.args.length-1)throw new pe("Expected value to be of type "+Kt(this.type)+", but found "+Kt(ue(r))+" instead.")}return null},ge.prototype.eachChild=function(t){this.args.forEach(t)},ge.prototype.outputDefined=function(){return this.args.every((function(t){return t.outputDefined()}))},ge.prototype.serialize=function(){var t=this.type,e=[t.kind];if("array"===t.kind){var r=t.itemType;if("string"===r.kind||"number"===r.kind||"boolean"===r.kind){e.push(r.kind);var n=t.N;("number"==typeof n||this.args.length>1)&&e.push(n)}return e.concat(this.args.map((function(t){return t.serialize()})))};var ve=function(t){this.type=Xt,this.sections=t};ve.parse=function(t,e){if(t.length<2)return e.error("Expected at least one argument.");var r=t[1];if(!Array.isArray(r)&&"object"==typeof r)return e.error("First argument must be an image or text section.");for(var n=[],i=!1,a=1;a<=t.length-1;++a){var o=t[a];if(i&&"object"==typeof o&&!Array.isArray(o)){i=!1;var s=null;if(o["font-scale"]&&!(s=e.parse(o["font-scale"],1,Ut)))return null;var l=null;if(o["text-font"]&&!(l=e.parse(o["text-font"],1,Jt(Vt))))return null;var c=null;if(o["text-color"]&&!(c=e.parse(o["text-color"],1,Ht)))return null;var u=n[n.length-1];u.scale=s,u.font=l,u.textColor=c}else{var f=e.parse(t[a],1,Yt);if(!f)return null;var h=f.type.kind;if("string"!==h&&"value"!==h&&"null"!==h&&"resolvedImage"!==h)return e.error("Formatted text type must be 'string', 'value', 'image' or 'null'.");i=!0,n.push({content:f,scale:null,font:null,textColor:null})}}return new ve(n)},ve.prototype.evaluate=function(t){return new oe(this.sections.map((function(e){var r=e.content.evaluate(t);return ue(r)===Zt?new ae("",r,null,null,null):new ae(fe(r),null,e.scale?e.scale.evaluate(t):null,e.font?e.font.evaluate(t).join(","):null,e.textColor?e.textColor.evaluate(t):null)})))},ve.prototype.eachChild=function(t){for(var e=0,r=this.sections;e<r.length;e+=1){var

n=r[e];t(n.content),n.scale&&t(n.scale),n.font&&t(n.font),n.textColor&&t(n.textColor)}},ve.prototype.outputDefined=function(){return!1},ve.prototype.serialize=function(){for(var t=["format"],e=0,r=this.sections;e<r.length;e+=1){var n=r[e];t.push(n.content.serialize());var i={};n.scale&&(i["font-scale"]=n.scale.serialize()),n.font&&(i["text-font"]=n.font.serialize()),n.textColor&&(i["text-color"]=n.textColor.serialize()),t.push(i)}return t};var me=function(t){this.type=Zt,this.input=t};me.parse=function(t,e){if(2!==t.length)return e.error("Expected two arguments.");var r=e.parse(t[1],1,Vt);return r?new me(r):e.error("No image name provided.")},me.prototype.evaluate=function(t){var e=this.input.evaluate(t),r=se.fromString(e);return r&&t.availableImages&&(r.available=t.availableImages.indexOf(e)>-1),r},me.prototype.eachChild=function(t){t(this.input)},me.prototype.outputDefined=function(){return!1},me.prototype.serialize=function(){return["image",this.input.serialize()]};var ye={"to-boolean":qt,"to-color":Ht,"to-number":Ut,"to-string":Vt},xe=function(t,e){this.type=t,this.args=e};xe.parse=function(t,e){if(t.length<2)return e.error("Expected at least one argument.");var r=t[0];if(("to-boolean"===r||"to-string"===r)&&2!==t.length)return e.error("Expected one argument.");for(var n=ye[r],i=[],a=1;a<t.length;a++){var o=e.parse(t[a],a,Yt);if(!o)return null;i.push(o)}return new xe(n,i)},xe.prototype.evaluate=function(t){if("boolean"===this.type.kind)return Boolean(this.args[0].evaluate(t));if("color"===this.type.kind){for(var e,r,n=0,i=this.args;n<i.length;n+=1){if(r=null,(e=i[n].evaluate(t))instanceof ne)return e;if("string"==typeof e){var a=t.parseColor(e);if(a)return a}else if(Array.isArray(e)&&!(r=e.length<3||e.length>4?"Invalid rbga value "+JSON.stringify(e)+": expected an array containing either three or four numeric values.":le(e[0],e[1],e[2],e[3])))return new ne(e[0]/255,e[1]/255,e[2]/255,e[3])}throw new pe(r||"Could not parse color from value '"+("string"==typeof e?e:String(JSON.stringify(e)))+"'")}if("number"===this.type.kind){for(var o=null,s=0,l=this.args;s<l.length;s+=1){if(null===(o=l[s].evaluate(t)))return 0;var c=Number(o);if(!isNaN(c))return c}throw new pe("Could not convert "+JSON.stringify(o)+" to number.")}return"formatted"===this.type.kind?oe.fromString(fe(this.args[0].evaluate(t))):"resolvedImage"===this.type.kind?se.fromString(fe(this.args[0].evaluate(t))):fe(this.args[0].evaluate(t))},xe.prototype.eachChild=function(t){this.args.forEach(t)},xe.prototype.outputDefined=function(){return this.args.every((function(t){return t.outputDefined()}))},xe.prototype.serialize=function(){if("formatted"===this.type.kind)return new ve([{content:this.args[0],scale:null,font:null,textColor:null}]).serialize();if("resolvedImage"===this.type.kind)return new me(this.args[0]).serialize();var t=["to-"+this.type.kind];return this.eachChild((function(e){t.push(e.serialize())})),t};var be=["Unknown","Point","LineString","Polygon"],_e=function(){this.globals=null,this.feature=null,this.featureState=null,this.formattedSection=null,this._parseColorCache={},this.availableImages=null,this.canonical=null};_e.prototype.id=function(){return this.feature&&"id"in this.feature?this.feature.id:null},_e.prototype.geometryType=function(){return this.feature?"number"==typeof this.feature.type?be[this.feature.type]:this.feature.type:null},_e.prototype.geometry=function(){return this.feature&&"geometry"in this.feature?this.feature.geometry:null},_e.prototype.canonicalID=function(){return this.canonical},_e.prototype.properties=function(){return this.feature&&this.feature.properties||{}},_e.prototype.parseColor=function(t){var e=this._parseColorCache[t];return e||(e=this._parseColorCache[t]=ne.parse(t)),e};var we=function(t,e,r,n){this.name=t,this.type=e,this._evaluate=r,this.args=n};we.prototype.evaluate=function(t){return this._evaluate(t,this.args)},we.prototype.eachChild=function(t){this.args.forEach(t)},we.prototype.outputDefined=function(){return!1},we.prototype.serialize=function(){return[this.name].concat(this.args.map((function(t){return t.serialize()})))},we.parse=function(t,e){var r,n=t[0],i=we.definitions[n];if(!i)return e.error('Unknown expression "'+n+'". If you wanted a literal array, use ["literal", [...]].',0);for(var a=Array.isArray(i)?i[0]:i.type,o=Array.isArray(i)?[[i[1],i[2]]]:i.overloads,s=o.filter((function(e){var r=e[0];return!Array.isArray(r)||r.length===t.length-1})),l=null,c=0,u=s;c<u.length;c+=1){var f=u[c],h=f[0],p=f[1];l=new Ge(e.registry,e.path,null,e.scope);for(var d=[],g=!1,v=1;v<t.length;v++){var m=t[v],y=Array.isArray(h)?h[v-

1]:h.type,x=l.parse(m,1+d.length,y);if(!x){g=!0;break}d.push(x)}if(!g)if(Array.isArray(h)&&h.length!==d.length)l.error("Expected "+h.length+" arguments, but found "+d.length+" instead.");else{for(var b=0;b<d.length;b++){var _=Array.isArray(h)?h[b]:h.type,w=d[b];l.concat(b+1).checkSubtype(_,w.type)}if(0===l.errors.length)return new we(n,a,p,d)}}if(1===s.length)(r=e.errors).push.apply(r,l.errors);else{for(var T=(s.length?s:o).map((function(t){return e=t[0],Array.isArray(e)?"("+e.map(Kt).join(", ")+")":"("+Kt(e.type)+"...)";var e})).join(" | "),k=[],A=1;A<t.length;A++){var M=e.parse(t[A],1+k.length);if(!M)return null;k.push(Kt(M.type))}e.error("Expected arguments of type "+T+", but found ("+k.join(", ")+") instead.")}return null},we.register=function(t,e){for(var r in we.definitions=e,e)t[r]=we};var Te=function(t,e,r){this.type=Wt,this.locale=r,this.caseSensitive=t,this.diacriticSensitive=e};Te.parse=function(t,e){if(2!==t.length)return e.error("Expected one argument.");var r=t[1];if("object"!=typeof r||Array.isArray(r))return e.error("Collator options argument must be an object.");var n=e.parse(void 0!==r["case-sensitive"]&&r["case-sensitive"],1,qt);if(!n)return null;var i=e.parse(void 0!==r["diacritic-sensitive"]&&r["diacritic-sensitive"],1,qt);if(!i)return null;var a=null;return r.locale&&!(a=e.parse(r.locale,1,Vt))?null:new Te(n,i,a)},Te.prototype.evaluate=function(t){return new ie(this.caseSensitive.evaluate(t),this.diacriticSensitive.evaluate(t),this.locale?this.locale.evaluate(t):null)},Te.prototype.eachChild=function(t){t(this.caseSensitive),t(this.diacriticSensitive),this.locale&&t(this.locale)},Te.prototype.outputDefined=function(){return!1},Te.prototype.serialize=function(){var t={};return t["case-sensitive"]=this.caseSensitive.serialize(),t["diacritic-sensitive"]=this.diacriticSensitive.serialize(),this.locale&&(t.locale=this.locale.serialize()),["collator",t]};var ke=8192;function Ae(t,e){t[0]=Math.min(t[0],e[0]),t[1]=Math.min(t[1],e[1]),t[2]=Math.max(t[2],e[0]),t[3]=Math.max(t[3],e[1])}function Me(t,e){return!(t[0]<=e[0]||t[2]>=e[2]||t[1]<=e[1]||t[3]>=e[3])}function Se(t,e){var r,n=(180+t[0])/360,i=(r=t[1],(180-180/Math.PI*Math.log(Math.tan(Math.PI/4+r*Math.PI/360)))/360),a=Math.pow(2,e.z);return[Math.round(n*a*ke),Math.round(i*a*ke)]}function Ee(t,e,r){return e[1]>t[1]!=r[1]>t[1]&&t[0]<(r[0]-e[0])*(t[1]-e[1])/(r[1]-e[1])+e[0]}function Le(t,e){for(var r=!1,n=0,i=e.length;n<i;n++)for(var a=e[n],o=0,s=a.length;o<s-1;o++){if(l=t,c=a[o],u=a[o+1],f=void 0,h=void 0,p=void 0,d=void 0,f=l[0]-c[0],h=l[1]-c[1],p=l[0]-u[0],d=l[1]-u[1],f*d-p*h==0&&f*p<=0&&h*d<=0)return!1;Ee(t,a[o],a[o+1])&&(r=!r)}var l,c,u,f,h,p,d;return r}function Ce(t,e){for(var r=0;r<e.length;r++)if(Le(t,e[r]))return!0;return!1}function Pe(t,e,r,n){var i=t[0]-r[0],a=t[1]-r[1],o=e[0]-r[0],s=e[1]-r[1],l=n[0]-r[0],c=n[1]-r[1],u=i*c-l*a,f=o*c-l*s;return u>0&&f<0||u<0&&f>0}function Ie(t,e,r){for(var n=0,i=r;n<i.length;n+=1)for(var a=i[n],o=0;o<a.length-1;++o)if(s=t,l=e,c=a[o],u=a[o+1],f=void 0,h=void 0,p=void 0,p=[l[0]-s[0],l[1]-s[1]],0!=(f=[u[0]-c[0],u[1]-c[1]],h=p,f[0]*h[1]-f[1]*h[0])&&Pe(s,l,c,u)&&Pe(c,u,s,l))return!0;var s,l,c,u,f,h,p;return!1}function Oe(t,e){for(var r=0;r<t.length;++r)if(!Le(t[r],e))return!1;for(var n=0;n<t.length-1;++n)if(Ie(t[n],t[n+1],e))return!1;return!0}function ze(t,e){for(var r=0;r<e.length;r++)if(Oe(t,e[r]))return!0;return!1}function De(t,e,r){for(var n=[],i=0;i<t.length;i++){for(var a=[],o=0;o<t[i].length;o++){var s=Se(t[i][o],r);Ae(e,s),a.push(s)}n.push(a)}return n}function Re(t,e,r){for(var n=[],i=0;i<t.length;i++){var a=De(t[i],e,r);n.push(a)}return n}function Fe(t,e,r,n){if(t[0]<r[0]||t[0]>r[2]){var i=.5*n,a=t[0]-r[0]>i?-n:r[0]-t[0]>i?n:0;0===a&&(a=t[0]-r[2]>i?-n:r[2]-t[0]>i?n:0),t[0]+=a}Ae(e,t)}function Be(t,e,r,n){for(var i=Math.pow(2,n.z)*ke,a=[n.x*ke,n.y*ke],o=[],s=0,l=t;s<l.length;s+=1)for(var c=0,u=l[s];c<u.length;c+=1){var f=u[c],h=[f.x+a[0],f.y+a[1]];Fe(h,e,r,i),o.push(h)}return o}function Ne(t,e,r,n){for(var i=Math.pow(2,n.z)*ke,a=[n.x*ke,n.y*ke],o=[],s=0,l=t;s<l.length;s+=1){for(var c=[],u=0,f=l[s];u<f.length;u+=1){var h=f[u],p=[h.x+a[0],h.y+a[1]];Ae(e,p),c.push(p)}o.push(c)}if(e[2]-e[0]<=i/2){(y=e)[0]=y[1]=1/0,y[2]=y[3]=-1/0;for(var d=0,g=o;d<g.length;d+=1)for(var v=0,m=g[d];v<m.length;v+=1)Fe(m[v],e,r,i)}var y;return o}var je=function(t,e){this.type=qt,this.geojson=t,this.geometries=e};function Ue(t){if(t instanceof we){if("get"===t.name&&1===t.args.length)return!1;if("feature-state"===t.name)return!1;if("has"===t.name&&1===t.args.length)return!1;if("properties"===t.name||"geometry-

type"===t.name||"id"===t.name)return!1;if(/^filter-/.test(t.name))return!1}if(t instanceof je)return!1;var e=!0;return t.eachChild((function(t){e&&!Ue(t)&&(e=!1)})),e}function Ve(t){if(t instanceof we&&"feature-state"===t.name)return!1;var e=!0;return t.eachChild((function(t){e&&!Ve(t)&&(e=!1)})),e}function qe(t,e){if(t instanceof we&&e.indexOf(t.name)>=0)return!1;var r=!0;return t.eachChild((function(t){r&&!qe(t,e)&&(r=!1)})),r}je.parse=function(t,e){if(2!==t.length)return e.error("'within' expression requires exactly one argument, but found "+(t.length-1)+" instead.");if(ce(t[1])){var r=t[1];if("FeatureCollection"===r.type)for(var n=0;n<r.features.length;++n){var i=r.features[n].geometry.type;if("Polygon"===i||"MultiPolygon"===i)return new je(r,r.features[n].geometry)}else if("Feature"===r.type){var a=r.geometry.type;if("Polygon"===a||"MultiPolygon"===a)return new je(r,r.geometry)}else if("Polygon"===r.type||"MultiPolygon"===r.type)return new je(r,r)}return e.error("'within' expression requires valid geojson object that contains polygon geometry type.")},je.prototype.evaluate=function(t){if(null!=t.geometry()&&null!=t.canonicalID()){if("Point"===t.geometryType())return function(t,e){var r=[1/0,1/0,-1/0,-1/0],n=[1/0,1/0,-1/0,-1/0],i=t.canonicalID();if("Polygon"===e.type){var a=De(e.coordinates,n,i),o=Be(t.geometry(),r,n,i);if(!Me(r,n))return!1;for(var s=0,l=o;s<l.length;s+=1)if(!Le(l[s],a))return!1}if("MultiPolygon"===e.type){var c=Re(e.coordinates,n,i),u=Be(t.geometry(),r,n,i);if(!Me(r,n))return!1;for(var f=0,h=u;f<h.length;f+=1)if(!Ce(h[f],c))return!1}return!0}(t,this.geometries);if("LineString"===t.geometryType())return function(t,e){var r=[1/0,1/0,-1/0,-1/0],n=[1/0,1/0,-1/0,-1/0],i=t.canonicalID();if("Polygon"===e.type){var a=De(e.coordinates,n,i),o=Ne(t.geometry(),r,n,i);if(!Me(r,n))return!1;for(var s=0,l=o;s<l.length;s+=1)if(!Oe(l[s],a))return!1}if("MultiPolygon"===e.type){var c=Re(e.coordinates,n,i),u=Ne(t.geometry(),r,n,i);if(!Me(r,n))return!1;for(var f=0,h=u;f<h.length;f+=1)if(!ze(h[f],c))return!1}return!0}(t,this.geometries)}return!1},je.prototype.eachChild=function(){},je.prototype.outputDefined=function(){return!0},je.prototype.serialize=function(){return["within",this.geojson]};var He=function(t,e){this.type=e.type,this.name=t,this.boundExpression=e};He.parse=function(t,e){if(2!==t.length||"string"!=typeof t[1])return e.error("'var' expression requires exactly one string literal argument.");var r=t[1];return e.scope.has(r)?new He(r,e.scope.get(r)):e.error('Unknown variable "'+r+'". Make sure "'+r+'" has been bound in an enclosing "let" expression before using it.',1)},He.prototype.evaluate=function(t){return this.boundExpression.evaluate(t)},He.prototype.eachChild=function(){},He.prototype.outputDefined=function(){return!1},He.prototype.serialize=function(){return["var",this.name]};var Ge=function(t,e,r,n,i){void 0===e&&(e=[]),void 0===n&&(n=new Nt),void 0===i&&(i=[]),this.registry=t,this.path=e,this.key=e.map((function(t){return"["+t+"]"})).join(""),this.scope=n,this.errors=i,this.expectedType=r};function Ye(t){if(t instanceof He)return Ye(t.boundExpression);if(t instanceof we&&"error"===t.name)return!1;if(t instanceof Te)return!1;if(t instanceof je)return!1;var e=t instanceof xe||t instanceof ge,r=!0;return t.eachChild((function(t){r=e?r&&Ye(t):r&&t instanceof he})),!!r&&Ue(t)&&qe(t,["zoom","heatmap-density","line-progress","accumulated","is-supported-script"])}function We(t,e){for(var r,n,i=t.length-1,a=0,o=i,s=0;a<=o;)if(r=t[s=Math.floor((a+o)/2)],n=t[s+1],r<=e){if(s===i||e<n)return s;a=s+1}else{if(!(r>e))throw new pe("Input is not a number.");o=s-1}return 0}Ge.prototype.parse=function(t,e,r,n,i){return void 0===i&&(i={}),e?this.concat(e,r,n)._parse(t,i):this._parse(t,i)},Ge.prototype._parse=function(t,e){function r(t,e,r){return"assert"===r?new ge(e,[t]):"coerce"===r?new xe(e,[t]):t}if(null!==t&&"string"!=typeof t&&"boolean"!=typeof t&&"number"!=typeof t||(t=["literal",t]),Array.isArray(t)){if(0===t.length)return this.error('Expected an array with at least one element. If you wanted a literal array, use ["literal", []].');var n=t[0];if("string"!=typeof n)return this.error("Expression name must be a string, but found "+typeof n+' instead. If you wanted a literal array, use ["literal", [...]].',0),null;var i=this.registry[n];if(i){var a=i.parse(t,this);if(!a)return null;if(this.expectedType){var o=this.expectedType,s=a.type;if("string"!==o.kind&&"number"!==o.kind&&"boolean"!==o.kind&&"object"!==o.k

ind&&"array"!==o.kind||"value"!==s.kind)if("color"!==o.kind&&"formatted"!==o.kind&&"resolvedImage"!==o.kind||"value"!==s.kind&&"string"!==s.kind){if(this.checkSubtype(o,s))return null}else a=r(a,o,e.typeAnnotation||"coerce");else a=r(a,o,e.typeAnnotation||"assert")}if(!(a instanceof he)&&"resolvedImage"!==a.type.kind&&Ye(a)){var l=new _e;try{a=new he(a.type,a.evaluate(l))}catch(t){return this.error(t.message),null}}return a}return this.error('Unknown expression "'+n+'". If you wanted a literal array, use ["literal", [...]].',0)}return void 0===t?this.error("'undefined' value invalid. Use null instead."):"object"==typeof t?this.error('Bare objects invalid. Use ["literal", {...}] instead.'):this.error("Expected an array, but found "+typeof t+" instead.")},Ge.prototype.concat=function(t,e,r){var n="number"==typeof t?this.path.concat(t):this.path,i=r?this.scope.concat(r):this.scope;return new Ge(this.registry,n,e||null,i,this.errors)},Ge.prototype.error=function(t){for(var e=[],r=arguments.length-1;r-->0;)e[r]=arguments[r+1];var n=""+this.key+e.map((function(t){return"["+t+"]"})).join("");this.errors.push(new Bt(n,t))},Ge.prototype.checkSubtype=function(t,e){var r=$t(t,e);return r&&this.error(r),r};var Xe=function(t,e,r){this.type=t,this.input=e,this.labels=[],this.outputs=[];for(var n=0,i=r;n<i.length;n+=1){var a=i[n],o=a[0],s=a[1];this.labels.push(o),this.outputs.push(s)}};function Ze(t,e,r){return t*(1-r)+e*r}Xe.parse=function(t,e){if(t.length-1<4)return e.error("Expected at least 4 arguments, but found only "+(t.length-1)+".");if((t.length-1)%2!=0)return e.error("Expected an even number of arguments.");var r=e.parse(t[1],1,Ut);if(!r)return null;var n=[],i=null;e.expectedType&&"value"!==e.expectedType.kind&&(i=e.expectedType);for(var a=1;a<t.length;a+=2){var o=1===a?-1/0:t[a],s=t[a+1],l=a,c=a+1;if("number"!=typeof o)return e.error('Input/output pairs for "step" expressions must be defined using literal numeric values (not computed expressions) for the input values.',l);if(n.length&&n[n.length-1][0]>=o)return e.error('Input/output pairs for "step" expressions must be arranged with input values in strictly ascending order.',l);var u=e.parse(s,c,i);if(!u)return null;i=i||u.type,n.push([o,u])}return new Xe(i,r,n)},Xe.prototype.evaluate=function(t){var e=this.labels,r=this.outputs;if(1===e.length)return r[0].evaluate(t);var n=this.input.evaluate(t);if(n<=e[0])return r[0].evaluate(t);var i=e.length;return n>=e[i-1]?r[i-1].evaluate(t):r[We(e,n)].evaluate(t)},Xe.prototype.eachChild=function(t){t(this.input);for(var e=0,r=this.outputs;e<r.length;e+=1)t(r[e])},Xe.prototype.outputDefined=function(){return this.outputs.every((function(t){return t.outputDefined()}))},Xe.prototype.serialize=function(){for(var t=["step",this.input.serialize()],e=0;e<this.labels.length;e++)e>0&&t.push(this.labels[e]),t.push(this.outputs[e].serialize());return t};var Je=Object.freeze({__proto__:null,number:Ze,color:function(t,e,r){return new ne(Ze(t.r,e.r,r),Ze(t.g,e.g,r),Ze(t.b,e.b,r),Ze(t.a,e.a,r))},array:function(t,e,r){return t.map((function(t,n){return Ze(t,e[n],r)}))}}),Ke=.95047,Qe=1.08883,$e=4/29,tr=6/29,er=3*tr*tr,rr=Math.PI/180,nr=180/Math.PI;function ir(t){return t>.008856451679035631?Math.pow(t,1/3):t/er+$e}function ar(t){return t>tr?t*t*t:er*(t-$e)}function or(t){return 255*(t<=.0031308?12.92*t:1.055*Math.pow(t,1/2.4)-.055)}function sr(t){return(t/=255)<=.04045?t/12.92:Math.pow((t+.055)/1.055,2.4)}function lr(t){var e=sr(t.r),r=sr(t.g),n=sr(t.b),i=ir((.4124564*e+.3575761*r+.1804375*n)/Ke),a=ir((.2126729*e+.7151522*r+.072175*n)/1);return{l:116*a-16,a:500*(i-a),b:200*(a-ir((.0193339*e+.119192*r+.9503041*n)/Qe)),alpha:t.a}}function cr(t){var e=(t.l+16)/116,r=isNaN(t.a)?e:e+t.a/500,n=isNaN(t.b)?e:e-t.b/200;return e=1*ar(e),r=Ke*ar(r),n=Qe*ar(n),new ne(or(3.2404542*r-1.5371385*e-.4985314*n),or(-.969266*r+1.8760108*e+.041556*n),or(.0556434*r-.2040259*e+1.0572252*n),t.alpha)}function ur(t,e,r){var n=e-t;return t+r*(n>180||n<-180?n-360*Math.round(n/360):n)}var fr={forward:lr,reverse:cr,interpolate:function(t,e,r){return{l:Ze(t.l,e.l,r),a:Ze(t.a,e.a,r),b:Ze(t.b,e.b,r),alpha:Ze(t.alpha,e.alpha,r)}}},hr={forward:function(t){var e=lr(t),r=e.l,n=e.a,i=e.b,a=Math.atan2(i,n)*nr;return{h:a<0?a+360:a,c:Math.sqrt(n*n+i*i),l:r,alpha:t.a}},reverse:function(t){var e=t.h*rr,r=t.c;return cr({l:t.l,a:Math.cos(e)*r,b:Math.sin(e)*r,alpha:t.alpha})},interpolate:function(t,e,r){return{h:ur(t.h,e.h,r),c:Ze(t.c,e.c,r),l:Ze(t.l,e.l,r),alpha:Ze(t.alpha,e.alpha,r)}}},pr=Object.freeze({__proto__:null,lab:fr,hcl:hr}),dr=function(t,e,r,n,i){this.type=t,this.operator=e,this.interpolation=r,this.input=n,this.labels=[],this.outputs=[];for(var

a=0,o=i;a<o.length;a+=1){var s=o[a],l=s[0],c=s[1];this.labels.push(l),this.outputs.push(c)}};function gr(t,e,r,n){var i=n-r,a=t-r;return 0===i?0:1===e?a/i:(Math.pow(e,a)-1)/(Math.pow(e,i)-1)}dr.interpolationFactor=function(t,e,r,i){var a=0;if("exponential"===t.name)a=gr(e,t.base,r,i);else if("linear"===t.name)a=gr(e,1,r,i);else if("cubic-bezier"===t.name){var o=t.controlPoints;a=new n(o[0],o[1],o[2],o[3]).solve(gr(e,1,r,i))}return a},dr.parse=function(t,e){var r=t[0],n=t[1],i=t[2],a=t.slice(3);if(!Array.isArray(n)||0===n.length)return e.error("Expected an interpolation type expression.",1);if("linear"===n[0])n={name:"linear"};else if("exponential"===n[0]){var o=n[1];if("number"!=typeof o)return e.error("Exponential interpolation requires a numeric base.",1,1);n={name:"exponential",base:o}}else{if("cubic-bezier"!==n[0])return e.error("Unknown interpolation type "+String(n[0]),1,0);var s=n.slice(1);if(4!==s.length||s.some((function(t){return"number"!=typeof t||t<0||t>1})))return e.error("Cubic bezier interpolation requires four numeric arguments with values between 0 and 1.",1);n={name:"cubic-bezier",controlPoints:s}}if(t.length-1<4)return e.error("Expected at least 4 arguments, but found only "+(t.length-1)+".");if((t.length-1)%2!=0)return e.error("Expected an even number of arguments.");if(!(i=e.parse(i,2,Ut)))return null;var l=[],c=null;"interpolate-hcl"===r||"interpolate-lab"===r?c=Ht:e.expectedType&&"value"!==e.expectedType.kind&&(c=e.expectedType);for(var u=0;u<a.length;u+=2){var f=a[u],h=a[u+1],p=u+3,d=u+4;if("number"!=typeof f)return e.error('Input/output pairs for "interpolate" expressions must be defined using literal numeric values (not computed expressions) for the input values.',p);if(l.length&&l[l.length-1][0]>=f)return e.error('Input/output pairs for "interpolate" expressions must be arranged with input values in strictly ascending order.',p);var g=e.parse(h,d,c);if(!g)return null;c=c||g.type,l.push([f,g])}return"number"===c.kind||"color"===c.kind||"array"===c.kind&&"number"===c.itemType.kind&&"number"==typeof c.N?new dr(c,r,n,i,l):e.error("Type "+Kt(c)+" is not interpolatable.")},dr.prototype.evaluate=function(t){var e=this.labels,r=this.outputs;if(1===e.length)return r[0].evaluate(t);var n=this.input.evaluate(t);if(n<=e[0])return r[0].evaluate(t);var i=e.length;if(n>=e[i-1])return r[i-1].evaluate(t);var a=We(e,n),o=e[a],s=e[a+1],l=dr.interpolationFactor(this.interpolation,n,o,s),c=r[a].evaluate(t),u=r[a+1].evaluate(t);return"interpolate"===this.operator?Je[this.type.kind.toLowerCase()](c,u,l):"interpolate-hcl"===this.operator?hr.reverse(hr.interpolate(hr.forward(c),hr.forward(u),l)):fr.reverse(fr.interpolate(fr.forward(c),fr.forward(u),l))},dr.prototype.eachChild=function(t){t(this.input);for(var e=0,r=this.outputs;e<r.length;e+=1)t(r[e])},dr.prototype.outputDefined=function(){return this.outputs.every((function(t){return t.outputDefined()}))},dr.prototype.serialize=function(){var t;t="linear"===this.interpolation.name?["linear"]:"exponential"===this.interpolation.name?1===this.interpolation.base?["linear"]:["exponential",this.interpolation.base]:["cubic-bezier"].concat(this.interpolation.controlPoints);for(var e=[this.operator,t,this.input.serialize()],r=0;r<this.labels.length;r++)e.push(this.labels[r],this.outputs[r].serialize());return e};var vr=function(t,e){this.type=t,this.args=e};vr.parse=function(t,e){if(t.length<2)return e.error("Expectected at least one argument.");var r=null,n=e.expectedType;n&&"value"!==n.kind&&(r=n);for(var i=[],a=0,o=t.slice(1);a<o.length;a+=1){var s=o[a],l=e.parse(s,1+i.length,r,void 0,{typeAnnotation:"omit"});if(!l)return null;r=r||l.type,i.push(l)}var c=n&&i.some((function(t){return $t(n,t.type)}));return new vr(c?Yt:r,i)},vr.prototype.evaluate=function(t){for(var e,r=null,n=0,i=0,a=this.args;i<a.length&&(n++,(r=a[i].evaluate(t))&&r instanceof se&&!r.available&&(e||(e=r.name),r=null,n===this.args.length&&(r=e)),null===r);i+=1);return r},vr.prototype.eachChild=function(t){this.args.forEach(t)},vr.prototype.outputDefined=function(){return this.args.every((function(t){return t.outputDefined()}))},vr.prototype.serialize=function(){var t=["coalesce"];return this.eachChild((function(e){t.push(e.serialize())})),t};var mr=function(t,e){this.type=e.type,this.bindings=[].concat(t),this.result=e};mr.prototype.evaluate=function(t){return this.result.evaluate(t)},mr.prototype.eachChild=function(t){for(var e=0,r=this.bindings;e<r.length;e+=1)t(r[e][1]);t(this.result)},mr.parse=function(t,e){if(t.length<4)return e.error("Expected at least 3 arguments, but found "+(t.length-1)+" instead.");for(var r=[],n=1;n<t.length-1;n+=2){var i=t[n];if("string"!=typeof i)return e.error("Expected string, but found "+typeof i+" instead.",n);if(/[^a-

zA-Z0-9_]/.test(i))return e.error("Variable names must contain only alphanumeric characters or '_'.",n);var a=e.parse(t[n+1],n+1);if(!a)return null;r.push([i,a])}var o=e.parse(t[t.length-1],t.length-1,e.expectedType,r);return o?new mr(r,o):null},mr.prototype.outputDefined=function(){return this.result.outputDefined()},mr.prototype.serialize=function(){for(var t=["let"],e=0,r=this.bindings;e<r.length;e+=1){var n=r[e],i=n[0],a=n[1];t.push(i,a.serialize())}return t.push(this.result.serialize()),t};var yr=function(t,e,r){this.type=t,this.index=e,this.input=r};yr.parse=function(t,e){if(3!==t.length)return e.error("Expected 2 arguments, but found "+(t.length-1)+" instead.");var r=e.parse(t[1],1,Ut),n=e.parse(t[2],2,Jt(e.expectedType||Yt));if(!r||!n)return null;var i=n.type;return new yr(i.itemType,r,n)},yr.prototype.evaluate=function(t){var e=this.index.evaluate(t),r=this.input.evaluate(t);if(e<0)throw new pe("Array index out of bounds: "+e+" < 0.");if(e>=r.length)throw new pe("Array index out of bounds: "+e+" > "+(r.length-1)+".");if(e!==Math.floor(e))throw new pe("Array index must be an integer, but found "+e+" instead.");return r[e]},yr.prototype.eachChild=function(t){t(this.index),t(this.input)},yr.prototype.outputDefined=function(){return!1},yr.prototype.serialize=function(){return["at",this.index.serialize(),this.input.serialize()]};var xr=function(t,e){this.type=qt,this.needle=t,this.haystack=e};xr.parse=function(t,e){if(3!==t.length)return e.error("Expected 2 arguments, but found "+(t.length-1)+" instead.");var r=e.parse(t[1],1,Yt),n=e.parse(t[2],2,Yt);return r&&n?te(r.type,[qt,Vt,Ut,jt,Yt])?new xr(r,n):e.error("Expected first argument to be of type boolean, string, number or null, but found "+Kt(r.type)+" instead"):null},xr.prototype.evaluate=function(t){var e=this.needle.evaluate(t),r=this.haystack.evaluate(t);if(!r)return!1;if(!ee(e,["boolean","string","number","null"]))throw new pe("Expected first argument to be of type boolean, string, number or null, but found "+Kt(ue(e))+" instead.");if(!ee(r,["string","array"]))throw new pe("Expected second argument to be of type array or string, but found "+Kt(ue(r))+" instead.");return r.indexOf(e)>=0},xr.prototype.eachChild=function(t){t(this.needle),t(this.haystack)},xr.prototype.outputDefined=function(){return!0},xr.prototype.serialize=function(){return["in",this.needle.serialize(),this.haystack.serialize()]};var br=function(t,e,r){this.type=Ut,this.needle=t,this.haystack=e,this.fromIndex=r};br.parse=function(t,e){if(t.length<=2||t.length>=5)return e.error("Expected 3 or 4 arguments, but found "+(t.length-1)+" instead.");var r=e.parse(t[1],1,Yt),n=e.parse(t[2],2,Yt);if(!r||!n)return null;if(!te(r.type,[qt,Vt,Ut,jt,Yt]))return e.error("Expected first argument to be of type boolean, string, number or null, but found "+Kt(r.type)+" instead");if(4===t.length){var i=e.parse(t[3],3,Ut);return i?new br(r,n,i):null}return new br(r,n)},br.prototype.evaluate=function(t){var e=this.needle.evaluate(t),r=this.haystack.evaluate(t);if(!ee(e,["boolean","string","number","null"]))throw new pe("Expected first argument to be of type boolean, string, number or null, but found "+Kt(ue(e))+" instead.");if(!ee(r,["string","array"]))throw new pe("Expected second argument to be of type array or string, but found "+Kt(ue(r))+" instead.");if(this.fromIndex){var n=this.fromIndex.evaluate(t);return r.indexOf(e,n)}return r.indexOf(e)},br.prototype.eachChild=function(t){t(this.needle),t(this.haystack),this.fromIndex&&t(this.fromIndex)},br.prototype.outputDefined=function(){return!1},br.prototype.serialize=function(){if(null!=this.fromIndex&&void 0!==this.fromIndex){var t=this.fromIndex.serialize();return["index-of",this.needle.serialize(),this.haystack.serialize(),t]}return["index-of",this.needle.serialize(),this.haystack.serialize()]};var _r=function(t,e,r,n,i,a){this.inputType=t,this.type=e,this.input=r,this.cases=n,this.outputs=i,this.otherwise=a};_r.parse=function(t,e){if(t.length<5)return e.error("Expected at least 4 arguments, but found only "+(t.length-1)+".");if(t.length%2!=1)return e.error("Expected an even number of arguments.");var r,n;e.expectedType&&"value"!==e.expectedType.kind&&(n=e.expectedType);for(var i={},a=[],o=2;o<t.length-1;o+=2){var s=t[o],l=t[o+1];Array.isArray(s)||(s=[s]);var c=e.concat(o);if(0===s.length)return c.error("Expected at least one branch label.");for(var u=0,f=s;u<f.length;u+=1){var h=f[u];if("number"!=typeof h&&"string"!=typeof h)return c.error("Branch labels must be numbers or strings.");if("number"==typeof h&&Math.abs(h)>Number.MAX_SAFE_INTEGER)return c.error("Branch labels must be integers no larger than

"+Number.MAX_SAFE_INTEGER+".");if("number"==typeof h&&Math.floor(h)!==h)return c.error("Numeric branch labels must be integer values.");if(r){if(c.checkSubtype(r,ue(h)))return null}else r=ue(h);if(void 0!==i[String(h)])return c.error("Branch labels must be unique.");i[String(h)]=a.length}var p=e.parse(l,o,n);if(!p)return null;n=n||p.type,a.push(p)}var d=e.parse(t[1],1,Yt);if(!d)return null;var g=e.parse(t[t.length-1],t.length-1,n);return g?"value"!==d.type.kind&&e.concat(1).checkSubtype(r,d.type)?null:new _r(r,n,d,i,a,g):null},_r.prototype.evaluate=function(t){var e=this.input.evaluate(t);return(ue(e)===this.inputType&&this.outputs[this.cases[e]]||this.otherwise).evaluate(t)},_r.prototype.eachChild=function(t){t(this.input),this.outputs.forEach(t),t(this.otherwise)},_r.prototype.outputDefined=function(){return this.outputs.every((function(t){return t.outputDefined()}))&&this.otherwise.outputDefined()},_r.prototype.serialize=function(){for(var t=this,e=["match",this.input.serialize()],r=[],n={},i=0,a=Object.keys(this.cases).sort();i<a.length;i+=1){var o=a[i];void 0===(f=n[this.cases[o]])?(n[this.cases[o]]=r.length,r.push([this.cases[o],[o]])):r[f][1].push(o)}for(var s=function(e){return"number"===t.inputType.kind?Number(e):e},l=0,c=r;l<c.length;l+=1){var u=c[l],f=u[0],h=u[1];1===h.length?e.push(s(h[0])):e.push(h.map(s)),e.push(this.outputs[outputIndex$1].serialize())}return e.push(this.otherwise.serialize()),e};var wr=function(t,e,r){this.type=t,this.branches=e,this.otherwise=r};wr.parse=function(t,e){if(t.length<4)return e.error("Expected at least 3 arguments, but found only "+(t.length-1)+".");if(t.length%2!=0)return e.error("Expected an odd number of arguments.");var r;e.expectedType&&"value"!==e.expectedType.kind&&(r=e.expectedType);for(var n=[],i=1;i<t.length-1;i+=2){var a=e.parse(t[i],i,qt);if(!a)return null;var o=e.parse(t[i+1],i+1,r);if(!o)return null;n.push([a,o]),r=r||o.type}var s=e.parse(t[t.length-1],t.length-1,r);return s?new wr(r,n,s):null},wr.prototype.evaluate=function(t){for(var e=0,r=this.branches;e<r.length;e+=1){var n=r[e],i=n[0],a=n[1];if(i.evaluate(t))return a.evaluate(t)}return this.otherwise.evaluate(t)},wr.prototype.eachChild=function(t){for(var e=0,r=this.branches;e<r.length;e+=1){var n=r[e],i=n[0],a=n[1];t(i),t(a)}t(this.otherwise)},wr.prototype.outputDefined=function(){return this.branches.every((function(t){return t[0],t[1].outputDefined()}))&&this.otherwise.outputDefined()},wr.prototype.serialize=function(){var t=["case"];return this.eachChild((function(e){t.push(e.serialize())})),t};var Tr=function(t,e,r,n){this.type=t,this.input=e,this.beginIndex=r,this.endIndex=n};function kr(t,e){return"=="===t||"!="===t?"boolean"===e.kind||"string"===e.kind||"number"===e.kind||"null"===e.kind||"value"===e.kind:"string"===e.kind||"number"===e.kind||"value"===e.kind}function Ar(t,e,r,n){return 0===n.compare(e,r)}function Mr(t,e,r){var n="=="!==t&&"!="!==t;return function(){function i(t,e,r){this.type=qt,this.lhs=t,this.rhs=e,this.collator=r,this.hasUntypedArgument="value"===t.type.kind||"value"===e.type.kind}return i.parse=function(t,e){if(3!==t.length&&4!==t.length)return e.error("Expected two or three arguments.");var r=t[0],a=e.parse(t[1],1,Yt);if(!a)return null;if(!kr(r,a.type))return e.concat(1).error(""+r+"\" comparisons are not supported for type '"+Kt(a.type)+"'.");var o=e.parse(t[2],2,Yt);if(!o)return null;if(!kr(r,o.type))return e.concat(2).error(""+r+"\" comparisons are not supported for type '"+Kt(o.type)+"'.");if(a.type.kind!==o.type.kind&&"value"!==a.type.kind&&"value"!==o.type.kind)return e.error("Cannot compare types '"+Kt(a.type)+"' and '"+Kt(o.type)+"'.");n&&("value"===a.type.kind&&"value"!==o.type.kind?a=new ge(o.type,[a]):"value"!==a.type.kind&&"value"===o.type.kind&&(o=new ge(a.type,[o])));var s=null;if(4===t.length){if("string"!==a.type.kind&&"string"!==o.type.kind&&"value"!==a.type.kind&&"value"!==o.type.kind)return e.error("Cannot use collator to compare non-string types.");if(!(s=e.parse(t[3],3,Wt)))return null}return new i(a,o,s)},i.prototype.evaluate=function(i){var a=this.lhs.evaluate(i),o=this.rhs.evaluate(i);if(n&&this.hasUntypedArgument){var s=ue(a),l=ue(o);if(s.kind!==l.kind||"string"!==s.kind&&"number"!==s.kind)throw new pe('Expected arguments for "'+t+'" to be (string, string) or (number, number), but found ('+s.kind+", "+l.kind+") instead.")}if(this.collator&&!n&&this.hasUntypedArgument){var c=ue(a),u=ue(o);if("string"!==c.kind||"string"!==u.kind)return e(i,a,o)}return

this.collator?r(i,a,o,this.collator.evaluate(i)):e(i,a,o)},i.prototype.eachChild=function(t){t(this.lhs),t(this.rhs),this.collator&&t(this.collator)},i.prototype.outputDefined=function(){return!0},i.prototype.serialize=function(){var e=[t];return this.eachChild((function(t){e.push(t.serialize())})),e},i}()Tr.parse=function(t,e){if(t.length<=2||t.length>=5)return e.error("Expected 3 or 4 arguments, but found "+(t.length-1)+" instead.");var r=e.parse(t[1],1,Yt),n=e.parse(t[2],2,Ut);if(!r||!n)return null;if(!te(r.type,[Jt(Yt),Vt,Yt]))return e.error("Expected first argument to be of type array or string, but found "+Kt(r.type)+" instead");if(4===t.length){var i=e.parse(t[3],3,Ut);return i?new Tr(r.type,r,n,i):null}return new Tr(r.type,r,n)},Tr.prototype.evaluate=function(t){var e=this.input.evaluate(t),r=this.beginIndex.evaluate(t);if(!ee(e,["string","array"]))throw new pe("Expected first argument to be of type array or string, but found "+Kt(ue(e))+" instead.");if(this.endIndex){var n=this.endIndex.evaluate(t);return e.slice(r,n)}return e.slice(r)},Tr.prototype.eachChild=function(t){t(this.input),t(this.beginIndex),this.endIndex&&t(this.endIndex)},Tr.prototype.outputDefined=function(){return!1},Tr.prototype.serialize=function(){if(null!=this.endIndex&&void 0!==this.endIndex){var t=this.endIndex.serialize();return["slice",this.input.serialize(),this.beginIndex.serialize(),t]}return["slice",this.input.serialize(),this.beginIndex.serialize()]};var Sr=Mr("==",(function(t,e,r){return e===r}),Ar),Er=Mr("!=",(function(t,e,r){return e!==r}),(function(t,e,r,n){return!Ar(0,e,r,n)})),Lr=Mr("<",(function(t,e,r){return e<r}),(function(t,e,r,n){return n.compare(e,r)<0})),Cr=Mr(">",(function(t,e,r){return e>r}),(function(t,e,r,n){return n.compare(e,r)>0})),Pr=Mr("<=",(function(t,e,r){return e<=r}),(function(t,e,r,n){return n.compare(e,r)<=0})),Ir=Mr(">=",(function(t,e,r){return e>=r}),(function(t,e,r,n){return n.compare(e,r)>=0})),Or=function(t,e,r,n,i){this.type=Vt,this.number=t,this.locale=e,this.currency=r,this.minFractionDigits=n,this.maxFractionDigits=i};Or.parse=function(t,e){if(3!==t.length)return e.error("Expected two arguments.");var r=e.parse(t[1],1,Ut);if(!r)return null;var n=t[2];if("object"!=typeof n||Array.isArray(n))return e.error("NumberFormat options argument must be an object.");var i=null;if(n.locale&&!(i=e.parse(n.locale,1,Vt)))return null;var a=null;if(n.currency&&!(a=e.parse(n.currency,1,Vt)))return null;var o=null;if(n["min-fraction-digits"]&&!(o=e.parse(n["min-fraction-digits"],1,Ut)))return null;var s=null;return n["max-fraction-digits"]&&!(s=e.parse(n["max-fraction-digits"],1,Ut))?null:new Or(r,i,a,o,s)},Or.prototype.evaluate=function(t){return new Intl.NumberFormat(this.locale?this.locale.evaluate(t):[],{style:this.currency?"currency":"decimal",currency:this.currency?this.currency.evaluate(t):void 0,minimumFractionDigits:this.minFractionDigits?this.minFractionDigits.evaluate(t):void 0,maximumFractionDigits:this.maxFractionDigits?this.maxFractionDigits.evaluate(t):void 0}).format(this.number.evaluate(t))},Or.prototype.eachChild=function(t){t(this.number),this.locale&&t(this.locale),this.currency&&t(this.currency),this.minFractionDigits&&t(this.minFractionDigits),this.maxFractionDigits&&t(this.maxFractionDigits)},Or.prototype.outputDefined=function(){return!1},Or.prototype.serialize=function(){var t={};return this.locale&&(t.locale=this.locale.serialize()),this.currency&&(t.currency=this.currency.serialize()),this.minFractionDigits&&(t["min-fraction-digits"]=this.minFractionDigits.serialize()),this.maxFractionDigits&&(t["max-fraction-digits"]=this.maxFractionDigits.serialize()),["number-format",this.number.serialize(),t]};var zr=function(t){this.type=Ut,this.input=t};zr.parse=function(t,e){if(2!==t.length)return e.error("Expected 1 argument, but found "+(t.length-1)+" instead.");var r=e.parse(t[1],1);return r?"array"!==r.type.kind&&"string"!==r.type.kind&&"value"!==r.type.kind?e.error("Expected argument of type string or array, but found "+Kt(r.type)+" instead."):new zr(r):null},zr.prototype.evaluate=function(t){var e=this.input.evaluate(t);if("string"==typeof e)return e.length;if(Array.isArray(e))return e.length;throw new pe("Expected value to be of type string or array, but found "+Kt(ue(e))+"

instead.")},zr.prototype.eachChild=function(t){t(this.input)},zr.prototype.outputDefined=function(){return!1},zr.prototype.serialize=function(){var t=["length"];return this.eachChild((function(e){t.push(e.serialize())})),t};var Dr={"==":Sr,"!=":Er,">":Cr,"<":Lr,">=":Ir,"<=":Pr,array:ge,at:yr,boolean:ge,case:wr,coalesce:vr,collator:Te,format:ve,image:me,in:xr,"index-of":br,interpolate:dr,"interpolate-hcl":dr,"interpolate-lab":dr,length:zr,let:mr,literal:he,match:_r,number:ge,"number-format":Or,object:ge,slice:Tr,step:Xe,string:ge,"to-boolean":xe,"to-color":xe,"to-number":xe,"to-string":xe,var:He,within:je};function Rr(t,e){var r=e[0],n=e[1],i=e[2],a=e[3];r=r.evaluate(t),n=n.evaluate(t),i=i.evaluate(t);var o=a?a.evaluate(t):1,s=le(r,n,i,o);if(s)throw new pe(s);return new ne(r/255*o,n/255*o,i/255*o,o)}function Fr(t,e){return t in e}function Br(t,e){var r=e[t];return void 0===r?null:r}function Nr(t){return{type:t}}function jr(t){return{result:"success",value:t}}function Ur(t){return{result:"error",value:t}}function Vr(t){return"data-driven"===t["property-type"]||"cross-faded-data-driven"===t["property-type"]}function qr(t){return!!t.expression&&t.expression.parameters.indexOf("zoom")>-1}function Hr(t){return!!t.expression&&t.expression.interpolated}function Gr(t){return t instanceof Number?"number":t instanceof String?"string":t instanceof Boolean?"boolean":Array.isArray(t)?"array":null===t?"null":typeof t}function Yr(t){return"object"==typeof t&&null!==t&&!Array.isArray(t)}function Wr(t){return t}function Xr(t,e){var r,n,i,a="color"===e.type,o=t.stops&&"object"==typeof t.stops[0][0],s=o||void 0!==t.property,l=o||!s,c=t.type||(Hr(e)?"exponential":"interval");if(a&&((t=Dt({},t)).stops&&(t.stops=t.stops.map((function(t){return[t[0],ne.parse(t[1])]}))),t.default?t.default=ne.parse(t.default):t.default=ne.parse(e.default)),t.colorSpace&&"rgb"!==t.colorSpace&&!pr[t.colorSpace])throw new Error("Unknown color space: "+t.colorSpace);if("exponential"===c)r=Qr;else if("interval"===c)r=Kr;else if("categorical"===c){r=Jr,n=Object.create(null);for(var u=0,f=t.stops;u<f.length;u+=1){var h=f[u];n[h[0]]=h[1]}i=typeof t.stops[0][0]}else{if("identity"!==c)throw new Error('Unknown function type "'+c+'"');r=$r}if(o){for(var p={},d=[],g=0;g<t.stops.length;g++){var v=t.stops[g],m=v[0].zoom;void 0===p[m]&&(p[m]={zoom:m,type:t.type,property:t.property,default:t.default,stops:[]},d.push(m)),p[m].stops.push([v[0].value,v[1]])}for(var y=[],x=0,b=d;x<b.length;x+=1){var _=b[x];y.push([p[_].zoom,Xr(p[_],e)])}var w={name:"linear"};return{kind:"composite",interpolationType:w,interpolationFactor:dr.interpolationFactor.bind(void 0,w),zoomStops:y.map((function(t){return t[0]})),evaluate:function(r,n){var i=r.zoom;return Qr({stops:y,base:t.base},e,i).evaluate(i,n)}}}if(l){var T="exponential"===c?{name:"exponential",base:void 0!==t.base?t.base:1}:null;return{kind:"camera",interpolationType:T,interpolationFactor:dr.interpolationFactor.bind(void 0,T),zoomStops:t.stops.map((function(t){return t[0]})),evaluate:function(a){var o=a.zoom;return r(t,e,o,n,i)}}}return{kind:"source",evaluate:function(a,o){var s=o&&o.properties?o.properties[t.property]:void 0;return void 0===s?Zr(t.default,e.default):r(t,e,s,n,i)}}}function Zr(t,e,r){return void 0!==t?t:void 0!==e?e:void 0!==r?r:void 0}function Jr(t,e,r,n,i){return Zr(typeof r===i?n[r]:void 0,t.default,e.default)}function Kr(t,e,r){if("number"!==Gr(r))return Zr(t.default,e.default);var n=t.stops.length;if(1===n)return t.stops[0][1];if(r<=t.stops[0][0])return t.stops[0][1];if(r>=t.stops[n-1][0])return t.stops[n-1][1];var i=We(t.stops.map((function(t){return t[0]})),r);return t.stops[i][1]}function Qr(t,e,r){var n=void 0!==t.base?t.base:1;if("number"!==Gr(r))return Zr(t.default,e.default);var i=t.stops.length;if(1===i)return t.stops[0][1];if(r<=t.stops[0][0])return t.stops[0][1];if(r>=t.stops[i-1][0])return t.stops[i-1][1];var a=We(t.stops.map((function(t){return t[0]})),r),o=function(t,e,r,n){var i=n-r,a=t-r;return 0===i?0:1===e?a/i:(Math.pow(e,a)-1)/(Math.pow(e,i)-1)}(r,n,t.stops[a][0],t.stops[a+1][0]),s=t.stops[a][1],l=t.stops[a+1][1],c=Je[e.type]||Wr;if(t.colorSpace&&"rgb"!==t.colorSpace){var u=pr[t.colorSpace];c=function(t,e){return u.reverse(u.interpolate(u.forward(t),u.forward(e),o))}}return"function"==typeof s.evaluate?{evaluate:function(){for(var t=[],e=arguments.length;e--;)t[e]=arguments[e];var r=s.evaluate.apply(void 0,t),n=l.evaluate.apply(void 0,t);if(void 0!==r&&void 0!==n)return c(r,n,o)}}:c(s,l,o)}function $r(t,e,r){return"color"===e.type?r=ne.parse(r):"formatted"===e.type?r=oe.fromString(r.toString()):"resolvedImage"===e.type?r=se.fromString(r.toString()):Gr(r)===e.type||"enum"===e.type&&e.values[r]||(r=void 0),Zr(r,t.default,e.default)}we.register(Dr,{error:[{kind:"error"},[Vt],function(t,e){var r=e[0];throw new

pe(r.evaluate(t))}],typeof:[Vt,[Yt],function(t,e){return Kt(ue(e[0].evaluate(t)))}],"to-rgba":[Jt(Ut,4),[Ht],function(t,e){return e[0].evaluate(t).toArray()}],rgb:[Ht,[Ut,Ut,Ut],Rr],rgba:[Ht,[Ut,Ut,Ut,Ut],Rr],has:{type:qt,overloads:[[[Vt],function(t,e){return Fr(e[0].evaluate(t),t.properties())}],[[Vt,Gt],function(t,e){var r=e[0],n=e[1];return Fr(r.evaluate(t),n.evaluate(t))}]]},get:{type:Yt,overloads:[[[Vt],function(t,e){return Br(e[0].evaluate(t),t.properties())}],[[Vt,Gt],function(t,e){var r=e[0],n=e[1];return Br(r.evaluate(t),n.evaluate(t))}]]},"feature-state":[Yt,[Vt],function(t,e){return Br(e[0].evaluate(t),t.featureState||{})}],properties:[Gt,[],function(t){return t.properties()}],"geometry-type":[Vt,[],function(t){return t.geometryType()}],id:[Yt,[],function(t){return t.id()}],zoom:[Ut,[],function(t){return t.globals.zoom}],"heatmap-density":[Ut,[],function(t){return t.globals.heatmapDensity||0}],"line-progress":[Ut,[],function(t){return t.globals.lineProgress||0}],accumulated:[Yt,[],function(t){return void 0===t.globals.accumulated?null:t.globals.accumulated}],"+":[Ut,Nr(Ut),function(t,e){for(var r=0,n=0,i=e;n<i.length;n+=1)r+=i[n].evaluate(t);return r}],"*":[Ut,Nr(Ut),function(t,e){for(var r=1,n=0,i=e;n<i.length;n+=1)r*=i[n].evaluate(t);return r}],"-":{type:Ut,overloads:[[[Ut,Ut],function(t,e){var r=e[0],n=e[1];return r.evaluate(t)-n.evaluate(t)}],[[Ut],function(t,e){return-e[0].evaluate(t)}]]},"/":[Ut,[Ut,Ut],function(t,e){var r=e[0],n=e[1];return r.evaluate(t)/n.evaluate(t)}],"%":[Ut,[Ut,Ut],function(t,e){var r=e[0],n=e[1];return r.evaluate(t)%n.evaluate(t)}],ln2:[Ut,[],function(){return Math.LN2}],pi:[Ut,[],function(){return Math.PI}],e:[Ut,[],function(){return Math.E}],"^":[Ut,[Ut,Ut],function(t,e){var r=e[0],n=e[1];return Math.pow(r.evaluate(t),n.evaluate(t))}],sqrt:[Ut,[Ut],function(t,e){var r=e[0];return Math.sqrt(r.evaluate(t))}],log10:[Ut,[Ut],function(t,e){var r=e[0];return Math.log(r.evaluate(t))/Math.LN10}],ln:[Ut,[Ut],function(t,e){var r=e[0];return Math.log(r.evaluate(t))}],log2:[Ut,[Ut],function(t,e){var r=e[0];return Math.log(r.evaluate(t))/Math.LN2}],sin:[Ut,[Ut],function(t,e){var r=e[0];return Math.sin(r.evaluate(t))}],cos:[Ut,[Ut],function(t,e){var r=e[0];return Math.cos(r.evaluate(t))}],tan:[Ut,[Ut],function(t,e){var r=e[0];return Math.tan(r.evaluate(t))}],asin:[Ut,[Ut],function(t,e){var r=e[0];return Math.asin(r.evaluate(t))}],acos:[Ut,[Ut],function(t,e){var r=e[0];return Math.acos(r.evaluate(t))}],atan:[Ut,[Ut],function(t,e){var r=e[0];return Math.atan(r.evaluate(t))}],min:[Ut,Nr(Ut),function(t,e){return Math.min.apply(Math,e.map((function(e){return e.evaluate(t)})))}],max:[Ut,Nr(Ut),function(t,e){return Math.max.apply(Math,e.map((function(e){return e.evaluate(t)})))}],abs:[Ut,[Ut],function(t,e){var r=e[0];return Math.abs(r.evaluate(t))}],round:[Ut,[Ut],function(t,e){var r=e[0].evaluate(t);return r<0?-Math.round(-r):Math.round(r)}],floor:[Ut,[Ut],function(t,e){var r=e[0];return Math.floor(r.evaluate(t))}],ceil:[Ut,[Ut],function(t,e){var r=e[0];return Math.ceil(r.evaluate(t))}],"filter-==":[qt,[Vt,Yt],function(t,e){var r=e[0],n=e[1];return t.properties()[r.value]===n.value}],"filter-id-==":[qt,[Yt],function(t,e){var r=e[0];return t.id()===r.value}],"filter-type-==":[qt,[Vt],function(t,e){var r=e[0];return t.geometryType()===r.value}],"filter-<":[qt,[Vt,Yt],function(t,e){var r=e[0],n=e[1],i=t.properties()[r.value],a=n.value;return typeof i==typeof a&&i<a}],"filter-id-<":[qt,[Yt],function(t,e){var r=e[0],n=t.id(),i=r.value;return typeof n==typeof i&&n<i}],"filter->":[qt,[Vt,Yt],function(t,e){var r=e[0],n=e[1],i=t.properties()[r.value],a=n.value;return typeof i==typeof a&&i>a}],"filter-id->":[qt,[Yt],function(t,e){var r=e[0],n=t.id(),i=r.value;return typeof n==typeof i&&n>i}],"filter-<=":[qt,[Vt,Yt],function(t,e){var r=e[0],n=e[1],i=t.properties()[r.value],a=n.value;return typeof i==typeof a&&i<=a}],"filter-id-<=":[qt,[Yt],function(t,e){var r=e[0],n=t.id(),i=r.value;return typeof n==typeof i&&n<=i}],"filter->=":[qt,[Vt,Yt],function(t,e){var r=e[0],n=e[1],i=t.properties()[r.value],a=n.value;return typeof i==typeof a&&i>=a}],"filter-id->=":[qt,[Yt],function(t,e){var r=e[0],n=t.id(),i=r.value;return typeof n==typeof i&&n>=i}],"filter-has":[qt,[Yt],function(t,e){return e[0].value in t.properties()}],"filter-has-id":[qt,[],function(t){return null!==t.id()&&void 0!==t.id()}],"filter-type-in":[qt,[Jt(Vt)],function(t,e){return

e[0].value.indexOf(t.geometryType())>=0}],"filter-id-in":[qt,[Jt(Yt)],function(t,e){return e[0].value.indexOf(t.id())>=0}],"filter-in-small":[qt,[Vt,Jt(Yt)],function(t,e){var r=e[0];return e[1].value.indexOf(t.properties()[r.value])>=0}],"filter-in-large":[qt,[Vt,Jt(Yt)],function(t,e){var r=e[0],n=e[1];return function(t,e,r,n){for(;r<=n;){var i=r+n>>1;if(e[i]===t)return!0;e[i]>t?n=i-1:r=i+1}return!1}(t.properties()[r.value],n.value,0,n.value.length-1)}],all:{type:qt,overloads:[[[qt,qt],function(t,e){var r=e[0],n=e[1];return r.evaluate(t)&&n.evaluate(t)}],[Nr(qt),function(t,e){for(var r=0,n=e;r<n.length;r+=1)if(!n[r].evaluate(t))return!1;return!0}]]},any:{type:qt,overloads:[[[qt,qt],function(t,e){var r=e[0],n=e[1];return r.evaluate(t)||n.evaluate(t)}],[Nr(qt),function(t,e){for(var r=0,n=e;r<n.length;r+=1)if(n[r].evaluate(t))return!0;return!1}]]},"!":[qt,[qt],function(t,e){return!e[0].evaluate(t)}],"is-supported-script":[qt,[Vt],function(t,e){var r=e[0],n=t.globals&&t.globals.isSupportedScript;return!n||n(r.evaluate(t))}],upcase:[Vt,[Vt],function(t,e){return e[0].evaluate(t).toUpperCase()}],downcase:[Vt,[Vt],function(t,e){return e[0].evaluate(t).toLowerCase()}],concat:[Vt,Nr(Yt),function(t,e){return e.map((function(e){return fe(e.evaluate(t))})).join("")}],"resolved-locale":[Vt,[Wt],function(t,e){return e[0].evaluate(t).resolvedLocale()}]});var tn=function(t,e){this.expression=t,this._warningHistory={},this._evaluator=new _e,this._defaultValue=e?function(t){return"color"===t.type&&Yr(t.default)?new ne(0,0,0,0):"color"===t.type?ne.parse(t.default)||null:void 0===t.default?null:t.default}(e):null,this._enumValues=e&&"enum"===e.type?e.values:null};function en(t){return Array.isArray(t)&&t.length>0&&"string"==typeof t[0]&&t[0]in Dr}function rn(t,e){var r=new Ge(Dr,[],e?function(t){var e={color:Ht,string:Vt,number:Ut,enum:Vt,boolean:qt,formatted:Xt,resolvedImage:Zt};return"array"===t.type?Jt(e[t.value]||Yt,t.length):e[t.type]}(e):void 0),n=r.parse(t,void 0,void 0,void 0,e&&"string"===e.type?{typeAnnotation:"coerce"}:void 0);return n?jr(new tn(n,e)):Ur(r.errors)}tn.prototype.evaluateWithoutErrorHandling=function(t,e,r,n,i,a){return this._evaluator.globals=t,this._evaluator.feature=e,this._evaluator.featureState=r,this._evaluator.canonical=n,this._evaluator.availableImages=i||null,this._evaluator.formattedSection=a,this.expression.evaluate(this._evaluator)},tn.prototype.evaluate=function(t,e,r,n,i,a){this._evaluator.globals=t,this._evaluator.feature=e||null,this._evaluator.featureState=r||null,this._evaluator.canonical=n,this._evaluator.availableImages=i||null,this._evaluator.formattedSection=a||null;try{var o=this.expression.evaluate(this._evaluator);if(null==o||"number"==typeof o&&o!=o)return this._defaultValue;if(this._enumValues&&!(o in this._enumValues))throw new pe("Expected value to be one of "+Object.keys(this._enumValues).map((function(t){return JSON.stringify(t)})).join(", ")+", but found "+JSON.stringify(o)+" instead.");return o}catch(t){return this._warningHistory[t.message]||(this._warningHistory[t.message]=!0,"undefined"!=typeof console&&console.warn(t.message)),this._defaultValue}};var nn=function(t,e){this.kind=t,this._styleExpression=e,this.isStateDependent="constant"!==t&&!Ve(e.expression)};nn.prototype.evaluateWithoutErrorHandling=function(t,e,r,n,i,a){return this._styleExpression.evaluateWithoutErrorHandling(t,e,r,n,i,a)},nn.prototype.evaluate=function(t,e,r,n,i,a){return this._styleExpression.evaluate(t,e,r,n,i,a)};var an=function(t,e,r,n){this.kind=t,this.zoomStops=r,this._styleExpression=e,this.isStateDependent="camera"!==t&&!Ve(e.expression),this.interpolationType=n};function on(t,e){if("error"===(t=rn(t,e)).result)return t;var r=t.value.expression,n=Ue(r);if(!n&&!Vr(e))return Ur([new Bt("","data expressions not supported")]);var i=qe(r,["zoom"]);if(!i&&!qr(e))return Ur([new Bt("","zoom expressions not supported")]);var a=ln(r);if(!a&&!i)return Ur([new Bt("",'"zoom" expression may only be used as input to a top-level "step" or "interpolate" expression.')]);if(a instanceof Bt)return Ur([a]);if(a instanceof dr&&!Hr(e))return Ur([new Bt("",'"interpolate" expressions cannot be used with this property')]);if(!a)return jr(new nn(n?"constant":"source",t.value));var o=a instanceof dr?a.interpolation:void 0;return jr(new

an(n?"camera":"composite",t.value,a.labels,o))}an.prototype.evaluateWithoutErrorHandling=function(t,e,r,n,i,a){return
this._styleExpression.evaluateWithoutErrorHandling(t,e,r,n,i,a)},an.prototype.evaluate=function(t,e,r,n,i,a){return
this._styleExpression.evaluate(t,e,r,n,i,a)},an.prototype.interpolationFactor=function(t,e,r){return
this.interpolationType?dr.interpolationFactor(this.interpolationType,t,e,r):0};var
sn=function(t,e){this._parameters=t,this._specification=e,Dt(this,Xr(this._parameters,this._specification))};function
ln(t){var e=null;if(t instanceof mr)e=ln(t.result);else if(t instanceof vr)for(var r=0,n=t.args;r<n.length;r+=1){var
i=n[r];if(e=ln(i))break}else(t instanceof Xe||t instanceof dr)&&t.input instanceof
we&&"zoom"===t.input.name&&(e=t);return e instanceof Bt||t.eachChild((function(t){var r=ln(t);r instanceof
Bt?e=r:!e&&r?e=new Bt("","'zoom" expression may only be used as input to a top-level "step" or "interpolate"
expression.'):e&&r&&e!==r&&(e=new Bt("",'Only one zoom-based "step" or "interpolate" subexpression may be
used in an expression.'))})),e}function cn(t){var
e=t.key,r=t.value,n=t.valueSpec||{},i=t.objectElementValidators||{},a=t.style,o=t.styleSpec,s=[],l=Gr(r);if("object"!==l)return[new Ot(e,r,"object expected, "+l+" found")];for(var c in r){var u=c.split(".")[0],f=n[u]||n["*"],h=void
0;if(i[u])h=i[u];else if(n[u])h=Rn;else if(i["*"])h=i["*"];else{if(!n["*"]){s.push(new Ot(e,r[c],'unknown property
"'+c+'"'));continue}h=Rn}s=s.concat(h({key:(e?e+".":e)+c,value:r[c],valueSpec:f,style:a,styleSpec:o,object:r,object
Key:c},r))}for(var p in n)i[p]||n[p].required&&void 0===n[p].default&&void 0===r[p]&&s.push(new
Ot(e,r,'missing required property "'+p+'"'));return s}function un(t){var
e=t.value,r=t.valueSpec,n=t.style,i=t.styleSpec,a=t.key,o=t.arrayElementValidator||Rn;if("array"!==Gr(e))return[new Ot(a,e,"array expected, "+Gr(e)+" found")];if(r.length&&e.length!==r.length)return[new Ot(a,e,"array length
"+r.length+" expected, length "+e.length+" found")];if(r["min-length"]&&e.length<r["min-length"])return[new
Ot(a,e,"array length at least "+r["min-length"]+" expected, length "+e.length+" found")];var
s={type:r.value,values:r.values};i.$version<7&&(s.function=r.function),"object"===Gr(r.value)&&(s=r.value);for(var
l=[],c=0;c<e.length;c++)l=l.concat(o({array:e,arrayIndex:c,value:e[c],valueSpec:s,style:n,styleSpec:i,key:a+"["+c+"
]"}));return l}function fn(t){var
e=t.key,r=t.value,n=t.valueSpec,i=Gr(r);return"number"===i&&r!=r&&(i="NaN"),"number"!==i?[new
Ot(e,r,"number expected, "+i+" found")]:"minimum"in n&&r<n.minimum?[new Ot(e,r,r+" is less than the minimum
value "+n.minimum)]:"maximum"in n&&r>n.maximum?[new Ot(e,r,r+" is greater than the maximum value
"+n.maximum)]:[]}function hn(t){var e,r,n,i=t.valueSpec,a=Rt(t.value.type),o={},s="categorical"!==a&&void
0===t.value.property,l=!s,c="array"===Gr(t.value.stops)&&"array"===Gr(t.value.stops[0])&&"object"===Gr(t.value.stops[0][0]),u=cn({key:t.key,value:t.value,valueSpec:t.styleSpec.function,style:t.style,styleSpec:t.styleSpec,objectElementValidators:{stops:function(t){if("identity"===a)return[new Ot(t.key,t.value,'identity function may not have
a "stops" property')];var e=[],r=t.value;return
e=e.concat(un({key:t.key,value:r,valueSpec:t.valueSpec,style:t.style,styleSpec:t.styleSpec,arrayElementValidator:f})),"array"===Gr(r)&&0===r.length&&e.push(new Ot(t.key,r,"array must have at least one
stop")),e},default:function(t){return
Rn({key:t.key,value:t.value,valueSpec:i,style:t.style,styleSpec:t.styleSpec})}}});return"identity"===a&&s&&u.push(new Ot(t.key,t.value,'missing required property "property"')),"identity"===a||t.value.stops||u.push(new
Ot(t.key,t.value,'missing required property
"stops"')),"exponential"===a&&t.valueSpec.expression&&!Hr(t.valueSpec)&&u.push(new
Ot(t.key,t.value,"exponential functions not
supported")),t.styleSpec.$version>=8&&(l&&!Vr(t.valueSpec)?u.push(new Ot(t.key,t.value,"property functions not
supported")):s&&!qr(t.valueSpec)&&u.push(new Ot(t.key,t.value,"zoom functions not
supported"))),"categorical"!==a&&!c||void 0!==t.value.property||u.push(new Ot(t.key,t.value,'"property" property is
required')),u;function f(t){var e=[],a=t.value,s=t.key;if("array"!==Gr(a))return[new Ot(s,a,"array expected,
"+Gr(a)+" found")];if(2!==a.length)return[new Ot(s,a,"array length 2 expected, length "+a.length+"
found")];if(c){if("object"!==Gr(a[0]))return[new Ot(s,a,"object expected, "+Gr(a[0])+" found")];if(void

0===a[0].zoom)return[new Ot(s,a,"object stop key must have zoom")];if(void 0===a[0].value)return[new Ot(s,a,"object stop key must have value")];if(n&&n>Rt(a[0].zoom))return[new Ot(s,a[0].zoom,"stop zoom values must appear in ascending order")];Rt(a[0].zoom)!==n&&(n=Rt(a[0].zoom),r=void 0,o={}),e=e.concat(cn({key:s+"[0]",value:a[0],valueSpec:{zoom:{}},style:t.style,styleSpec:t.styleSpec,objectElementValidators:{zoom:fn,value:h}}))}else e=e.concat(h({key:s+"[0]",value:a[0],valueSpec:{},style:t.style,styleSpec:t.styleSpec},a));return en(Ft(a[1]))?e.concat([new Ot(s+"[1]",a[1],"expressions are not allowed in function stops.")]):e.concat(Rn({key:s+"[1]",value:a[1],valueSpec:i,style:t.style,styleSpec:t.styleSpec}))}function h(t,n){var s=Gr(t.value),l=Rt(t.value),c=null!==t.value?t.value:n;if(e){if(s!==e)return[new Ot(t.key,c,s+" stop domain type must match previous stop domain type "+e)]}else e=s;if("number"!==s&&"string"!==s&&"boolean"!==s)return[new Ot(t.key,c,"stop domain value must be a number, string, or boolean")];if("number"!==s&&"categorical"!==a){var u="number expected, "+s+" found";return Vr(i)&&void 0===a&&(u+='\nIf you intended to use a categorical function, specify `"type": "categorical"`.'),[new Ot(t.key,c,u)]}return"categorical"!==a||"number"!==s||isFinite(l)&&Math.floor(l)===l?"categorical"!==a&&"number"===s&&void 0!==r&&l<r?[new Ot(t.key,c,"stop domain values must appear in ascending order")]:(r=l,"categorical"===a&&l in o?[new Ot(t.key,c,"stop domain values must be unique")]:(o[l]=!0,[])):[new Ot(t.key,c,"integer expected, found "+l)]}}function pn(t){var e=("property"===t.expressionContext?on:rn)(Ft(t.value),t.valueSpec);if("error"===e.result)return e.value.map((function(e){return new Ot(""+t.key+e.key,t.value,e.message)}));var r=e.value.expression||e.value._styleExpression.expression;if("property"===t.expressionContext&&"text-font"===t.propertyKey&&!r.outputDefined())return[new Ot(t.key,t.value,'Invalid data expression for "'+t.propertyKey+'". Output values must be contained as literals within the expression.')];if("property"===t.expressionContext&&"layout"===t.propertyType&&!Ve(r))return[new Ot(t.key,t.value,'"feature-state" data expressions are not supported with layout properties.')];if("filter"===t.expressionContext&&!Ve(r))return[new Ot(t.key,t.value,'"feature-state" data expressions are not supported with filters.')];if(t.expressionContext&&0===t.expressionContext.indexOf("cluster")){if(!qe(r,["zoom","feature-state"]))return[new Ot(t.key,t.value,'"zoom" and "feature-state" expressions are not supported with cluster properties.')];if("cluster-initial"===t.expressionContext&&!Ue(r))return[new Ot(t.key,t.value,"Feature data expressions are not supported with initial expression part of cluster properties.")]}return[]}function dn(t){var e=t.key,r=t.value,n=t.valueSpec,i=[];return Array.isArray(n.values)?-1===n.values.indexOf(Rt(r))&&i.push(new Ot(e,r,"expected one of ["+n.values.join(", ")+"], "+JSON.stringify(r)+" found")):-1===Object.keys(n.values).indexOf(Rt(r))&&i.push(new Ot(e,r,"expected one of ["+Object.keys(n.values).join(", ")+"], "+JSON.stringify(r)+" found")),i}function gn(t){if(!0===t||!1===t)return!0;if(!Array.isArray(t)||0===t.length)return!1;switch(t[0]){case"has":return t.length>=2&&"$id"!==t[1]&&"$type"!==t[1];case"in":return t.length>=3&&("string"!=typeof t[1]||Array.isArray(t[2]));case"!in":case"!has":case"none":return!1;case"==":case"!=":case">":case">=":case"<":case"<=":return 3!==t.length||Array.isArray(t[1])||Array.isArray(t[2]);case"any":case"all":for(var e=0,r=t.slice(1);e<r.length;e+=1){var n=r[e];if(!gn(n)&&"boolean"!=typeof n)return!1}return!0;default:return!0}}sn.deserialize=function(t){return new sn(t._parameters,t._specification)},sn.serialize=function(t){return{_parameters:t._parameters,_specification:t._specification}};var vn={type:"boolean",default:!1,transition:!1,"property-type":"data-driven",expression:{interpolated:!1,parameters:["zoom","feature"]}};function mn(t){if(null==t)return{filter:function(){return!0},needGeometry:!1};gn(t)||(t=bn(t));var e=rn(t,vn);if("error"===e.result)throw new Error(e.value.map((function(t){return t.key+": "+t.message})).join(", "));return{filter:function(t,r,n){return e.value.evaluate(t,r,{},n)},needGeometry:xn(t)}}function yn(t,e){return t<e?-1:t>e?1:0}function xn(t){if(!Array.isArray(t))return!1;if("within"===t[0])return!0;for(var e=1;e<t.length;e++)if(xn(t[e]))return!0;return!1}function bn(t){if(!t)return!0;var e,r=t[0];return

t.length<=1?"any"!==r:"=="===r?_n(t[1],t[2],"=="):"!="===r?kn(_n(t[1],t[2],"==")):"<"===r||">"===r||"<="===r||">="===r?_n(t[1],t[2],r):"any"===r?(e=t.slice(1),["any"].concat(e.map(bn))):"all"===r?["all"].concat(t.slice(1).map(bn)):"none"===r?["all"].concat(t.slice(1).map(bn).map(kn)):"in"===r?wn(t[1],t.slice(2)):"!in"===r?kn(wn(t[1],t.slice(2))):"has"===r?Tn(t[1]):"!has"===r?kn(Tn(t[1])):"within"!==r||t}function _n(t,e,r){switch(t){case"$type":return["filter-type-"+r,e];case"$id":return["filter-id-"+r,e];default:return["filter-"+r,t,e]}}function wn(t,e){if(0===e.length)return!1;switch(t){case"$type":return["filter-type-in",["literal",e]];case"$id":return["filter-id-in",["literal",e]];default:return e.length>200&&!e.some((function(t){return typeof t!=typeof e[0]}))?["filter-in-large",t,["literal",e.sort(yn)]]:["filter-in-small",t,["literal",e]]}}function Tn(t){switch(t){case"$type":return!0;case"$id":return["filter-has-id"];default:return["filter-has",t]}}function kn(t){return["!",t]}function An(t){return gn(Ft(t.value))?pn(Dt({},t,{expressionContext:"filter",valueSpec:{value:"boolean"}})):Mn(t)}function Mn(t){var e=t.value,r=t.key;if("array"!==Gr(e))return[new Ot(r,e,"array expected, "+Gr(e)+" found")];var n,i=t.styleSpec,a=[];if(e.length<1)return[new Ot(r,e,"filter array must have at least 1 element")];switch(a=a.concat(dn({key:r+"[0]",value:e[0],valueSpec:i.filter_operator,style:t.style,styleSpec:t.styleSpec})),Rt(e[0])){case"<":case"<=":case">":case">=":e.length>=2&&"$type"===Rt(e[1])&&a.push(new Ot(r,e,'"$type" cannot be use with operator "'+e[0]+'"'));case"==":case"!=":3!==e.length&&a.push(new Ot(r,e,'filter array for operator "'+e[0]+'" must have 3 elements'));case"in":case"!in":e.length>=2&&"string"!==(n=Gr(e[1]))&&a.push(new Ot(r+"[1]",e[1],"string expected, "+n+" found"));for(var o=2;o<e.length;o++)n=Gr(e[o]),"$type"===Rt(e[1])?a=a.concat(dn({key:r+"["+o+"]",value:e[o],valueSpec:i.geometry_type,style:t.style,styleSpec:t.styleSpec})):"string"!==n&&"number"!==n&&"boolean"!==n&&a.push(new Ot(r+"["+o+"]",e[o],"string, number, or boolean expected, "+n+" found"));break;case"any":case"all":case"none":for(var s=1;s<e.length;s++)a=a.concat(Mn({key:r+"["+s+"]",value:e[s],style:t.style,styleSpec:t.styleSpec}));break;case"has":case"!has":n=Gr(e[1]),2!==e.length?a.push(new Ot(r,e,'filter array for "'+e[0]+'" operator must have 2 elements')):"string"!==n&&a.push(new Ot(r+"[1]",e[1],"string expected, "+n+" found"));break;case"within":n=Gr(e[1]),2!==e.length?a.push(new Ot(r,e,'filter array for "'+e[0]+'" operator must have 2 elements')):"object"!==n&&a.push(new Ot(r+"[1]",e[1],"object expected, "+n+" found"))}return a}function Sn(t,e){var r=t.key,n=t.style,i=t.styleSpec,a=t.value,o=t.objectKey,s=i[e+"_"+t.layerType];if(!s)return[];var l=o.match(/^(.*)-transition$/);if("paint"===e&&l&&s[l[1]]&&s[l[1]].transition)return Rn({key:r,value:a,valueSpec:i.transition,style:n,styleSpec:i});var c,u=t.valueSpec||s[o];if(!u)return[new Ot(r,a,'unknown property "'+o+'"')];if("string"===Gr(a)&&Vr(u)&&!u.tokens&&(c=/^{([^}]+)}$/.exec(a)))return[new Ot(r,a,'"'+o+'" does not support interpolation syntax\nUse an identity property function instead: `{ "type": "identity", "property": '+JSON.stringify(c[1])+" }`.")];var f=[];return"symbol"===t.layerType&&("text-field"===o&&n&&!n.glyphs&&f.push(new Ot(r,a,'use of "text-field" requires a style "glyphs" property')),"text-font"===o&&Yr(Ft(a))&&"identity"===Rt(a.type)&&f.push(new Ot(r,a,'"text-font" does not support identity functions')),f.concat(Rn({key:t.key,value:a,valueSpec:u,style:n,styleSpec:i,expressionContext:"property",propertyType:e,propertyKey:o}))}function En(t){return Sn(t,"paint")}function Ln(t){return Sn(t,"layout")}function Cn(t){var e=[],r=t.value,n=t.key,i=t.style,a=t.styleSpec;r.type||r.ref||e.push(new Ot(n,r,'either "type" or "ref" is required'));var o,s=Rt(r.type),l=Rt(r.ref);if(r.id)for(var c=Rt(r.id),u=0;u<t.arrayIndex;u++){var f=i.layers[u];Rt(f.id)===c&&e.push(new Ot(n,r.id,'duplicate layer id "'+r.id+'", previously used at line '+f.id.__line__))}if("ref"in r)["type","source","source-layer","filter","layout"].forEach((function(t){t in r&&e.push(new Ot(n,r[t],""+t+'" is prohibited for ref layers'))})),i.layers.forEach((function(t){Rt(t.id)===l&&(o=t)})),o?o.ref?e.push(new Ot(n,r.ref,"ref cannot reference another ref layer")):s=Rt(o.type):e.push(new Ot(n,r.ref,'ref layer "'+l+'" not found'));else if("background"!==s)if(r.source){var

h=i.sources&&i.sources[r.source],p=h&&Rt(h.type);h?"vector"===p&&"raster"===s?e.push(new Ot(n,r.source,'layer "'+r.id+'" requires a raster source')):"raster"===p&&"raster"!==s?e.push(new Ot(n,r.source,'layer "'+r.id+'" requires a vector source')):"vector"!==p||r["source-layer"]?"raster-dem"===p&&"hillshade"!==s?e.push(new Ot(n,r.source,"raster-dem source can only be used with layer type 'hillshade'.")):"line"!==s||!r.paint||!r.paint["line-gradient"]||"geojson"===p&&h.lineMetrics||e.push(new Ot(n,r,'layer "'+r.id+'" specifies a line-gradient, which requires a GeoJSON source with `lineMetrics` enabled.')):e.push(new Ot(n,r,'layer "'+r.id+'" must specify a "source-layer"')):e.push(new Ot(n,r.source,'source "'+r.source+'" not found'))}else e.push(new Ot(n,r,'missing required property "source"'));return e=e.concat(cn({key:n,value:r,valueSpec:a.layer,style:t.style,styleSpec:t.styleSpec,objectElementValidators:{"*":function(){return[]},type:function(){return Rn({key:n+".type",value:r.type,valueSpec:a.layer.type,style:t.style,styleSpec:t.styleSpec,object:r,objectKey:"type"})},filter:An,layout:function(t){return cn({layer:r,key:t.key,value:t.value,style:t.style,styleSpec:t.styleSpec,objectElementValidators:{"*":function(t){return Ln(Dt({layerType:s},t))}}})},paint:function(t){return cn({layer:r,key:t.key,value:t.value,style:t.style,styleSpec:t.styleSpec,objectElementValidators:{"*":function(t){return En(Dt({layerType:s},t))}}})}}})}function Pn(t){var e=t.value,r=t.key,n=Gr(e);return"string"!==n?[new Ot(r,e,"string expected, "+n+" found")]:[]}var In={promoteId:function(t){var e=t.key,r=t.value;if("string"===Gr(r))return Pn({key:e,value:r});var n=[];for(var i in r)n.push.apply(n,Pn({key:e+"."+i,value:r[i]}));return n}};function On(t){var e=t.value,r=t.key,n=t.styleSpec,i=t.style;if(!e.type)return[new Ot(r,e,'"type" is required')];var a,o=Rt(e.type);switch(o){case"vector":case"raster":case"raster-dem":return cn({key:r,value:e,valueSpec:n["source_"+o.replace("-","_")],style:t.style,styleSpec:n,objectElementValidators:In});case"geojson":if(a=cn({key:r,value:e,valueSpec:n.source_geojson,style:i,styleSpec:n,objectElementValidators:In}),e.cluster)for(var s in e.clusterProperties){var l=e.clusterProperties[s],c=l[0],u=l[1],f="string"==typeof c?[c,["accumulated"],["get",s]]:c;a.push.apply(a,pn({key:r+"."+s+".map",value:u,expressionContext:"cluster-map"})),a.push.apply(a,pn({key:r+"."+s+".reduce",value:f,expressionContext:"cluster-reduce"}))}return a;case"video":return cn({key:r,value:e,valueSpec:n.source_video,style:i,styleSpec:n});case"image":return cn({key:r,value:e,valueSpec:n.source_image,style:i,styleSpec:n});case"canvas":return[new Ot(r,null,"Please use runtime APIs to add canvas sources, rather than including them in stylesheets.","source.canvas")];default:return dn({key:r+".type",value:e.type,valueSpec:{values:["vector","raster","raster-dem","geojson","video","image"]},style:i,styleSpec:n})}}function zn(t){var e=t.value,r=t.styleSpec,n=r.light,i=t.style,a=[],o=Gr(e);if(void 0===e)return a;if("object"!==o)return a.concat([new Ot("light",e,"object expected, "+o+" found")]);for(var s in e){var l=s.match(/^(.*)-transition$/);a=l&&n[l[1]]&&n[l[1]].transition?a.concat(Rn({key:s,value:e[s],valueSpec:r.transition,style:i,styleSpec:r})):n[s]?a.concat(Rn({key:s,value:e[s],valueSpec:n[s],style:i,styleSpec:r})):a.concat([new Ot(s,e[s],'unknown property "'+s+'"')])}return a}var Dn={"*":function(){return[]},array:un,boolean:function(t){var e=t.value,r=t.key,n=Gr(e);return"boolean"!==n?[new Ot(r,e,"boolean expected, "+n+" found")]:[]},number:fn,color:function(t){var e=t.key,r=t.value,n=Gr(r);return"string"!==n?[new Ot(e,r,"color expected, "+n+" found")]:null===re(r)?[new Ot(e,r,'color expected, "'+r+'" found')]:[]},constants:zt,enum:dn,filter:An,function:hn,layer:Cn,object:cn,source:On,light:zn,string:Pn,formatted:function(t){return 0===Pn(t).length?[]:pn(t)},resolvedImage:function(t){return 0===Pn(t).length?[]:pn(t)}};function Rn(t){var e=t.value,r=t.valueSpec,n=t.styleSpec;return r.expression&&Yr(Rt(e))?hn(t):r.expression&&en(Ft(e))?pn(t):r.type&&Dn[r.type]?Dn[r.type](t):cn(Dt({},t,{valueSpec:r.type?n[r.type]:r}))}function Fn(t){var e=t.value,r=t.key,n=Pn(t);return n.length||(-1===e.indexOf("{fontstack}")&&n.push(new Ot(r,e,'"glyphs" url must include a "{fontstack}" token')),-1===e.indexOf("{range}")&&n.push(new Ot(r,e,'"glyphs" url must include a "{range}" token'))),n}function Bn(t,e){void 0===e&&(e=It);var r=[];return

r=r.concat(Rn({key:"",value:t,valueSpec:e.$root,styleSpec:e,style:t,objectElementValidators:{glyphs:Fn,"*":function(){return[]}}})),t.constants&&(r=r.concat(zt({key:"constants",value:t.constants,style:t,styleSpec:e}))),Nn(r)}function Nn(t){return[].concat(t).sort((function(t,e){return t.line-e.line}))}function jn(t){return function(){for(var e=[],r=arguments.length;r--;)e[r]=arguments[r];return Nn(t.apply(this,e))}}Bn.source=jn(On),Bn.light=jn(zn),Bn.layer=jn(Cn),Bn.filter=jn(An),Bn.paintProperty=jn(En),Bn.layoutProperty=jn(Ln);var Un=Bn,Vn=Un.light,qn=Un.paintProperty,Hn=Un.layoutProperty;function Gn(t,e){var r=!1;if(e&&e.length)for(var n=0,i=e;n<i.length;n+=1){var a=i[n];t.fire(new Ct(new Error(a.message))),r=!0}return r}var Yn=Wn;function Wn(t,e,r){var n=this.cells=[];if(t instanceof ArrayBuffer){this.arrayBuffer=t;var i=new Int32Array(this.arrayBuffer);t=i[0],e=i[1],r=i[2],this.d=e+2*r;for(var a=0;a<this.d*this.d;a++){var o=i[3+a],s=i[3+a+1];n.push(o===s?null:i.subarray(o,s))}var l=i[3+n.length],c=i[3+n.length+1];this.keys=i.subarray(l,c),this.bboxes=i.subarray(c),this.insert=this._insertReadonly}else{this.d=e+2*r;for(var u=0;u<this.d*this.d;u++)n.push([]);this.keys=[],this.bboxes=[]}this.n=e,this.extent=t,this.padding=r,this.scale=e/t,this.uid=0;var f=r/e*t;this.min=-f,this.max=t+f}Wn.prototype.insert=function(t,e,r,n,i){this._forEachCell(e,r,n,i,this._insertCell,this.uid++),this.keys.push(t),this.bboxes.push(e),this.bboxes.push(r),this.bboxes.push(n),this.bboxes.push(i)},Wn.prototype._insertReadonly=function(){throw"Cannot insert into a GridIndex created from an ArrayBuffer."},Wn.prototype._insertCell=function(t,e,r,n,i,a){this.cells[i].push(a)},Wn.prototype.query=function(t,e,r,n,i){var a=this.min,o=this.max;if(t<=a&&e<=a&&o<=r&&o<=n&&!i)return Array.prototype.slice.call(this.keys);var s=[];return this._forEachCell(t,e,r,n,this._queryCell,s,{},i),s},Wn.prototype._queryCell=function(t,e,r,n,i,a,o,s){var l=this.cells[i];if(null!==l)for(var c=this.keys,u=this.bboxes,f=0;f<l.length;f++){var h=l[f];if(void 0===o[h]){var p=4*h;(s?s(u[p+0],u[p+1],u[p+2],u[p+3]):t<=u[p+2]&&e<=u[p+3]&&r>=u[p+0]&&n>=u[p+1])?(o[h]=!0,a.push(c[h])):o[h]=!1}}},Wn.prototype._forEachCell=function(t,e,r,n,i,a,o,s){for(var l=this._convertToCellCoord(t),c=this._convertToCellCoord(e),u=this._convertToCellCoord(r),f=this._convertToCellCoord(n),h=l;h<=u;h++)for(var p=c;p<=f;p++){var d=this.d*p+h;if((!s||s(this._convertFromCellCoord(h),this._convertFromCellCoord(p),this._convertFromCellCoord(h+1),this._convertFromCellCoord(p+1)))&&i.call(this,t,e,r,n,d,a,o,s))return}},Wn.prototype._convertFromCellCoord=function(t){return(t-this.padding)/this.scale},Wn.prototype._convertToCellCoord=function(t){return Math.max(0,Math.min(this.d-1,Math.floor(t*this.scale)+this.padding))},Wn.prototype.toArrayBuffer=function(){if(this.arrayBuffer)return this.arrayBuffer;for(var t=this.cells,e=3+this.cells.length+1+1,r=0,n=0;n<this.cells.length;n++)r+=this.cells[n].length;var i=new Int32Array(e+r+this.keys.length+this.bboxes.length);i[0]=this.extent,i[1]=this.n,i[2]=this.padding;for(var a=e,o=0;o<t.length;o++){var s=t[o];i[3+o]=a,i.set(s,a),a+=s.length}return i[3+t.length]=a,i.set(this.keys,a),a+=this.keys.length,i[3+t.length+1]=a,i.set(this.bboxes,a),a+=this.bboxes.length,i.buffer};var Xn=self.ImageData,Zn=self.ImageBitmap,Jn={};function Kn(t,e,r){void 0===r&&(r={}),Object.defineProperty(e,"_classRegistryKey",{value:t,writeable:!1}),Jn[t]={klass:e,omit:r.omit||[],shallow:r.shallow||[]}}for(var Qn in Kn("Object",Object),Yn.serialize=function(t,e){var r=t.toArrayBuffer();return e&&e.push(r),{buffer:r}},Yn.deserialize=function(t){return new Yn(t.buffer)},Kn("Grid",Yn),Kn("Color",ne),Kn("Error",Error),Kn("ResolvedImage",se),Kn("StylePropertyFunction",sn),Kn("StyleExpression",tn,{omit:["_evaluator"]}),Kn("ZoomDependentExpression",an),Kn("ZoomConstantExpression",nn),Kn("CompoundExpression",we,{omit:["_evaluate"]}),Dr)Dr[Qn]._classRegistryKey||Kn("Expression_"+Qn,Dr[Qn]);function $n(t){return t&&"undefined"!=typeof ArrayBuffer&&(t instanceof ArrayBuffer||t.constructor&&"ArrayBuffer"===t.constructor.name)}function ti(t){return Zn&&t instanceof Zn}function ei(t,e){if(null==t||"boolean"==typeof t||"number"==typeof t||"string"==typeof t||t instanceof Boolean||t instanceof Number||t instanceof String||t instanceof Date||t instanceof RegExp)return t;if($n(t)||ti(t))return e&&e.push(t),t;if(ArrayBuffer.isView(t)){var r=t;return e&&e.push(r.buffer),r}if(t instanceof Xn)return

e&&e.push(t.data.buffer),t;if(Array.isArray(t)){for(var n=[],i=0,a=t;i<a.length;i+=1){var o=a[i];n.push(ei(o,e))}return n}if("object"==typeof t){var s=t.constructor,l=s._classRegistryKey;if(!l)throw new Error("can't serialize object of unregistered class");var c=s.serialize?s.serialize(t,e):{};if(!s.serialize){for(var u in t)if(t.hasOwnProperty(u)&&!(Jn[l].omit.indexOf(u)>=0)){var f=t[u];c[u]=Jn[l].shallow.indexOf(u)>=0?f:ei(f,e)}t instanceof Error&&(c.message=t.message)}if(c.$name)throw new Error("$name property is reserved for worker serialization logic.");return"Object"!==l&&(c.$name=l),c}throw new Error("can't serialize object of type "+typeof t)}function ri(t){if(null==t||"boolean"==typeof t||"number"==typeof t||"string"==typeof t||t instanceof Boolean||t instanceof Number||t instanceof String||t instanceof Date||t instanceof RegExp||$n(t)||ti(t)||ArrayBuffer.isView(t)||t instanceof Xn)return t;if(Array.isArray(t))return t.map(ri);if("object"==typeof t){var e=t.$name||"Object",r=Jn[e].klass;if(!r)throw new Error("can't deserialize unregistered class "+e);if(r.deserialize)return r.deserialize(t);for(var n=Object.create(r.prototype),i=0,a=Object.keys(t);i<a.length;i+=1){var o=a[i];if("$name"!==o){var s=t[o];n[o]=Jn[e].shallow.indexOf(o)>=0?s:ri(s)}}return n}throw new Error("can't deserialize object of type "+typeof t)}var ni=function(){this.first=!0};ni.prototype.update=function(t,e){var r=Math.floor(t);return this.first?(this.first=!1,this.lastIntegerZoom=r,this.lastIntegerZoomTime=0,this.lastZoom=t,this.lastFloorZoom=r,!0):(this.lastFloorZoom>r?(this.lastIntegerZoom=r+1,this.lastIntegerZoomTime=e):this.lastFloorZoom<r&&(this.lastIntegerZoom=r,this.lastIntegerZoomTime=e),t!==this.lastZoom&&(this.lastZoom=t,this.lastFloorZoom=r,!0))};var ii={"Latin-1 Supplement":function(t){return t>=128&&t<=255},Arabic:function(t){return t>=1536&&t<=1791},"Arabic Supplement":function(t){return t>=1872&&t<=1919},"Arabic Extended-A":function(t){return t>=2208&&t<=2303},"Hangul Jamo":function(t){return t>=4352&&t<=4607},"Unified Canadian Aboriginal Syllabics":function(t){return t>=5120&&t<=5759},Khmer:function(t){return t>=6016&&t<=6143},"Unified Canadian Aboriginal Syllabics Extended":function(t){return t>=6320&&t<=6399},"General Punctuation":function(t){return t>=8192&&t<=8303},"Letterlike Symbols":function(t){return t>=8448&&t<=8527},"Number Forms":function(t){return t>=8528&&t<=8591},"Miscellaneous Technical":function(t){return t>=8960&&t<=9215},"Control Pictures":function(t){return t>=9216&&t<=9279},"Optical Character Recognition":function(t){return t>=9280&&t<=9311},"Enclosed Alphanumerics":function(t){return t>=9312&&t<=9471},"Geometric Shapes":function(t){return t>=9632&&t<=9727},"Miscellaneous Symbols":function(t){return t>=9728&&t<=9983},"Miscellaneous Symbols and Arrows":function(t){return t>=11008&&t<=11263},"CJK Radicals Supplement":function(t){return t>=11904&&t<=12031},"Kangxi Radicals":function(t){return t>=12032&&t<=12255},"Ideographic Description Characters":function(t){return t>=12272&&t<=12287},"CJK Symbols and Punctuation":function(t){return t>=12288&&t<=12351},Hiragana:function(t){return t>=12352&&t<=12447},Katakana:function(t){return t>=12448&&t<=12543},Bopomofo:function(t){return t>=12544&&t<=12591},"Hangul Compatibility Jamo":function(t){return t>=12592&&t<=12687},Kanbun:function(t){return t>=12688&&t<=12703},"Bopomofo Extended":function(t){return t>=12704&&t<=12735},"CJK Strokes":function(t){return t>=12736&&t<=12783},"Katakana Phonetic Extensions":function(t){return t>=12784&&t<=12799},"Enclosed CJK Letters and Months":function(t){return t>=12800&&t<=13055},"CJK Compatibility":function(t){return t>=13056&&t<=13311},"CJK Unified Ideographs Extension A":function(t){return t>=13312&&t<=19903},"Yijing Hexagram Symbols":function(t){return t>=19904&&t<=19967},"CJK Unified Ideographs":function(t){return t>=19968&&t<=40959},"Yi Syllables":function(t){return t>=40960&&t<=42127},"Yi Radicals":function(t){return t>=42128&&t<=42191},"Hangul Jamo Extended-A":function(t){return t>=43360&&t<=43391},"Hangul Syllables":function(t){return t>=44032&&t<=55215},"Hangul Jamo Extended-B":function(t){return t>=55216&&t<=55295},"Private Use Area":function(t){return t>=57344&&t<=63743},"CJK Compatibility Ideographs":function(t){return t>=63744&&t<=64255},"Arabic Presentation Forms-A":function(t){return t>=64336&&t<=65023},"Vertical Forms":function(t){return t>=65040&&t<=65055},"CJK Compatibility Forms":function(t){return t>=65072&&t<=65103},"Small Form Variants":function(t){return t>=65104&&t<=65135},"Arabic Presentation Forms-B":function(t){return t>=65136&&t<=65279},"Halfwidth and

Fullwidth Forms":function(t){return t>=65280&&t<=65519}};function ai(t){for(var e=0,r=t;e<r.length;e+=1)if(oi(r[e].charCodeAt(0)))return!0;return!1}function oi(t){return!(746!==t&&747!==t&&(t<4352||!(ii["Bopomofo Extended"](t)||ii.Bopomofo(t)||ii["CJK Compatibility Forms"](t)&&!(t>=65097&&t<=65103)||ii["CJK Compatibility Ideographs"](t)||ii["CJK Compatibility"](t)||ii["CJK Radicals Supplement"](t)||ii["CJK Strokes"](t)||!(!ii["CJK Symbols and Punctuation"](t)||t>=12296&&t<=12305||t>=12308&&t<=12319||12336===t)||ii["CJK Unified Ideographs Extension A"](t)||ii["CJK Unified Ideographs"](t)||ii["Enclosed CJK Letters and Months"](t)||ii["Hangul Compatibility Jamo"](t)||ii["Hangul Jamo Extended-A"](t)||ii["Hangul Jamo Extended-B"](t)||ii["Hangul Jamo"](t)||ii["Hangul Syllables"](t)||ii.Hiragana(t)||ii["Ideographic Description Characters"](t)||ii.Kanbun(t)||ii["Kangxi Radicals"](t)||ii["Katakana Phonetic Extensions"](t)||ii.Katakana(t)&&12540!==t||!(!ii["Halfwidth and Fullwidth Forms"](t)||65288===t||65289===t||65293===t||t>=65306&&t<=65310||65339===t||65341===t||65343===t||t>=65371&&t<=65503||65507===t||t>=65512&&t<=65519)||!(!ii["Small Form Variants"](t)||t>=65112&&t<=65118||t>=65123&&t<=65126)||ii["Unified Canadian Aboriginal Syllabics"](t)||ii["Unified Canadian Aboriginal Syllabics Extended"](t)||ii["Vertical Forms"](t)||ii["Yijing Hexagram Symbols"](t)||ii["Yi Syllables"](t)||ii["Yi Radicals"](t)))))}function si(t){return!(oi(t)||function(t){return!!(ii["Latin-1 Supplement"](t)&&(167===t||169===t||174===t||177===t||188===t||189===t||190===t||215===t||247===t)||ii["General Punctuation"](t)&&(8214===t||8224===t||8225===t||8240===t||8241===t||8251===t||8252===t||8258===t||8263===t||8264===t||8265===t||8273===t)||ii["Letterlike Symbols"](t)||ii["Number Forms"](t)||ii["Miscellaneous Technical"](t)&&(t>=8960&&t<=8967||t>=8972&&t<=8991||t>=8996&&t<=9e3||9003===t||t>=9085&&t<=9114||t>=9150&&t<=9165||9167===t||t>=9169&&t<=9179||t>=9186&&t<=9215)||ii["Control Pictures"](t)&&9251!==t||ii["Optical Character Recognition"](t)||ii["Enclosed Alphanumerics"](t)||ii["Geometric Shapes"](t)||ii["Miscellaneous Symbols"](t)&&!(t>=9754&&t<=9759)||ii["Miscellaneous Symbols and Arrows"](t)&&(t>=11026&&t<=11055||t>=11088&&t<=11097||t>=11192&&t<=11243)||ii["CJK Symbols and Punctuation"](t)||ii.Katakana(t)||ii["Private Use Area"](t)||ii["CJK Compatibility Forms"](t)||ii["Small Form Variants"](t)||ii["Halfwidth and Fullwidth Forms"](t)||8734===t||8756===t||8757===t||t>=9984&&t<=10087||t>=10102&&t<=10131||65532===t||65533===t)}(t))}function li(t){return ii.Arabic(t)||ii["Arabic Supplement"](t)||ii["Arabic Extended-A"](t)||ii["Arabic Presentation Forms-A"](t)||ii["Arabic Presentation Forms-B"](t)}function ci(t){return t>=1424&&t<=2303||ii["Arabic Presentation Forms-A"](t)||ii["Arabic Presentation Forms-B"](t)}function ui(t,e){return!(!e&&ci(t)||t>=2304&&t<=3583||t>=3840&&t<=4255||ii.Khmer(t))}function fi(t){for(var e=0,r=t;e<r.length;e+=1)if(ci(r[e].charCodeAt(0)))return!0;return!1}var hi="deferred",pi="loading",di="loaded",gi="error",vi=null,mi="unavailable",yi=null,xi=function(t){t&&"string"==typeof t&&t.indexOf("NetworkError")>-1&&(mi=gi),vi&&vi(t)};function bi(){_i.fire(new Lt("pluginStateChange",{pluginStatus:mi,pluginURL:yi}))}var _i=new Pt,wi=function(){return mi},Ti=function(){if(mi!==hi||!yi)throw new Error("rtl-text-plugin cannot be downloaded unless a pluginURL is specified");mi=pi,bi(),yi&&kt({url:yi},(function(t){t?xi(t):(mi=di,bi())}))},ki={applyArabicShaping:null,processBidirectionalText:null,processStyledBidirectionalText:null,isLoaded:function(){return mi===di||null!=ki.applyArabicShaping},isLoading:function(){return mi===pi},setState:function(t){mi=t.pluginStatus,yi=t.pluginURL},isParsed:function(){return null!=ki.applyArabicShaping&&null!=ki.processBidirectionalText&&null!=ki.processStyledBidirectionalText},getPluginURL:function(){return yi}},Ai=function(t,e){this.zoom=t,e?(this.now=e.now,this.fadeDuration=e.fadeDuration,this.zoomHistory=e.zoomHistory,this.transition=e.transition):(this.now=0,this.fadeDuration=0,this.zoomHistory=new ni,this.transition={})};Ai.prototype.isSupportedScript=function(t){return function(t,e){for(var r=0,n=t;r<n.length;r+=1)if(!ui(n[r].charCodeAt(0),e))return!1;return!0}(t,ki.isLoaded())},Ai.prototype.crossFadingFactor=function(){return 0===this.fadeDuration?1:Math.min((this.now-

this.zoomHistory.lastIntegerZoomTime)/this.fadeDuration,1)},Ai.prototype.getCrossfadeParameters=function(){var t=this.zoom,e=t-Math.floor(t),r=this.crossFadingFactor();return t>this.zoomHistory.lastIntegerZoom?{fromScale:2,toScale:1,t:e+(1-e)*r}:{fromScale:.5,toScale:1,t:1-(1-r)*e}};var Mi=function(t,e){this.property=t,this.value=e,this.expression=function(t,e){if(Yr(t))return new sn(t,e);if(en(t)){var r=on(t,e);if("error"===r.result)throw new Error(r.value.map((function(t){return t.key+": "+t.message})).join(", "));return r.value}var n=t;return"string"==typeof t&&"color"===e.type&&(n=ne.parse(t)),{kind:"constant",evaluate:function(){return n}}}(void 0===e?t.specification.default:e,t.specification)};Mi.prototype.isDataDriven=function(){return"source"===this.expression.kind||"composite"===this.expression.kind},Mi.prototype.possiblyEvaluate=function(t,e,r){return this.property.possiblyEvaluate(this,t,e,r)};var Si=function(t){this.property=t,this.value=new Mi(t,void 0)};Si.prototype.transitioned=function(t,e){return new Li(this.property,this.value,e,f({},t.transition,this.transition),t.now)},Si.prototype.untransitioned=function(){return new Li(this.property,this.value,null,{},0)};var Ei=function(t){this._properties=t,this._values=Object.create(t.defaultTransitionablePropertyValues)};Ei.prototype.getValue=function(t){return b(this._values[t].value.value)},Ei.prototype.setValue=function(t,e){this._values.hasOwnProperty(t)||(this._values[t]=new Si(this._values[t].property)),this._values[t].value=new Mi(this._values[t].property,null===e?void 0:b(e))},Ei.prototype.getTransition=function(t){return b(this._values[t].transition)},Ei.prototype.setTransition=function(t,e){this._values.hasOwnProperty(t)||(this._values[t]=new Si(this._values[t].property)),this._values[t].transition=b(e)||void 0},Ei.prototype.serialize=function(){for(var t={},e=0,r=Object.keys(this._values);e<r.length;e+=1){var n=r[e],i=this.getValue(n);void 0!==i&&(t[n]=i);var a=this.getTransition(n);void 0!==a&&(t[n+"-transition"]=a)}return t},Ei.prototype.transitioned=function(t,e){for(var r=new Ci(this._properties),n=0,i=Object.keys(this._values);n<i.length;n+=1){var a=i[n];r._values[a]=this._values[a].transitioned(t,e._values[a])}return r},Ei.prototype.untransitioned=function(){for(var t=new Ci(this._properties),e=0,r=Object.keys(this._values);e<r.length;e+=1){var n=r[e];t._values[n]=this._values[n].untransitioned()}return t};var Li=function(t,e,r,n,i){this.property=t,this.value=e,this.begin=i+n.delay||0,this.end=this.begin+n.duration||0,t.specification.transition&&(n.delay||n.duration)&&(this.prior=r)};Li.prototype.possiblyEvaluate=function(t,e,r){var n=t.now||0,i=this.value.possiblyEvaluate(t,e,r),a=this.prior;if(a){if(n>this.end)return this.prior=null,i;if(this.value.isDataDriven())return this.prior=null,i;if(n<this.begin)return a.possiblyEvaluate(t,e,r);var o=(n-this.begin)/(this.end-this.begin);return this.property.interpolate(a.possiblyEvaluate(t,e,r),i,function(t){if(t<=0)return 0;if(t>=1)return 1;var e=t*t,r=e*t;return 4*(t<.5?r:3*(t-e)+r-.75)}(o))}return i};var Ci=function(t){this._properties=t,this._values=Object.create(t.defaultTransitioningPropertyValues)};Ci.prototype.possiblyEvaluate=function(t,e,r){for(var n=new Oi(this._properties),i=0,a=Object.keys(this._values);i<a.length;i+=1){var o=a[i];n._values[o]=this._values[o].possiblyEvaluate(t,e,r)}return n},Ci.prototype.hasTransition=function(){for(var t=0,e=Object.keys(this._values);t<e.length;t+=1){var r=e[t];if(this._values[r].prior)return!0}return!1};var Pi=function(t){this._properties=t,this._values=Object.create(t.defaultPropertyValues)};Pi.prototype.getValue=function(t){return b(this._values[t].value)},Pi.prototype.setValue=function(t,e){this._values[t]=new Mi(this._values[t].property,null===e?void 0:b(e))},Pi.prototype.serialize=function(){for(var t={},e=0,r=Object.keys(this._values);e<r.length;e+=1){var n=r[e],i=this.getValue(n);void 0!==i&&(t[n]=i)}return t},Pi.prototype.possiblyEvaluate=function(t,e,r){for(var n=new Oi(this._properties),i=0,a=Object.keys(this._values);i<a.length;i+=1){var o=a[i];n._values[o]=this._values[o].possiblyEvaluate(t,e,r)}return n};var Ii=function(t,e,r){this.property=t,this.value=e,this.parameters=r};Ii.prototype.isConstant=function(){return"constant

"===this.value.kind},Ii.prototype.constantOr=function(t){return"constant"===this.value.kind?this.value.value:t},Ii.prototype.evaluate=function(t,e,r,n){return this.property.evaluate(this.value,this.parameters,t,e,r,n)};var Oi=function(t){this._properties=t,this._values=Object.create(t.defaultPossiblyEvaluatedValues)};Oi.prototype.get=function(t){return this._values[t]};var zi=function(t){this.specification=t};zi.prototype.possiblyEvaluate=function(t,e){return t.expression.evaluate(e)},zi.prototype.interpolate=function(t,e,r){var n=Je[this.specification.type];return n?n(t,e,r):t};var Di=function(t,e){this.specification=t,this.overrides=e};Di.prototype.possiblyEvaluate=function(t,e,r,n){return"constant"===t.expression.kind||"camera"===t.expression.kind?new Ii(this,{kind:"constant",value:t.expression.evaluate(e,null,{},r,n)},e):new Ii(this,t.expression,e)},Di.prototype.interpolate=function(t,e,r){if("constant"!==t.value.kind||"constant"!==e.value.kind)return t;if(void 0===t.value.value||void 0===e.value.value)return new Ii(this,{kind:"constant",value:void 0},t.parameters);var n=Je[this.specification.type];return n?new Ii(this,{kind:"constant",value:n(t.value.value,e.value.value,r)},t.parameters):t},Di.prototype.evaluate=function(t,e,r,n,i,a){return"constant"===t.kind?t.value:t.evaluate(e,r,n,i,a)};var Ri=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.possiblyEvaluate=function(t,e,r,n){if(void 0===t.value)return new Ii(this,{kind:"constant",value:void 0},e);if("constant"===t.expression.kind){var i=t.expression.evaluate(e,null,{},r,n),a="resolvedImage"===t.property.specification.type&&"string"!=typeof i?i.name:i,o=this._calculate(a,a,a,e);return new Ii(this,{kind:"constant",value:o},e)}if("camera"===t.expression.kind){var s=this._calculate(t.expression.evaluate({zoom:e.zoom-1}),t.expression.evaluate({zoom:e.zoom}),t.expression.evaluate({zoom:e.zoom+1}),e);return new Ii(this,{kind:"constant",value:s},e)}return new Ii(this,t.expression,e)},e.prototype.evaluate=function(t,e,r,n,i,a){if("source"===t.kind){var o=t.evaluate(e,r,n,i,a);return this._calculate(o,o,o,e)}return"composite"===t.kind?this._calculate(t.evaluate({zoom:Math.floor(e.zoom)-1},r,n),t.evaluate({zoom:Math.floor(e.zoom)},r,n),t.evaluate({zoom:Math.floor(e.zoom)+1},r,n),e):t.value},e.prototype._calculate=function(t,e,r,n){return n.zoom>n.zoomHistory.lastIntegerZoom?{from:t,to:e}:{from:r,to:e}},e.prototype.interpolate=function(t){return t},e}(Di),Fi=function(t){this.specification=t};Fi.prototype.possiblyEvaluate=function(t,e,r,n){if(void 0!==t.value){if("constant"===t.expression.kind){var i=t.expression.evaluate(e,null,{},r,n);return this._calculate(i,i,i,e)}return this._calculate(t.expression.evaluate(new Ai(Math.floor(e.zoom-1),e)),t.expression.evaluate(new Ai(Math.floor(e.zoom),e)),t.expression.evaluate(new Ai(Math.floor(e.zoom+1),e)),e)}},Fi.prototype._calculate=function(t,e,r,n){return n.zoom>n.zoomHistory.lastIntegerZoom?{from:t,to:e}:{from:r,to:e}},Fi.prototype.interpolate=function(t){return t};var Bi=function(t){this.specification=t};Bi.prototype.possiblyEvaluate=function(t,e,r,n){return!!t.expression.evaluate(e,null,{},r,n)},Bi.prototype.interpolate=function(){return!1};var Ni=function(t){for(var e in this.properties=t,this.defaultPropertyValues={},this.defaultTransitionablePropertyValues={},this.defaultTransitioningPropertyValues={},this.defaultPossiblyEvaluatedValues={},this.overridableProperties=[],t){var r=t[e];r.specification.overridable&&this.overridableProperties.push(e);var n=this.defaultPropertyValues[e]=new Mi(r,void 0),i=this.defaultTransitionablePropertyValues[e]=new Si(r);this.defaultTransitioningPropertyValues[e]=i.untransitioned(),this.defaultPossiblyEvaluatedValues[e]=n.possiblyEvaluate({})}};Kn("DataDrivenProperty",Di),Kn("DataConstantProperty",zi),Kn("CrossFadedDataDrivenProperty",Ri),Kn("CrossFadedProperty",Fi),Kn("ColorRampProperty",Bi);var ji="-transition",Ui=function(t){function e(e,r){if(t.call(this),this.id=e.id,this.type=e.type,this._featureFilter={filter:function(){return!0},needGeometry:!1},"c

ustom"!==e.type&&(e=e,this.metadata=e.metadata,this.minzoom=e.minzoom,this.maxzoom=e.maxzoom,"background"!==e.type&&(this.source=e.source,this.sourceLayer=e["source-layer"],this.filter=e.filter),r.layout&&(this._unevaluatedLayout=new Pi(r.layout)),r.paint)){for(var n in this._transitionablePaint=new Ei(r.paint),e.paint)this.setPaintProperty(n,e.paint[n],{validate:!1});for(var i in e.layout)this.setLayoutProperty(i,e.layout[i],{validate:!1});this._transitioningPaint=this._transitionablePaint.untransitioned(),this.paint=new Oi(r.paint)}}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getCrossfadeParameters=function(){return this._crossfadeParameters},e.prototype.getLayoutProperty=function(t){return"visibility"===t?this.visibility:this._unevaluatedLayout.getValue(t)},e.prototype.setLayoutProperty=function(t,e,r){if(void 0===r&&(r={}),null!=e){var n="layers."+this.id+".layout."+t;if(this._validate(Hn,n,t,e,r))return}"visibility"!==t?this._unevaluatedLayout.setValue(t,e):this.visibility=e},e.prototype.getPaintProperty=function(t){return m(t,ji)?this._transitionablePaint.getTransition(t.slice(0,-ji.length)):this._transitionablePaint.getValue(t)},e.prototype.setPaintProperty=function(t,e,r){if(void 0===r&&(r={}),null!=e){var n="layers."+this.id+".paint."+t;if(this._validate(qn,n,t,e,r))return!1}if(m(t,ji))return this._transitionablePaint.setTransition(t.slice(0,-ji.length),e||void 0),!1;var i=this._transitionablePaint._values[t],a="cross-faded-data-driven"===i.property.specification["property-type"],o=i.value.isDataDriven(),s=i.value;this._transitionablePaint.setValue(t,e),this._handleSpecialPaintPropertyUpdate(t);var l=this._transitionablePaint._values[t].value;return l.isDataDriven()||o||a||this._handleOverridablePaintPropertyUpdate(t,s,l)},e.prototype._handleSpecialPaintPropertyUpdate=function(t){},e.prototype._handleOverridablePaintPropertyUpdate=function(t,e,r){return!1},e.prototype.isHidden=function(t){return!!(this.minzoom&&t<this.minzoom)||!!(this.maxzoom&&t>=this.maxzoom)||"none"===this.visibility},e.prototype.updateTransitions=function(t){this._transitioningPaint=this._transitionablePaint.transitioned(t,this._transitioningPaint)},e.prototype.hasTransition=function(){return this._transitioningPaint.hasTransition()},e.prototype.recalculate=function(t,e){t.getCrossfadeParameters&&(this._crossfadeParameters=t.getCrossfadeParameters()),this._unevaluatedLayout&&(this.layout=this._unevaluatedLayout.possiblyEvaluate(t,void 0,e)),this.paint=this._transitioningPaint.possiblyEvaluate(t,void 0,e)},e.prototype.serialize=function(){var t={id:this.id,type:this.type,source:this.source,"source-layer":this.sourceLayer,metadata:this.metadata,minzoom:this.minzoom,maxzoom:this.maxzoom,filter:this.filter,layout:this._unevaluatedLayout&&this._unevaluatedLayout.serialize(),paint:this._transitionablePaint&&this._transitionablePaint.serialize()};return this.visibility&&(t.layout=t.layout||{},t.layout.visibility=this.visibility),x(t,(function(t,e){return!(void 0===t||"layout"===e&&!Object.keys(t).length||"paint"===e&&!Object.keys(t).length)}))},e.prototype._validate=function(t,e,r,n,i){return void 0===i&&(i={}),(!i||!1!==i.validate)&&Gn(this,t.call(Un,{key:e,layerType:this.type,objectKey:r,value:n,styleSpec:It,style:{glyphs:!0,sprite:!0}}))},e.prototype.is3D=function(){return!1},e.prototype.isTileClipped=function(){return!1},e.prototype.hasOffscreenPass=function(){return!1},e.prototype.resize=function(){},e.prototype.isStateDependent=function(){for(var t in this.paint._values){var e=this.paint.get(t);if(e instanceof Ii&&Vr(e.property.specification)&&("source"===e.value.kind||"composite"===e.value.kind)&&e.value.isStateDependent)return!0}return!1},e}(Pt),Vi={Int8:Int8Array,Uint8:Uint8Array,Int16:Int16Array,Uint16:Uint16Array,Int32:Int32Array,Uint32:Uint32Array,Float32:Float32Array},qi=function(t,e){this._structArray=t,this._pos1=e*this.size,this._pos2=this._pos1/2,this._pos4=this._pos1/4,this._pos8=this._pos1/8},Hi=function(){this.isTransferred=!1,this.capacity=-1,this.resize(0)};function Gi(t,e){void 0===e&&(e=1);var r=0,n=0;return{members:t.map((function(t){var i,a=(i=t.type,Vi[i].BYTES_PER_ELEMENT),o=r=Yi(r,Math.max(e,a)),s=t.components||1;return n=Math.max(n,a),r+=a*s,{name:t.name,type:t.type,components:s,offset:o}})),size:Yi(r,Math.max(n,e)),alignment:e}}function Yi(t,e){return Math.ceil(t/e)*e}Hi.serialize=function(t,e){return t._trim(),e&&(t.isTransferred=!0,e.push(t.arrayBuffer)),{length:t.length,arrayBuffer:t.arrayBuffer}},Hi.deserialize=function(t){var e=Object.create(this.prototype);return

e.arrayBuffer=t.arrayBuffer,e.length=t.length,e.capacity=t.arrayBuffer.byteLength/e.bytesPerElement,e._refreshVie
ws(),e},Hi.prototype._trim=function(){this.length!==this.capacity&&(this.capacity=this.length,this.arrayBuffer=this
.arrayBuffer.slice(0,this.length*this.bytesPerElement),this._refreshViews())},Hi.prototype.clear=function(){this.len
gth=0},Hi.prototype.resize=function(t){this.reserve(t),this.length=t},Hi.prototype.reserve=function(t){if(t>this.capa
city){this.capacity=Math.max(t,Math.floor(5*this.capacity),128),this.arrayBuffer=new
ArrayBuffer(this.capacity*this.bytesPerElement);var
e=this.uint8;this._refreshViews(),e&&this.uint8.set(e)}},Hi.prototype._refreshViews=function(){throw new
Error("_refreshViews() must be implemented by each concrete StructArray layout")};var Wi=function(t){function
e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshView
s=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.int16=new
Int16Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e){var r=this.length;return
this.resize(r+1),this.emplace(r,t,e)},e.prototype.emplace=function(t,e,r){var n=2*t;return
this.int16[n+0]=e,this.int16[n+1]=r,t},e}(Hi);Wi.prototype.bytesPerElement=4,Kn("StructArrayLayout2i4",Wi);var
Xi=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshView
s=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.int16=new
Int16Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r,n){var i=this.length;return
this.resize(i+1),this.emplace(i,t,e,r,n)},e.prototype.emplace=function(t,e,r,n,i){var a=4*t;return
this.int16[a+0]=e,this.int16[a+1]=r,this.int16[a+2]=n,this.int16[a+3]=i,t},e}(Hi);Xi.prototype.bytesPerElement=8,K
n("StructArrayLayout4i8",Xi);var Zi=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshView
s=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.int16=new
Int16Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r,n,i,a){var o=this.length;return
this.resize(o+1),this.emplace(o,t,e,r,n,i,a)},e.prototype.emplace=function(t,e,r,n,i,a,o){var s=6*t;return
this.int16[s+0]=e,this.int16[s+1]=r,this.int16[s+2]=n,this.int16[s+3]=i,this.int16[s+4]=a,this.int16[s+5]=o,t},e}(Hi);
Zi.prototype.bytesPerElement=12,Kn("StructArrayLayout2i4i12",Zi);var Ji=function(t){function
e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshView
s=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.int16=new
Int16Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r,n,i,a){var o=this.length;return
this.resize(o+1),this.emplace(o,t,e,r,n,i,a)},e.prototype.emplace=function(t,e,r,n,i,a,o){var s=4*t,l=8*t;return
this.int16[s+0]=e,this.int16[s+1]=r,this.uint8[l+4]=n,this.uint8[l+5]=i,this.uint8[l+6]=a,this.uint8[l+7]=o,t},e}(Hi);Ji
.prototype.bytesPerElement=8,Kn("StructArrayLayout2i4ub8",Ji);var Ki=function(t){function
e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshView
s=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.uint16=new
Uint16Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r,n,i,a,o,s,l,c){var u=this.length;return
this.resize(u+1),this.emplace(u,t,e,r,n,i,a,o,s,l,c)},e.prototype.emplace=function(t,e,r,n,i,a,o,s,l,c,u){var
f=9*t,h=18*t;return
this.uint16[f+0]=e,this.uint16[f+1]=r,this.uint16[f+2]=n,this.uint16[f+3]=i,this.uint16[f+4]=a,this.uint16[f+5]=o,this
.uint16[f+6]=s,this.uint16[f+7]=l,this.uint8[h+16]=c,this.uint8[h+17]=u,t},e}(Hi);Ki.prototype.bytesPerElement=18
,Kn("StructArrayLayout8ui2ub18",Ki);var Qi=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshView
s=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.int16=new
Int16Array(this.arrayBuffer),this.uint16=new
Uint16Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r,n,i,a,o,s,l,c,u,f){var h=this.length;return
this.resize(h+1),this.emplace(h,t,e,r,n,i,a,o,s,l,c,u,f)},e.prototype.emplace=function(t,e,r,n,i,a,o,s,l,c,u,f,h){var

p=12*t;return
this.int16[p+0]=e,this.int16[p+1]=r,this.int16[p+2]=n,this.int16[p+3]=i,this.uint16[p+4]=a,this.uint16[p+5]=o,this.uint16[p+6]=s,this.uint16[p+7]=l,this.int16[p+8]=c,this.int16[p+9]=u,this.int16[p+10]=f,this.int16[p+11]=h,t},e}(Hi);Qi.prototype.bytesPerElement=24,Kn("StructArrayLayout4i4ui4i24",Qi);var $i=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshViews=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.float32=new Float32Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r){var n=this.length;return this.resize(n+1),this.emplace(n,t,e,r)},e.prototype.emplace=function(t,e,r,n){var i=3*t;return this.float32[i+0]=e,this.float32[i+1]=r,this.float32[i+2]=n,t},e}(Hi);$i.prototype.bytesPerElement=12,Kn("StructArrayLayout3f12",$i);var ta=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshViews=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.uint32=new Uint32Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t){var e=this.length;return this.resize(e+1),this.emplace(e,t)},e.prototype.emplace=function(t,e){var r=1*t;return this.uint32[r+0]=e,t},e}(Hi);ta.prototype.bytesPerElement=4,Kn("StructArrayLayout1ul4",ta);var ea=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshViews=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.int16=new Int16Array(this.arrayBuffer),this.uint32=new Uint32Array(this.arrayBuffer),this.uint16=new Uint16Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r,n,i,a,o,s,l){var c=this.length;return this.resize(c+1),this.emplace(c,t,e,r,n,i,a,o,s,l)},e.prototype.emplace=function(t,e,r,n,i,a,o,s,l,c){var u=10*t,f=5*t;return this.int16[u+0]=e,this.int16[u+1]=r,this.int16[u+2]=n,this.int16[u+3]=i,this.int16[u+4]=a,this.int16[u+5]=o,this.uint32[f+3]=s,this.uint16[u+8]=l,this.uint16[u+9]=c,t},e}(Hi);ea.prototype.bytesPerElement=20,Kn("StructArrayLayout6i1ul2ui20",ea);var ra=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshViews=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.int16=new Int16Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r,n,i,a){var o=this.length;return this.resize(o+1),this.emplace(o,t,e,r,n,i,a)},e.prototype.emplace=function(t,e,r,n,i,a,o){var s=6*t;return this.int16[s+0]=e,this.int16[s+1]=r,this.int16[s+2]=n,this.int16[s+3]=i,this.int16[s+4]=a,this.int16[s+5]=o,t},e}(Hi);ra.prototype.bytesPerElement=12,Kn("StructArrayLayout2i2i2i12",ra);var na=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshViews=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.float32=new Float32Array(this.arrayBuffer),this.int16=new Int16Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r,n,i){var a=this.length;return this.resize(a+1),this.emplace(a,t,e,r,n,i)},e.prototype.emplace=function(t,e,r,n,i,a){var o=4*t,s=8*t;return this.float32[o+0]=e,this.float32[o+1]=r,this.float32[o+2]=n,this.int16[s+6]=i,this.int16[s+7]=a,t},e}(Hi);na.prototype.bytesPerElement=16,Kn("StructArrayLayout2f1f2i16",na);var ia=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshViews=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.float32=new Float32Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r,n){var i=this.length;return this.resize(i+1),this.emplace(i,t,e,r,n)},e.prototype.emplace=function(t,e,r,n,i){var a=12*t,o=3*t;return this.uint8[a+0]=e,this.uint8[a+1]=r,this.float32[o+1]=n,this.float32[o+2]=i,t},e}(Hi);ia.prototype.bytesPerElement=12,Kn("StructArrayLayout2ub2f12",ia);var aa=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshView

s=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.uint16=new Uint16Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r){var n=this.length;return this.resize(n+1),this.emplace(n,t,e,r)},e.prototype.emplace=function(t,e,r,n){var i=3*t;return this.uint16[i+0]=e,this.uint16[i+1]=r,this.uint16[i+2]=n,t},e}(Hi);aa.prototype.bytesPerElement=6,Kn("StructArrayLayout3ui6",aa);var oa=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshViews=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.int16=new Int16Array(this.arrayBuffer),this.uint16=new Uint16Array(this.arrayBuffer),this.uint32=new Uint32Array(this.arrayBuffer),this.float32=new Float32Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r,n,i,a,o,s,l,c,u,f,h,p,d,g,v){var m=this.length;return this.resize(m+1),this.emplace(m,t,e,r,n,i,a,o,s,l,c,u,f,h,p,d,g,v)},e.prototype.emplace=function(t,e,r,n,i,a,o,s,l,c,u,f,h,p,d,g,v,m){var y=24*t,x=12*t,b=48*t;return this.int16[y+0]=e,this.int16[y+1]=r,this.uint16[y+2]=n,this.uint16[y+3]=i,this.uint32[x+2]=a,this.uint32[x+3]=o,this.uint32[x+4]=s,this.uint16[y+10]=l,this.uint16[y+11]=c,this.uint16[y+12]=u,this.float32[x+7]=f,this.float32[x+8]=h,this.uint8[b+36]=p,this.uint8[b+37]=d,this.uint8[b+38]=g,this.uint32[x+10]=v,this.int16[y+22]=m,t},e}(Hi);oa.prototype.bytesPerElement=48,Kn("StructArrayLayout2i2ui3ul3ui2f3ub1ul1i48",oa);var sa=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshViews=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.int16=new Int16Array(this.arrayBuffer),this.uint16=new Uint16Array(this.arrayBuffer),this.uint32=new Uint32Array(this.arrayBuffer),this.float32=new Float32Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r,n,i,a,o,s,l,c,u,f,h,p,d,g,v,m,y,x,b,_,w,T,k,A,M,S){var E=this.length;return this.resize(E+1),this.emplace(E,t,e,r,n,i,a,o,s,l,c,u,f,h,p,d,g,v,m,y,x,b,_,w,T,k,A,M,S)},e.prototype.emplace=function(t,e,r,n,i,a,o,s,l,c,u,f,h,p,d,g,v,m,y,x,b,_,w,T,k,A,M,S,E){var L=34*t,C=17*t;return this.int16[L+0]=e,this.int16[L+1]=r,this.int16[L+2]=n,this.int16[L+3]=i,this.int16[L+4]=a,this.int16[L+5]=o,this.int16[L+6]=s,this.int16[L+7]=l,this.uint16[L+8]=c,this.uint16[L+9]=u,this.uint16[L+10]=f,this.uint16[L+11]=h,this.uint16[L+12]=p,this.uint16[L+13]=d,this.uint16[L+14]=g,this.uint16[L+15]=v,this.uint16[L+16]=m,this.uint16[L+17]=y,this.uint16[L+18]=x,this.uint16[L+19]=b,this.uint16[L+20]=_,this.uint16[L+21]=w,this.uint16[L+22]=T,this.uint32[C+12]=k,this.float32[C+13]=A,this.float32[C+14]=M,this.float32[C+15]=S,this.float32[C+16]=E,t},e}(Hi);sa.prototype.bytesPerElement=68,Kn("StructArrayLayout8i15ui1ul4f68",sa);var la=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshViews=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.float32=new Float32Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t){var e=this.length;return this.resize(e+1),this.emplace(e,t)},e.prototype.emplace=function(t,e){var r=1*t;return this.float32[r+0]=e,t},e}(Hi);la.prototype.bytesPerElement=4,Kn("StructArrayLayout1f4",la);var ca=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshViews=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.int16=new Int16Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r){var n=this.length;return this.resize(n+1),this.emplace(n,t,e,r)},e.prototype.emplace=function(t,e,r,n){var i=3*t;return this.int16[i+0]=e,this.int16[i+1]=r,this.int16[i+2]=n,t},e}(Hi);ca.prototype.bytesPerElement=6,Kn("StructArrayLayout3i6",ca);var ua=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshViews=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.uint32=new Uint32Array(this.arrayBuffer),this.uint16=new

Uint16Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r){var n=this.length;return this.resize(n+1),this.emplace(n,t,e,r)},e.prototype.emplace=function(t,e,r,n){var i=2*t,a=4*t;return this.uint32[i+0]=e,this.uint16[a+2]=r,this.uint16[a+3]=n,t},e}(Hi);ua.prototype.bytesPerElement=8,Kn("StructArrayLayout1ul2ui8",ua);var fa=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshViews=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.uint16=new Uint16Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e){var r=this.length;return this.resize(r+1),this.emplace(r,t,e)},e.prototype.emplace=function(t,e,r){var n=2*t;return this.uint16[n+0]=e,this.uint16[n+1]=r,t},e}(Hi);fa.prototype.bytesPerElement=4,Kn("StructArrayLayout2ui4",fa);var ha=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshViews=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.uint16=new Uint16Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t){var e=this.length;return this.resize(e+1),this.emplace(e,t)},e.prototype.emplace=function(t,e){var r=1*t;return this.uint16[r+0]=e,t},e}(Hi);ha.prototype.bytesPerElement=2,Kn("StructArrayLayout1ui2",ha);var pa=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshViews=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.float32=new Float32Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e){var r=this.length;return this.resize(r+1),this.emplace(r,t,e)},e.prototype.emplace=function(t,e,r){var n=2*t;return this.float32[n+0]=e,this.float32[n+1]=r,t},e}(Hi);pa.prototype.bytesPerElement=8,Kn("StructArrayLayout2f8",pa);var da=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._refreshViews=function(){this.uint8=new Uint8Array(this.arrayBuffer),this.float32=new Float32Array(this.arrayBuffer)},e.prototype.emplaceBack=function(t,e,r,n){var i=this.length;return this.resize(i+1),this.emplace(i,t,e,r,n)},e.prototype.emplace=function(t,e,r,n,i){var a=4*t;return this.float32[a+0]=e,this.float32[a+1]=r,this.float32[a+2]=n,this.float32[a+3]=i,t},e}(Hi);da.prototype.bytesPerElement=16,Kn("StructArrayLayout4f16",da);var ga=function(t){function e(){t.apply(this,arguments)}t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e;var r={anchorPointX:{configurable:!0},anchorPointY:{configurable:!0},x1:{configurable:!0},y1:{configurable:!0},x2:{configurable:!0},y2:{configurable:!0},featureIndex:{configurable:!0},sourceLayerIndex:{configurable:!0},bucketIndex:{configurable:!0},anchorPoint:{configurable:!0}};return r.anchorPointX.get=function(){return this._structArray.int16[this._pos2+0]},r.anchorPointY.get=function(){return this._structArray.int16[this._pos2+1]},r.x1.get=function(){return this._structArray.int16[this._pos2+2]},r.y1.get=function(){return this._structArray.int16[this._pos2+3]},r.x2.get=function(){return this._structArray.int16[this._pos2+4]},r.y2.get=function(){return this._structArray.int16[this._pos2+5]},r.featureIndex.get=function(){return this._structArray.uint32[this._pos4+3]},r.sourceLayerIndex.get=function(){return this._structArray.uint16[this._pos2+8]},r.bucketIndex.get=function(){return this._structArray.uint16[this._pos2+9]},r.anchorPoint.get=function(){return new a(this.anchorPointX,this.anchorPointY)},Object.defineProperties(e.prototype,r),e}(qi);ga.prototype.size=20;var va=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.get=function(t){return new ga(this,t)},e}(ea);Kn("CollisionBoxArray",va);var ma=function(t){function e(){t.apply(this,arguments)}t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e;var

r={anchorX:{configurable:!0},anchorY:{configurable:!0},glyphStartIndex:{configurable:!0},numGlyphs:{configurable:!0},vertexStartIndex:{configurable:!0},lineStartIndex:{configurable:!0},lineLength:{configurable:!0},segment:{configurable:!0},lowerSize:{configurable:!0},upperSize:{configurable:!0},lineOffsetX:{configurable:!0},lineOffsetY:{configurable:!0},writingMode:{configurable:!0},placedOrientation:{configurable:!0},hidden:{configurable:!0},crossTileID:{configurable:!0},associatedIconIndex:{configurable:!0}};return r.anchorX.get=function(){return this._structArray.int16[this._pos2+0]},r.anchorY.get=function(){return this._structArray.int16[this._pos2+1]},r.glyphStartIndex.get=function(){return this._structArray.uint16[this._pos2+2]},r.numGlyphs.get=function(){return this._structArray.uint16[this._pos2+3]},r.vertexStartIndex.get=function(){return this._structArray.uint32[this._pos4+2]},r.lineStartIndex.get=function(){return this._structArray.uint32[this._pos4+3]},r.lineLength.get=function(){return this._structArray.uint32[this._pos4+4]},r.segment.get=function(){return this._structArray.uint16[this._pos2+10]},r.lowerSize.get=function(){return this._structArray.uint16[this._pos2+11]},r.upperSize.get=function(){return this._structArray.uint16[this._pos2+12]},r.lineOffsetX.get=function(){return this._structArray.float32[this._pos4+7]},r.lineOffsetY.get=function(){return this._structArray.float32[this._pos4+8]},r.writingMode.get=function(){return this._structArray.uint8[this._pos1+36]},r.placedOrientation.get=function(){return this._structArray.uint8[this._pos1+37]},r.placedOrientation.set=function(t){this._structArray.uint8[this._pos1+37]=t},r.hidden.get=function(){return this._structArray.uint8[this._pos1+38]},r.hidden.set=function(t){this._structArray.uint8[this._pos1+38]=t},r.crossTileID.get=function(){return this._structArray.uint32[this._pos4+10]},r.crossTileID.set=function(t){this._structArray.uint32[this._pos4+10]=t},r.associatedIconIndex.get=function(){return this._structArray.int16[this._pos2+22]},Object.defineProperties(e.prototype,r),e}(qi);ma.prototype.size=48;var ya=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.get=function(t){return new ma(this,t)},e}(oa);Kn("PlacedSymbolArray",ya);var xa=function(t){function e(){t.apply(this,arguments)}t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e;var r={anchorX:{configurable:!0},anchorY:{configurable:!0},rightJustifiedTextSymbolIndex:{configurable:!0},centerJustifiedTextSymbolIndex:{configurable:!0},leftJustifiedTextSymbolIndex:{configurable:!0},verticalPlacedTextSymbolIndex:{configurable:!0},placedIconSymbolIndex:{configurable:!0},verticalPlacedIconSymbolIndex:{configurable:!0},key:{configurable:!0},textBoxStartIndex:{configurable:!0},textBoxEndIndex:{configurable:!0},verticalTextBoxStartIndex:{configurable:!0},verticalTextBoxEndIndex:{configurable:!0},iconBoxStartIndex:{configurable:!0},iconBoxEndIndex:{configurable:!0},verticalIconBoxStartIndex:{configurable:!0},verticalIconBoxEndIndex:{configurable:!0},featureIndex:{configurable:!0},numHorizontalGlyphVertices:{configurable:!0},numVerticalGlyphVertices:{configurable:!0},numIconVertices:{configurable:!0},numVerticalIconVertices:{configurable:!0},useRuntimeCollisionCircles:{configurable:!0},crossTileID:{configurable:!0},textBoxScale:{configurable:!0},textOffset0:{configurable:!0},textOffset1:{configurable:!0},collisionCircleDiameter:{configurable:!0}};return r.anchorX.get=function(){return this._structArray.int16[this._pos2+0]},r.anchorY.get=function(){return this._structArray.int16[this._pos2+1]},r.rightJustifiedTextSymbolIndex.get=function(){return this._structArray.int16[this._pos2+2]},r.centerJustifiedTextSymbolIndex.get=function(){return this._structArray.int16[this._pos2+3]},r.leftJustifiedTextSymbolIndex.get=function(){return this._structArray.int16[this._pos2+4]},r.verticalPlacedTextSymbolIndex.get=function(){return this._structArray.int16[this._pos2+5]},r.placedIconSymbolIndex.get=function(){return this._structArray.int16[this._pos2+6]},r.verticalPlacedIconSymbolIndex.get=function(){return this._structArray.int16[this._pos2+7]},r.key.get=function(){return

this._structArray.uint16[this._pos2+8]},r.textBoxStartIndex.get=function(){return
this._structArray.uint16[this._pos2+9]},r.textBoxEndIndex.get=function(){return
this._structArray.uint16[this._pos2+10]},r.verticalTextBoxStartIndex.get=function(){return
this._structArray.uint16[this._pos2+11]},r.verticalTextBoxEndIndex.get=function(){return
this._structArray.uint16[this._pos2+12]},r.iconBoxStartIndex.get=function(){return
this._structArray.uint16[this._pos2+13]},r.iconBoxEndIndex.get=function(){return
this._structArray.uint16[this._pos2+14]},r.verticalIconBoxStartIndex.get=function(){return
this._structArray.uint16[this._pos2+15]},r.verticalIconBoxEndIndex.get=function(){return
this._structArray.uint16[this._pos2+16]},r.featureIndex.get=function(){return
this._structArray.uint16[this._pos2+17]},r.numHorizontalGlyphVertices.get=function(){return
this._structArray.uint16[this._pos2+18]},r.numVerticalGlyphVertices.get=function(){return
this._structArray.uint16[this._pos2+19]},r.numIconVertices.get=function(){return
this._structArray.uint16[this._pos2+20]},r.numVerticalIconVertices.get=function(){return
this._structArray.uint16[this._pos2+21]},r.useRuntimeCollisionCircles.get=function(){return
this._structArray.uint16[this._pos2+22]},r.crossTileID.get=function(){return
this._structArray.uint32[this._pos4+12]},r.crossTileID.set=function(t){this._structArray.uint32[this._pos4+12]=t},r.
textBoxScale.get=function(){return this._structArray.float32[this._pos4+13]},r.textOffset0.get=function(){return
this._structArray.float32[this._pos4+14]},r.textOffset1.get=function(){return
this._structArray.float32[this._pos4+15]},r.collisionCircleDiameter.get=function(){return
this._structArray.float32[this._pos4+16]},Object.defineProperties(e.prototype,r),e}(qi);xa.prototype.size=68;var
ba=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.get=function(
t){return new xa(this,t)},e}(sa);Kn("SymbolInstanceArray",ba);var _a=function(t){function
e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getoffsetX=f
unction(t){return this.float32[1*t+0]},e}(la);Kn("GlyphOffsetArray",_a);var wa=function(t){function
e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getx=functio
n(t){return this.int16[3*t+0]},e.prototype.gety=function(t){return
this.int16[3*t+1]},e.prototype.gettileUnitDistanceFromAnchor=function(t){return
this.int16[3*t+2]},e}(ca);Kn("SymbolLineVertexArray",wa);var Ta=function(t){function
e(){t.apply(this,arguments)}t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor
=e;var
r={featureIndex:{configurable:!0},sourceLayerIndex:{configurable:!0},bucketIndex:{configurable:!0}};return
r.featureIndex.get=function(){return
this._structArray.uint32[this._pos4+0]},r.sourceLayerIndex.get=function(){return
this._structArray.uint16[this._pos2+2]},r.bucketIndex.get=function(){return
this._structArray.uint16[this._pos2+3]},Object.defineProperties(e.prototype,r),e}(qi);Ta.prototype.size=8;var
ka=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.get=function(
t){return new Ta(this,t)},e}(ua);Kn("FeatureIndexArray",ka);var
Aa=Gi([{name:"a_pos",components:2,type:"Int16"}],4).members,Ma=function(t){void
0===t&&(t=[]),this.segments=t};function Sa(t,e){return
256*(t=c(Math.floor(t),0,255))+c(Math.floor(e),0,255)}Ma.prototype.prepareSegment=function(t,e,r,n){var
i=this.segments[this.segments.length-1];return t>Ma.MAX_VERTEX_ARRAY_LENGTH&&w("Max vertices per
segment is "+Ma.MAX_VERTEX_ARRAY_LENGTH+": bucket requested
"+t),(!i||i.vertexLength+t>Ma.MAX_VERTEX_ARRAY_LENGTH||i.sortKey!==n)&&(i={vertexOffset:e.length,pri
mitiveOffset:r.length,vertexLength:0,primitiveLength:0},void

0!==n&&(i.sortKey=n),this.segments.push(i)),i},Ma.prototype.get=function(){return this.segments},Ma.prototype.destroy=function(){for(var t=0,e=this.segments;t<e.length;t+=1){var r=e[t];for(var n in r.vaos)r.vaos[n].destroy()}},Ma.simpleSegment=function(t,e,r,n){return new Ma([{vertexOffset:t,primitiveOffset:e,vertexLength:r,primitiveLength:n,vaos:{},sortKey:0}])},Ma.MAX_VERTEX_ARRAY_LENGTH=Math.pow(2,16)-1,Kn("SegmentVector",Ma);var Ea=Gi([{name:"a_pattern_from",components:4,type:"Uint16"},{name:"a_pattern_to",components:4,type:"Uint16"},{name:"a_pixel_ratio_from",components:1,type:"Uint8"},{name:"a_pixel_ratio_to",components:1,type:"Uint8"}]),La=e((function(t){t.exports=function(t,e){var r,n,i,a,o,s,l,c;for(r=3&t.length,n=t.length-r,i=e,o=3432918353,s=461845907,c=0;c<n;)l=255&t.charCodeAt(c)|(255&t.charCodeAt(++c))<<8|(255&t.charCodeAt(++c))<<16|(255&t.charCodeAt(++c))<<24,++c,i=27492+(65535&(a=5*(65535&(i=(i^=l=(65535&(l=(l=(65535&l)*o+(((l>>>16)*o&65535)<<16)&4294967295)<<15|l>>>17))*s+(((l>>>16)*s&65535)<<16)&4294967295)<<13|i>>>19))+((5*(i>>>16)&65535)<<16)&4294967295))+((58964+(a>>>16)&65535)<<16);switch(l=0,r){case 3:l^=(255&t.charCodeAt(c+2))<<16;case 2:l^=(255&t.charCodeAt(c+1))<<8;case 1:i^=l=(65535&(l=(l=(65535&(l^=255&t.charCodeAt(c)))*o+(((l>>>16)*o&65535)<<16)&4294967295)<<15|l>>>17))*s+(((l>>>16)*s&65535)<<16)&4294967295}return i^=t.length,i=2246822507*(65535&(i^=i>>>16))+((2246822507*(i>>>16)&65535)<<16)&4294967295,i=3266489909*(65535&(i^=i>>>13))+((3266489909*(i>>>16)&65535)<<16)&4294967295,(i^=i>>>16)>>>0}})),Ca=e((function(t){t.exports=function(t,e){for(var r,n=t.length,i=e^n,a=0;n>=4;)r=1540483477*(65535&(r=255&t.charCodeAt(a)|(255&t.charCodeAt(++a))<<8|(255&t.charCodeAt(++a))<<16|(255&t.charCodeAt(++a))<<24))+((1540483477*(r>>>16)&65535)<<16),i=1540483477*(65535&i)+((1540483477*(i>>>16)&65535)<<16)^(r=1540483477*(65535&(r^=r>>>24))+((1540483477*(r>>>16)&65535)<<16)),n-=4,++a;switch(n){case 3:i^=(255&t.charCodeAt(a+2))<<16;case 2:i^=(255&t.charCodeAt(a+1))<<8;case 1:i=1540483477*(65535&(i^=255&t.charCodeAt(a)))+((1540483477*(i>>>16)&65535)<<16)}return i=1540483477*(65535&(i^=i>>>13))+((1540483477*(i>>>16)&65535)<<16),(i^=i>>>15)>>>0}})),Pa=La,Ia=La,Oa=Ca;Pa.murmur3=Ia,Pa.murmur2=Oa;var za=function(){this.ids=[],this.positions=[],this.indexed=!1};za.prototype.add=function(t,e,r,n){this.ids.push(Ra(t)),this.positions.push(e,r,n)},za.prototype.getPositions=function(t){for(var e=Ra(t),r=0,n=this.ids.length-1;r<n;){var i=r+n>>1;this.ids[i]>=e?n=i:r=i+1}for(var a=[];this.ids[r]===e;){var o=this.positions[3*r],s=this.positions[3*r+1],l=this.positions[3*r+2];a.push({index:o,start:s,end:l}),r++}return a},za.serialize=function(t,e){var r=new Float64Array(t.ids),n=new Uint32Array(t.positions);return Fa(r,n,0,r.length-1),e&&e.push(r.buffer,n.buffer),{ids:r,positions:n}},za.deserialize=function(t){var e=new za;return e.ids=t.ids,e.positions=t.positions,e.indexed=!0,e};var Da=Math.pow(2,53)-1;function Ra(t){var e=+t;return!isNaN(e)&&e<=Da?e:Pa(String(t))}function Fa(t,e,r,n){for(;r<n;){for(var i=t[r+n>>1],a=r-1,o=n+1;;){do{a++}while(t[a]<i);do{o--}while(t[o]>i);if(a>=o)break;Ba(t,a,o),Ba(e,3*a,3*o),Ba(e,3*a+1,3*o+1),Ba(e,3*a+2,3*o+2)}o-r<n-o?(Fa(t,e,r,o),r=o+1):(Fa(t,e,o+1,n),n=o)}}function Ba(t,e,r){var n=t[e];t[e]=t[r],t[r]=n}Kn("FeaturePositionMap",za);var Na=function(t,e){this.gl=t.gl,this.location=e},ja=function(t){function e(e,r){t.call(this,e,r),this.current=0}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.set=function(t){this.current!==t&&(this.current=t,this.gl.uniform1i(this.location,t))},e}(Na),Ua=function(t){function e(e,r){t.call(this,e,r),this.current=0}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.set=function(t){this.current!==t&&(this.current=t,this.gl.uniform1f(this.location,t))},e}(Na),Va=function(t){function e(e,r){t.call(this,e,r),this.current=[0,0]}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.set=function(t){t[0]===this.current[0]&&t[1]===this.current[1]||(this.current=t,this.gl.uniform2f(this.location,t[0],t[1]))},e}(Na),qa=function(t){function e(e,r){t.call(this,e,r),this.current=[0,0,0]}return

t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.set=function(t){t[0]===this.current[0]&&t[1]===this.current[1]&&t[2]===this.current[2]||(this.current=t,this.gl.uniform3f(this.location,t[0],t[1],t[2]))},e}(Na),Ha=function(t){function e(e,r){t.call(this,e,r),this.current=[0,0,0,0]}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.set=function(t){t[0]===this.current[0]&&t[1]===this.current[1]&&t[2]===this.current[2]&&t[3]===this.current[3]||(this.current=t,this.gl.uniform4f(this.location,t[0],t[1],t[2],t[3]))},e}(Na),Ga=function(t){function e(e,r){t.call(this,e,r),this.current=ne.transparent}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.set=function(t){t.r===this.current.r&&t.g===this.current.g&&t.b===this.current.b&&t.a===this.current.a||(this.current=t,this.gl.uniform4f(this.location,t.r,t.g,t.b,t.a))},e}(Na),Ya=new Float32Array(16),Wa=function(t){function e(e,r){t.call(this,e,r),this.current=Ya}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.set=function(t){if(t[12]!==this.current[12]||t[0]!==this.current[0])return this.current=t,void this.gl.uniformMatrix4fv(this.location,!1,t);for(var e=1;e<16;e++)if(t[e]!==this.current[e]){this.current=t,this.gl.uniformMatrix4fv(this.location,!1,t);break}},e}(Na);function Xa(t){return[Sa(255*t.r,255*t.g),Sa(255*t.b,255*t.a)]}var Za=function(t,e,r){this.value=t,this.uniformNames=e.map((function(t){return"u_"+t})),this.type=r};Za.prototype.setUniform=function(t,e,r){t.set(r.constantOr(this.value))},Za.prototype.getBinding=function(t,e,r){return"color"===this.type?new Ga(t,e):new Ua(t,e)};var Ja=function(t,e){this.uniformNames=e.map((function(t){return"u_"+t})),this.patternFrom=null,this.patternTo=null,this.pixelRatioFrom=1,this.pixelRatioTo=1};Ja.prototype.setConstantPatternPositions=function(t,e){this.pixelRatioFrom=e.pixelRatio,this.pixelRatioTo=t.pixelRatio,this.patternFrom=e.tlbr,this.patternTo=t.tlbr},Ja.prototype.setUniform=function(t,e,r,n){var i="u_pattern_to"===n?this.patternTo:"u_pattern_from"===n?this.patternFrom:"u_pixel_ratio_to"===n?this.pixelRatioTo:"u_pixel_ratio_from"===n?this.pixelRatioFrom:null;i&&t.set(i)},Ja.prototype.getBinding=function(t,e,r){return"u_pattern"===r.substr(0,9)?new Ha(t,e):new Ua(t,e)};var Ka=function(t,e,r,n){this.expression=t,this.type=r,this.maxValue=0,this.paintVertexAttributes=e.map((function(t){return{name:"a_"+t,type:"Float32",components:"color"===r?2:1,offset:0}})),this.paintVertexArray=new n};Ka.prototype.populatePaintArray=function(t,e,r,n,i){var a=this.paintVertexArray.length,o=this.expression.evaluate(new Ai(0),e,{},n,[],i);this.paintVertexArray.resize(t),this._setPaintValue(a,t,o)},Ka.prototype.updatePaintArray=function(t,e,r,n){var i=this.expression.evaluate({zoom:0},r,n);this._setPaintValue(t,e,i)},Ka.prototype._setPaintValue=function(t,e,r){if("color"===this.type)for(var n=Xa(r),i=t;i<e;i++)this.paintVertexArray.emplace(i,n[0],n[1]);else{for(var a=t;a<e;a++)this.paintVertexArray.emplace(a,r);this.maxValue=Math.max(this.maxValue,Math.abs(r))}},Ka.prototype.upload=function(t){this.paintVertexArray&&this.paintVertexArray.arrayBuffer&&(this.paintVertexBuffer&&this.paintVertexBuffer.buffer?this.paintVertexBuffer.updateData(this.paintVertexArray):this.paintVertexBuffer=t.createVertexBuffer(this.paintVertexArray,this.paintVertexAttributes,this.expression.isStateDependent))},Ka.prototype.destroy=function(){this.paintVertexBuffer&&this.paintVertexBuffer.destroy()};var Qa=function(t,e,r,n,i,a){this.expression=t,this.uniformNames=e.map((function(t){return"u_"+t+"_t"})),this.type=r,this.useIntegerZoom=n,this.zoom=i,this.maxValue=0,this.paintVertexAttributes=e.map((function(t){return{name:"a_"+t,type:"Float32",components:"color"===r?4:2,offset:0}})),this.paintVertexArray=new a};Qa.prototype.populatePaintArray=function(t,e,r,n,i){var a=this.expression.evaluate(new Ai(this.zoom),e,{},n,[],i),o=this.expression.evaluate(new Ai(this.zoom+1),e,{},n,[],i),s=this.paintVertexArray.length;this.paintVertexArray.resize(t),this._setPaintValue(s,t,a,o)},Qa.prototype.updatePaintArray=function(t,e,r,n){var i=this.expression.evaluate({zoom:this.zoom},r,n),a=this.expression.evaluate({zoom:this.zoom+1},r,n);this._setPaintValue(t,e,i,a)},Qa.prototype._setPaintValue=function(t,e,r,n){if("color"===this.type)for(var

i=Xa(r),a=Xa(n),o=t;o<e;o++)this.paintVertexArray.emplace(o,i[0],i[1],a[0],a[1]);else{for(var s=t;s<e;s++)this.paintVertexArray.emplace(s,r,n);this.maxValue=Math.max(this.maxValue,Math.abs(r),Math.abs(n))}},Qa.prototype.upload=function(t){this.paintVertexArray&&this.paintVertexArray.arrayBuffer&&(this.paintVertexBuffer&&this.paintVertexBuffer.buffer?this.paintVertexBuffer.updateData(this.paintVertexArray):this.paintVertexBuffer=t.createVertexBuffer(this.paintVertexArray,this.paintVertexAttributes,this.expression.isStateDependent))},Qa.prototype.destroy=function(){this.paintVertexBuffer&&this.paintVertexBuffer.destroy()},Qa.prototype.setUniform=function(t,e){var r=this.useIntegerZoom?Math.floor(e.zoom):e.zoom,n=c(this.expression.interpolationFactor(r,this.zoom,this.zoom+1),0,1);t.set(n)},Qa.prototype.getBinding=function(t,e,r){return new Ua(t,e)};var $a=function(t,e,r,n,i,a){this.expression=t,this.type=e,this.useIntegerZoom=r,this.zoom=n,this.layerId=a,this.zoomInPaintVertexArray=new i,this.zoomOutPaintVertexArray=new i};$a.prototype.populatePaintArray=function(t,e,r){var n=this.zoomInPaintVertexArray.length;this.zoomInPaintVertexArray.resize(t),this.zoomOutPaintVertexArray.resize(t),this._setPaintValues(n,t,e.patterns&&e.patterns[this.layerId],r)},$a.prototype.updatePaintArray=function(t,e,r,n,i){this._setPaintValues(t,e,r.patterns&&r.patterns[this.layerId],i)},$a.prototype._setPaintValues=function(t,e,r,n){if(n&&r){var i=r.min,a=r.mid,o=r.max,s=n[i],l=n[a],c=n[o];if(s&&l&&c)for(var u=t;u<e;u++)this.zoomInPaintVertexArray.emplace(u,l.tl[0],l.tl[1],l.br[0],l.br[1],s.tl[0],s.tl[1],s.br[0],s.br[1],l.pixelRatio,s.pixelRatio),this.zoomOutPaintVertexArray.emplace(u,l.tl[0],l.tl[1],l.br[0],l.br[1],c.tl[0],c.tl[1],c.br[0],c.br[1],l.pixelRatio,c.pixelRatio)}},$a.prototype.upload=function(t){this.zoomInPaintVertexArray&&this.zoomInPaintVertexArray.arrayBuffer&&this.zoomOutPaintVertexArray&&this.zoomOutPaintVertexArray.arrayBuffer&&(this.zoomInPaintVertexBuffer=t.createVertexBuffer(this.zoomInPaintVertexArray,Ea.members,this.expression.isStateDependent),this.zoomOutPaintVertexBuffer=t.createVertexBuffer(this.zoomOutPaintVertexArray,Ea.members,this.expression.isStateDependent))},$a.prototype.destroy=function(){this.zoomOutPaintVertexBuffer&&this.zoomOutPaintVertexBuffer.destroy(),this.zoomInPaintVertexBuffer&&this.zoomInPaintVertexBuffer.destroy()};var to=function(t,e,r,n){this.binders={},this.layoutAttributes=n,this._buffers=[];var i=[];for(var a in t.paint._values)if(r(a)){var o=t.paint.get(a);if(o instanceof Ii&&Vr(o.property.specification)){var s=ro(a,t.type),l=o.value,c=o.property.specification.type,u=o.property.useIntegerZoom,f=o.property.specification["property-type"],h="cross-faded"===f||"cross-faded-data-driven"===f;if("constant"===l.kind)this.binders[a]=h?new Ja(l.value,s):new Za(l.value,s,c),i.push("/u_"+a);else if("source"===l.kind||h){var p=no(a,c,"source");this.binders[a]=h?new $a(l,c,u,e,p,t.id):new Ka(l,s,c,p),i.push("/a_"+a)}else{var d=no(a,c,"composite");this.binders[a]=new Qa(l,s,c,u,e,d),i.push("/z_"+a)}}}this.cacheKey=i.sort().join("")};to.prototype.getMaxValue=function(t){var e=this.binders[t];return e instanceof Ka||e instanceof Qa?e.maxValue:0},to.prototype.populatePaintArrays=function(t,e,r,n,i){for(var a in this.binders){var o=this.binders[a];(o instanceof Ka||o instanceof Qa||o instanceof $a)&&o.populatePaintArray(t,e,r,n,i)}},to.prototype.setConstantPatternPositions=function(t,e){for(var r in this.binders){var n=this.binders[r];n instanceof Ja&&n.setConstantPatternPositions(t,e)}},to.prototype.updatePaintArrays=function(t,e,r,n,i){var a=!1;for(var o in t)for(var s=0,l=e.getPositions(o);s<l.length;s+=1){var c=l[s],u=r.feature(c.index);for(var f in this.binders){var h=this.binders[f];if((h instanceof Ka||h instanceof Qa||h instanceof $a)&&!0===h.expression.isStateDependent){var p=n.paint.get(f);h.expression=p.value,h.updatePaintArray(c.start,c.end,u,t[o],i),a=!0}}}return a},to.prototype.defines=function(){var t=[];for(var e in this.binders){var r=this.binders[e];(r instanceof Za||r instanceof Ja)&&t.push.apply(t,r.uniformNames.map((function(t){return"#define HAS_UNIFORM_"+t})))}return t},to.prototype.getPaintVertexBuffers=function(){return this._buffers},to.prototype.getUniforms=function(t,e){var r=[];for(var n in this.binders){var i=this.binders[n];if(i instanceof Za||i instanceof Ja||i instanceof Qa)for(var a=0,o=i.uniformNames;a<o.length;a+=1){var s=o[a];if(e[s]){var l=i.getBinding(t,e[s],s);r.push({name:s,property:n,binding:l})}}}return r},to.prototype.setUniforms=function(t,e,r,n){for(var i=0,a=e;i<a.length;i+=1){var

o=a[i],s=o.name,l=o.property,c=o.binding;this.binders[l].setUniform(c,n,r.get(l),s)}},to.prototype.updatePaintBuffers=function(t){for(var e in this._buffers=[],this.binders){var r=this.binders[e];if(t&&r instanceof $a){var n=2===t.fromScale?r.zoomInPaintVertexBuffer:r.zoomOutPaintVertexBuffer;n&&this._buffers.push(n)}else(r instanceof Ka||r instanceof Qa)&&r.paintVertexBuffer&&this._buffers.push(r.paintVertexBuffer)}},to.prototype.upload=function(t){for(var e in this.binders){var r=this.binders[e];(r instanceof Ka||r instanceof Qa||r instanceof $a)&&r.upload(t)}this.updatePaintBuffers()},to.prototype.destroy=function(){for(var t in this.binders){var e=this.binders[t];(e instanceof Ka||e instanceof Qa||e instanceof $a)&&e.destroy()}};var eo=function(t,e,r,n){void 0===n&&(n=function(){return!0}),this.programConfigurations={};for(var i=0,a=e;i<a.length;i+=1){var o=a[i];this.programConfigurations[o.id]=new to(o,r,n,t)}this.needsUpload=!1,this._featureMap=new za,this._bufferOffset=0};function ro(t,e){return{"text-opacity":["opacity"],"icon-opacity":["opacity"],"text-color":["fill_color"],"icon-color":["fill_color"],"text-halo-color":["halo_color"],"icon-halo-color":["halo_color"],"text-halo-blur":["halo_blur"],"icon-halo-blur":["halo_blur"],"text-halo-width":["halo_width"],"icon-halo-width":["halo_width"],"line-gap-width":["gapwidth"],"line-pattern":["pattern_to","pattern_from","pixel_ratio_to","pixel_ratio_from"],"fill-pattern":["pattern_to","pattern_from","pixel_ratio_to","pixel_ratio_from"],"fill-extrusion-pattern":["pattern_to","pattern_from","pixel_ratio_to","pixel_ratio_from"]}[t]||[t.replace(e+"-","").replace(/-/g,"_")]}function no(t,e,r){var n={color:{source:pa,composite:da},number:{source:la,composite:pa}},i=function(t){return{"line-pattern":{source:Ki,composite:Ki},"fill-pattern":{source:Ki,composite:Ki},"fill-extrusion-pattern":{source:Ki,composite:Ki}}[t]}(t);return i&&i[r]||n[e][r]}eo.prototype.populatePaintArrays=function(t,e,r,n,i,a){for(var o in this.programConfigurations)this.programConfigurations[o].populatePaintArrays(t,e,n,i,a);void 0!==e.id&&this._featureMap.add(e.id,r,this._bufferOffset,t),this._bufferOffset=t,this.needsUpload=!0},eo.prototype.updatePaintArrays=function(t,e,r,n){for(var i=0,a=r;i<a.length;i+=1){var o=a[i];this.needsUpload=this.programConfigurations[o.id].updatePaintArrays(t,this._featureMap,e,o,n)||this.needsUpload}},eo.prototype.get=function(t){return this.programConfigurations[t]},eo.prototype.upload=function(t){if(this.needsUpload){for(var e in this.programConfigurations)this.programConfigurations[e].upload(t);this.needsUpload=!1}},eo.prototype.destroy=function(){for(var t in this.programConfigurations)this.programConfigurations[t].destroy()},Kn("ConstantBinder",Za),Kn("CrossFadedConstantBinder",Ja),Kn("SourceExpressionBinder",Ka),Kn("CrossFadedCompositeBinder",$a),Kn("CompositeExpressionBinder",Qa),Kn("ProgramConfiguration",to,{omit:["_buffers"]}),Kn("ProgramConfigurationSet",eo);var io,ao=8192,oo=(io=15,{min:-1*Math.pow(2,io-1),max:Math.pow(2,io-1)-1});function so(t){for(var e=ao/t.extent,r=t.loadGeometry(),n=0;n<r.length;n++)for(var i=r[n],a=0;a<i.length;a++){var o=i[a];o.x=Math.round(o.x*e),o.y=Math.round(o.y*e),(o.x<oo.min||o.x>oo.max||o.y<oo.min||o.y>oo.max)&&(w("Geometry exceeds allowed extent, reduce your vector tile buffer size"),o.x=c(o.x,oo.min,oo.max),o.y=c(o.y,oo.min,oo.max))}return r}function lo(t,e,r,n,i){t.emplaceBack(2*e+(n+1)/2,2*r+(i+1)/2)}var co=function(t){this.zoom=t.zoom,this.overscaling=t.overscaling,this.layers=t.layers,this.layerIds=this.layers.map((function(t){return t.id})),this.index=t.index,this.hasPattern=!1,this.layoutVertexArray=new Wi,this.indexArray=new aa,this.segments=new Ma,this.programConfigurations=new eo(Aa,t.layers,t.zoom),this.stateDependentLayerIds=this.layers.filter((function(t){return t.isStateDependent()})).map((function(t){return t.id}))};function uo(t,e){for(var r=0;r<t.length;r++)if(bo(e,t[r]))return!0;for(var n=0;n<e.length;n++)if(bo(t,e[n]))return!0;return!!go(t,e)}function fo(t,e,r){return!!bo(t,e)||!!mo(e,t,r)}function ho(t,e){if(1===t.length)return xo(e,t[0]);for(var r=0;r<e.length;r++)for(var n=e[r],i=0;i<n.length;i++)if(bo(t,n[i]))return!0;for(var a=0;a<t.length;a++)if(xo(e,t[a]))return!0;for(var o=0;o<e.length;o++)if(go(t,e[o]))return!0;return!1}function

po(t,e,r){if(t.length>1){if(go(t,e))return!0;for(var n=0;n<e.length;n++)if(mo(e[n],t,r))return!0}for(var i=0;i<t.length;i++)if(mo(t[i],e,r))return!0;return!1}function go(t,e){if(0===t.length||0===e.length)return!1;for(var r=0;r<t.length-1;r++)for(var n=t[r],i=t[r+1],a=0;a<e.length-1;a++)if(vo(n,i,e[a],e[a+1]))return!0;return!1}function vo(t,e,r,n){return T(t,r,n)!==T(e,r,n)&&T(t,e,r)!==T(t,e,n)}function mo(t,e,r){var n=r*r;if(1===e.length)return t.distSqr(e[0])<n;for(var i=1;i<e.length;i++)if(yo(t,e[i-1],e[i])<n)return!0;return!1}function yo(t,e,r){var n=e.distSqr(r);if(0===n)return t.distSqr(e);var i=((t.x-e.x)*(r.x-e.x)+(t.y-e.y)*(r.y-e.y))/n;return i<0?t.distSqr(e):i>1?t.distSqr(r):t.distSqr(r.sub(e)._mult(i)._add(e))}function xo(t,e){for(var r,n,i,a=!1,o=0;o<t.length;o++)for(var s=0,l=(r=t[o]).length-1;s<r.length;l=s++)n=r[s],i=r[l],n.y>e.y!=i.y>e.y&&e.x<(i.x-n.x)*(e.y-n.y)/(i.y-n.y)+n.x&&(a=!a);return a}function bo(t,e){for(var r=!1,n=0,i=t.length-1;n<t.length;i=n++){var a=t[n],o=t[i];a.y>e.y!=o.y>e.y&&e.x<(o.x-a.x)*(e.y-a.y)/(o.y-a.y)+a.x&&(r=!r)}return r}function _o(t,e,r){var n=r[0],i=r[2];if(t.x<n.x&&e.x<n.x||t.x>i.x&&e.x>i.x||t.y<n.y&&e.y<n.y||t.y>i.y&&e.y>i.y)return!1;var a=T(t,e,r[0]);return a!==T(t,e,r[1])||a!==T(t,e,r[2])||a!==T(t,e,r[3])}function wo(t,e,r){var n=e.paint.get(t).value;return"constant"===n.kind?n.value:r.programConfigurations.get(e.id).getMaxValue(t)}function To(t){return Math.sqrt(t[0]*t[0]+t[1]*t[1])}function ko(t,e,r,n,i){if(!e[0]&&!e[1])return t;var o=a.convert(e)._mult(i);"viewport"===r&&o._rotate(-n);for(var s=[],l=0;l<t.length;l++){var c=t[l];s.push(c.sub(o))}return s}co.prototype.populate=function(t,e,r){var n=this.layers[0],i=[],a=null;"circle"===n.type&&(a=n.layout.get("circle-sort-key"));for(var o=0,s=t;o<s.length;o+=1){var l=s[o],c=l.feature,u=l.id,f=l.index,h=l.sourceLayerIndex,p=this.layers[0]._featureFilter.needGeometry,d={type:c.type,id:u,properties:c.properties,geometry:p?so(c):[]};if(this.layers[0]._featureFilter.filter(new Ai(this.zoom),d,r)){p||(d.geometry=so(c));var g=a?a.evaluate(d,{},r):void 0,v={id:u,properties:c.properties,type:c.type,sourceLayerIndex:h,index:f,geometry:d.geometry,patterns:{},sortKey:g};i.push(v)}}a&&i.sort((function(t,e){return t.sortKey-e.sortKey}));for(var m=0,y=i;m<y.length;m+=1){var x=y[m],b=x,_=b.geometry,w=b.index,T=b.sourceLayerIndex,k=t[w].feature;this.addFeature(x,_,w,r),e.featureIndex.insert(k,_,w,T,this.index)}},co.prototype.update=function(t,e,r){this.stateDependentLayers.length&&this.programConfigurations.updatePaintArrays(t,e,this.stateDependentLayers,r)},co.prototype.isEmpty=function(){return 0===this.layoutVertexArray.length},co.prototype.uploadPending=function(){return!this.uploaded||this.programConfigurations.needsUpload},co.prototype.upload=function(t){this.uploaded||(this.layoutVertexBuffer=t.createVertexBuffer(this.layoutVertexArray,Aa),this.indexBuffer=t.createIndexBuffer(this.indexArray)),this.programConfigurations.upload(t),this.uploaded=!0},co.prototype.destroy=function(){this.layoutVertexBuffer&&(this.layoutVertexBuffer.destroy(),this.indexBuffer.destroy(),this.programConfigurations.destroy(),this.segments.destroy())},co.prototype.addFeature=function(t,e,r,n){for(var i=0,a=e;i<a.length;i+=1)for(var o=0,s=a[i];o<s.length;o+=1){var l=s[o],c=l.x,u=l.y;if(!(c<0||c>=ao||u<0||u>=ao)){var f=this.segments.prepareSegment(4,this.layoutVertexArray,this.indexArray,t.sortKey),h=f.vertexLength;lo(this.layoutVertexArray,c,u,-1,-1),lo(this.layoutVertexArray,c,u,1,-1),lo(this.layoutVertexArray,c,u,1,1),lo(this.layoutVertexArray,c,u,-1,1),this.indexArray.emplaceBack(h,h+1,h+2),this.indexArray.emplaceBack(h,h+3,h+2),f.vertexLength+=4,f.primitiveLength+=2}}this.programConfigurations.populatePaintArrays(this.layoutVertexArray.length,t,r,{},n)},Kn("CircleBucket",co,{omit:["layers"]});var Ao=new Ni({"circle-sort-key":new Di(It.layout_circle["circle-sort-key"])}),Mo={paint:new Ni({"circle-radius":new Di(It.paint_circle["circle-radius"]),"circle-color":new Di(It.paint_circle["circle-color"]),"circle-blur":new Di(It.paint_circle["circle-blur"]),"circle-opacity":new Di(It.paint_circle["circle-opacity"]),"circle-translate":new zi(It.paint_circle["circle-translate"]),"circle-translate-anchor":new zi(It.paint_circle["circle-translate-anchor"]),"circle-pitch-scale":new zi(It.paint_circle["circle-pitch-scale"]),"circle-pitch-alignment":new zi(It.paint_circle["circle-pitch-alignment"]),"circle-stroke-width":new Di(It.paint_circle["circle-stroke-width"]),"circle-stroke-color":new Di(It.paint_circle["circle-stroke-color"]),"circle-stroke-opacity":new Di(It.paint_circle["circle-stroke-opacity"])}),layout:Ao},So="undefined"!=typeof Float32Array?Float32Array:Array;function Eo(t){return

t[0]=1,t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=1,t[6]=0,t[7]=0,t[8]=0,t[9]=0,t[10]=1,t[11]=0,t[12]=0,t[13]=0,t[14]=0,t[15]=1,t}function Lo(t,e,r){var n=e[0],i=e[1],a=e[2],o=e[3],s=e[4],l=e[5],c=e[6],u=e[7],f=e[8],h=e[9],p=e[10],d=e[11],g=e[12],v=e[13],m=e[14],y=e[15],x=r[0],b=r[1],_=r[2],w=r[3];return t[0]=x*n+b*s+_*f+w*g,t[1]=x*i+b*l+_*h+w*v,t[2]=x*a+b*c+_*p+w*m,t[3]=x*o+b*u+_*d+w*y,x=r[4],b=r[5],_=r[6],w=r[7],t[4]=x*n+b*s+_*f+w*g,t[5]=x*i+b*l+_*h+w*v,t[6]=x*a+b*c+_*p+w*m,t[7]=x*o+b*u+_*d+w*y,x=r[8],b=r[9],_=r[10],w=r[11],t[8]=x*n+b*s+_*f+w*g,t[9]=x*i+b*l+_*h+w*v,t[10]=x*a+b*c+_*p+w*m,t[11]=x*o+b*u+_*d+w*y,x=r[12],b=r[13],_=r[14],w=r[15],t[12]=x*n+b*s+_*f+w*g,t[13]=x*i+b*l+_*h+w*v,t[14]=x*a+b*c+_*p+w*m,t[15]=x*o+b*u+_*d+w*y,t}Math.hypot||(Math.hypot=function(){for(var t=arguments,e=0,r=arguments.length;r--;)e+=t[r]*t[r];return Math.sqrt(e)});var Co,Po=Lo,Io=function(t,e,r){return t[0]=e[0]-r[0],t[1]=e[1]-r[1],t[2]=e[2]-r[2],t};function Oo(t,e,r){var n=e[0],i=e[1],a=e[2],o=e[3];return t[0]=r[0]*n+r[4]*i+r[8]*a+r[12]*o,t[1]=r[1]*n+r[5]*i+r[9]*a+r[13]*o,t[2]=r[2]*n+r[6]*i+r[10]*a+r[14]*o,t[3]=r[3]*n+r[7]*i+r[11]*a+r[15]*o,t}Co=new So(3),So!=Float32Array&&(Co[0]=0,Co[1]=0,Co[2]=0),function(){var t=new So(4);So!=Float32Array&&(t[0]=0,t[1]=0,t[2]=0,t[3]=0)}();var zo=function(t){var e=t[0],r=t[1];return e*e+r*r},Do=(function(){var t=new So(2);So!=Float32Array&&(t[0]=0,t[1]=0)}(),function(t){function e(e){t.call(this,e,Mo)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.createBucket=function(t){return new co(t)},e.prototype.queryRadius=function(t){var e=t;return wo("circle-radius",this,e)+wo("circle-stroke-width",this,e)+To(this.paint.get("circle-translate"))},e.prototype.queryIntersectsFeature=function(t,e,r,n,i,a,o,s){for(var l=ko(t,this.paint.get("circle-translate"),this.paint.get("circle-translate-anchor"),a.angle,o),c=this.paint.get("circle-radius").evaluate(e,r)+this.paint.get("circle-stroke-width").evaluate(e,r),u="map"===this.paint.get("circle-pitch-alignment"),f=u?l:function(t,e){return t.map((function(t){return Ro(t,e)}))}(l,s),h=u?c*o:c,p=0,d=n;p<d.length;p+=1)for(var g=0,v=d[p];g<v.length;g+=1){var m=v[g],y=u?m:Ro(m,s),x=h,b=Oo([],[m.x,m.y,0,1],s);if("viewport"===this.paint.get("circle-pitch-scale")&&"map"===this.paint.get("circle-pitch-alignment")?x*=b[3]/a.cameraToCenterDistance:"map"===this.paint.get("circle-pitch-scale")&&"viewport"===this.paint.get("circle-pitch-alignment")&&(x*=a.cameraToCenterDistance/b[3]),fo(f,y,x))return!0}return!1},e}(Ui));function Ro(t,e){var r=Oo([],[t.x,t.y,0,1],e);return new a(r[0]/r[3],r[1]/r[3])}var Fo=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e}(co);function Bo(t,e,r,n){var i=e.width,a=e.height;if(n){if(n instanceof Uint8ClampedArray)n=new Uint8Array(n.buffer);else if(n.length!==i*a*r)throw new RangeError("mismatched image size")}else n=new Uint8Array(i*a*r);return t.width=i,t.height=a,t.data=n,t}function No(t,e,r){var n=e.width,i=e.height;if(n!==t.width||i!==t.height){var a=Bo({},{width:n,height:i},r);jo(t,a,{x:0,y:0},{x:0,y:0},{width:Math.min(t.width,n),height:Math.min(t.height,i)},r),t.width=n,t.height=i,t.data=a.data}}function jo(t,e,r,n,i,a){if(0===i.width||0===i.height)return e;if(i.width>t.width||i.height>t.height||r.x>t.width-i.width||r.y>t.height-i.height)throw new RangeError("out of range source coordinates for image copy");if(i.width>e.width||i.height>e.height||n.x>e.width-i.width||n.y>e.height-i.height)throw new RangeError("out of range destination coordinates for image copy");for(var o=t.data,s=e.data,l=0;l<i.height;l++)for(var c=((r.y+l)*t.width+r.x)*a,u=((n.y+l)*e.width+n.x)*a,f=0;f<i.width*a;f++)s[u+f]=o[c+f];return e}Kn("HeatmapBucket",Fo,{omit:["layers"]});var Uo=function(t,e){Bo(this,t,1,e)};Uo.prototype.resize=function(t){No(this,t,1)},Uo.prototype.clone=function(){return new Uo({width:this.width,height:this.height},new Uint8Array(this.data))},Uo.copy=function(t,e,r,n,i){jo(t,e,r,n,i,1)};var Vo=function(t,e){Bo(this,t,4,e)};Vo.prototype.resize=function(t){No(this,t,4)},Vo.prototype.replace=function(t,e){e?this.data.set(t):t instanceof Uint8ClampedArray?this.data=new

Uint8Array(t.buffer):this.data=t},Vo.prototype.clone=function(){return new Vo({width:this.width,height:this.height},new Uint8Array(this.data))},Vo.copy=function(t,e,r,n,i){jo(t,e,r,n,i,4)},Kn("AlphaImage",Uo),Kn("RGBAImage",Vo);var qo={paint:new Ni({"heatmap-radius":new Di(It.paint_heatmap["heatmap-radius"]),"heatmap-weight":new Di(It.paint_heatmap["heatmap-weight"]),"heatmap-intensity":new zi(It.paint_heatmap["heatmap-intensity"]),"heatmap-color":new Bi(It.paint_heatmap["heatmap-color"]),"heatmap-opacity":new zi(It.paint_heatmap["heatmap-opacity"])})};function Ho(t,e){for(var r=new Uint8Array(1024),n={},i=0,a=0;i<256;i++,a+=4){n[e]=i/255;var o=t.evaluate(n);r[a+0]=Math.floor(255*o.r/o.a),r[a+1]=Math.floor(255*o.g/o.a),r[a+2]=Math.floor(255*o.b/o.a),r[a+3]=Math.floor(255*o.a)}return new Vo({width:256,height:1},r)}var Go=function(t){function e(e){t.call(this,e,qo),this._updateColorRamp()}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.createBucket=function(t){return new Fo(t)},e.prototype._handleSpecialPaintPropertyUpdate=function(t){"heatmap-color"===t&&this._updateColorRamp()},e.prototype._updateColorRamp=function(){var t=this._transitionablePaint._values["heatmap-color"].value.expression;this.colorRamp=Ho(t,"heatmapDensity"),this.colorRampTexture=null},e.prototype.resize=function(){this.heatmapFbo&&(this.heatmapFbo.destroy(),this.heatmapFbo=null)},e.prototype.queryRadius=function(){return 0},e.prototype.queryIntersectsFeature=function(){return!1},e.prototype.hasOffscreenPass=function(){return 0!==this.paint.get("heatmap-opacity")&&"none"!==this.visibility},e}(Ui),Yo={paint:new Ni({"hillshade-illumination-direction":new zi(It.paint_hillshade["hillshade-illumination-direction"]),"hillshade-illumination-anchor":new zi(It.paint_hillshade["hillshade-illumination-anchor"]),"hillshade-exaggeration":new zi(It.paint_hillshade["hillshade-exaggeration"]),"hillshade-shadow-color":new zi(It.paint_hillshade["hillshade-shadow-color"]),"hillshade-highlight-color":new zi(It.paint_hillshade["hillshade-highlight-color"]),"hillshade-accent-color":new zi(It.paint_hillshade["hillshade-accent-color"])})},Wo=function(t){function e(e){t.call(this,e,Yo)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.hasOffscreenPass=function(){return 0!==this.paint.get("hillshade-exaggeration")&&"none"!==this.visibility},e}(Ui),Xo=Gi([{name:"a_pos",components:2,type:"Int16"}],4).members,Zo=Ko,Jo=Ko;function Ko(t,e,r){r=r||2;var n,i,a,o,s,l,c,u=e&&e.length,f=u?e[0]*r:t.length,h=Qo(t,0,f,r,!0),p=[];if(!h||h.next===h.prev)return p;if(u&&(h=function(t,e,r,n){var i,a,o,s=[];for(i=0,a=e.length;i<a;i++)(o=Qo(t,e[i]*n,i<a-1?e[i+1]*n:t.length,n,!1))===o.next&&(o.steiner=!0),s.push(cs(o));for(s.sort(as),i=0;i<s.length;i++)os(s[i],r),r=$o(r,r.next);return r}(t,e,h,r)),t.length>80*r){n=a=t[0],i=o=t[1];for(var d=r;d<f;d+=r)(s=t[d])<n&&(n=s),(l=t[d+1])<i&&(i=l),s>a&&(a=s),l>o&&(o=l);c=0!==(c=Math.max(a-n,o-i))?1/c:0}return ts(h,p,r,n,i,c),p}function Qo(t,e,r,n,i){var a,o;if(i===ws(t,e,r,n)>0)for(a=e;a<r;a+=n)o=xs(a,t[a],t[a+1],o);else for(a=r-n;a>=e;a-=n)o=xs(a,t[a],t[a+1],o);return o&&ps(o,o.next)&&(bs(o),o=o.next),o}function $o(t,e){if(!t)return t;e||(e=t);var r,n=t;do{if(r=!1,n.steiner||!ps(n,n.next)&&0!==hs(n.prev,n,n.next))n=n.next;else{if(bs(n),(n=e=n.prev)===n.next)break;r=!0}}while(r||n!==e);return e}function ts(t,e,r,n,i,a,o){if(t){!o&&a&&function(t,e,r,n){var i=t;do{null===i.z&&(i.z=ls(i.x,i.y,e,r,n)),i.prevZ=i.prev,i.nextZ=i.next,i=i.next}while(i!==t);i.prevZ.nextZ=null,i.prevZ=null,function(t){var e,r,n,i,a,o,s,l,c=1;do{for(r=t,t=null,a=null,o=0;r;){for(o++,n=r,s=0,e=0;e<c&&(s++,n=n.nextZ);e++);for(l=c;s>0||l>0&&n;)0!==s&&(0===l||!n||r.z<=n.z)?(i=r,r=r.nextZ,s--):(i=n,n=n.nextZ,l--),a?a.nextZ=i:t=i,i.prevZ=a,a=i;r=n}a.nextZ=null,c*=2}while(o>1)}(i)}(t,n,i,a);for(var s,l,c=t;t.prev!==t.next;)if(s=t.prev,l=t.next,a?rs(t,n,i,a):es(t))e.push(s.i/r),e.push(t.i/r),e.push(l.i/r),bs(t),t=l.next,c=l.next;else if((t=l)===c){o?1===o?ts(t=ns($o(t),e,r),e,r,n,i,a,2):2===o&&is(t,e,r,n,i,a):ts($o(t),e,r,n,i,a,1);break}}}function

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es(t){var e=t.prev,r=t,n=t.next;if(hs(e,r,n)>=0)return!1;for(var
i=t.next.next;i!==t.prev;){if(us(e.x,e.y,r.x,r.y,n.x,n.y,i.x,i.y)&&hs(i.prev,i,i.next)>=0)return!1;i=i.next}return!0}func
tion rs(t,e,r,n){var i=t.prev,a=t,o=t.next;if(hs(i,a,o)>=0)return!1;for(var
s=i.x<a.x?i.x<o.x?i.x:o.x:a.x<o.x?a.x:o.x,l=i.y<a.y?i.y<o.y?i.y:o.y:a.y<o.y?a.y:o.y,c=i.x>a.x?i.x>o.x?i.x:o.x:a.x>o.x
?a.x:o.x,u=i.y>a.y?i.y>o.y?i.y:o.y:a.y>o.y?a.y:o.y,f=ls(s,l,e,r,n),h=ls(c,u,e,r,n),p=t.prevZ,d=t.nextZ;p&&p.z>=f&&d
&&d.z<=h;){if(p!==t.prev&&p!==t.next&&us(i.x,i.y,a.x,a.y,o.x,o.y,p.x,p.y)&&hs(p.prev,p,p.next)>=0)return!1;if(p
=p.prevZ,d!==t.prev&&d!==t.next&&us(i.x,i.y,a.x,a.y,o.x,o.y,d.x,d.y)&&hs(d.prev,d,d.next)>=0)return!1;d=d.next
Z}for(;p&&p.z>=f;){if(p!==t.prev&&p!==t.next&&us(i.x,i.y,a.x,a.y,o.x,o.y,p.x,p.y)&&hs(p.prev,p,p.next)>=0)retu
rn!1;p=p.prevZ}for(;d&&d.z<=h;){if(d!==t.prev&&d!==t.next&&us(i.x,i.y,a.x,a.y,o.x,o.y,d.x,d.y)&&hs(d.prev,d,d.
next)>=0)return!1;d=d.nextZ}return!0}function ns(t,e,r){var n=t;do{var
i=n.prev,a=n.next.next;!ps(i,a)&&ds(i,n,n.next,a)&&ms(i,a)&&ms(a,i)&&(e.push(i.i/r),e.push(n.i/r),e.push(a.i/r),bs(
n),bs(n.next),n=t=a),n=n.next}while(n!==t);return $o(n)}function is(t,e,r,n,i,a){var o=t;do{for(var
s=o.next.next;s!==o.prev;){if(o.i!==s.i&&fs(o,s)){var l=ys(o,s);return
o=$o(o,o.next),l=$o(l,l.next),ts(o,e,r,n,i,a),void ts(l,e,r,n,i,a)}s=s.next}o=o.next}while(o!==t)}function as(t,e){return
t.x-e.x}function os(t,e){if(e=function(t,e){var r,n=e,i=t.x,a=t.y,o=-
1/0;do{if(a<=n.y&&a>=n.next.y&&n.next.y!==n.y){var s=n.x+(a-n.y)*(n.next.x-n.x)/(n.next.y-
n.y);if(s<=i&&s>o){if(o=s,s===i){if(a===n.y)return n;if(a===n.next.y)return
n.next}r=n.x<n.next.x?n:n.next}}n=n.next}while(n!==e);if(!r)return null;if(i===o)return r;var
l,c=r,u=r.x,f=r.y,h=1/0;n=r;do{i>=n.x&&n.x>=u&&i!==n.x&&us(a<f?i:o,a,u,f,a<f?o:i,a,n.x,n.y)&&(l=Math.abs(a-
n.y)/(i-n.x),ms(n,t)&&(l<h||l===h&&(n.x>r.x||n.x===r.x&&ss(r,n)))&&(r=n,h=l)),n=n.next}while(n!==c);return
r}(t,e)){var r=ys(e,t);$o(e,e.next),$o(r,r.next)}}function ss(t,e){return
hs(t.prev,t,e.prev)<0&&hs(e.next,t,t.next)<0}function
ls(t,e,r,n,i){return(t=1431655765&((t=858993459&((t=252645135&((t=16711935&((t=32767*(t-
r)*i)|t<<8))|t<<4))|t<<2))|t<<1))|(e=1431655765&((e=858993459&((e=252645135&((e=16711935&((e=32767*(e-
n)*i)|e<<8))|e<<4))|e<<2))|e<<1))<<1}function cs(t){var
e=t,r=t;do{(e.x<r.x||e.x===r.x&&e.y<r.y)&&(r=e),e=e.next}while(e!==t);return r}function
us(t,e,r,n,i,a,o,s){return(i-o)*(e-s)-(t-o)*(a-s)>=0&&(t-o)*(n-s)-(r-o)*(e-s)>=0&&(r-o)*(a-s)-(i-o)*(n-
s)>=0}function fs(t,e){return t.next.i!==e.i&&t.prev.i!==e.i&&!function(t,e){var
r=t;do{if(r.i!==t.i&&r.next.i!==t.i&&r.i!==e.i&&r.next.i!==e.i&&ds(r,r.next,t,e))return!0;r=r.next}while(r!==t);ret
urn!1}(t,e)&&(ms(t,e)&&ms(e,t)&&function(t,e){var
r=t,n=!1,i=(t.x+e.x)/2,a=(t.y+e.y)/2;do{r.y>a!=r.next.y>a&&r.next.y!==r.y&&i<(r.next.x-r.x)*(a-r.y)/(r.next.y-
r.y)+r.x&&(n=!n),r=r.next}while(r!==t);return
n}(t,e)&&(hs(t.prev,t,e.prev)||hs(t,e.prev,e))||ps(t,e)&&hs(t.prev,t,t.next)>0&&hs(e.prev,e,e.next)>0)}function
hs(t,e,r){return(e.y-t.y)*(r.x-e.x)-(e.x-t.x)*(r.y-e.y)}function ps(t,e){return t.x===e.x&&t.y===e.y}function
ds(t,e,r,n){var i=vs(hs(t,e,r)),a=vs(hs(t,e,n)),o=vs(hs(r,n,t)),s=vs(hs(r,n,e));return
i!==a&&o!==s||!(0!==i||!gs(t,r,e))||!(0!==a||!gs(t,n,e))||!(0!==o||!gs(r,t,n))||!(0!==s||!gs(r,e,n))}function
gs(t,e,r){return
e.x<=Math.max(t.x,r.x)&&e.x>=Math.min(t.x,r.x)&&e.y<=Math.max(t.y,r.y)&&e.y>=Math.min(t.y,r.y)}function
vs(t){return t>0?1:t<0?-1:0}function ms(t,e){return
hs(t.prev,t,t.next)<0?hs(t,e,t.next)>=0&&hs(t,t.prev,e)>=0:hs(t,e,t.prev)<0||hs(t,t.next,e)<0}function ys(t,e){var
r=new _s(t.i,t.x,t.y),n=new _s(e.i,e.x,e.y),i=t.next,a=e.prev;return
t.next=e,e.prev=t,r.next=i,i.prev=r,n.next=r,r.prev=n,a.next=n,n.prev=a,n}function xs(t,e,r,n){var i=new
_s(t,e,r);return n?(i.next=n.next,i.prev=n,n.next.prev=i,n.next=i):(i.prev=i,i.next=i),i}function
bs(t){t.next.prev=t.prev,t.prev.next=t.next,t.prevZ&&(t.prevZ.nextZ=t.nextZ),t.nextZ&&(t.nextZ.prevZ=t.prevZ)}fu
nction
_s(t,e,r){this.i=t,this.x=e,this.y=r,this.prev=null,this.next=null,this.z=null,this.prevZ=null,this.nextZ=null,this.steine
r=!1}function ws(t,e,r,n){for(var i=0,a=e,o=r-n;a<r;a+=n)i+=(t[o]-t[a])*(t[a+1]+t[o+1]),o=a;return i}function
Ts(t,e,r,n,i){ks(t,e,r||0,n||t.length-1,i||Ms)}function ks(t,e,r,n,i){for(;n>r;){if(n-r>600){var a=n-r+1,o=e-
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r+1,s=Math.log(a),l=.5*Math.exp(2*s/3),c=.5*Math.sqrt(s*l*(a-l)/a)*(o-a/2<0?-1:1);ks(t,e,Math.max(r,Math.floor(e-o*l/a+c)),Math.min(n,Math.floor(e+(a-o)*l/a+c)),i)}var u=t[e],f=r,h=n;for(As(t,r,e),i(t[n],u)>0&&As(t,r,n);f<h;){for(As(t,f,h),f++,h--;i(t[f],u)<0;)f++;for(;i(t[h],u)>0;)h--}0===i(t[r],u)?As(t,r,h):As(t,++h,n),h<=e&&(r=h+1),e<=h&&(n=h-1)}}function As(t,e,r){var n=t[e];t[e]=t[r],t[r]=n}function Ms(t,e){return t<e?-1:t>e?1:0}function Ss(t,e){var r=t.length;if(r<=1)return[t];for(var n,i,a=[],o=0;o<r;o++){var s=k(t[o]);0!==s&&(t[o].area=Math.abs(s),void 0===i&&(i=s<0),i===s<0?(n&&a.push(n),n=[t[o]]):n.push(t[o]))}if(n&&a.push(n),e>1)for(var l=0;l<a.length;l++)a[l].length<=e||(Ts(a[l],e,1,a[l].length-1,Es),a[l]=a[l].slice(0,e));return a}function Es(t,e){return e.area-t.area}function Ls(t,e,r){for(var n=r.patternDependencies,i=!1,a=0,o=e;a<o.length;a+=1){var s=o[a].paint.get(t+"-pattern");s.isConstant()||(i=!0);var l=s.constantOr(null);l&&(i=!0,n[l.to]=!0,n[l.from]=!0)}return i}function Cs(t,e,r,n,i){for(var a=i.patternDependencies,o=0,s=e;o<s.length;o+=1){var l=s[o],c=l.paint.get(t+"-pattern").value;if("constant"!==c.kind){var u=c.evaluate({zoom:n-1},r,{},i.availableImages),f=c.evaluate({zoom:n},r,{},i.availableImages),h=c.evaluate({zoom:n+1},r,{},i.availableImages);u=u&&u.name?u.name:u,f=f&&f.name?f.name:f,h=h&&h.name?h.name:h,a[u]=!0,a[f]=!0,a[h]=!0,r.patterns[l.id]={min:u,mid:f,max:h}}}return r}Ko.deviation=function(t,e,r,n){var i=e&&e.length,a=i?e[0]*r:t.length,o=Math.abs(ws(t,0,a,r));if(i)for(var s=0,l=e.length;s<l;s++){var c=e[s]*r,u=s<l-1?e[s+1]*r:t.length;o-=Math.abs(ws(t,c,u,r))}var f=0;for(s=0;s<n.length;s+=3){var h=n[s]*r,p=n[s+1]*r,d=n[s+2]*r;f+=Math.abs((t[h]-t[d])*(t[p+1]-t[h+1])-(t[h]-t[p])*(t[d+1]-t[h+1]))}return 0===o&&0===f?0:Math.abs((f-o)/o)},Ko.flatten=function(t){for(var e=t[0][0].length,r={vertices:[],holes:[],dimensions:e},n=0,i=0;i<t.length;i++){for(var a=0;a<t[i].length;a++)for(var o=0;o<e;o++)r.vertices.push(t[i][a][o]);i>0&&(n+=t[i-1].length,r.holes.push(n))}return r},Zo.default=Jo;var Ps=function(t){this.zoom=t.zoom,this.overscaling=t.overscaling,this.layers=t.layers,this.layerIds=this.layers.map((function(t){return t.id})),this.index=t.index,this.hasPattern=!1,this.patternFeatures=[],this.layoutVertexArray=new Wi,this.indexArray=new aa,this.indexArray2=new fa,this.programConfigurations=new eo(Xo,t.layers,t.zoom),this.segments=new Ma,this.segments2=new Ma,this.stateDependentLayerIds=this.layers.filter((function(t){return t.isStateDependent()})).map((function(t){return t.id}))};Ps.prototype.populate=function(t,e,r){this.hasPattern=Ls("fill",this.layers,e);for(var n=this.layers[0].layout.get("fill-sort-key"),i=[],a=0,o=t;a<o.length;a+=1){var s=o[a],l=s.feature,c=s.id,u=s.index,f=s.sourceLayerIndex,h=this.layers[0]._featureFilter.needGeometry,p={type:l.type,id:c,properties:l.properties,geometry:h?so(l):[]};if(this.layers[0]._featureFilter.filter(new Ai(this.zoom),p,r)){h||(p.geometry=so(l));var d=n?n.evaluate(p,{},r,e.availableImages):void 0,g={id:c,properties:l.properties,type:l.type,sourceLayerIndex:f,index:u,geometry:p.geometry,patterns:{},sortKey:d};i.push(g)}}n&&i.sort((function(t,e){return t.sortKey-e.sortKey}));for(var v=0,m=i;v<m.length;v+=1){var y=m[v],x=y,b=x.geometry,_=x.index,w=x.sourceLayerIndex;if(this.hasPattern){var T=Cs("fill",this.layers,y,this.zoom,e);this.patternFeatures.push(T)}else this.addFeature(y,b,_,r,{});var k=t[_].feature;e.featureIndex.insert(k,b,_,w,this.index)}},Ps.prototype.update=function(t,e,r){this.stateDependentLayers.length&&this.programConfigurations.updatePaintArrays(t,e,this.stateDependentLayers,r)},Ps.prototype.addFeatures=function(t,e,r){for(var n=0,i=this.patternFeatures;n<i.length;n+=1){var a=i[n];this.addFeature(a,a.geometry,a.index,e,r)}},Ps.prototype.isEmpty=function(){return 0===this.layoutVertexArray.length},Ps.prototype.uploadPending=function(){return!this.uploaded||this.programConfigurations.needsUpload},Ps.prototype.upload=function(t){this.uploaded||(this.layoutVertexBuffer=t.createVertexBuffer(this.layoutVertexArray,Xo),this.indexBuffer=t.createIndexBuffer(this.indexArray),this.indexBuffer2=t.createIndexBuffer(this.indexArray2)),this.programConfigurations.upload(t),this.uploaded=!0},Ps.prototype.destroy=function(){this.layoutVertexBuffer&&(this.layoutVertexBuffer.destroy(),this.indexBuffer.destroy(),this.indexBuffer2.destroy(),this.programConfigurations.destroy(),this.segments.destroy(),this.segments2.destroy())},Ps.prototype.addFeature=function(t,e,r,n,i){for(var a=0,o=Ss(e,500);a<o.length;a+=1){for(var

s=o[a],l=0,c=0,u=s;c<u.length;c+=1)l+=u[c].length;for(var f=this.segments.prepareSegment(l,this.layoutVertexArray,this.indexArray),h=f.vertexLength,p=[],d=[],g=0,v=s;g<v.length;g+=1){var m=v[g];if(0!==m.length){m!==s[0]&&d.push(p.length/2);var y=this.segments2.prepareSegment(m.length,this.layoutVertexArray,this.indexArray2),x=y.vertexLength;this.layoutVertexArray.emplaceBack(m[0].x,m[0].y),this.indexArray2.emplaceBack(x+m.length-1,x),p.push(m[0].x),p.push(m[0].y);for(var b=1;b<m.length;b++)this.layoutVertexArray.emplaceBack(m[b].x,m[b].y),this.indexArray2.emplaceBack(x+b-1,x+b),p.push(m[b].x),p.push(m[b].y);y.vertexLength+=m.length,y.primitiveLength+=m.length}}for(var _=Zo(p,d),w=0;w<_.length;w+=3)this.indexArray.emplaceBack(h+_[w],h+_[w+1],h+_[w+2]);f.vertexLength+=l,f.primitiveLength+=_.length/3}this.programConfigurations.populatePaintArrays(this.layoutVertexArray.length,t,r,i,n)},Kn("FillBucket",Ps,{omit:["layers","patternFeatures"]});var Is=new Ni({"fill-sort-key":new Di(It.layout_fill["fill-sort-key"])}),Os={paint:new Ni({"fill-antialias":new zi(It.paint_fill["fill-antialias"]),"fill-opacity":new Di(It.paint_fill["fill-opacity"]),"fill-color":new Di(It.paint_fill["fill-color"]),"fill-outline-color":new Di(It.paint_fill["fill-outline-color"]),"fill-translate":new zi(It.paint_fill["fill-translate"]),"fill-translate-anchor":new zi(It.paint_fill["fill-translate-anchor"]),"fill-pattern":new Ri(It.paint_fill["fill-pattern"])}),layout:Is},zs=function(t){function e(e){t.call(this,e,Os)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.recalculate=function(e,r){t.prototype.recalculate.call(this,e,r);var n=this.paint._values["fill-outline-color"];"constant"===n.value.kind&&void 0===n.value.value&&(this.paint._values["fill-outline-color"]=this.paint._values["fill-color"])},e.prototype.createBucket=function(t){return new Ps(t)},e.prototype.queryRadius=function(){return To(this.paint.get("fill-translate"))},e.prototype.queryIntersectsFeature=function(t,e,r,n,i,a,o){return ho(ko(t,this.paint.get("fill-translate"),this.paint.get("fill-translate-anchor"),a.angle,o),n)},e.prototype.isTileClipped=function(){return!0},e}(Ui),Ds=Gi([{name:"a_pos",components:2,type:"Int16"},{name:"a_normal_ed",components:4,type:"Int16"}],4).members,Rs=Fs;function Fs(t,e,r,n,i){this.properties={},this.extent=r,this.type=0,this._pbf=t,this._geometry=-1,this._keys=n,this._values=i,t.readFields(Bs,this,e)}function Bs(t,e,r){1==t?e.id=r.readVarint():2==t?function(t,e){for(var r=t.readVarint()+t.pos;t.pos<r;){var n=e._keys[t.readVarint()],i=e._values[t.readVarint()];e.properties[n]=i}}(r,e):3==t?e.type=r.readVarint():4==t&&(e._geometry=r.pos)}function Ns(t){for(var e,r,n=0,i=0,a=t.length,o=a-1;i<a;o=i++)e=t[i],n+=((r=t[o]).x-e.x)*(e.y+r.y);return n}Fs.types=["Unknown","Point","LineString","Polygon"],Fs.prototype.loadGeometry=function(){var t=this._pbf;t.pos=this._geometry;for(var e,r=t.readVarint()+t.pos,n=1,i=0,o=0,s=0,l=[];t.pos<r;){if(i<=0){var c=t.readVarint();n=7&c,i=c>>3}if(i--,1===n||2===n)o+=t.readSVarint(),s+=t.readSVarint(),1===n&&(e&&l.push(e),e=[]),e.push(new a(o,s));else{if(7!==n)throw new Error("unknown command "+n);e&&e.push(e[0].clone())}return e&&l.push(e),l},Fs.prototype.bbox=function(){var t=this._pbf;t.pos=this._geometry;for(var e=t.readVarint()+t.pos,r=1,n=0,i=0,a=0,o=1/0,s=-1/0,l=1/0,c=-1/0;t.pos<e;){if(n<=0){var u=t.readVarint();r=7&u,n=u>>3}if(n--,1===r||2===r)(i+=t.readSVarint())<o&&(o=i),i>s&&(s=i),(a+=t.readSVarint())<l&&(l=a),a>c&&(c=a);else if(7!==r)throw new Error("unknown command "+r)}return[o,l,s,c]},Fs.prototype.toGeoJSON=function(t,e,r){var n,i,a=this.extent*Math.pow(2,r),o=this.extent*t,s=this.extent*e,l=this.loadGeometry(),c=Fs.types[this.type];function u(t){for(var e=0;e<t.length;e++){var r=t[e],n=180-360*(r.y+s)/a;t[e]=[360*(r.x+o)/a-180,360/Math.PI*Math.atan(Math.exp(n*Math.PI/180))-90]}}switch(this.type){case 1:var f=[];for(n=0;n<l.length;n++)f[n]=l[n][0];u(l=f);break;case 2:for(n=0;n<l.length;n++)u(l[n]);break;case 3:for(l=function(t){var e=t.length;if(e<=1)return[t];for(var r,n,i=[],a=0;a<e;a++){var o=Ns(t[a]);0!==o&&(void 0===n&&(n=o<0),n===o<0?(r&&i.push(r),r=[t[a]]):r.push(t[a]))}return r&&i.push(r),i}(l),n=0;n<l.length;n++)for(i=0;i<l[n].length;i++)u(l[n][i])}1===l.length?l=l[0]:c="Multi"+c;var

h={type:"Feature",geometry:{type:c,coordinates:l},properties:this.properties};return"id"in this&&(h.id=this.id),h};var js=Us;function Us(t,e){this.version=1,this.name=null,this.extent=4096,this.length=0,this._pbf=t,this._keys=[],this._values=[],this._features=[],t.readFields(Vs,this,e),this.length=this._features.length}function Vs(t,e,r){15===t?e.version=r.readVarint():1===t?e.name=r.readString():5===t?e.extent=r.readVarint():2===t?e._features.push(r.pos):3===t?e._keys.push(r.readString()):4===t&&e._values.push(function(t){for(var e=null,r=t.readVarint()+t.pos;t.pos<r;){var n=t.readVarint()>>3;e=1===n?t.readString():2===n?t.readFloat():3===n?t.readDouble():4===n?t.readVarint64():5===n?t.readVarint():6===n?t.readSVarint():7===n?t.readBoolean():null}return e}(r))}function qs(t,e,r){if(3===t){var n=new js(r,r.readVarint()+r.pos);n.length&&(e[n.name]=n)}}Us.prototype.feature=function(t){if(t<0||t>=this._features.length)throw new Error("feature index out of bounds");this._pbf.pos=this._features[t];var e=this._pbf.readVarint()+this._pbf.pos;return new Rs(this._pbf,e,this.extent,this._keys,this._values)};var Hs={VectorTile:function(t,e){this.layers=t.readFields(qs,{},e)},VectorTileFeature:Rs,VectorTileLayer:js},Gs=Hs.VectorTileFeature.types,Ys=Math.pow(2,13);function Ws(t,e,r,n,i,a,o,s){t.emplaceBack(e,r,2*Math.floor(n*Ys)+o,i*Ys*2,a*Ys*2,Math.round(s))}var Xs=function(t){this.zoom=t.zoom,this.overscaling=t.overscaling,this.layers=t.layers,this.layerIds=this.layers.map((function(t){return t.id})),this.index=t.index,this.hasPattern=!1,this.layoutVertexArray=new Zi,this.indexArray=new aa,this.programConfigurations=new eo(Ds,t.layers,t.zoom),this.segments=new Ma,this.stateDependentLayerIds=this.layers.filter((function(t){return t.isStateDependent()})).map((function(t){return t.id}))};function Zs(t,e){return t.x===e.x&&(t.x<0||t.x>ao)||t.y===e.y&&(t.y<0||t.y>ao)}Xs.prototype.populate=function(t,e,r){this.features=[],this.hasPattern=Ls("fill-extrusion",this.layers,e);for(var n=0,i=t;n<i.length;n+=1){var a=i[n],o=a.feature,s=a.id,l=a.index,c=a.sourceLayerIndex,u=this.layers[0]._featureFilter.needGeometry,f={type:o.type,id:s,properties:o.properties,geometry:u?so(o):[]};if(this.layers[0]._featureFilter.filter(new Ai(this.zoom),f,r)){var h={id:s,sourceLayerIndex:c,index:l,geometry:u?f.geometry:so(o),properties:o.properties,type:o.type,patterns:{}};void 0!==o.id&&(h.id=o.id),this.hasPattern?this.features.push(Cs("fill-extrusion",this.layers,h,this.zoom,e)):this.addFeature(h,h.geometry,l,r,{}),e.featureIndex.insert(o,h.geometry,l,c,this.index,!0)}}},Xs.prototype.addFeatures=function(t,e,r){for(var n=0,i=this.features;n<i.length;n+=1){var a=i[n],o=a.geometry;this.addFeature(a,o,a.index,e,r)}},Xs.prototype.update=function(t,e,r){this.stateDependentLayers.length&&this.programConfigurations.updatePaintArrays(t,e,this.stateDependentLayers,r)},Xs.prototype.isEmpty=function(){return 0===this.layoutVertexArray.length},Xs.prototype.uploadPending=function(){return!this.uploaded||this.programConfigurations.needsUpload},Xs.prototype.upload=function(t){this.uploaded||(this.layoutVertexBuffer=t.createVertexBuffer(this.layoutVertexArray,Ds),this.indexBuffer=t.createIndexBuffer(this.indexArray)),this.programConfigurations.upload(t),this.uploaded=!0},Xs.prototype.destroy=function(){this.layoutVertexBuffer&&(this.layoutVertexBuffer.destroy(),this.indexBuffer.destroy(),this.programConfigurations.destroy(),this.segments.destroy())},Xs.prototype.addFeature=function(t,e,r,n,i){for(var a=0,o=Ss(e,500);a<o.length;a+=1){for(var s=o[a],l=0,c=0,u=s;c<u.length;c+=1)l+=u[c].length;for(var f=this.segments.prepareSegment(4,this.layoutVertexArray,this.indexArray),h=0,p=s;h<p.length;h+=1){var d=p[h];if(0!==d.length&&!((I=d).every((function(t){return t.x<0}))||I.every((function(t){return t.x>ao}))||I.every((function(t){return t.y<0}))||I.every((function(t){return t.y>ao}))))for(var g=0,v=0;v<d.length;v++){var m=d[v];if(v>=1){var y=d[v-1];if(!Zs(m,y)){f.vertexLength+4>Ma.MAX_VERTEX_ARRAY_LENGTH&&(f=this.segments.prepareSegment(4,this.layoutVertexArray,this.indexArray));var x=m.sub(y)._perp()._unit(),b=y.dist(m);g+b>32768&&(g=0),Ws(this.layoutVertexArray,m.x,m.y,x.x,x.y,0,0,g),Ws(this.layoutVertexArray,m.x,m.y,x.x,x.y,0,1,g),g+=b,Ws(this.layoutVertexArray,y.x,y.y,x.x,x.y,0,0,g),Ws(this.layoutVertexArray,y.x,y.y,x.x,x.y,0,1,g);var

=f.vertexLength;this.indexArray.emplaceBack(,_+2,_+1),this.indexArray.emplaceBack(_+1,_+2,_+3),f.vertexLength+=4,f.primitiveLength+=2}}}if(f.vertexLength+l>Ma.MAX_VERTEX_ARRAY_LENGTH&&(f=this.segments.prepareSegment(l,this.layoutVertexArray,this.indexArray)),"Polygon"===Gs[t.type]){for(var w=[],T=[],k=f.vertexLength,A=0,M=s;A<M.length;A+=1){var S=M[A];if(0!==S.length){S!==s[0]&&T.push(w.length/2);for(var E=0;E<S.length;E++){var L=S[E];Ws(this.layoutVertexArray,L.x,L.y,0,0,1,1,0),w.push(L.x),w.push(L.y)}}}for(var C=Zo(w,T),P=0;P<C.length;P+=3)this.indexArray.emplaceBack(k+C[P],k+C[P+2],k+C[P+1]);f.primitiveLength+=C.length/3,f.vertexLength+=l}}var I;this.programConfigurations.populatePaintArrays(this.layoutVertexArray.length,t,r,i,n)},Kn("FillExtrusionBucket",Xs,{omit:["layers","features"]});var Js={paint:new Ni({"fill-extrusion-opacity":new zi(It["paint_fill-extrusion"]["fill-extrusion-opacity"]),"fill-extrusion-color":new Di(It["paint_fill-extrusion"]["fill-extrusion-color"]),"fill-extrusion-translate":new zi(It["paint_fill-extrusion"]["fill-extrusion-translate"]),"fill-extrusion-translate-anchor":new zi(It["paint_fill-extrusion"]["fill-extrusion-translate-anchor"]),"fill-extrusion-pattern":new Ri(It["paint_fill-extrusion"]["fill-extrusion-pattern"]),"fill-extrusion-height":new Di(It["paint_fill-extrusion"]["fill-extrusion-height"]),"fill-extrusion-base":new Di(It["paint_fill-extrusion"]["fill-extrusion-base"]),"fill-extrusion-vertical-gradient":new zi(It["paint_fill-extrusion"]["fill-extrusion-vertical-gradient"])})},Ks=function(t){function e(e){t.call(this,e,Js)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.createBucket=function(t){return new Xs(t)},e.prototype.queryRadius=function(){return To(this.paint.get("fill-extrusion-translate"))},e.prototype.is3D=function(){return!0},e.prototype.queryIntersectsFeature=function(t,e,r,n,i,o,s,l){var c=ko(t,this.paint.get("fill-extrusion-translate"),this.paint.get("fill-extrusion-translate-anchor"),o.angle,s),u=this.paint.get("fill-extrusion-height").evaluate(e,r),f=this.paint.get("fill-extrusion-base").evaluate(e,r),h=function(t,e,r,n){for(var i=[],o=0,s=t;o<s.length;o+=1){var l=s[o],c=[l.x,l.y,n,1];Oo(c,c,e),i.push(new a(c[0]/c[3],c[1]/c[3]))}return i}(c,l,0,0),p=function(t,e,r,n){for(var i=[],o=[],s=n[8]*e,l=n[9]*e,c=n[10]*e,u=n[11]*e,f=n[8]*r,h=n[9]*r,p=n[10]*r,d=n[11]*r,g=0,v=t;g<v.length;g+=1){for(var m=[],y=[],x=0,b=v[g];x<b.length;x+=1){var _=b[x],w=_.x,T=_.y,k=n[0]*w+n[4]*T+n[12],A=n[1]*w+n[5]*T+n[13],M=n[2]*w+n[6]*T+n[14],S=n[3]*w+n[7]*T+n[15],E=M+c,L=S+u,C=k+f,P=A+h,I=M+p,O=S+d,z=new a((k+s)/L,(A+l)/L);z.z=E/L,m.push(z);var D=new a(C/O,P/O);D.z=I/O,y.push(D)}i.push(m),o.push(y)}return[i,o]}(n,f,u,l);return function(t,e,r){var n=1/0;ho(r,e)&&(n=$s(r,e[0]));for(var i=0;i<e.length;i++)for(var a=e[i],o=t[i],s=0;s<a.length-1;s++){var l=a[s],c=a[s+1],u=o[s],f=[l,c,o[s+1],u,l];uo(r,f)&&(n=Math.min(n,$s(r,f)))}return n!==1/0&&n}(p[0],p[1],h)},e}(Ui);function Qs(t,e){return t.x*e.x+t.y*e.y}function $s(t,e){if(1===t.length){for(var r,n=0,i=e[n++];!r||i.equals(r);)if(!(r=e[n++]))return 1/0;for(;n<e.length;n++){var a=e[n],o=t[0],s=r.sub(i),l=a.sub(i),c=o.sub(i),u=Qs(s,s),f=Qs(s,l),h=Qs(l,l),p=Qs(c,s),d=Qs(c,l),g=u*h-f*f,v=(h*p-f*d)/g,m=(u*d-f*p)/g,y=1-v-m,x=i.z*y+r.z*v+a.z*m;if(isFinite(x))return x}return 1/0}for(var b=1/0,_=0,w=e;_<w.length;_+=1){var T=w[_];b=Math.min(b,T.z)}return b}var tl=Gi([{name:"a_pos_normal",components:2,type:"Int16"},{name:"a_data",components:4,type:"Uint8"}],4).members,el=Hs.VectorTileFeature.types,rl=Math.cos(Math.PI/180*37.5),nl=Math.pow(2,14)/.5,il=function(t){this.zoom=t.zoom,this.overscaling=t.overscaling,this.layers=t.layers,this.layerIds=this.layers.map((function(t){return t.id})),this.index=t.index,this.hasPattern=!1,this.patternFeatures=[],this.layoutVertexArray=new Ji,this.indexArray=new aa,this.programConfigurations=new eo(tl,t.layers,t.zoom),this.segments=new Ma,this.stateDependentLayerIds=this.layers.filter((function(t){return t.isStateDependent()})).map((function(t){return t.id}))};il.prototype.populate=function(t,e,r){this.hasPattern=Ls("line",this.layers,e);for(var n=this.layers[0].layout.get("line-sort-key"),i=[],a=0,o=t;a<o.length;a+=1){var s=o[a],l=s.feature,c=s.id,u=s.index,f=s.sourceLayerIndex,h=this.layers[0]._featureFilter.needGeometry,p={type:l.type,id:c,properties:l.properties,geometry:h?so(l):[]};if(this.layers[0]._featureFilter.filter(new Ai(this.zoom),p,r)){h||(p.geometry=so(l));var d=n?n.evaluate(p,{},r):void

0,g={id:c,properties:l.properties,type:l.type,sourceLayerIndex:f,index:u,geometry:p.geometry,patterns:{},sortKey:d};i.push(g)}n&&i.sort((function(t,e){return t.sortKey-e.sortKey}));for(var v=0,m=i;v<m.length;v+=1){var y=m[v],x=y,b=x.geometry,_=x.index,w=x.sourceLayerIndex;if(this.hasPattern){var T=Cs("line",this.layers,y,this.zoom,e);this.patternFeatures.push(T)}else this.addFeature(y,b,_,r,{});var k=t[_].feature;e.featureIndex.insert(k,b,_,w,this.index)}},il.prototype.update=function(t,e,r){this.stateDependentLayers.length&&this.programConfigurations.updatePaintArrays(t,e,this.stateDependentLayers,r)},il.prototype.addFeatures=function(t,e,r){for(var n=0,i=this.patternFeatures;n<i.length;n+=1){var a=i[n];this.addFeature(a,a.geometry,a.index,e,r)}},il.prototype.isEmpty=function(){return 0===this.layoutVertexArray.length},il.prototype.uploadPending=function(){return!this.uploaded||this.programConfigurations.needsUpload},il.prototype.upload=function(t){this.uploaded||(this.layoutVertexBuffer=t.createVertexBuffer(this.layoutVertexArray,tl),this.indexBuffer=t.createIndexBuffer(this.indexArray)),this.programConfigurations.upload(t),this.uploaded=!0},il.prototype.destroy=function(){this.layoutVertexBuffer&&(this.layoutVertexBuffer.destroy(),this.indexBuffer.destroy(),this.programConfigurations.destroy(),this.segments.destroy())},il.prototype.addFeature=function(t,e,r,n,i){for(var a=this.layers[0].layout,o=a.get("line-join").evaluate(t,{}),s=a.get("line-cap"),l=a.get("line-miter-limit"),c=a.get("line-round-limit"),u=0,f=e;u<f.length;u+=1){var h=f[u];this.addLine(h,t,o,s,l,c)}this.programConfigurations.populatePaintArrays(this.layoutVertexArray.length,t,r,i,n)},il.prototype.addLine=function(t,e,r,n,i,a){if(this.distance=0,this.scaledDistance=0,this.totalDistance=0,e.properties&&e.properties.hasOwnProperty("mapbox_clip_start")&&e.properties.hasOwnProperty("mapbox_clip_end")){this.clipStart=+e.properties.mapbox_clip_start,this.clipEnd=+e.properties.mapbox_clip_end;for(var o=0;o<t.length-1;o++)this.totalDistance+=t[o].dist(t[o+1]);this.updateScaledDistance()}for(var s="Polygon"===el[e.type],l=t.length;l>=2&&t[l-1].equals(t[l-2]);)l--;for(var c=0;c<l-1&&t[c].equals(t[c+1]);)c++;if(!(l<(s?3:2))){"bevel"===r&&(i=1.05);var u,f=this.overscaling<=16?122880/(512*this.overscaling):0,h=this.segments.prepareSegment(10*l,this.layoutVertexArray,this.indexArray),p=void 0,d=void 0,g=void 0,v=void 0;this.e1=this.e2=-1,s&&(u=t[l-2],v=t[c].sub(u)._unit()._perp());for(var m=c;m<l;m++)if(!(d=m===l-1?s?t[c+1]:void 0:t[m+1])||!t[m].equals(d)){v&&(g=v),u&&(p=u),u=t[m],v=d?d.sub(u)._unit()._perp():g;var y=(g=g||v).add(v);0===y.x&&0===y.y||y._unit();var x=g.x*v.x+g.y*v.y,b=y.x*v.x+y.y*v.y,_=0!==b?1/b:1/0,w=2*Math.sqrt(2-2*b),T=b<rl&&p&&d,k=g.x*v.y-g.y*v.x>0;if(T&&m>c){var A=u.dist(p);if(A>2*f){var M=u.sub(u.sub(p)._mult(f/A)._round());this.updateDistance(p,M),this.addCurrentVertex(M,g,0,0,h),p=M}}var S=p&&d,E=S?r:s?"butt":n;if(S&&"round"===E&&(_<a?E="miter":_<=2&&(E="fakeround")),"miter"===E&&_>i&&(E="bevel"),"bevel"===E&&(_>2&&(E="flipbevel"),_<i&&(E="miter")),p&&this.updateDistance(p,u),"miter"===E)y._mult(_),this.addCurrentVertex(u,y,0,0,h);else if("flipbevel"===E){if(_>100)y=v.mult(-1);else{var L=_*g.add(v).mag()/g.sub(v).mag();y._perp()._mult(L*(k?-1:1))}this.addCurrentVertex(u,y,0,0,h),this.addCurrentVertex(u,y.mult(-1),0,0,h)}else if("bevel"===E||"fakeround"===E){var C=-Math.sqrt(_*_-1),P=k?C:0,I=k?0:C;if(p&&this.addCurrentVertex(u,g,P,I,h),"fakeround"===E)for(var O=Math.round(180*w/Math.PI/20),z=1;z<O;z++){var D=z/O;if(.5!==D){var R=D-.5;D+=D*R*(D-1)*((1.0904+x*(x*(3.55645-1.43519*x)-3.2452))*R*R+(.848013+x*(.215638*x-1.06021)))}var F=v.sub(g)._mult(D)._add(g)._unit()._mult(k?-1:1);this.addHalfVertex(u,F.x,F.y,!1,k,0,h)}d&&this.addCurrentVertex(u,v,-P,-I,h)}else if("butt"===E)this.addCurrentVertex(u,y,0,0,h);else if("square"===E){var B=p?1:-1;this.addCurrentVertex(u,y,B,B,h)}else"round"===E&&(p&&(this.addCurrentVertex(u,g,0,0,h),this.addCurrentVertex(u,g,1,1,h,!0)),d&&(this.addCurrentVertex(u,v,-1,-1,h,!0),this.addCurrentVertex(u,v,0,0,h)));if(T&&m<l-1){var N=u.dist(d);if(N>2*f){var j=u.add(d.sub(u)._mult(f/N)._round());this.updateDistance(u,j),this.addCurrentVertex(j,v,0,0,h),u=j}}}}},il.prototype.addCurrentVertex=function(t,e,r,n,i,a){void 0===a&&(a=!1);var o=e.x+e.y*r,s=e.y-e.x*r,l=-e.x+e.y*n,c=-e.y-e.x*n;this.addHalfVertex(t,o,s,a,!1,r,i),this.addHalfVertex(t,l,c,a,!0,-

n,i),this.distance>nl/2&&0===this.totalDistance&&(this.distance=0,this.addCurrentVertex(t,e,r,n,i,a))},il.prototype.addHalfVertex=function(t,e,r,n,i,a,o){var s=t.x,l=t.y,c=.5*this.scaledDistance;this.layoutVertexArray.emplaceBack((s<<1)+(n?1:0),(l<<1)+(i?1:0),Math.round(63*e)+128,Math.round(63*r)+128,1+(0===a?0:a<0?-1:1)|(63&c)<<2,c>>6);var u=o.vertexLength++;this.e1>=0&&this.e2>=0&&(this.indexArray.emplaceBack(this.e1,this.e2,u),o.primitiveLength++),i?this.e2=u:this.e1=u},il.prototype.updateScaledDistance=function(){this.scaledDistance=this.totalDistance>0?(this.clipStart+(this.clipEnd-this.clipStart)*this.distance/this.totalDistance)*(nl-1):this.distance},il.prototype.updateDistance=function(t,e){this.distance+=t.dist(e),this.updateScaledDistance()},Kn("LineBucket",il,{omit:["layers","patternFeatures"]});var al=new Ni({"line-cap":new zi(It.layout_line["line-cap"]),"line-join":new Di(It.layout_line["line-join"]),"line-miter-limit":new zi(It.layout_line["line-miter-limit"]),"line-round-limit":new zi(It.layout_line["line-round-limit"]),"line-sort-key":new Di(It.layout_line["line-sort-key"])}),ol={paint:new Ni({"line-opacity":new Di(It.paint_line["line-opacity"]),"line-color":new Di(It.paint_line["line-color"]),"line-translate":new zi(It.paint_line["line-translate"]),"line-translate-anchor":new zi(It.paint_line["line-translate-anchor"]),"line-width":new Di(It.paint_line["line-width"]),"line-gap-width":new Di(It.paint_line["line-gap-width"]),"line-offset":new Di(It.paint_line["line-offset"]),"line-blur":new Di(It.paint_line["line-blur"]),"line-dasharray":new Fi(It.paint_line["line-dasharray"]),"line-pattern":new Ri(It.paint_line["line-pattern"]),"line-gradient":new Bi(It.paint_line["line-gradient"])}),layout:al},sl=new(function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.possiblyEvaluate=function(e,r){return r=new Ai(Math.floor(r.zoom),{now:r.now,fadeDuration:r.fadeDuration,zoomHistory:r.zoomHistory,transition:r.transition}),t.prototype.possiblyEvaluate.call(this,e,r)},e.prototype.evaluate=function(e,r,n,i){return r=f({},r,{zoom:Math.floor(r.zoom)}),t.prototype.evaluate.call(this,e,r,n,i)},e}(Di))(ol.paint.properties["line-width"].specification);sl.useIntegerZoom=!0;var ll=function(t){function e(e){t.call(this,e,ol)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._handleSpecialPaintPropertyUpdate=function(t){"line-gradient"===t&&this._updateGradient()},e.prototype._updateGradient=function(){var t=this._transitionablePaint._values["line-gradient"].value.expression;this.gradient=Ho(t,"lineProgress"),this.gradientTexture=null},e.prototype.recalculate=function(e,r){t.prototype.recalculate.call(this,e,r),this.paint._values["line-floorwidth"]=sl.possiblyEvaluate(this._transitioningPaint._values["line-width"].value,e)},e.prototype.createBucket=function(t){return new il(t)},e.prototype.queryRadius=function(t){var e=t,r=cl(wo("line-width",this,e),wo("line-gap-width",this,e)),n=wo("line-offset",this,e);return r/2+Math.abs(n)+To(this.paint.get("line-translate"))},e.prototype.queryIntersectsFeature=function(t,e,r,n,i,o,s){var l=ko(t,this.paint.get("line-translate"),this.paint.get("line-translate-anchor"),o.angle,s),c=s/2*cl(this.paint.get("line-width").evaluate(e,r),this.paint.get("line-gap-width").evaluate(e,r)),u=this.paint.get("line-offset").evaluate(e,r);return u&&(n=function(t,e){for(var r=[],n=new a(0,0),i=0;i<t.length;i++){for(var o=t[i],s=[],l=0;l<o.length;l++){var c=o[l-1],u=o[l],f=o[l+1],h=0===l?n:u.sub(c)._unit()._perp(),p=l===o.length-1?n:f.sub(u)._unit()._perp(),d=h._add(p)._unit(),g=d.x*p.x+d.y*p.y;d._mult(1/g),s.push(d._mult(e)._add(u))}r.push(s)}return r}(n,u*s)),function(t,e,r){for(var n=0;n<e.length;n++){var i=e[n];if(t.length>=3)for(var a=0;a<i.length;a++)if(bo(t,i[a]))return!0;if(po(t,i,r))return!0}return!1}(l,n,c)},e.prototype.isTileClipped=function(){return!0},e}(Ui);function cl(t,e){return e>0?e+2*t:t}var ul=Gi([{name:"a_pos_offset",components:4,type:"Int16"},{name:"a_data",components:4,type:"Uint16"},{name:"a_pixeloffset",components:4,type:"Int16"}],4),fl=Gi([{name:"a_projected_pos",components:3,type:"Float32"}],4),hl=(Gi([{name:"a_fade_opacity",components:1,type:"Uint32"}],4),Gi([{name:"a_placed",components:2,type:"Uint8"},{name:"a_shift",components:2,type:"Float32"}])),pl=(Gi([{type:"Int16",name:"anchorPointX"},{type:"Int16",name:"anchorPointY"},{type:"Int16",name:"x1"},{type:"Int16",name:"y1"},{type:"Int16",name:"x2"},{type:"Int16",name:"y2"},{type:"Uint32",name:"featureIndex"},{type:"Uint16",name:"sourceLayerIndex"},{type:"Uint16",name:"buc

ketIndex"}]),Gi([{name:"a_pos",components:2,type:"Int16"},{name:"a_anchor_pos",components:2,type:"Int16"},{name:"a_extrude",components:2,type:"Int16"}],4)),dl=Gi([{name:"a_pos",components:2,type:"Float32"},{name:"a_radius",components:1,type:"Float32"},{name:"a_flags",components:2,type:"Int16"}],4);function gl(t,e,r){return t.sections.forEach((function(t){t.text=function(t,e,r){var n=e.layout.get("text-transform").evaluate(r,{});return"uppercase"===n?t=t.toLocaleUpperCase():"lowercase"===n&&(t=t.toLocaleLowerCase()),ki.applyArabicShaping&&(t=ki.applyArabicShaping(t)),t}(t.text,e,r)})),t}Gi([{name:"triangle",components:3,type:"Uint16"}]),Gi([{type:"Int16",name:"anchorX"},{type:"Int16",name:"anchorY"},{type:"Uint16",name:"glyphStartIndex"},{type:"Uint16",name:"numGlyphs"},{type:"Uint32",name:"vertexStartIndex"},{type:"Uint32",name:"lineStartIndex"},{type:"Uint32",name:"lineLength"},{type:"Uint16",name:"segment"},{type:"Uint16",name:"lowerSize"},{type:"Uint16",name:"upperSize"},{type:"Float32",name:"lineOffsetX"},{type:"Float32",name:"lineOffsetY"},{type:"Uint8",name:"writingMode"},{type:"Uint8",name:"placedOrientation"},{type:"Uint8",name:"hidden"},{type:"Uint32",name:"crossTileID"},{type:"Int16",name:"associatedIconIndex"}]),Gi([{type:"Int16",name:"anchorX"},{type:"Int16",name:"anchorY"},{type:"Int16",name:"rightJustifiedTextSymbolIndex"},{type:"Int16",name:"centerJustifiedTextSymbolIndex"},{type:"Int16",name:"leftJustifiedTextSymbolIndex"},{type:"Int16",name:"verticalPlacedTextSymbolIndex"},{type:"Int16",name:"placedIconSymbolIndex"},{type:"Int16",name:"verticalPlacedIconSymbolIndex"},{type:"Uint16",name:"key"},{type:"Uint16",name:"textBoxStartIndex"},{type:"Uint16",name:"textBoxEndIndex"},{type:"Uint16",name:"verticalTextBoxStartIndex"},{type:"Uint16",name:"verticalTextBoxEndIndex"},{type:"Uint16",name:"iconBoxStartIndex"},{type:"Uint16",name:"iconBoxEndIndex"},{type:"Uint16",name:"verticalIconBoxStartIndex"},{type:"Uint16",name:"verticalIconBoxEndIndex"},{type:"Uint16",name:"featureIndex"},{type:"Uint16",name:"numHorizontalGlyphVertices"},{type:"Uint16",name:"numVerticalGlyphVertices"},{type:"Uint16",name:"numIconVertices"},{type:"Uint16",name:"numVerticalIconVertices"},{type:"Uint16",name:"useRuntimeCollisionCircles"},{type:"Uint32",name:"crossTileID"},{type:"Float32",name:"textBoxScale"},{type:"Float32",components:2,name:"textOffset"},{type:"Float32",name:"collisionCircleDiameter"}]),Gi([{type:"Float32",name:"offsetX"}]),Gi([{type:"Int16",name:"x"},{type:"Int16",name:"y"},{type:"Int16",name:"tileUnitDistanceFromAnchor"}]);var vl={"!":"","#":"",$:"","%":"","&":"","(":"",")":"","*":"","+":"",",":"","-":"",".":"","/":"",":":"",";":"","<":"","=":"",">":"","?":"","@":"","[":"","\\":"","]":"","^":"",_:"",`:"","{":"","|":"","}":"","~":"","¢":"","£":"","¥":"",¦:"",¬:"",¯:"","–":"","—":"","‘":"","’":"","“":"","”":"",…:"",":"",":"",":"",":"","":"",":"",":"",

Il(t,e){for(var r=0;r<t.length;r++)e.writeBoolean(t[r])}function Ol(t,e){for(var
r=0;r<t.length;r++)e.writeFixed32(t[r])}function zl(t,e){for(var r=0;r<t.length;r++)e.writeSFixed32(t[r])}function
Dl(t,e){for(var r=0;r<t.length;r++)e.writeFixed64(t[r])}function Rl(t,e){for(var
r=0;r<t.length;r++)e.writeSFixed64(t[r])}function
Fl(t,e){return(t[e]|t[e+1]<<8|t[e+2]<<16)+16777216*t[e+3]}function
Bl(t,e,r){t[r]=e,t[r+1]=e>>>8,t[r+2]=e>>>16,t[r+3]=e>>>24}function
Nl(t,e){return(t[e]|t[e+1]<<8|t[e+2]<<16)+(t[e+3]<<24)}function jl(t,e,r){1===t&&r.readMessage(Ul,e)}function
Ul(t,e,r){if(3===t){var
n=r.readMessage(Vl,{}),i=n.id,a=n.bitmap,o=n.width,s=n.height,l=n.left,c=n.top,u=n.advance;e.push({id:i,bitmap:n
ew Uo({width:o+6,height:s+6},a),metrics:{width:o,height:s,left:l,top:c,advance:u}})}}function
Vl(t,e,r){1===t?e.id=r.readVarint():2===t?e.bitmap=r.readBytes():3===t?e.width=r.readVarint():4===t?e.height=r.r
eadVarint():5===t?e.left=r.readSVarint():6===t?e.top=r.readSVarint():7===t&&(e.advance=r.readVarint())}functio
n ql(t){for(var e=0,r=0,n=0,i=t;n<i.length;n+=1){var
a=i[n];e+=a.w*a.h,r=Math.max(r,a.w)}t.sort((function(t,e){return e.h-t.h}));for(var
o=[{x:0,y:0,w:Math.max(Math.ceil(Math.sqrt(e/.95)),r),h:1/0}],s=0,l=0,c=0,u=t;c<u.length;c+=1)for(var
f=u[c],h=o.length-1;h>=0;h--){var
p=o[h];if(!(f.w>p.w||f.h>p.h)){if(f.x=p.x,f.y=p.y,l=Math.max(l,f.y+f.h),s=Math.max(s,f.x+f.w),f.w===p.w&&f.h==
=p.h){var d=o.pop();h<o.length&&(o[h]=d)}else f.h===p.h?(p.x+=f.w,p.w-=f.w):f.w===p.w?(p.y+=f.h,p.h-
=f.h):(o.push({x:p.x+f.w,y:p.y,w:p.w-f.w,h:f.h}),p.y+=f.h,p.h-
=f.h);break}}return{w:s,h:l,fill:e/(s*l)||0}}_l.prototype={destroy:function(){this.buf=null},readFields:function(t,e,r)
{for(r=r||this.length;this.pos<r;){var
n=this.readVarint(),i=n>>3,a=this.pos;this.type=7&n,t(i,e,this),this.pos===a&&this.skip(n)}return
e},readMessage:function(t,e){return this.readFields(t,e,this.readVarint()+this.pos)},readFixed32:function(){var
t=Fl(this.buf,this.pos);return this.pos+=4,t},readSFixed32:function(){var t=Nl(this.buf,this.pos);return
this.pos+=4,t},readFixed64:function(){var t=Fl(this.buf,this.pos)+Fl(this.buf,this.pos+4)*wl;return
this.pos+=8,t},readSFixed64:function(){var t=Fl(this.buf,this.pos)+Nl(this.buf,this.pos+4)*wl;return
this.pos+=8,t},readFloat:function(){var t=yl(this.buf,this.pos,!0,23,4);return
this.pos+=4,t},readDouble:function(){var t=yl(this.buf,this.pos,!0,52,8);return
this.pos+=8,t},readVarint:function(t){var e,r,n=this.buf;return
e=127&(r=n[this.pos++]),r<128?e:(e|=(127&(r=n[this.pos++]))<<7,r<128?e:(e|=(127&(r=n[this.pos++]))<<14,r<12
8?e:(e|=(127&(r=n[this.pos++]))<<21,r<128?e:function(t,e,r){var
n,i,a=r.buf;if(n=(112&(i=a[r.pos++]))>>4,i<128)return Ml(t,n,e);if(n|=(127&(i=a[r.pos++]))<<3,i<128)return
Ml(t,n,e);if(n|=(127&(i=a[r.pos++]))<<10,i<128)return Ml(t,n,e);if(n|=(127&(i=a[r.pos++]))<<17,i<128)return
Ml(t,n,e);if(n|=(127&(i=a[r.pos++]))<<24,i<128)return Ml(t,n,e);if(n|=(1&(i=a[r.pos++]))<<31,i<128)return
Ml(t,n,e);throw new Error("Expected varint not more than 10
bytes")}(e|=(15&(r=n[this.pos]))<<28,t,this))))},readVarint64:function(){return
this.readVarint(!0)},readSVarint:function(){var t=this.readVarint();return t%2==1?(t+1)/-
2:t/2},readBoolean:function(){return Boolean(this.readVarint())},readString:function(){var
t=this.readVarint()+this.pos,e=this.pos;return this.pos=t,t-e>=12&&kl?function(t,e,r){return
kl.decode(t.subarray(e,r))}(this.buf,e,t):function(t,e,r){for(var n="",i=e;i<r;){var
a,o,s,l=t[i],c=null,u=l>239?4:l>223?3:l>191?2:1;if(i+u>r)break;1===u?l<128&&(c=l):2===u?128==(192&(a=t[i+1
]))&&(c=(31&l)<<6|63&a)<=127&&(c=null):3===u?(a=t[i+1],o=t[i+2],128==(192&a)&&128==(192&o)&&((c=(
15&l)<<12|(63&a)<<6|63&o)<=2047||c>=55296&&c<=57343)&&(c=null)):4===u&&(a=t[i+1],o=t[i+2],s=t[i+3],1
28==(192&a)&&128==(192&o)&&128==(192&s)&&((c=(15&l)<<18|(63&a)<<12|(63&o)<<6|63&s)<=65535||c>
=1114112)&&(c=null)),null===c?(c=65533,u=1):c>65535&&(c-
=65536,n+=String.fromCharCode(c>>>10&1023|55296),c=56320|1023&c),n+=String.fromCharCode(c),i+=u}retur
n n}(this.buf,e,t)},readBytes:function(){var t=this.readVarint()+this.pos,e=this.buf.subarray(this.pos,t);return
this.pos=t,e},readPackedVarint:function(t,e){if(this.type!==_l.Bytes)return t.push(this.readVarint(e));var

r=Al(this);for(t=t||[];this.pos<r;)t.push(this.readVarint(e));return
t},readPackedSVarint:function(t){if(this.type!==_l.Bytes)return t.push(this.readSVarint());var
e=Al(this);for(t=t||[];this.pos<e;)t.push(this.readSVarint());return
t},readPackedBoolean:function(t){if(this.type!==_l.Bytes)return t.push(this.readBoolean());var
e=Al(this);for(t=t||[];this.pos<e;)t.push(this.readBoolean());return
t},readPackedFloat:function(t){if(this.type!==_l.Bytes)return t.push(this.readFloat());var
e=Al(this);for(t=t||[];this.pos<e;)t.push(this.readFloat());return
t},readPackedDouble:function(t){if(this.type!==_l.Bytes)return t.push(this.readDouble());var
e=Al(this);for(t=t||[];this.pos<e;)t.push(this.readDouble());return
t},readPackedFixed32:function(t){if(this.type!==_l.Bytes)return t.push(this.readFixed32());var
e=Al(this);for(t=t||[];this.pos<e;)t.push(this.readFixed32());return
t},readPackedSFixed32:function(t){if(this.type!==_l.Bytes)return t.push(this.readSFixed32());var
e=Al(this);for(t=t||[];this.pos<e;)t.push(this.readSFixed32());return
t},readPackedFixed64:function(t){if(this.type!==_l.Bytes)return t.push(this.readFixed64());var
e=Al(this);for(t=t||[];this.pos<e;)t.push(this.readFixed64());return
t},readPackedSFixed64:function(t){if(this.type!==_l.Bytes)return t.push(this.readSFixed64());var
e=Al(this);for(t=t||[];this.pos<e;)t.push(this.readSFixed64());return t},skip:function(t){var
e=7&t;if(e===_l.Varint)for(;this.buf[this.pos++]>127;);else if(e===_l.Bytes)this.pos=this.readVarint()+this.pos;else
if(e===_l.Fixed32)this.pos+=4;else{if(e!==_l.Fixed64)throw new Error("Unimplemented type:
"+e);this.pos+=8}},writeTag:function(t,e){this.writeVarint(t<<3|e)},realloc:function(t){for(var
e=this.length||16;e<this.pos+t;)e*=2;if(e!==this.length){var r=new
Uint8Array(e);r.set(this.buf),this.buf=r,this.length=e}},finish:function(){return
this.length=this.pos,this.pos=0,this.buf.subarray(0,this.length)},writeFixed32:function(t){this.realloc(4),Bl(this.buf,t
,this.pos),this.pos+=4},writeSFixed32:function(t){this.realloc(4),Bl(this.buf,t,this.pos),this.pos+=4},writeFixed64:fu
nction(t){this.realloc(8),Bl(this.buf,-
1&t,this.pos),Bl(this.buf,Math.floor(t*Tl),this.pos+4),this.pos+=8},writeSFixed64:function(t){this.realloc(8),Bl(this
.buf,-
1&t,this.pos),Bl(this.buf,Math.floor(t*Tl),this.pos+4),this.pos+=8},writeVarint:function(t){(t=+t||0)>268435455||t<0
?function(t,e){var r,n;if(t>=0?(r=t%4294967296|0,n=t/4294967296|0):(n=~(-t/4294967296),4294967295^(r=~(-
t%4294967296))?r=r+1|0:(r=0,n=n+1|0)),t>=0x10000000000000000||t<-0x10000000000000000)throw new
Error("Given varint doesn't fit into 10
bytes");e.realloc(10),function(t,e,r){r.buf[r.pos++]=127&t|128,t>>>=7,r.buf[r.pos++]=127&t|128,t>>>=7,r.buf[r.pos
++]=127&t|128,t>>>=7,r.buf[r.pos++]=127&t|128,t>>>=7,r.buf[r.pos]=127&t}(r,0,e),function(t,e){var
r=(7&t)<<4;e.buf[e.pos++]|=r|((t>>>=3)?128:0),t&&(e.buf[e.pos++]=127&t|((t>>>=7)?128:0),t&&(e.buf[e.pos++]
=127&t|((t>>>=7)?128:0),t&&(e.buf[e.pos++]=127&t|((t>>>=7)?128:0),t&&(e.buf[e.pos++]=127&t|((t>>>=7)?128
:0),t&&(e.buf[e.pos++]=127&t)))))}(n,e)}(t,this):(this.realloc(4),this.buf[this.pos++]=127&t|(t>127?128:0),t<=127||
(this.buf[this.pos++]=127&(t>>>=7)|(t>127?128:0),t<=127||(this.buf[this.pos++]=127&(t>>>=7)|(t>127?128:0),t<=
127||(this.buf[this.pos++]=t>>>7&127))))},writeSVarint:function(t){this.writeVarint(t<0?2*-t-
1:2*t)},writeBoolean:function(t){this.writeVarint(Boolean(t))},writeString:function(t){t=String(t),this.realloc(4*t.le
ngth),this.pos++;var e=this.pos;this.pos=function(t,e,r){for(var
n,i,a=0;a<e.length;a++){if((n=e.charCodeAt(a))>55295&&n<57344){if(!i){n>56319||a+1===e.length?(t[r++]=239,t
[r++]=191,t[r++]=189):i=n;continue}if(n<56320){t[r++]=239,t[r++]=191,t[r++]=189,i=n;continue}n=i-
55296<<10|n-56320|65536,i=null}else
i&&(t[r++]=239,t[r++]=191,t[r++]=189,i=null);n<128?t[r++]=n:(n<2048?t[r++]=n>>6|192:(n<65536?t[r++]=n>>1
2|224:(t[r++]=n>>18|240,t[r++]=n>>12&63|128),t[r++]=n>>6&63|128),t[r++]=63&n|128)}return
r}(this.buf,t,this.pos);var r=this.pos-e;r>=128&&Sl(e,r,this),this.pos=e-
1,this.writeVarint(r),this.pos+=r},writeFloat:function(t){this.realloc(4),xl(this.buf,t,this.pos,!0,23,4),this.pos+=4},wr
iteDouble:function(t){this.realloc(8),xl(this.buf,t,this.pos,!0,52,8),this.pos+=8},writeBytes:function(t){var

e=t.length;this.writeVarint(e),this.realloc(e);for(var
r=0;r<e;r++)this.buf[this.pos++]=t[r]},writeRawMessage:function(t,e){this.pos++;var r=this.pos;t(e,this);var
n=this.pos-r;n>=128&&Sl(r,n,this),this.pos=r-
1,this.writeVarint(n),this.pos+=n},writeMessage:function(t,e,r){this.writeTag(t,_l.Bytes),this.writeRawMessage(e,r)
},writePackedVarint:function(t,e){e.length&&this.writeMessage(t,El,e)},writePackedSVarint:function(t,e){e.length
&&this.writeMessage(t,Ll,e)},writePackedBoolean:function(t,e){e.length&&this.writeMessage(t,Il,e)},writePacked
Float:function(t,e){e.length&&this.writeMessage(t,Cl,e)},writePackedDouble:function(t,e){e.length&&this.writeMe
ssage(t,Pl,e)},writePackedFixed32:function(t,e){e.length&&this.writeMessage(t,Ol,e)},writePackedSFixed32:functi
on(t,e){e.length&&this.writeMessage(t,zl,e)},writePackedFixed64:function(t,e){e.length&&this.writeMessage(t,Dl,
e)},writePackedSFixed64:function(t,e){e.length&&this.writeMessage(t,Rl,e)},writeBytesField:function(t,e){this.wri
teTag(t,_l.Bytes),this.writeBytes(e)},writeFixed32Field:function(t,e){this.writeTag(t,_l.Fixed32),this.writeFixed32(
e)},writeSFixed32Field:function(t,e){this.writeTag(t,_l.Fixed32),this.writeSFixed32(e)},writeFixed64Field:function
(t,e){this.writeTag(t,_l.Fixed64),this.writeFixed64(e)},writeSFixed64Field:function(t,e){this.writeTag(t,_l.Fixed64),
this.writeSFixed64(e)},writeVarintField:function(t,e){this.writeTag(t,_l.Varint),this.writeVarint(e)},writeSVarintFie
ld:function(t,e){this.writeTag(t,_l.Varint),this.writeSVarint(e)},writeStringField:function(t,e){this.writeTag(t,_l.Byt
es),this.writeString(e)},writeFloatField:function(t,e){this.writeTag(t,_l.Fixed32),this.writeFloat(e)},writeDoubleFiel
d:function(t,e){this.writeTag(t,_l.Fixed64),this.writeDouble(e)},writeBooleanField:function(t,e){this.writeVarintFie
ld(t,Boolean(e))}};var Hl=function(t,e){var
r=e.pixelRatio,n=e.version,i=e.stretchX,a=e.stretchY,o=e.content;this.paddedRect=t,this.pixelRatio=r,this.stretchX=
i,this.stretchY=a,this.content=o,this.version=n},Gl={tl:{configurable:!0},br:{configurable:!0},tlbr:{configurable:!0}
,displaySize:{configurable:!0}};Gl.tl.get=function(){return[this.paddedRect.x+1,this.paddedRect.y+1]},Gl.br.get=fu
nction(){return[this.paddedRect.x+this.paddedRect.w-1,this.paddedRect.y+this.paddedRect.h-
1]},Gl.tlbr.get=function(){return this.tl.concat(this.br)},Gl.displaySize.get=function(){return[(this.paddedRect.w-
2)/this.pixelRatio,(this.paddedRect.h-2)/this.pixelRatio]},Object.defineProperties(Hl.prototype,Gl);var
Yl=function(t,e){var r={},n={};this.haveRenderCallbacks=[];var i=[];this.addImages(t,r,i),this.addImages(e,n,i);var
a=ql(i),o=a.w,s=a.h,l=new Vo({width:o||1,height:s||1});for(var c in t){var
u=t[c],f=r[c].paddedRect;Vo.copy(u.data,l,{x:0,y:0},{x:f.x+1,y:f.y+1},u.data)}for(var h in e){var
p=e[h],d=n[h].paddedRect,g=d.x+1,v=d.y+1,m=p.data.width,y=p.data.height;Vo.copy(p.data,l,{x:0,y:0},{x:g,y:v},p
.data),Vo.copy(p.data,l,{x:0,y:y-1},{x:g,y:v-
1},{width:m,height:1}),Vo.copy(p.data,l,{x:0,y:0},{x:g,y:v+y},{width:m,height:1}),Vo.copy(p.data,l,{x:m-
1,y:0},{x:g-
1,y:v},{width:1,height:y}),Vo.copy(p.data,l,{x:0,y:0},{x:g+m,y:v},{width:1,height:y})}this.image=l,this.iconPositi
ons=r,this.patternPositions=n};Yl.prototype.addImages=function(t,e,r){for(var n in t){var
i=t[n],a={x:0,y:0,w:i.data.width+2,h:i.data.height+2};r.push(a),e[n]=new
Hl(a,i),i.hasRenderCallback&&this.haveRenderCallbacks.push(n)}},Yl.prototype.patchUpdatedImages=function(t,e
){for(var r in
t.dispatchRenderCallbacks(this.haveRenderCallbacks),t.updatedImages)this.patchUpdatedImage(this.iconPositions[r
],t.getImage(r),e),this.patchUpdatedImage(this.patternPositions[r],t.getImage(r),e)},Yl.prototype.patchUpdatedImag
e=function(t,e,r){if(t&&e&&t.version!==e.version){t.version=e.version;var n=t.tl,i=n[0],a=n[1];r.update(e.data,void
0,{x:i,y:a})}},Kn("ImagePosition",Hl),Kn("ImageAtlas",Yl);var
Wl={horizontal:1,vertical:2,horizontalOnly:3},Xl=-
17,Zl=function(){this.scale=1,this.fontStack="",this.imageName=null};Zl.forText=function(t,e){var r=new
Zl;return r.scale=t||1,r.fontStack=e,r},Zl.forImage=function(t){var e=new Zl;return e.imageName=t,e};var
Jl=function(){this.text="",this.sectionIndex=[],this.sections=[],this.imageSectionID=null};function
Kl(t,e,r,n,i,a,o,s,l,c,u,f,h,p,d,g){var v,m=Jl.fromFeature(t,i);f===Wl.vertical&&m.verticalizePunctuation();var
y=ki.processBidirectionalText,x=ki.processStyledBidirectionalText;if(y&&1===m.sections.length){v=[];for(var
b=0,_=y(m.toString(),ac(m,c,a,e,n,p,d));b<_.length;b+=1){var w=_[b],T=new
Jl;T.text=w,T.sections=m.sections;for(var k=0;k<w.length;k++)T.sectionIndex.push(0);v.push(T)}}else

if(x){v=[];for(var A=0,M=x(m.text,m.sectionIndex,ac(m,c,a,e,n,p,d));A<M.length;A+=1){var S=M[A],E=new Jl;E.text=S[0],E.sectionIndex=S[1],E.sections=m.sections,v.push(E)}}else v=function(t,e){for(var r=[],n=t.text,i=0,a=0,o=e;a<o.length;a+=1){var s=o[a];r.push(t.substring(i,s)),i=s}return i<n.length&&r.push(t.substring(i,n.length)),r}(m,ac(m,c,a,e,n,p,d));var L=[],C={positionedLines:L,text:m.toString(),top:u[1],bottom:u[1],left:u[0],right:u[0],writingMode:f,iconsInText:!1,verticalizable:!1};return function(t,e,r,n,i,a,o,s,l,c,u,f){for(var h=0,p=Xl,d=0,g=0,v="right"===s?1:"left"===s?0:.5,m=0,y=0,x=i;y<x.length;y+=1){var b=x[y];b.trim();var _=b.getMaxScale(),w=(_-1)*ml,T={positionedGlyphs:[],lineOffset:0};t.positionedLines[m]=T;var k=T.positionedGlyphs,A=0;if(b.length()){for(var M=0;M<b.length();M++){var S=b.getSection(M),E=b.getSectionIndex(M),L=b.getCharCode(M),C=0,P=null,I=null,O=null,z=ml,D=!(l===Wl.horizontal||!u&&!oi(L)||u&&(Ql[L]||li(L)));if(S.imageName){var R=n[S.imageName];if(!R)continue;O=S.imageName,t.iconsInText=t.iconsInText||!0,I=R.paddedRect;var F=R.displaySize;S.scale=S.scale*ml/f,P={width:F[0],height:F[1],left:1,top:-3,advance:D?F[1]:F[0]},C=w+(ml-F[1]*S.scale),z=P.advance;var B=D?F[0]*S.scale-ml*_:F[1]*S.scale-ml*_;B>0&&B>A&&(A=B)}else{var N=r[S.fontStack],j=N&&N[L];if(j&&j.rect)I=j.rect,P=j.metrics;else{var U=e[S.fontStack],V=U&&U[L];if(!V)continue;P=V.metrics}C=(_-S.scale)*ml}D?(t.verticalizable=!0,k.push({glyph:L,imageName:O,x:h,y:p+C,vertical:D,scale:S.scale,fontStack:S.fontStack,sectionIndex:E,metrics:P,rect:I}),h+=z*S.scale+c):(k.push({glyph:L,imageName:O,x:h,y:p+C,vertical:D,scale:S.scale,fontStack:S.fontStack,sectionIndex:E,metrics:P,rect:I}),h+=P.advance*S.scale+c)}if(0!==k.length){var q=h-c;d=Math.max(q,d),sc(k,0,k.length-1,v,A)}h=0;var H=a*_+A;T.lineOffset=Math.max(A,w),p+=H,g=Math.max(H,g),++m}else p+=a,++m}var G=p-Xl,Y=oc(o),W=Y.horizontalAlign,X=Y.verticalAlign;(function(t,e,r,n,i,a,o,s,l){var c=(e-r)*i,u=0;u=a!==o?-s*n-Xl:(-n*l+.5)*o;for(var f=0,h=t;f<h.length;f+=1)for(var p=0,d=h[f].positionedGlyphs;p<d.length;p+=1){var g=d[p];g.x+=c,g.y+=u}})(t.positionedLines,v,W,X,d,g,a,G,i.length),t.top+=-X*G,t.bottom=t.top+G,t.left+=-W*d,t.right=t.left+d}(C,e,r,n,v,o,s,l,f,c,h,g),!function(t){for(var e=0,r=t;e<r.length;e+=1)if(0!==r[e].positionedGlyphs.length)return!1;return!0}(L)&&C}Jl.fromFeature=function(t,e){for(var r=new Jl,n=0;n<t.sections.length;n++){var i=t.sections[n];i.image?r.addImageSection(i):r.addTextSection(i,e)}return r},Jl.prototype.length=function(){return this.text.length},Jl.prototype.getSection=function(t){return this.sections[this.sectionIndex[t]]},Jl.prototype.getSectionIndex=function(t){return this.sectionIndex[t]},Jl.prototype.getCharCode=function(t){return this.text.charCodeAt(t)},Jl.prototype.verticalizePunctuation=function(){this.text=function(t){for(var e="",r=0;r<t.length;r++){var n=t.charCodeAt(r+1)||null,i=t.charCodeAt(r-1)||null;n&&si(n)&&!vl[t[r+1]]||i&&si(i)&&!vl[t[r-1]]||!vl[t[r]]?e+=t[r]:e+=vl[t[r]]}return e}(this.text)},Jl.prototype.trim=function(){for(var t=0,e=0;e<this.text.length&&Ql[this.text.charCodeAt(e)];e++)t++;for(var r=this.text.length,n=this.text.length-1;n>=0&&n>=t&&Ql[this.text.charCodeAt(n)];n--)r--;this.text=this.text.substring(t,r),this.sectionIndex=this.sectionIndex.slice(t,r)},Jl.prototype.substring=function(t,e){var r=new Jl;return r.text=this.text.substring(t,e),r.sectionIndex=this.sectionIndex.slice(t,e),r.sections=this.sections,r},Jl.prototype.toString=function(){return this.text},Jl.prototype.getMaxScale=function(){var t=this;return this.sectionIndex.reduce((function(e,r){return Math.max(e,t.sections[r].scale)}),0)},Jl.prototype.addTextSection=function(t,e){this.text+=t.text,this.sections.push(Zl.forText(t.scale,t.fontStack||e));for(var r=this.sections.length-1,n=0;n<t.text.length;++n)this.sectionIndex.push(r)},Jl.prototype.addImageSection=function(t){var e=t.image?t.image.name:"";if(0!==e.length){var r=this.getNextImageSectionCharCode();r?(this.text+=String.fromCharCode(r),this.sections.push(Zl.forImage(e)),this.sectionIndex.push(this.sections.length-1)):w("Reached maximum number of images 6401")}else w("Can't add

FormattedSection with an empty image.")},Jl.prototype.getNextImageSectionCharCode=function(){return this.imageSectionID?this.imageSectionID>=63743?null:++this.imageSectionID:(this.imageSectionID=57344,this.imageSectionID)};var Ql={9:!0,10:!0,11:!0,12:!0,13:!0,32:!0},$l={};function tc(t,e,r,n,i,a){if(e.imageName){var o=n[e.imageName];return o?o.displaySize[0]*e.scale*ml/a+i:0}var s=r[e.fontStack],l=s&&s[t];return l?l.metrics.advance*e.scale+i:0}function ec(t,e,r,n){var i=Math.pow(t-e,2);return n?t<e?i/2:2*i:i+Math.abs(r)*r}function rc(t,e,r){var n=0;return 10===t&&(n-=1e4),r&&(n+=150),40!==t&&65288!==t||(n+=50),41!==e&&65289!==e||(n+=50),n}function nc(t,e,r,n,i,a){for(var o=null,s=ec(e,r,i,a),l=0,c=n;l<c.length;l+=1){var u=c[l],f=ec(e-u.x,r,i,a)+u.badness;f<=s&&(o=u,s=f)}return{index:t,x:e,priorBreak:o,badness:s}}function ic(t){return t?ic(t.priorBreak).concat(t.index):[]}function ac(t,e,r,n,i,a,o){if("point"!==a)return[];if(!t)return[];for(var s=[],l=function(t,e,r,n,i,a){for(var o=0,s=0;s<t.length();s++){var l=t.getSection(s);o+=tc(t.getCharCode(s),l,n,i,e,a)}return o/Math.max(1,Math.ceil(o/r))}(t,e,r,n,i,o),c=t.text.indexOf("")>=0,u=0,f=0;f<t.length();f++){var h=t.getSection(f),p=t.getCharCode(f);if(Ql[p]||(u+=tc(p,h,n,i,e,o)),f<t.length()-1){var d=!((g=p)<11904||!(ii["Bopomofo Extended"](g)||ii.Bopomofo(g)||ii["CJK Compatibility Forms"](g)||ii["CJK Compatibility Ideographs"](g)||ii["CJK Compatibility"](g)||ii["CJK Radicals Supplement"](g)||ii["CJK Strokes"](g)||ii["CJK Symbols and Punctuation"](g)||ii["CJK Unified Ideographs Extension A"](g)||ii["CJK Unified Ideographs"](g)||ii["Enclosed CJK Letters and Months"](g)||ii["Halfwidth and Fullwidth Forms"](g)||ii.Hiragana(g)||ii["Ideographic Description Characters"](g)||ii["Kangxi Radicals"](g)||ii["Katakana Phonetic Extensions"](g)||ii.Katakana(g)||ii["Vertical Forms"](g)||ii["Yi Radicals"](g)||ii["Yi Syllables"](g)));($l[p]||d||h.imageName)&&s.push(nc(f+1,u,l,s,rc(p,t.getCharCode(f+1),d&&c),!1))}}var g;return ic(nc(t.length(),u,l,s,0,!0))}function oc(t){var e=.5,r=.5;switch(t){case"right":case"top-right":case"bottom-right":e=1;break;case"left":case"top-left":case"bottom-left":e=0}switch(t){case"bottom":case"bottom-right":case"bottom-left":r=1;break;case"top":case"top-right":case"top-left":r=0}return{horizontalAlign:e,verticalAlign:r}}function sc(t,e,r,n,i){if(n||i)for(var a=t[r],o=a.metrics.advance*a.scale,s=(t[r].x+o)*n,l=e;l<=r;l++)t[l].x-=s,t[l].y+=i}function lc(t,e,r,n,i,a){var o,s=t.image;if(s.content){var l=s.content,c=s.pixelRatio||1;o=[l[0]/c,l[1]/c,s.displaySize[0]-l[2]/c,s.displaySize[1]-l[3]/c]}var u,f,h,p,d=e.left*a,g=e.right*a;"width"===r||"both"===r?(p=i[0]+d-n[3],f=i[0]+g+n[1]):f=(p=i[0]+(d+g-s.displaySize[0])/2)+s.displaySize[0];var v=e.top*a,m=e.bottom*a;return"height"===r||"both"===r?(u=i[1]+v-n[0],h=i[1]+m+n[2]):h=(u=i[1]+(v+m-s.displaySize[1])/2)+s.displaySize[1],{image:s,top:u,right:f,bottom:h,left:p,collisionPadding:o}}$l[10]=!0,$l[32]=!0,$l[38]=!0,$l[40]=!0,$l[41]=!0,$l[43]=!0,$l[45]=!0,$l[47]=!0,$l[173]=!0,$l[183]=!0,$l[8203]=!0,$l[8208]=!0,$l[8211]=!0,$l[8231]=!0;var cc=function(t){function e(e,r,n,i){t.call(this,e,r),this.angle=n,void 0!==i&&(this.segment=i)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.clone=function(){return new e(this.x,this.y,this.angle,this.segment)},e}(a);Kn("Anchor",cc);var uc=128;function fc(t,e){var r=e.expression;if("constant"===r.kind)return{kind:"constant",layoutSize:r.evaluate(new Ai(t+1))};if("source"===r.kind)return{kind:"source"};for(var n=r.zoomStops,i=r.interpolationType,a=0;a<n.length&&n[a]<=t;)a++;for(var o=a=Math.max(0,a-1);o<n.length&&n[o]<t+1;)o++;o=Math.min(n.length-1,o);var s=n[a],l=n[o];return"composite"===r.kind?{kind:"composite",minZoom:s,maxZoom:l,interpolationType:i}:{kind:"camera",minZoom:s,maxZoom:l,minSize:r.evaluate(new Ai(s)),maxSize:r.evaluate(new Ai(l)),interpolationType:i}}function hc(t,e,r){var n=e.uSize,i=e.uSizeT,a=r.lowerSize,o=r.upperSize;return"source"===t.kind?a/uc:"composite"===t.kind?Ze(a/uc,o/uc,i):n}function pc(t,e){var r=0,n=0;if("constant"===t.kind)n=t.layoutSize;else if("source"!==t.kind){var i=t.interpolationType,a=t.minZoom,o=t.maxZoom,s=i?c(dr.interpolationFactor(i,e,a,o),0,1):0;"camera"===t.kind?n=Ze(t.minSize,t.maxSize,s):r=s}return{uSizeT:r,uSize:n}}var dc=Object.freeze({__proto__:null,getSizeData:fc,evaluateSizeForFeature:hc,evaluateSizeForZoom:pc,SIZE_PACK

_FACTOR:uc});function gc(t,e,r,n,i){if(void 0===e.segment)return!0;for(var a=e,o=e.segment+1,s=0;s>-r/2;){if(--o<0)return!1;s-=t[o].dist(a),a=t[o]}s+=t[o].dist(t[o+1]),o++;for(var l=[],c=0;s<r/2;){var u=t[o-1],f=t[o],h=t[o+1];if(!h)return!1;var p=u.angleTo(f)-f.angleTo(h);for(p=Math.abs((p+3*Math.PI)%(2*Math.PI)-Math.PI),l.push({distance:s,angleDelta:p}),c+=p;s-l[0].distance>n;)c-=l.shift().angleDelta;if(c>i)return!1;o++,s+=f.dist(h)}return!0}function vc(t){for(var e=0,r=0;r<t.length-1;r++)e+=t[r].dist(t[r+1]);return e}function mc(t,e,r){return t?.6*e*r:0}function yc(t,e){return Math.max(t?t.right-t.left:0,e?e.right-e.left:0)}function xc(t,e,r,n,i,a){for(var o=mc(r,i,a),s=yc(r,n)*a,l=0,c=vc(t)/2,u=0;u<t.length-1;u++){var f=t[u],h=t[u+1],p=f.dist(h);if(l+p>c){var d=(c-l)/p,g=Ze(f.x,h.x,d),v=Ze(f.y,h.y,d),m=new cc(g,v,h.angleTo(f),u);return m._round(),!o||gc(t,m,s,o,e)?m:void 0}l+=p}}function bc(t,e,r,n,i,a,o,s,l){var c=mc(n,a,o),u=yc(n,i),f=u*o,h=0===t[0].x||t[0].x===l||0===t[0].y||t[0].y===l;return e-f<e/4&&(e=f+e/4),_c(t,h?e/2*s%e:(u/2+2*a)*o*s%e,e,c,r,f,h,!1,l)}function _c(t,e,r,n,i,a,o,s,l){for(var c=a/2,u=vc(t),f=0,h=e-r,p=[],d=0;d<t.length-1;d++){for(var g=t[d],v=t[d+1],m=g.dist(v),y=v.angleTo(g);h+r<f+m;){var x=((h+=r)-f)/m,b=Ze(g.x,v.x,x),_=Ze(g.y,v.y,x);if(b>=0&&b<l&&_>=0&&_<l&&h-c>=0&&h+c<=u){var w=new cc(b,_,y,d);w._round(),n&&!gc(t,w,a,n,i)||p.push(w)}}f+=m}return s||p.length||o||(p=_c(t,f/2,r,n,i,a,o,!0,l)),p}function wc(t,e,r,n,i){for(var o=[],s=0;s<t.length;s++)for(var l=t[s],c=void 0,u=0;u<l.length-1;u++){var f=l[u],h=l[u+1];f.x<e&&h.x<e||(f.x<e?f=new a(e,f.y+(h.y-f.y)*((e-f.x)/(h.x-f.x))).._round():h.x<e&&(h=new a(e,f.y+(h.y-f.y)*((e-f.x)/(h.x-f.x))).._round()),f.y<r&&h.y<r||(f.y<r?f=new a(f.x+(h.x-f.x)*((r-f.y)/(h.y-f.y)),r)._round():h.y<r&&(h=new a(f.x+(h.x-f.x)*((r-f.y)/(h.y-f.y)),r)._round()),f.x>=n&&h.x>=n||(f.x>=n?f=new a(n,f.y+(h.y-f.y)*((n-f.x)/(h.x-f.x))).._round():h.x>=n&&(h=new a(n,f.y+(h.y-f.y)*((n-f.x)/(h.x-f.x))).._round()),f.y>=i&&h.y>=i||(f.y>=i?f=new a(f.x+(h.x-f.x)*((i-f.y)/(h.y-f.y)),i)._round():h.y>=i&&(h=new a(f.x+(h.x-f.x)*((i-f.y)/(h.y-f.y)),i)._round()),c&&f.equals(c[c.length-1])||(c=[f],o.push(c)),c.push(h))))}return o}function Tc(t,e,r,n){var i=[],o=t.image,s=o.pixelRatio,l=o.paddedRect.w-2,c=o.paddedRect.h-2,u=t.right-t.left,f=t.bottom-t.top,h=o.stretchX||[[0,l]],p=o.stretchY||[[0,c]],d=function(t,e){return t+e[1]-e[0]},g=h.reduce(d,0),v=p.reduce(d,0),m=l-g,y=c-v,x=0,b=g,_=0,w=v,T=0,k=m,A=0,M=y;if(o.content&&n){var S=o.content;x=kc(h,0,S[0]),_=kc(p,0,S[1]),b=kc(h,S[0],S[2]),w=kc(p,S[1],S[3]),T=S[0]-x,A=S[1]-_,k=S[2]-S[0]-b,M=S[3]-S[1]-w}var E=function(n,i,l,c){var h=Mc(n.stretch-x,b,u,t.left),p=Sc(n.fixed-T,k,n.stretch,g),d=Mc(i.stretch-_,w,f,t.top),m=Sc(i.fixed-A,M,i.stretch,v),y=Mc(l.stretch-x,b,u,t.left),S=Sc(l.fixed-T,k,l.stretch,g),E=Mc(c.stretch-_,w,f,t.top),L=Sc(c.fixed-A,M,c.stretch,v),C=new a(h,d),P=new a(y,d),I=new a(y,E),O=new a(h,E),z=new a(p/s,m/s),D=new a(S/s,L/s),R=e*Math.PI/180;if(R){var F=Math.sin(R),B=Math.cos(R),N=[B,-F,F,B];C._matMult(N),P._matMult(N),O._matMult(N),I._matMult(N)}var j=n.stretch+n.fixed,U=l.stretch+l.fixed,V=i.stretch+i.fixed,q=c.stretch+c.fixed;return{tl:C,tr:P,bl:O,br:I,tex:{x:o.paddedRect.x+1+j,y:o.paddedRect.y+1+V,w:U-j,h:q-V},writingMode:void 0,glyphOffset:[0,0],sectionIndex:0,pixelOffsetTL:z,pixelOffsetBR:D,minFontScaleX:k/s/u,minFontScaleY:M/s/f,isSDF:r}};if(n&&(o.stretchX||o.stretchY))for(var L=Ac(h,m,g),C=Ac(p,y,v),P=0;P<L.length-1;P++)for(var I=L[P],O=L[P+1],z=0;z<C.length-1;z++){var D=C[z],R=C[z+1];i.push(E(I,D,O,R))}else i.push(E({fixed:0,stretch:-1},{fixed:0,stretch:-1},{fixed:0,stretch:l+1},{fixed:0,stretch:c+1}));return i}function kc(t,e,r){for(var n=0,i=0,a=t;i<a.length;i+=1){var o=a[i];n+=Math.max(e,Math.min(r,o[1]))-Math.max(e,Math.min(r,o[0]))}return n}function Ac(t,e,r){for(var n=[{fixed:-1,stretch:0}],i=0,a=t;i<a.length;i+=1){var o=a[i],s=o[0],l=o[1],c=n[n.length-1];n.push({fixed:s-c.stretch,stretch:c.stretch}),n.push({fixed:s-c.stretch,stretch:c.stretch+(l-s)})}return n.push({fixed:e+1,stretch:r}),n}function Mc(t,e,r,n){return t/e*r+n}function Sc(t,e,r,n){return t-e*r/n}var Ec=function(t,e,r,n,i,o,s,l,c,u){if(this.boxStartIndex=t.length,c){var f=o.top,h=o.bottom,p=o.collisionPadding;p&&(f-=p[1],h+=p[3]);var d=h-f;d>0&&(d=Math.max(10,d),this.circleDiameter=d)}else{var g=o.top*s-l,v=o.bottom*s+l,m=o.left*s-l,y=o.right*s+l,x=o.collisionPadding;if(x&&(m-=x[0]*s,g-=x[1]*s,y+=x[2]*s,v+=x[3]*s),u){var b=new a(m,g),_=new a(y,g),w=new a(m,v),T=new a(y,v),k=u*Math.PI/180;b._rotate(k),_._rotate(k),w._rotate(k),T._rotate(k),m=Math.min(b.x,_.x,w.x,T.x),y=Math.m

ax(b.x,_.x,w.x,T.x),g=Math.min(b.y,_.y,w.y,T.y),v=Math.max(b.y,_.y,w.y,T.y)}t.emplaceBack(e.x,e.y,m,g,y,v,r,n,i)}this.boxEndIndex=t.length},Lc=function(t,e){if(void 0===t&&(t=[]),void 0===e&&(e=Cc),this.data=t,this.length=this.data.length,this.compare=e,this.length>0)for(var r=(this.length>>1)-1;r>=0;r--)this._down(r)};function Cc(t,e){return t<e?-1:t>e?1:0}function Pc(t,e,r){void 0===e&&(e=1),void 0===r&&(r=!1);for(var n=1/0,i=1/0,o=-1/0,s=-1/0,l=t[0],c=0;c<l.length;c++){var u=l[c];(!c||u.x<n)&&(n=u.x),(!c||u.y<i)&&(i=u.y),(!c||u.x>o)&&(o=u.x),(!c||u.y>s)&&(s=u.y)}var f=o-n,h=s-i,p=Math.min(f,h),d=p/2,g=new Lc([],Ic);if(0===p)return new a(n,i);for(var v=n;v<o;v+=p)for(var m=i;m<s;m+=p)g.push(new Oc(v+d,m+d,d,t));for(var y=function(t){for(var e=0,r=0,n=0,i=t[0],a=0,o=i.length,s=o-1;a<o;s=a++){var l=i[a],c=i[s],u=l.x*c.y-c.x*l.y;r+=(l.x+c.x)*u,n+=(l.y+c.y)*u,e+=3*u}return new Oc(r/e,n/e,0,t)}(t),x=g.length;g.length;){var b=g.pop();(b.d>y.d||!y.d)&&(y=b,r&&console.log("found best %d after %d probes",Math.round(1e4*b.d)/1e4,x)),b.max-y.d<=e||(d=b.h/2,g.push(new Oc(b.p.x-d,b.p.y-d,d,t)),g.push(new Oc(b.p.x+d,b.p.y-d,d,t)),g.push(new Oc(b.p.x-d,b.p.y+d,d,t)),g.push(new Oc(b.p.x+d,b.p.y+d,d,t)),x+=4)}return r&&(console.log("num probes: "+x),console.log("best distance: "+y.d)),y.p}function Ic(t,e){return e.max-t.max}function Oc(t,e,r,n){this.p=new a(t,e),this.h=r,this.d=function(t,e){for(var r=!1,n=1/0,i=0;i<e.length;i++)for(var a=e[i],o=0,s=a.length,l=s-1;o<s;l=o++){var c=a[o],u=a[l];c.y>t.y!=u.y>t.y&&t.x<(u.x-c.x)*(t.y-c.y)/(u.y-c.y)+c.x&&(r=!r),n=Math.min(n,yo(t,c,u))}return(r?1:-1)*Math.sqrt(n)}(this.p,n),this.max=this.d+this.h*Math.SQRT2}Lc.prototype.push=function(t){this.data.push(t),this.length++,this._up(this.length-1)},Lc.prototype.pop=function(){if(0!==this.length){var t=this.data[0],e=this.data.pop();return this.length--,this.length>0&&(this.data[0]=e,this._down(0)),t}},Lc.prototype.peek=function(){return this.data[0]},Lc.prototype._up=function(t){for(var e=this.data,r=this.compare,n=e[t];t>0;){var i=t-1>>1,a=e[i];if(r(n,a)>=0)break;e[t]=a,t=i}e[t]=n},Lc.prototype._down=function(t){for(var e=this.data,r=this.compare,n=this.length>>1,i=e[t];t<n;){var a=1+(t<<1),o=e[a],s=a+1;if(s<this.length&&r(e[s],o)<0&&(a=s,o=e[s]),r(o,i)>=0)break;e[t]=o,t=a}e[t]=i};var zc=Number.POSITIVE_INFINITY;function Dc(t,e){return e[1]!==zc?function(t,e,r){var n=0,i=0;switch(e=Math.abs(e),r=Math.abs(r),t){case"top-right":case"top-left":case"top":i=r-7;break;case"bottom-right":case"bottom-left":case"bottom":i=7-r}switch(t){case"top-right":case"bottom-right":case"right":n=-e;break;case"top-left":case"bottom-left":case"left":n=e}return[n,i]}(t,e[0],e[1]):function(t,e){var r=0,n=0;e<0&&(e=0);var i=e/Math.sqrt(2);switch(t){case"top-right":case"top-left":n=i-7;break;case"bottom-right":case"bottom-left":n=7-i;break;case"bottom":n=7-e;break;case"top":n=e-7}switch(t){case"top-right":case"bottom-right":r=-i;break;case"top-left":case"bottom-left":r=i;break;case"left":r=e;break;case"right":r=-e}return[r,n]}(t,e[0])}function Rc(t){switch(t){case"right":case"top-right":case"bottom-right":return"right";case"left":case"top-left":case"bottom-left":return"left"}return"center"}var Fc=32640;function Bc(t,e,r,n,i,o,s,l,c,u,f,h,p,d,g){var v=function(t,e,r,n,i,o,s,l){for(var c=n.layout.get("text-rotate").evaluate(o,{})*Math.PI/180,u=[],f=0,h=e.positionedLines;f<h.length;f+=1)for(var p=h[f],d=0,g=p.positionedGlyphs;d<g.length;d+=1){var v=g[d];if(v.rect){var m=v.rect||{},y=4,x=!0,b=1,_=0,w=(i||l)&&v.vertical,T=v.metrics.advance*v.scale/2;if(l&&e.verticalizable){var k=(v.scale-1)*ml,A=(ml-v.metrics.width*v.scale)/2;_=p.lineOffset/2-(v.imageName?-A:k)}if(v.imageName){var M=s[v.imageName];x=M.sdf,y=1/(b=M.pixelRatio)}var S=i?[v.x+T,v.y]:[0,0],E=i?[0,0]:[v.x+T+r[0],v.y+r[1]-_],L=[0,0];w&&(L=E,E=[0,0]);var C=(v.metrics.left-y)*v.scale-T+E[0],P=(-v.metrics.top-y)*v.scale+E[1],I=C+m.w*v.scale/b,O=P+m.h*v.scale/b,z=new a(C,P),D=new a(I,P),R=new a(C,O),F=new a(I,O);if(w){var B=new a(-T,T-Xl),N=-Math.PI/2,j=12-T,U=v.imageName?j:0,V=new a(22-j,-U),q=new(Function.prototype.bind.apply(a,[null].concat(L)));z._rotateAround(N,B)._add(V)._add(q),D._rotateAround(N,B)._add(V)._add(q),R._rotateAround(N,B)._add(V)._add(q),F._rotateAround(N,B)._add(V)._add(q)}if(c){var H=Math.sin(c),G=Math.cos(c),Y=[G,-H,H,G];z._matMult(Y),D._matMult(Y),R._matMult(Y),F._matMult(Y)}var W=new a(0,0),X=new a(0,0);u.push({tl:z,tr:D,bl:R,br:F,tex:m,writingMode:e.writingMode,glyphOffset:S,sectionIndex:v.sectionIndex,isS

DF:x,pixelOffsetTL:W,pixelOffsetBR:X,minFontScaleX:0,minFontScaleY:0})}}return u}(0,r,l,i,o,s,n,t.allowVerticalPlacement),m=t.textSizeData,y=null;"source"===m.kind?(y=[uc*i.layout.get("text-size").evaluate(s,{})])[0]>Fc&&w(t.layerIds[0]+': Value for "text-size" is >= 255. Reduce your "text-size".'):"composite"===m.kind&&((y=[uc*d.compositeTextSizes[0].evaluate(s,{},g),uc*d.compositeTextSizes[1].evaluate(s,{},g)])[0]>Fc||y[1]>Fc)&&w(t.layerIds[0]+': Value for "text-size" is >= 255. Reduce your "text-size".'),t.addSymbols(t.text,v,y,l,o,s,u,e,c.lineStartIndex,c.lineLength,p,g);for(var x=0,b=f;x<b.length;x+=1)h[b[x]]=t.text.placedSymbolArray.length-1;return 4*v.length}function Nc(t){for(var e in t)return t[e];return null}function jc(t,e,r,n){var i=t.compareText;if(e in i){for(var a=i[e],o=a.length-1;o>=0;o--)if(n.dist(a[o])<r)return!0}else i[e]=[];return i[e].push(n),!1}var Uc=Hs.VectorTileFeature.types,Vc=[{name:"a_fade_opacity",components:1,type:"Uint8",offset:0}];function qc(t,e,r,n,i,a,o,s,l,c,u,f,h){var p=s?Math.min(Fc,Math.round(s[0])):0,d=s?Math.min(Fc,Math.round(s[1])):0;t.emplaceBack(e,r,Math.round(32*n),Math.round(32*i),a,o,(p<<1)+(l?1:0),d,16*c,16*u,256*f,256*h)}function Hc(t,e,r){t.emplaceBack(e.x,e.y,r),t.emplaceBack(e.x,e.y,r),t.emplaceBack(e.x,e.y,r),t.emplaceBack(e.x,e.y,r)}function Gc(t){for(var e=0,r=t.sections;e<r.length;e+=1)if(fi(r[e].text))return!0;return!1}var Yc=function(t){this.layoutVertexArray=new Qi,this.indexArray=new aa,this.programConfigurations=t,this.segments=new Ma,this.dynamicLayoutVertexArray=new $i,this.opacityVertexArray=new ta,this.placedSymbolArray=new ya};Yc.prototype.isEmpty=function(){return 0===this.layoutVertexArray.length&&0===this.indexArray.length&&0===this.dynamicLayoutVertexArray.length&&0===this.opacityVertexArray.length},Yc.prototype.upload=function(t,e,r,n){this.isEmpty()||(r&&(this.layoutVertexBuffer=t.createVertexBuffer(this.layoutVertexArray,ul.members),this.indexBuffer=t.createIndexBuffer(this.indexArray,e),this.dynamicLayoutVertexBuffer=t.createVertexBuffer(this.dynamicLayoutVertexArray,fl.members,!0),this.opacityVertexBuffer=t.createVertexBuffer(this.opacityVertexArray,Vc,!0),this.opacityVertexBuffer.itemSize=1),(r||n)&&this.programConfigurations.upload(t))},Yc.prototype.destroy=function(){this.layoutVertexBuffer&&(this.layoutVertexBuffer.destroy(),this.indexBuffer.destroy(),this.programConfigurations.destroy(),this.segments.destroy(),this.dynamicLayoutVertexBuffer.destroy(),this.opacityVertexBuffer.destroy())},Kn("SymbolBuffers",Yc);var Wc=function(t,e,r){this.layoutVertexArray=new t,this.layoutAttributes=e,this.indexArray=new r,this.segments=new Ma,this.collisionVertexArray=new ia};Wc.prototype.upload=function(t){this.layoutVertexBuffer=t.createVertexBuffer(this.layoutVertexArray,this.layoutAttributes),this.indexBuffer=t.createIndexBuffer(this.indexArray),this.collisionVertexBuffer=t.createVertexBuffer(this.collisionVertexArray,hl.members,!0)},Wc.prototype.destroy=function(){this.layoutVertexBuffer&&(this.layoutVertexBuffer.destroy(),this.indexBuffer.destroy(),this.segments.destroy(),this.collisionVertexBuffer.destroy())},Kn("CollisionBuffers",Wc);var Xc=function(t){this.collisionBoxArray=t.collisionBoxArray,this.zoom=t.zoom,this.overscaling=t.overscaling,this.layers=t.layers,this.layerIds=this.layers.map((function(t){return t.id})),this.index=t.index,this.pixelRatio=t.pixelRatio,this.sourceLayerIndex=t.sourceLayerIndex,this.hasPattern=!1,this.hasRTLText=!1,this.sortKeyRanges=[],this.collisionCircleArray=[],this.placementInvProjMatrix=Eo([]),this.placementViewportMatrix=Eo([]);var e=this.layers[0]._unevaluatedLayout._values;this.textSizeData=fc(this.zoom,e["text-size"]),this.iconSizeData=fc(this.zoom,e["icon-size"]);var r=this.layers[0].layout,n=r.get("symbol-sort-key"),i=r.get("symbol-z-order");this.sortFeaturesByKey="viewport-y"!==i&&void 0!==n.constantOr(1);var a="viewport-y"===i||"auto"===i&&!this.sortFeaturesByKey;this.sortFeaturesByY=a&&(r.get("text-allow-overlap")||r.get("icon-allow-overlap")||r.get("text-ignore-placement")||r.get("icon-ignore-placement")),"point"===r.get("symbol-placement")&&(this.writingModes=r.get("text-writing-mode").map((function(t){return Wl[t]}))),this.stateDependentLayerIds=this.layers.filter((function(t){return t.isStateDependent()})).map((function(t){return t.id})),this.sourceID=t.sourceID};Xc.prototype.createArrays=function(){this.text=new Yc(new eo(ul.members,this.layers,this.zoom,(function(t){return/^text/.test(t)}))),this.icon=new Yc(new

eo(ul.members,this.layers,this.zoom,(function(t){return/^icon/.test(t)}))),this.glyphOffsetArray=new
_a,this.lineVertexArray=new wa,this.symbolInstances=new
ba},Xc.prototype.calculateGlyphDependencies=function(t,e,r,n,i){for(var
a=0;a<t.length;a++)if(e[t.charCodeAt(a)]=!0,(r||n)&&i){var
o=vl[t.charAt(a)];o&&(e[o.charCodeAt(0)]=!0)}},Xc.prototype.populate=function(t,e,r){var
n=this.layers[0],i=n.layout,a=i.get("text-font"),o=i.get("text-field"),s=i.get("icon-
image"),l=("constant"!==o.value.kind||o.value.value instanceof
oe&&!o.value.value.isEmpty()||o.value.value.toString().length>0)&&("constant"!==a.value.kind||a.value.value.lengt
h>0),c="constant"!==s.value.kind||!!s.value.value||Object.keys(s.parameters).length>0,u=i.get("symbol-sort-
key");if(this.features=[],l||c){for(var f=e.iconDependencies,h=e.glyphDependencies,p=e.availableImages,d=new
Ai(this.zoom),g=0,v=t;g<v.length;g+=1){var
m=v[g],y=m.feature,x=m.id,b=m.index,_=m.sourceLayerIndex,w=n._featureFilter.needGeometry,T={type:y.type,id
:x,properties:y.properties,geometry:w?so(y):[]};if(n._featureFilter.filter(d,T,r)){w||(T.geometry=so(y));var k=void
0;if(l){var A=n.getValueAndResolveTokens("text-
field",T,r,p),M=oe.factory(A);Gc(M)&&(this.hasRTLText=!0),(!this.hasRTLText||"unavailable"===wi()||this.hasR
TLText&&ki.isParsed())&&(k=gl(M,n,T))}var S=void 0;if(c){var E=n.getValueAndResolveTokens("icon-
image",T,r,p);S=E instanceof se?E:se.fromString(E)}if(k||S){var L=this.sortFeaturesByKey?u.evaluate(T,{},r):void
0,C={id:x,text:k,icon:S,index:b,sourceLayerIndex:_,geometry:so(y),properties:y.properties,type:Uc[y.type],sortKey:
L};if(this.features.push(C),S&&(f[S.name]=!0),k){var P=a.evaluate(T,{},r).join(","),I="map"===i.get("text-
rotation-alignment")&&"point"!==i.get("symbol-
placement");this.allowVerticalPlacement=this.writingModes&&this.writingModes.indexOf(Wl.vertical)>=0;for(var
O=0,z=k.sections;O<z.length;O+=1){var D=z[O];if(D.image)f[D.image.name]=!0;else{var
R=ai(k.toString()),F=D.fontStack||P,B=h[F]=h[F]||{};this.calculateGlyphDependencies(D.text,B,I,this.allowVertical
Placement,R)}}}}}}"line"===i.get("symbol-placement")&&(this.features=function(t){var
e={},r={},n=[],i=0;function a(e){n.push(t[e]),i++}function o(t,e,i){var a=r[t];return delete
r[t],r[e]=a,n[a].geometry[0].pop(),n[a].geometry[0]=n[a].geometry[0].concat(i[0]),a}function s(t,r,i){var
a=e[r];return delete e[r],e[t]=a,n[a].geometry[0].shift(),n[a].geometry[0]=i[0].concat(n[a].geometry[0]),a}function
l(t,e,r){var n=r?e[0][e[0].length-1]:e[0][0];return t+":"+n.x+":"+n.y}for(var c=0;c<t.length;c++){var
u=t[c],f=u.geometry,h=u.text?u.text.toString():null;if(h){var p=l(h,f),d=l(h,f,!0);if(p in r&&d in
e&&r[p]!==e[d]){var g=s(p,d,f),v=o(p,d,n[g].geometry);delete e[p],delete
r[d],r[l(h,n[v].geometry,!0)]=v,n[g].geometry=null}else p in r?o(p,d,f):d in e?s(p,d,f):(a(c),e[p]=i-1,r[d]=i-1)}else
a(c)}return n.filter((function(t){return
t.geometry}))}(this.features)),this.sortFeaturesByKey&&this.features.sort((function(t,e){return t.sortKey-
e.sortKey}))}},Xc.prototype.update=function(t,e,r){this.stateDependentLayers.length&&(this.text.programConfigur
ations.updatePaintArrays(t,e,this.layers,r),this.icon.programConfigurations.updatePaintArrays(t,e,this.layers,r))},Xc.
prototype.isEmpty=function(){return
0===this.symbolInstances.length&&!this.hasRTLText},Xc.prototype.uploadPending=function(){return!this.uploade
d||this.text.programConfigurations.needsUpload||this.icon.programConfigurations.needsUpload},Xc.prototype.uploa
d=function(t){!this.uploaded&&this.hasDebugData()&&(this.textCollisionBox.upload(t),this.iconCollisionBox.uplo
ad(t)),this.text.upload(t,this.sortFeaturesByY,!this.uploaded,this.text.programConfigurations.needsUpload),this.icon.
upload(t,this.sortFeaturesByY,!this.uploaded,this.icon.programConfigurations.needsUpload),this.uploaded=!0},Xc.p
rototype.destroyDebugData=function(){this.textCollisionBox.destroy(),this.iconCollisionBox.destroy()},Xc.prototy
pe.destroy=function(){this.text.destroy(),this.icon.destroy(),this.hasDebugData()&&this.destroyDebugData()},Xc.pr
ototype.addToLineVertexArray=function(t,e){var r=this.lineVertexArray.length;if(void 0!==t.segment){for(var
n=t.dist(e[t.segment+1]),i=t.dist(e[t.segment]),a={},o=t.segment+1;o<e.length;o++)a[o]={x:e[o].x,y:e[o].y,tileUnit
DistanceFromAnchor:n},o<e.length-1&&(n+=e[o+1].dist(e[o]));for(var s=t.segment||0;s>=0;s--
)a[s]={x:e[s].x,y:e[s].y,tileUnitDistanceFromAnchor:i},s>0&&(i+=e[s-1].dist(e[s]));for(var l=0;l<e.length;l++){var
c=a[l];this.lineVertexArray.emplaceBack(c.x,c.y,c.tileUnitDistanceFromAnchor)}}return{lineStartIndex:r,lineLengt

h:this.lineVertexArray.length-r}},Xc.prototype.addSymbols=function(t,e,r,n,i,a,o,s,l,c,u,f){for(var h=t.indexArray,p=t.layoutVertexArray,d=t.segments.prepareSegment(4*e.length,p,h,a.sortKey),g=this.glyphOffsetArray.length,v=d.vertexLength,m=this.allowVerticalPlacement&&o===Wl.vertical?Math.PI/2:0,y=a.text&&a.text.sections,x=0;x<e.length;x++){var b=e[x],_=b.tl,w=b.tr,T=b.bl,k=b.br,A=b.tex,M=b.pixelOffsetTL,S=b.pixelOffsetBR,E=b.minFontScaleX,L=b.minFontScaleY,C=b.glyphOffset,P=b.isSDF,I=b.sectionIndex,O=d.vertexLength,z=C[1];qc(p,s.x,s.y,_.x,z+_.y,A.x,A.y,r,P,M.x,M.y,E,L),qc(p,s.x,s.y,w.x,z+w.y,A.x+A.w,A.y,r,P,S.x,M.y,E,L),qc(p,s.x,s.y,T.x,z+T.y,A.x,A.y+A.h,r,P,M.x,S.y,E,L),qc(p,s.x,s.y,k.x,z+k.y,A.x+A.w,A.y+A.h,r,P,S.x,S.y,E,L),Hc(t.dynamicLayoutVertexArray,s,m),h.emplaceBack(O,O+1,O+2),h.emplaceBack(O+1,O+2,O+3),d.vertexLength+=4,d.primitiveLength+=2,this.glyphOffsetArray.emplaceBack(C[0]),x!==e.length-1&&I===e[x+1].sectionIndex||t.programConfigurations.populatePaintArrays(p.length,a,a.index,{},f,y&&y[I])}t.placedSymbolArray.emplaceBack(s.x,s.y,g,this.glyphOffsetArray.length-g,v,l,c,s.segment,r?r[0]:0,r?r[1]:0,n[0],n[1],o,0,!1,0,u)},Xc.prototype._addCollisionDebugVertex=function(t,e,r,n,i,a){return e.emplaceBack(0,0),t.emplaceBack(r.x,r.y,n,i,Math.round(a.x),Math.round(a.y))},Xc.prototype.addCollisionDebugVertices=function(t,e,r,n,i,o,s){var l=i.segments.prepareSegment(4,i.layoutVertexArray,i.indexArray),c=l.vertexLength,u=i.layoutVertexArray,f=i.collisionVertexArray,h=s.anchorX,p=s.anchorY;this._addCollisionDebugVertex(u,f,o,h,p,new a(t,e)),this._addCollisionDebugVertex(u,f,o,h,p,new a(r,e)),this._addCollisionDebugVertex(u,f,o,h,p,new a(r,n)),this._addCollisionDebugVertex(u,f,o,h,p,new a(t,n)),l.vertexLength+=4;var d=i.indexArray;d.emplaceBack(c,c+1),d.emplaceBack(c+1,c+2),d.emplaceBack(c+2,c+3),d.emplaceBack(c+3,c),l.primitiveLength+=4},Xc.prototype.addDebugCollisionBoxes=function(t,e,r,n){for(var i=t;i<e;i++){var a=this.collisionBoxArray.get(i),o=a.x1,s=a.y1,l=a.x2,c=a.y2;this.addCollisionDebugVertices(o,s,l,c,n?this.textCollisionBox:this.iconCollisionBox,a.anchorPoint,r)}},Xc.prototype.generateCollisionDebugBuffers=function(){this.hasDebugData()&&this.destroyDebugData(),this.textCollisionBox=new Wc(ra,pl.members,fa),this.iconCollisionBox=new Wc(ra,pl.members,fa);for(var t=0;t<this.symbolInstances.length;t++){var e=this.symbolInstances.get(t);this.addDebugCollisionBoxes(e.textBoxStartIndex,e.textBoxEndIndex,e,!0),this.addDebugCollisionBoxes(e.verticalTextBoxStartIndex,e.verticalTextBoxEndIndex,e,!0),this.addDebugCollisionBoxes(e.iconBoxStartIndex,e.iconBoxEndIndex,e,!1),this.addDebugCollisionBoxes(e.verticalIconBoxStartIndex,e.verticalIconBoxEndIndex,e,!1)}},Xc.prototype._deserializeCollisionBoxesForSymbol=function(t,e,r,n,i,a,o,s,l){for(var c={},u=e;u<r;u++){var f=t.get(u);c.textBox={x1:f.x1,y1:f.y1,x2:f.x2,y2:f.y2,anchorPointX:f.anchorPointX,anchorPointY:f.anchorPointY},c.textFeatureIndex=f.featureIndex;break}for(var h=n;h<i;h++){var p=t.get(h);c.verticalTextBox={x1:p.x1,y1:p.y1,x2:p.x2,y2:p.y2,anchorPointX:p.anchorPointX,anchorPointY:p.anchorPointY},c.verticalTextFeatureIndex=p.featureIndex;break}for(var d=a;d<o;d++){var g=t.get(d);c.iconBox={x1:g.x1,y1:g.y1,x2:g.x2,y2:g.y2,anchorPointX:g.anchorPointX,anchorPointY:g.anchorPointY},c.iconFeatureIndex=g.featureIndex;break}for(var v=s;v<l;v++){var m=t.get(v);c.verticalIconBox={x1:m.x1,y1:m.y1,x2:m.x2,y2:m.y2,anchorPointX:m.anchorPointX,anchorPointY:m.anchorPointY},c.verticalIconFeatureIndex=m.featureIndex;break}return c},Xc.prototype.deserializeCollisionBoxes=function(t){this.collisionArrays=[];for(var e=0;e<this.symbolInstances.length;e++){var r=this.symbolInstances.get(e);this.collisionArrays.push(this._deserializeCollisionBoxesForSymbol(t,r.textBoxStartIndex,r.textBoxEndIndex,r.verticalTextBoxStartIndex,r.verticalTextBoxEndIndex,r.iconBoxStartIndex,r.iconBoxEndIndex,r.verticalIconBoxStartIndex,r.verticalIconBoxEndIndex))}},Xc.prototype.hasTextData=function(){return this.text.segments.get().length>0},Xc.prototype.hasIconData=function(){return this.icon.segments.get().length>0},Xc.prototype.hasDebugData=function(){return this.textCollisionBox&&this.iconCollisionBox},Xc.prototype.hasTextCollisionBoxData=function(){return

this.hasDebugData()&&this.textCollisionBox.segments.get().length>0},Xc.prototype.hasIconCollisionBoxData=fun
ction(){return
this.hasDebugData()&&this.iconCollisionBox.segments.get().length>0},Xc.prototype.addIndicesForPlacedSymbol=
function(t,e){for(var
r=t.placedSymbolArray.get(e),n=r.vertexStartIndex+4*r.numGlyphs,i=r.vertexStartIndex;i<n;i+=4)t.indexArray.em
placeBack(i,i+1,i+2),t.indexArray.emplaceBack(i+1,i+2,i+3)},Xc.prototype.getSortedSymbolIndexes=function(t){if
(this.sortedAngle===t&&void 0!==this.symbolInstanceIndexes)return this.symbolInstanceIndexes;for(var
e=Math.sin(t),r=Math.cos(t),n=[],i=[],a=[],o=0;o<this.symbolInstances.length;++o){a.push(o);var
s=this.symbolInstances.get(o);n.push(0|Math.round(e*s.anchorX+r*s.anchorY)),i.push(s.featureIndex)}return
a.sort((function(t,e){return n[t]-n[e]||i[e]-i[t]})),a},Xc.prototype.addToSortKeyRanges=function(t,e){var
r=this.sortKeyRanges[this.sortKeyRanges.length-
1];r&&r.sortKey===e?r.symbolInstanceEnd=t+1:this.sortKeyRanges.push({sortKey:e,symbolInstanceStart:t,symbol
InstanceEnd:t+1})},Xc.prototype.sortFeatures=function(t){var
e=this;if(this.sortFeaturesByY&&this.sortedAngle!==t&&!(this.text.segments.get().length>1||this.icon.segments.get
().length>1)){this.symbolInstanceIndexes=this.getSortedSymbolIndexes(t),this.sortedAngle=t,this.text.indexArray.c
lear(),this.icon.indexArray.clear(),this.featureSortOrder=[];for(var
r=0,n=this.symbolInstanceIndexes;r<n.length;r+=1){var
i=n[r],a=this.symbolInstances.get(i);this.featureSortOrder.push(a.featureIndex),[a.rightJustifiedTextSymbolIndex,a.
centerJustifiedTextSymbolIndex,a.leftJustifiedTextSymbolIndex].forEach((function(t,r,n){t>=0&&n.indexOf(t)===
r&&e.addIndicesForPlacedSymbol(e.text,t)})),a.verticalPlacedTextSymbolIndex>=0&&this.addIndicesForPlacedSy
mbol(this.text,a.verticalPlacedTextSymbolIndex),a.placedIconSymbolIndex>=0&&this.addIndicesForPlacedSymbo
l(this.icon,a.placedIconSymbolIndex),a.verticalPlacedIconSymbolIndex>=0&&this.addIndicesForPlacedSymbol(thi
s.icon,a.verticalPlacedIconSymbolIndex)}this.text.indexBuffer&&this.text.indexBuffer.updateData(this.text.indexA
rray),this.icon.indexBuffer&&this.icon.indexBuffer.updateData(this.icon.indexArray)}},Kn("SymbolBucket",Xc,{o
mit:["layers","collisionBoxArray","features","compareText"]}),Xc.MAX_GLYPHS=65535,Xc.addDynamicAttribut
es=Hc;var Zc=new Ni({"symbol-placement":new zi(It.layout_symbol["symbol-placement"]),"symbol-spacing":new
zi(It.layout_symbol["symbol-spacing"]),"symbol-avoid-edges":new zi(It.layout_symbol["symbol-avoid-
edges"]),"symbol-sort-key":new Di(It.layout_symbol["symbol-sort-key"]),"symbol-z-order":new
zi(It.layout_symbol["symbol-z-order"]),"icon-allow-overlap":new zi(It.layout_symbol["icon-allow-overlap"]),"icon-
ignore-placement":new zi(It.layout_symbol["icon-ignore-placement"]),"icon-optional":new
zi(It.layout_symbol["icon-optional"]),"icon-rotation-alignment":new zi(It.layout_symbol["icon-rotation-
alignment"]),"icon-size":new Di(It.layout_symbol["icon-size"]),"icon-text-fit":new zi(It.layout_symbol["icon-text-
fit"]),"icon-text-fit-padding":new zi(It.layout_symbol["icon-text-fit-padding"]),"icon-image":new
Di(It.layout_symbol["icon-image"]),"icon-rotate":new Di(It.layout_symbol["icon-rotate"]),"icon-padding":new
zi(It.layout_symbol["icon-padding"]),"icon-keep-upright":new zi(It.layout_symbol["icon-keep-upright"]),"icon-
offset":new Di(It.layout_symbol["icon-offset"]),"icon-anchor":new Di(It.layout_symbol["icon-anchor"]),"icon-
pitch-alignment":new zi(It.layout_symbol["icon-pitch-alignment"]),"text-pitch-alignment":new
zi(It.layout_symbol["text-pitch-alignment"]),"text-rotation-alignment":new zi(It.layout_symbol["text-rotation-
alignment"]),"text-field":new Di(It.layout_symbol["text-field"]),"text-font":new Di(It.layout_symbol["text-
font"]),"text-size":new Di(It.layout_symbol["text-size"]),"text-max-width":new Di(It.layout_symbol["text-max-
width"]),"text-line-height":new zi(It.layout_symbol["text-line-height"]),"text-letter-spacing":new
Di(It.layout_symbol["text-letter-spacing"]),"text-justify":new Di(It.layout_symbol["text-justify"]),"text-radial-
offset":new Di(It.layout_symbol["text-radial-offset"]),"text-variable-anchor":new zi(It.layout_symbol["text-
variable-anchor"]),"text-anchor":new Di(It.layout_symbol["text-anchor"]),"text-max-angle":new
zi(It.layout_symbol["text-max-angle"]),"text-writing-mode":new zi(It.layout_symbol["text-writing-mode"]),"text-
rotate":new Di(It.layout_symbol["text-rotate"]),"text-padding":new zi(It.layout_symbol["text-padding"]),"text-keep-
upright":new zi(It.layout_symbol["text-keep-upright"]),"text-transform":new Di(It.layout_symbol["text-
transform"]),"text-offset":new Di(It.layout_symbol["text-offset"]),"text-allow-overlap":new

zi(It.layout_symbol["text-allow-overlap"]),"text-ignore-placement":new zi(It.layout_symbol["text-ignore-placement"]),"text-optional":new zi(It.layout_symbol["text-optional"])}),Jc={paint:new Ni({"icon-opacity":new Di(It.paint_symbol["icon-opacity"]),"icon-color":new Di(It.paint_symbol["icon-color"]),"icon-halo-color":new Di(It.paint_symbol["icon-halo-color"]),"icon-halo-width":new Di(It.paint_symbol["icon-halo-width"]),"icon-halo-blur":new Di(It.paint_symbol["icon-halo-blur"]),"icon-translate":new zi(It.paint_symbol["icon-translate"]),"icon-translate-anchor":new zi(It.paint_symbol["icon-translate-anchor"]),"text-opacity":new Di(It.paint_symbol["text-opacity"]),"text-color":new Di(It.paint_symbol["text-color"],{runtimeType:Ht,getOverride:function(t){return t.textColor},hasOverride:function(t){return!!t.textColor}}),"text-halo-color":new Di(It.paint_symbol["text-halo-color"]),"text-halo-width":new Di(It.paint_symbol["text-halo-width"]),"text-halo-blur":new Di(It.paint_symbol["text-halo-blur"]),"text-translate":new zi(It.paint_symbol["text-translate"]),"text-translate-anchor":new zi(It.paint_symbol["text-translate-anchor"])}),layout:Zc},Kc=function(t){this.type=t.property.overrides?t.property.overrides.runtimeType:jt,this.defaultValue=t};Kc.prototype.evaluate=function(t){if(t.formattedSection){var e=this.defaultValue.property.overrides;if(e&&e.hasOverride(t.formattedSection))return e.getOverride(t.formattedSection)}return t.feature&&t.featureState?this.defaultValue.evaluate(t.feature,t.featureState):this.defaultValue.property.specification.default},Kc.prototype.eachChild=function(t){this.defaultValue.isConstant()||t(this.defaultValue.value._styleExpression.expression)},Kc.prototype.outputDefined=function(){return!1},Kc.prototype.serialize=function(){return null},Kn("FormatSectionOverride",Kc,{omit:["defaultValue"]});var Qc=function(t){function e(e){t.call(this,e,Jc)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.recalculate=function(e,r){if(t.prototype.recalculate.call(this,e,r),"auto"===this.layout.get("icon-rotation-alignment")&&("point"!==this.layout.get("symbol-placement")?this.layout._values["icon-rotation-alignment"]="map":this.layout._values["icon-rotation-alignment"]="viewport"),"auto"===this.layout.get("text-rotation-alignment")&&("point"!==this.layout.get("symbol-placement")?this.layout._values["text-rotation-alignment"]="map":this.layout._values["text-rotation-alignment"]="viewport"),"auto"===this.layout.get("text-pitch-alignment")&&(this.layout._values["text-pitch-alignment"]=this.layout.get("text-rotation-alignment")),"auto"===this.layout.get("icon-pitch-alignment")&&(this.layout._values["icon-pitch-alignment"]=this.layout.get("icon-rotation-alignment")),"point"===this.layout.get("symbol-placement")){var n=this.layout.get("text-writing-mode");if(n){for(var i=[],a=0,o=n;a<o.length;a+=1){var s=o[a];i.indexOf(s)<0&&i.push(s)}this.layout._values["text-writing-mode"]=i}else this.layout._values["text-writing-mode"]=["horizontal"]}this._setPaintOverrides()},e.prototype.getValueAndResolveTokens=function(t,e,r,n){var i=this.layout.get(t).evaluate(e,{},r,n),a=this._unevaluatedLayout._values[t];return a.isDataDriven()||en(a.value)||!i?i:function(t,e){return e.replace(/{([^{}]+)}/g,(function(e,r){return r in t?String(t[r]):""}))}(e.properties,i)},e.prototype.createBucket=function(t){return new Xc(t)},e.prototype.queryRadius=function(){return 0},e.prototype.queryIntersectsFeature=function(){return!1},e.prototype._setPaintOverrides=function(){for(var t=0,r=Jc.paint.overridableProperties;t<r.length;t+=1){var n=r[t];if(e.hasPaintOverride(this.layout,n)){var i,a=this.paint.get(n),o=new Kc(a),s=new tn(o,a.property.specification);i="constant"===a.value.kind||"source"===a.value.kind?new nn("source",s):new an("composite",s,a.value.zoomStops,a.value._interpolationType),this.paint._values[n]=new Ii(a.property,i,a.parameters)}}},e.prototype._handleOverridablePaintPropertyUpdate=function(t,r,n){return!(!this.layout||r.isDataDriven()||n.isDataDriven())&&e.hasPaintOverride(this.layout,t)},e.hasPaintOverride=function(t,e){var r=t.get("text-field"),n=Jc.paint.properties[e],i=!1,a=function(t){for(var e=0,r=t;e<r.length;e+=1){var a=r[e];if(n.overrides&&n.overrides.hasOverride(a))return void(i=!0)}};if("constant"===r.value.kind&&r.value.value instanceof oe)a(r.value.value.sections);else if("source"===r.value.kind){var o=function(t){if(!i)if(t instanceof he&&ue(t.value)===Xt){var

e=t.value;a(e.sections)}else t instanceof
ve?a(t.sections):t.eachChild(o)},s=r.value;s._styleExpression&&o(s._styleExpression.expression)}return
i},e}(Ui),$c={paint:new Ni({"background-color":new zi(It.paint_background["background-color"]),"background-
pattern":new Fi(It.paint_background["background-pattern"]),"background-opacity":new
zi(It.paint_background["background-opacity"])})},tu=function(t){function e(e){t.call(this,e,$c)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e}(Ui),eu={paint:new
Ni({"raster-opacity":new zi(It.paint_raster["raster-opacity"]),"raster-hue-rotate":new zi(It.paint_raster["raster-hue-
rotate"]),"raster-brightness-min":new zi(It.paint_raster["raster-brightness-min"]),"raster-brightness-max":new
zi(It.paint_raster["raster-brightness-max"]),"raster-saturation":new zi(It.paint_raster["raster-saturation"]),"raster-
contrast":new zi(It.paint_raster["raster-contrast"]),"raster-resampling":new zi(It.paint_raster["raster-
resampling"]),"raster-fade-duration":new zi(It.paint_raster["raster-fade-duration"])})},ru=function(t){function
e(e){t.call(this,e,eu)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e}(Ui),nu=function(t){fu
nction e(e){t.call(this,e,{}),this.implementation=e}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.is3D=functio
n(){return"3d"===this.implementation.renderingMode},e.prototype.hasOffscreenPass=function(){return void
0!==this.implementation.prerender},e.prototype.recalculate=function(){},e.prototype.updateTransitions=function(){
},e.prototype.hasTransition=function(){},e.prototype.serialize=function(){},e.prototype.onAdd=function(t){this.imp
lementation.onAdd&&this.implementation.onAdd(t,t.painter.context.gl)},e.prototype.onRemove=function(t){this.i
mplementation.onRemove&&this.implementation.onRemove(t,t.painter.context.gl)},e}(Ui),iu={circle:Do,heatmap:
Go,hillshade:Wo,fill:zs,"fill-
extrusion":Ks,line:ll,symbol:Qc,background:tu,raster:ru},au=self.HTMLImageElement,ou=self.HTMLCanvasEleme
nt,su=self.HTMLVideoElement,lu=self.ImageData,cu=self.ImageBitmap,uu=function(t,e,r,n){this.context=t,this.for
mat=r,this.texture=t.gl.createTexture(),this.update(e,n)};uu.prototype.update=function(t,e,r){var
n=t.width,i=t.height,a=!(this.size&&this.size[0]===n&&this.size[1]===i||r),o=this.context,s=o.gl;if(this.useMipmap
=Boolean(e&&e.useMipmap),s.bindTexture(s.TEXTURE_2D,this.texture),o.pixelStoreUnpackFlipY.set(!1),o.pixel
StoreUnpack.set(1),o.pixelStoreUnpackPremultiplyAlpha.set(this.format===s.RGBA&&(!e||!1!==e.premultiply)),a)
this.size=[n,i],t instanceof au||t instanceof ou||t instanceof su||t instanceof lu||cu&&t instanceof
cu?s.texImage2D(s.TEXTURE_2D,0,this.format,this.format,s.UNSIGNED_BYTE,t):s.texImage2D(s.TEXTURE_2
D,0,this.format,n,i,0,this.format,s.UNSIGNED_BYTE,t.data);else{var l=r||{x:0,y:0},c=l.x,u=l.y;t instanceof au||t
instanceof ou||t instanceof su||t instanceof lu||cu&&t instanceof
cu?s.texSubImage2D(s.TEXTURE_2D,0,c,u,s.RGBA,s.UNSIGNED_BYTE,t):s.texSubImage2D(s.TEXTURE_2D,
0,c,u,n,i,s.RGBA,s.UNSIGNED_BYTE,t.data)}this.useMipmap&&this.isSizePowerOfTwo()&&s.generateMipmap(
s.TEXTURE_2D)},uu.prototype.bind=function(t,e,r){var
n=this.context.gl;n.bindTexture(n.TEXTURE_2D,this.texture),r!==n.LINEAR_MIPMAP_NEAREST||this.isSizePo
werOfTwo()||(r=n.LINEAR),t!==this.filter&&(n.texParameteri(n.TEXTURE_2D,n.TEXTURE_MAG_FILTER,t),n.
texParameteri(n.TEXTURE_2D,n.TEXTURE_MIN_FILTER,r||t),this.filter=t),e!==this.wrap&&(n.texParameteri(n.
TEXTURE_2D,n.TEXTURE_WRAP_S,e),n.texParameteri(n.TEXTURE_2D,n.TEXTURE_WRAP_T,e),this.wrap
=e)},uu.prototype.isSizePowerOfTwo=function(){return
this.size[0]===this.size[1]&&Math.log(this.size[0])/Math.LN2%1==0},uu.prototype.destroy=function(){this.contex
t.gl.deleteTexture(this.texture),this.texture=null};var fu=function(t){var
e=this;this._callback=t,this._triggered=!1,"undefined"!=typeof MessageChannel&&(this._channel=new
MessageChannel,this._channel.port2.onmessage=function(){e._triggered=!1,e._callback()})};fu.prototype.trigger=f
unction(){var
t=this;this._triggered||(this._triggered=!0,this._channel?this._channel.port1.postMessage(!0):setTimeout((function()
{t._triggered=!1,t._callback()}),0))},fu.prototype.remove=function(){delete
this._channel,this._callback=function(){}};var
hu=function(t,e,r){this.target=t,this.parent=e,this.mapId=r,this.callbacks={},this.tasks={},this.taskQueue=[],this.can

celCallbacks={},v(["receive","process"],this),this.invoker=new fu(this.process),this.target.addEventListener("message",this.receive,!1),this.globalScope=A()?t:self};function pu(t,e,r){var n=2*Math.PI*6378137/256/Math.pow(2,r);return[t*n-2*Math.PI*6378137/2,e*n-2*Math.PI*6378137/2]}hu.prototype.send=function(t,e,r,n,i){var a=this;void 0===i&&(i=!1);var o=Math.round(1e18*Math.random()).toString(36).substring(0,10);r&&(this.callbacks[o]=r);var s=E(this.globalScope)?void 0:[];return this.target.postMessage({id:o,type:t,hasCallback:!!r,targetMapId:n,mustQueue:i,sourceMapId:this.mapId,data:ei(e,s)},s),{cancel:function(){r&&delete a.callbacks[o],a.target.postMessage({id:o,type:"<cancel>",targetMapId:n,sourceMapId:a.mapId})}}},hu.prototype.receive=function(t){var e=t.data,r=e.id;if(r&&(!e.targetMapId||this.mapId===e.targetMapId))if("<cancel>"===e.type){delete this.tasks[r];var n=this.cancelCallbacks[r];delete this.cancelCallbacks[r],n&&n()}else A()||e.mustQueue?(this.tasks[r]=e,this.taskQueue.push(r),this.invoker.trigger()):this.processTask(r,e)},hu.prototype.process=function(){if(this.taskQueue.length){var t=this.taskQueue.shift(),e=this.tasks[t];delete this.tasks[t],this.taskQueue.length&&this.invoker.trigger(),e&&this.processTask(t,e)}},hu.prototype.processTask=function(t,e){var r=this;if("<response>"===e.type){var n=this.callbacks[t];delete this.callbacks[t],n&&(e.error?n(ri(e.error)):n(null,ri(e.data)))}else{var i=!1,a=E(this.globalScope)?void 0:[],o=e.hasCallback?function(e,n){i=!0,delete r.cancelCallbacks[t],r.target.postMessage({id:t,type:"<response>",sourceMapId:r.mapId,error:e?ei(e):null,data:ei(n,a)},a)}:function(t){i=!0},s=null,l=ri(e.data);if(this.parent[e.type])s=this.parent[e.type](e.sourceMapId,l,o);else if(this.parent.getWorkerSource){var c=e.type.split(".");s=this.parent.getWorkerSource(e.sourceMapId,c[0],l.source)[c[1]](l,o)}else o(new Error("Could not find function "+e.type));!i&&s&&s.cancel&&(this.cancelCallbacks[t]=s.cancel)}},hu.prototype.remove=function(){this.invoker.remove(),this.target.removeEventListener("message",this.receive,!1)};var du=function(t,e){t&&(e?this.setSouthWest(t).setNorthEast(e):4===t.length?this.setSouthWest([t[0],t[1]]).setNorthEast([t[2],t[3]]):this.setSouthWest(t[0]).setNorthEast(t[1]))};du.prototype.setNorthEast=function(t){return this._ne=t instanceof vu?new vu(t.lng,t.lat):vu.convert(t),this},du.prototype.setSouthWest=function(t){return this._sw=t instanceof vu?new vu(t.lng,t.lat):vu.convert(t),this},du.prototype.extend=function(t){var e,r,n=this._sw,i=this._ne;if(t instanceof vu)e=t,r=t;else{if(!(t instanceof du)){if(Array.isArray(t)){if(4===t.length||t.every(Array.isArray)){var a=t;return this.extend(du.convert(a))}var o=t;return this.extend(vu.convert(o))}return this}if(e=t._sw,r=t._ne,!e||!r)return this}return n||i?(n.lng=Math.min(e.lng,n.lng),n.lat=Math.min(e.lat,n.lat),i.lng=Math.max(r.lng,i.lng),i.lat=Math.max(r.lat,i.lat)):(this._sw=new vu(e.lng,e.lat),this._ne=new vu(r.lng,r.lat)),this},du.prototype.getCenter=function(){return new vu((this._sw.lng+this._ne.lng)/2,(this._sw.lat+this._ne.lat)/2)},du.prototype.getSouthWest=function(){return this._sw},du.prototype.getNorthEast=function(){return this._ne},du.prototype.getNorthWest=function(){return new vu(this.getWest(),this.getNorth())},du.prototype.getSouthEast=function(){return new vu(this.getEast(),this.getSouth())},du.prototype.getWest=function(){return this._sw.lng},du.prototype.getSouth=function(){return this._sw.lat},du.prototype.getEast=function(){return this._ne.lng},du.prototype.getNorth=function(){return this._ne.lat},du.prototype.toArray=function(){return[this._sw.toArray(),this._ne.toArray()]},du.prototype.toString=function(){return"LngLatBounds("+this._sw.toString()+", "+this._ne.toString()+")"},du.prototype.isEmpty=function(){return!(this._sw&&this._ne)},du.prototype.contains=function(t){var e=vu.convert(t),r=e.lng,n=e.lat,i=this._sw.lat<=n&&n<=this._ne.lat,a=this._sw.lng<=r&&r<=this._ne.lng;return this._sw.lng>this._ne.lng&&(a=this._sw.lng>=r&&r>=this._ne.lng),i&&a},du.convert=function(t){return!t||t instanceof du?t:new du(t)};var gu=6371008.8,vu=function(t,e){if(isNaN(t)||isNaN(e))throw new Error("Invalid LngLat object: ("+t+", "+e+")");if(this.lng=+t,this.lat=+e,this.lat>90||this.lat<-90)throw new Error("Invalid LngLat

latitude value: must be between -90 and 90")};vu.prototype.wrap=function(){return new vu(u(this.lng,-180,180),this.lat)},vu.prototype.toArray=function(){return[this.lng,this.lat]},vu.prototype.toString=function(){return "LngLat("+this.lng+", "+this.lat+")"},vu.prototype.distanceTo=function(t){var e=Math.PI/180,r=this.lat*e,n=t.lat*e,i=Math.sin(r)*Math.sin(n)+Math.cos(r)*Math.cos(n)*Math.cos((t.lng-this.lng)*e);return gu*Math.acos(Math.min(i,1))},vu.prototype.toBounds=function(t){void 0===t&&(t=0);var e=360*t/40075017,r=e/Math.cos(Math.PI/180*this.lat);return new du(new vu(this.lng-r,this.lat-e),new vu(this.lng+r,this.lat+e))},vu.convert=function(t){if(t instanceof vu)return t;if(Array.isArray(t)&&(2===t.length||3===t.length))return new vu(Number(t[0]),Number(t[1]));if(!Array.isArray(t)&&"object"==typeof t&&null!==t)return new vu(Number("lng"in t?t.lng:t.lon),Number(t.lat));throw new Error("`LngLatLike` argument must be specified as a LngLat instance, an object {lng: <lng>, lat: <lat>}, an object {lon: <lng>, lat: <lat>}, or an array of [<lng>, <lat>]")};var mu=2*Math.PI*gu;function yu(t){return mu*Math.cos(t*Math.PI/180)}function xu(t){return(180+t)/360}function bu(t){return(180-180/Math.PI*Math.log(Math.tan(Math.PI/4+t*Math.PI/360)))/360}function _u(t,e){return t/yu(e)}function wu(t){var e=180-360*t;return 360/Math.PI*Math.atan(Math.exp(e*Math.PI/180))-90}var Tu=function(t,e,r){void 0===r&&(r=0),this.x=+t,this.y=+e,this.z=+r};Tu.fromLngLat=function(t,e){void 0===e&&(e=0);var r=vu.convert(t);return new Tu(xu(r.lng),bu(r.lat),_u(e,r.lat))},Tu.prototype.toLngLat=function(){return new vu(360*this.x-180,wu(this.y))},Tu.prototype.toAltitude=function(){return t=this.z,e=this.y,t*yu(wu(e));var t,e},Tu.prototype.meterInMercatorCoordinateUnits=function(){return 1/mu*(t=wu(this.y),1/Math.cos(t*Math.PI/180));var t};var ku=function(t,e,r){this.z=t,this.x=e,this.y=r,this.key=Su(0,t,t,e,r)};ku.prototype.equals=function(t){return this.z===t.z&&this.x===t.x&&this.y===t.y},ku.prototype.url=function(t,e){var r,n,i,a,o,s=(r=this.x,n=this.y,i=this.z,a=pu(256*r,256*(n=Math.pow(2,i)-n-1),i),o=pu(256*(r+1),256*(n+1),i),a[0]+","+a[1]+","+o[0]+","+o[1]),l=function(t,e,r){for(var n,i="",a=t;a>0;a--)i+=(e&(n=1<<a-1)?1:0)+(r&n?2:0);return i}(this.z,this.x,this.y);return t[(this.x+this.y)%t.length].replace("{prefix}",(this.x%16).toString(16)+(this.y%16).toString(16)).replace("{z}",String(this.z)).replace("{x}",String(this.x)).replace("{y}",String("tms"===e?Math.pow(2,this.z)-this.y-1:this.y)).replace("{quadkey}",l).replace("{bbox-epsg-3857}",s)},ku.prototype.getTilePoint=function(t){var e=Math.pow(2,this.z);return new a((t.x*e-this.x)*ao,(t.y*e-this.y)*ao)},ku.prototype.toString=function(){return this.z+"/"+this.x+"/"+this.y};var Au=function(t,e){this.wrap=t,this.canonical=e,this.key=Su(t,e.z,e.z,e.x,e.y)},Mu=function(t,e,r,n,i){this.overscaledZ=t,this.wrap=e,this.canonical=new ku(r,+n,+i),this.key=Su(e,t,r,n,i)};function Su(t,e,r,n,i){(t*=2)<0&&(t=-1*t-1);var a=1<<r;return(a*a*t+a*i+n).toString(36)+r.toString(36)+e.toString(36)}Mu.prototype.equals=function(t){return this.overscaledZ===t.overscaledZ&&this.wrap===t.wrap&&this.canonical.equals(t.canonical)},Mu.prototype.scaledTo=function(t){var e=this.canonical.z-t;return t>this.canonical.z?new Mu(t,this.wrap,this.canonical.z,this.canonical.x,this.canonical.y):new Mu(t,this.wrap,t,this.canonical.x>>e,this.canonical.y>>e)},Mu.prototype.calculateScaledKey=function(t,e){var r=this.canonical.z-t;return t>this.canonical.z?Su(this.wrap*+e,t,this.canonical.z,this.canonical.x,this.canonical.y):Su(this.wrap*+e,t,t,this.canonical.x>>r,this.canonical.y>>r)},Mu.prototype.isChildOf=function(t){if(t.wrap!==this.wrap)return!1;var e=this.canonical.z-t.canonical.z;return 0===t.overscaledZ||t.overscaledZ<this.overscaledZ&&t.canonical.x===this.canonical.x>>e&&t.canonical.y===this.canonical.y>>e},Mu.prototype.children=function(t){if(this.overscaledZ>=t)return[new Mu(this.overscaledZ+1,this.wrap,this.canonical.z,this.canonical.x,this.canonical.y)];var e=this.canonical.z+1,r=2*this.canonical.x,n=2*this.canonical.y;return[new Mu(e,this.wrap,e,r,n),new Mu(e,this.wrap,e,r+1,n),new Mu(e,this.wrap,e,r,n+1),new Mu(e,this.wrap,e,r+1,n+1)]},Mu.prototype.isLessThan=function(t){return

this.wrap<t.wrap||!(this.wrap>t.wrap)&&(this.overscaledZ<t.overscaledZ||!(this.overscaledZ>t.overscaledZ)&&(this.canonical.x<t.canonical.x||!(this.canonical.x>t.canonical.x)&&this.canonical.y<t.canonical.y))},Mu.prototype.wrapped=function(){return new Mu(this.overscaledZ,0,this.canonical.z,this.canonical.x,this.canonical.y)},Mu.prototype.unwrapTo=function(t){return new Mu(this.overscaledZ,t,this.canonical.z,this.canonical.x,this.canonical.y)},Mu.prototype.overscaleFactor=function(){return Math.pow(2,this.overscaledZ-this.canonical.z)},Mu.prototype.toUnwrapped=function(){return new Au(this.wrap,this.canonical)},Mu.prototype.toString=function(){return this.overscaledZ+"/"+this.canonical.x+"/"+this.canonical.y},Mu.prototype.getTilePoint=function(t){return this.canonical.getTilePoint(new Tu(t.x-this.wrap,t.y))},Kn("CanonicalTileID",ku),Kn("OverscaledTileID",Mu,{omit:["posMatrix"]});var Eu=function(t,e,r){if(this.uid=t,e.height!==e.width)throw new RangeError("DEM tiles must be square");if(r&&"mapbox"!==r&&"terrarium"!==r)return w(""+r+'" is not a valid encoding type. Valid types include "mapbox" and "terrarium".');this.stride=e.height;var n=this.dim=e.height-2;this.data=new Uint32Array(e.data.buffer),this.encoding=r||"mapbox";for(var i=0;i<n;i++)this.data[this._idx(-1,i)]=this.data[this._idx(0,i)],this.data[this._idx(n,i)]=this.data[this._idx(n-1,i)],this.data[this._idx(i,-1)]=this.data[this._idx(i,0)],this.data[this._idx(i,n)]=this.data[this._idx(i,n-1)];this.data[this._idx(-1,-1)]=this.data[this._idx(0,0)],this.data[this._idx(n,-1)]=this.data[this._idx(n-1,0)],this.data[this._idx(-1,n)]=this.data[this._idx(0,n-1)],this.data[this._idx(n,n)]=this.data[this._idx(n-1,n-1)]};Eu.prototype.get=function(t,e){var r=new Uint8Array(this.data.buffer),n=4*this._idx(t,e);return("terrarium"===this.encoding?this._unpackTerrarium:this._unpackMapbox)(r[n],r[n+1],r[n+2])},Eu.prototype.getUnpackVector=function(){return"terrarium"===this.encoding?[256,1,1/256,32768]:[6553.6,25.6,.1,1e4]},Eu.prototype._idx=function(t,e){if(t<-1||t>=this.dim+1||e<-1||e>=this.dim+1)throw new RangeError("out of range source coordinates for DEM data");return(e+1)*this.stride+(t+1)},Eu.prototype._unpackMapbox=function(t,e,r){return(256*t*256+256*e+r)/10-1e4},Eu.prototype._unpackTerrarium=function(t,e,r){return 256*t+e+r/256-32768},Eu.prototype.getPixels=function(){return new Vo({width:this.stride,height:this.stride},new Uint8Array(this.data.buffer))},Eu.prototype.backfillBorder=function(t,e,r){if(this.dim!==t.dim)throw new Error("dem dimension mismatch");var n=e*this.dim,i=e*this.dim+this.dim,a=r*this.dim,o=r*this.dim+this.dim;switch(e){case-1:n=i-1;break;case 1:i=n+1}switch(r){case-1:a=o-1;break;case 1:o=a+1}for(var s=-e*this.dim,l=-r*this.dim,c=a;c<o;c++)for(var u=n;u<i;u++)this.data[this._idx(u,c)]=t.data[this._idx(u+s,c+l)]},Kn("DEMData",Eu);var Lu=function(t){this._stringToNumber={},this._numberToString=[];for(var e=0;e<t.length;e++){var r=t[e];this._stringToNumber[r]=e,this._numberToString[e]=r}};Lu.prototype.encode=function(t){return this._stringToNumber[t]},Lu.prototype.decode=function(t){return this._numberToString[t]};var Cu=function(t,e,r,n,i){this.type="Feature",this._vectorTileFeature=t,t._z=e,t._x=r,t._y=n,this.properties=t.properties,this.id=i},Pu={geometry:{configurable:!0}};Pu.geometry.get=function(){return void 0===this._geometry&&(this._geometry=this._vectorTileFeature.toGeoJSON(this._vectorTileFeature._x,this._vectorTileFeature._y,this._vectorTileFeature._z).geometry),this._geometry},Pu.geometry.set=function(t){this._geometry=t},Cu.prototype.toJSON=function(){var t={geometry:this.geometry};for(var e in this)"_geometry"!==e&&"_vectorTileFeature"!==e&&(t[e]=this[e]);return t},Object.defineProperties(Cu.prototype,Pu);var Iu=function(){this.state={},this.stateChanges={},this.deletedStates={}};Iu.prototype.updateState=function(t,e,r){var n=String(e);if(this.stateChanges[t]=this.stateChanges[t]||{},this.stateChanges[t][n]=this.stateChanges[t][n]||{},f(this.stateChanges[t][n],r),null===this.deletedStates[t])for(var i in this.deletedStates[t]={},this.state[t])i!==n&&(this.deletedStates[t][i]=null);else if(this.deletedStates[t]&&null===this.deletedStates[t][n])for(var a in

this.deletedStates[t][n]={},this.state[t][n])r[a]||(this.deletedStates[t][n][a]=null);else for(var o in r)this.deletedStates[t]&&this.deletedStates[t][n]&&null===this.deletedStates[t][n][o]&&delete this.deletedStates[t][n][o]},Iu.prototype.removeFeatureState=function(t,e,r){if(null!==this.deletedStates[t]){var n=String(e);if(this.deletedStates[t]=this.deletedStates[t]||{},r&&void 0!==e)null!==this.deletedStates[t][n]&&(this.deletedStates[t][n]=this.deletedStates[t][n]||{},this.deletedStates[t][n][r]=null);else if(void 0!==e)if(this.stateChanges[t]&&this.stateChanges[t][n])for(r in this.deletedStates[t][n]={},this.stateChanges[t][n])this.deletedStates[t][n][r]=null;else this.deletedStates[t][n]=null;else this.deletedStates[t]=null}},Iu.prototype.getState=function(t,e){var r=String(e),n=this.state[t]||{},i=this.stateChanges[t]||{},a=f({},n[r],i[r]);if(null===this.deletedStates[t])return{};if(this.deletedStates[t]){var o=this.deletedStates[t][e];if(null===o)return{};for(var s in o)delete a[s]}return a},Iu.prototype.initializeTileState=function(t,e){t.setFeatureState(this.state,e)},Iu.prototype.coalesceChanges=function(t,e){var r={};for(var n in this.stateChanges){this.state[n]=this.state[n]||{};var i={};for(var a in this.stateChanges[n])this.state[n][a]||(this.state[n][a]={}),f(this.state[n][a],this.stateChanges[n][a]),i[a]=this.state[n][a];r[n]=i}for(var o in this.deletedStates){this.state[o]=this.state[o]||{};var s={};if(null===this.deletedStates[o])for(var l in this.state[o])s[l]={},this.state[o][l]={};else for(var c in this.deletedStates[o]){if(null===this.deletedStates[o][c])this.state[o][c]={};else for(var u=0,h=Object.keys(this.deletedStates[o][c]);u<h.length;u+=1){var p=h[u];delete this.state[o][c][p]}s[c]=this.state[o][c]}r[o]=r[o]||{},f(r[o],s)}if(this.stateChanges={},this.deletedStates={},0!==Object.keys(r).length)for(var d in t)t[d].setFeatureState(r,e)};var Ou=function(t,e){this.tileID=t,this.x=t.canonical.x,this.y=t.canonical.y,this.z=t.canonical.z,this.grid=new Yn(ao,16,0),this.grid3D=new Yn(ao,16,0),this.featureIndexArray=new ka,this.promoteId=e};function zu(t,e,r,n,i){return y(t,(function(t,a){var o=e instanceof Oi?e.get(a):null;return o&&o.evaluate?o.evaluate(r,n,i):o}))}function Du(t){for(var e=1/0,r=1/0,n=-1/0,i=-1/0,a=0,o=t;a<o.length;a+=1){var s=o[a];e=Math.min(e,s.x),r=Math.min(r,s.y),n=Math.max(n,s.x),i=Math.max(i,s.y)}return{minX:e,minY:r,maxX:n,maxY:i}}function Ru(t,e){return e-t}Ou.prototype.insert=function(t,e,r,n,i,a){var o=this.featureIndexArray.length;this.featureIndexArray.emplaceBack(r,n,i);for(var s=a?this.grid3D:this.grid,l=0;l<e.length;l++){for(var c=e[l],u=[1/0,1/0,-1/0,-1/0],f=0;f<c.length;f++){var h=c[f];u[0]=Math.min(u[0],h.x),u[1]=Math.min(u[1],h.y),u[2]=Math.max(u[2],h.x),u[3]=Math.max(u[3],h.y)}u[0]<ao&&u[1]<ao&&u[2]>=0&&u[3]>=0&&s.insert(o,u[0],u[1],u[2],u[3])}},Ou.prototype.loadVTLayers=function(){return this.vtLayers||(this.vtLayers=new Hs.VectorTile(new bl(this.rawTileData)).layers,this.sourceLayerCoder=new Lu(this.vtLayers?Object.keys(this.vtLayers).sort():["_geojsonTileLayer"])),this.vtLayers},Ou.prototype.query=function(t,e,r,n){var i=this;this.loadVTLayers();for(var o=t.params||{},s=ao/t.tileSize/t.scale,l=mn(o.filter),c=t.queryGeometry,u=t.queryPadding*s,f=Du(c),h=this.grid.query(f.minX-u,f.minY-u,f.maxX+u,f.maxY+u),p=Du(t.cameraQueryGeometry),d=0,g=this.grid3D.query(p.minX-u,p.minY-u,p.maxX+u,p.maxY+u,(function(e,r,n,i){return function(t,e,r,n,i){for(var o=0,s=t;o<s.length;o+=1){var l=s[o];if(e<=l.x&&r<=l.y&&n>=l.x&&i>=l.y)return!0}var c=[new a(e,r),new a(e,i),new a(n,i),new a(n,r)];if(t.length>2)for(var u=0,f=c;u<f.length;u+=1)if(bo(t,f[u]))return!0;for(var h=0;h<t.length-1;h++)if(_o(t[h],t[h+1],c))return!0;return!1}(t.cameraQueryGeometry,e-u,r-u,n+u,i+u)}));d<g.length;d+=1){var v=g[d];h.push(v)}h.sort(Ru);for(var m,y={},x=function(a){var u=h[a];if(u!==m){m=u;var f=i.featureIndexArray.get(u),p=null;i.loadMatchingFeature(y,f.bucketIndex,f.sourceLayerIndex,f.featureIndex,l,o.layers,o.availableImages,e,r,n,(function(e,r,n){return p||(p=so(e)),r.queryIntersectsFeature(c,e,n,p,i.z,t.transform,s,t.pixelPosMatrix)}))}},b=0;b<h.length;b++)x(b);return y},Ou.prototype.loadMatchingFeature=function(t,e,r,n,i,a,o,s,l,c,u){var f=this.bucketLayerIDs[e];if(!a||function(t,e){for(var r=0;r<t.length;r++)if(e.indexOf(t[r])>=0)return!0;return!1}(a,f)){var h=this.sourceLayerCoder.decode(r),p=this.vtLayers[h].feature(n);if(i.filter(new Ai(this.tileID.overscaledZ),p))for(var d=this.getId(p,h),g=0;g<f.length;g++){var

v=f[g];if(!(a&&a.indexOf(v)<0)){var m=s[v];if(m){var y={};void
0!==d&&c&&(y=c.getState(m.sourceLayer||"_geojsonTileLayer",d));var
x=l[v];x.paint=zu(x.paint,m.paint,p,y,o),x.layout=zu(x.layout,m.layout,p,y,o);var b=!u||u(p,m,y);if(b){var _=new
Cu(p,this.z,this.x,this.y,d);_.layer=x;var w=t[v];void
0===w&&(w=t[v]=[]),w.push({featureIndex:n,feature:_,intersectionZ:b})}}}}},Ou.prototype.lookupSymbolFeatu
res=function(t,e,r,n,i,a,o,s){var l={};this.loadVTLayers();for(var c=mn(i),u=0,f=t;u<f.length;u+=1){var
h=f[u];this.loadMatchingFeature(l,r,n,h,c,a,o,s,e)}return l},Ou.prototype.hasLayer=function(t){for(var
e=0,r=this.bucketLayerIDs;e<r.length;e+=1)for(var
n=0,i=r[e];n<i.length;n+=1)if(t===i[n])return!0;return!1},Ou.prototype.getId=function(t,e){var
r=t.id;if(this.promoteId){var n="string"==typeof
this.promoteId?this.promoteId:this.promoteId[e];"boolean"==typeof(r=t.properties[n])&&(r=Number(r))}return
r},Kn("FeatureIndex",Ou,{omit:["rawTileData","sourceLayerCoder"]});var
Fu=function(t,e){this.tileID=t,this.uid=p(),this.uses=0,this.tileSize=e,this.buckets={},this.expirationTime=null,this.q
ueryPadding=0,this.hasSymbolBuckets=!1,this.hasRTLText=!1,this.dependencies={},this.expiredRequestCount=0,t
his.state="loading"};Fu.prototype.registerFadeDuration=function(t){var
e=t+this.timeAdded;e<F.now()||this.fadeEndTime&&e<this.fadeEndTime||(this.fadeEndTime=e)},Fu.prototype.was
Requested=function(){return"errored"===this.state||"loaded"===this.state||"reloading"===this.state},Fu.prototype.lo
adVectorData=function(t,e,r){if(this.hasData()&&this.unloadVectorData(),this.state="loaded",t){for(var n in
t.featureIndex&&(this.latestFeatureIndex=t.featureIndex,t.rawTileData?(this.latestRawTileData=t.rawTileData,this.l
atestFeatureIndex.rawTileData=t.rawTileData):this.latestRawTileData&&(this.latestFeatureIndex.rawTileData=this.
latestRawTileData)),this.collisionBoxArray=t.collisionBoxArray,this.buckets=function(t,e){var r={};if(!e)return
r;for(var n=function(){var t=a[i],n=t.layerIds.map((function(t){return
e.getLayer(t)})).filter(Boolean);if(0!==n.length){t.layers=n,t.stateDependentLayerIds&&(t.stateDependentLayers=t.
stateDependentLayerIds.map((function(t){return n.filter((function(e){return e.id===t}))[0]})));for(var
o=0,s=n;o<s.length;o+=1){var l=s[o];r[l.id]=t}}},i=0,a=t;i<a.length;i+=1)n();return
r}(t.buckets,e.style),this.hasSymbolBuckets=!1,this.buckets){var i=this.buckets[n];if(i instanceof
Xc){if(this.hasSymbolBuckets=!0,!r)break;i.justReloaded=!0}}if(this.hasRTLText=!1,this.hasSymbolBuckets)for(v
ar a in this.buckets){var o=this.buckets[a];if(o instanceof
Xc&&o.hasRTLText){this.hasRTLText=!0,ki.isLoading()||ki.isLoaded()||"deferred"!==wi()||Ti();break}}for(var s in
this.queryPadding=0,this.buckets){var
l=this.buckets[s];this.queryPadding=Math.max(this.queryPadding,e.style.getLayer(s).queryRadius(l))}t.imageAtlas
&&(this.imageAtlas=t.imageAtlas),t.glyphAtlasImage&&(this.glyphAtlasImage=t.glyphAtlasImage)}else
this.collisionBoxArray=new va},Fu.prototype.unloadVectorData=function(){for(var t in
this.buckets)this.buckets[t].destroy();this.buckets={},this.imageAtlasTexture&&this.imageAtlasTexture.destroy(),th
is.imageAtlas&&(this.imageAtlas=null),this.glyphAtlasTexture&&this.glyphAtlasTexture.destroy(),this.latestFeatur
eIndex=null,this.state="unloaded"},Fu.prototype.getBucket=function(t){return
this.buckets[t.id]},Fu.prototype.upload=function(t){for(var e in this.buckets){var
r=this.buckets[e];r.uploadPending()&&r.upload(t)}var
n=t.gl;this.imageAtlas&&!this.imageAtlas.uploaded&&(this.imageAtlasTexture=new
uu(t,this.imageAtlas.image,n.RGBA),this.imageAtlas.uploaded=!0),this.glyphAtlasImage&&(this.glyphAtlasTextur
e=new
uu(t,this.glyphAtlasImage,n.ALPHA),this.glyphAtlasImage=null)},Fu.prototype.prepare=function(t){this.imageAtla
s&&this.imageAtlas.patchUpdatedImages(t,this.imageAtlasTexture)},Fu.prototype.queryRenderedFeatures=functio
n(t,e,r,n,i,a,o,s,l,c){return
this.latestFeatureIndex&&this.latestFeatureIndex.rawTileData?this.latestFeatureIndex.query({queryGeometry:n,ca
meraQueryGeometry:i,scale:a,tileSize:this.tileSize,pixelPosMatrix:c,transform:s,params:o,queryPadding:this.queryP
adding*l},t,e,r):{}},Fu.prototype.querySourceFeatures=function(t,e){var
r=this.latestFeatureIndex;if(r&&r.rawTileData){var

n=r.loadVTLayers(),i=e?e.sourceLayer:"",a=n._geojsonTileLayer||n[i];if(a)for(var o=mn(e&&e.filter),s=this.tileID.canonical,l=s.z,c=s.x,u=s.y,f={z:l,x:c,y:u},h=0;h<a.length;h++){var p=a.feature(h);if(o.filter(new Ai(this.tileID.overscaledZ),p)){var d=r.getId(p,i),g=new Cu(p,l,c,u,d);g.tile=f,t.push(g)}}}},Fu.prototype.hasData=function(){return"loaded"===this.state||"reloading"===this.state||"expired"===this.state},Fu.prototype.patternsLoaded=function(){return this.imageAtlas&&!!Object.keys(this.imageAtlas.patternPositions).length},Fu.prototype.setExpiryData=function(t){var e=this.expirationTime;if(t.cacheControl){var r=M(t.cacheControl);r["max-age"]&&(this.expirationTime=Date.now()+1e3*r["max-age"])}else t.expires&&(this.expirationTime=new Date(t.expires).getTime());if(this.expirationTime){var n=Date.now(),i=!1;if(this.expirationTime>n)i=!1;else if(e)if(this.expirationTime<e)i=!0;else{var a=this.expirationTime-e;a?this.expirationTime=n+Math.max(a,3e4):i=!0}else i=!0;i?(this.expiredRequestCount++,this.state="expired"):this.expiredRequestCount=0}},Fu.prototype.getExpiryTimeout=function(){if(this.expirationTime)return this.expiredRequestCount?1e3*(1<<Math.min(this.expiredRequestCount-1,31)):Math.min(this.expirationTime-(new Date).getTime(),Math.pow(2,31)-1)},Fu.prototype.setFeatureState=function(t,e){if(this.latestFeatureIndex&&this.latestFeatureIndex.rawTileData&&0!==Object.keys(t).length){var r=this.latestFeatureIndex.loadVTLayers();for(var n in this.buckets)if(e.style.hasLayer(n)){var i=this.buckets[n],a=i.layers[0].sourceLayer||"_geojsonTileLayer",o=r[a],s=t[a];if(o&&s&&0!==Object.keys(s).length){i.update(s,o,this.imageAtlas&&this.imageAtlas.patternPositions||{});var l=e&&e.style&&e.style.getLayer(n);l&&(this.queryPadding=Math.max(this.queryPadding,l.queryRadius(i)))}}}},Fu.prototype.holdingForFade=function(){return void 0!==this.symbolFadeHoldUntil},Fu.prototype.symbolFadeFinished=function(){return!this.symbolFadeHoldUntil||this.symbolFadeHoldUntil<F.now()},Fu.prototype.clearFadeHold=function(){this.symbolFadeHoldUntil=void 0},Fu.prototype.setHoldDuration=function(t){this.symbolFadeHoldUntil=F.now()+t},Fu.prototype.setDependencies=function(t,e){for(var r={},n=0,i=e;n<i.length;n+=1)r[i[n]]=!0;this.dependencies[t]=r},Fu.prototype.hasDependency=function(t,e){for(var r=0,n=t;r<n.length;r+=1){var i=n[r],a=this.dependencies[i];if(a)for(var o=0,s=e;o<s.length;o+=1)if(a[s[o]])return!0}return!1};var Bu=self.performance,Nu=function(t){this._marks={start:[t.url,"start"].join("#"),end:[t.url,"end"].join("#"),measure:t.url.toString()},Bu.mark(this._marks.start)};Nu.prototype.finish=function(){Bu.mark(this._marks.end);var t=Bu.getEntriesByName(this._marks.measure);return 0===t.length&&(Bu.measure(this._marks.measure,this._marks.start,this._marks.end),t=Bu.getEntriesByName(this._marks.measure),Bu.clearMarks(this._marks.start),Bu.clearMarks(this._marks.end),Bu.clearMeasures(this._marks.measure)),t},t.Actor=hu,t.AlphaImage=Uo,t.CanonicalTileID=ku,t.CollisionBoxArray=va,t.Color=ne,t.DEMData=Eu,t.DataConstantProperty=zi,t.DictionaryCoder=Lu,t.EXTENT=ao,t.ErrorEvent=Ct,t.EvaluationParameters=Ai,t.Event=Lt,t.Evented=Pt,t.FeatureIndex=Ou,t.FillBucket=Ps,t.FillExtrusionBucket=Xs,t.ImageAtlas=Yl,t.ImagePosition=Hl,t.LineBucket=il,t.LngLat=vu,t.LngLatBounds=du,t.MercatorCoordinate=Tu,t.ONE_EM=ml,t.OverscaledTileID=Mu,t.Point=a,t.Point$1=a,t.Properties=Ni,t.Protobuf=bl,t.RGBAImage=Vo,t.RequestManager=H,t.RequestPerformance=Nu,t.ResourceType=mt,t.SegmentVector=Ma,t.SourceFeatureState=Iu,t.StructArrayLayout1ui2=ha,t.StructArrayLayout2f1f2i16=na,t.StructArrayLayout2i4=Wi,t.StructArrayLayout3ui6=aa,t.StructArrayLayout4i8=Xi,t.SymbolBucket=Xc,t.Texture=uu,t.Tile=Fu,t.Transitionable=Ei,t.Uniform1f=Ua,t.Uniform1i=ja,t.Uniform2f=Va,t.Uniform3f=qa,t.Uniform4f=Ha,t.UniformColor=Ga,t.UniformMatrix4f=Wa,t.UnwrappedTileID=Au,t.ValidationError=Ot,t.WritingMode=Wl,t.ZoomHistory=ni,t.add=function(t,e,r){return t[0]=e[0]+r[0],t[1]=e[1]+r[1],t[2]=e[2]+r[2],t},t.addDynamicAttributes=Hc,t.asyncAll=function(t,e,r){if(!t.length)return r(null,[]);var n=t.length,i=new Array(t.length),a=null;t.forEach((function(t,o){e(t,(function(t,e){t&&(a=t),i[o]=e,0==--n&&r(a,i)}))}))},t.bezier=s,t.bindAll=v,t.browser=F,t.cacheEntryPossiblyAdded=function(t){++gt>ct&&(t.getActor

().send("enforceCacheSizeLimit",lt),gt=0)},t.clamp=c,t.clearTileCache=function(t){var e=self.caches.delete(st);t&&e.catch(t).then((function(){return t()}))},t.clipLine=wc,t.clone=function(t){var e=new So(16);return e[0]=t[0],e[1]=t[1],e[2]=t[2],e[3]=t[3],e[4]=t[4],e[5]=t[5],e[6]=t[6],e[7]=t[7],e[8]=t[8],e[9]=t[9],e[10]=t[10],e[11]=t[11],e[12]=t[12],e[13]=t[13],e[14]=t[14],e[15]=t[15],e},t.clone$1=b,t.clone$2=function(t){var e=new So(3);return e[0]=t[0],e[1]=t[1],e[2]=t[2],e},t.collisionCircleLayout=dl,t.config=B,t.create=function(){var t=new So(16);return So!=Float32Array&&(t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[6]=0,t[7]=0,t[8]=0,t[9]=0,t[11]=0,t[12]=0,t[13]=0,t[14]=0),t[0]=1,t[5]=1,t[10]=1,t[15]=1,t},t.create$1=function(){var t=new So(9);return So!=Float32Array&&(t[1]=0,t[2]=0,t[3]=0,t[5]=0,t[6]=0,t[7]=0),t[0]=1,t[4]=1,t[8]=1,t},t.create$2=function(){var t=new So(4);return So!=Float32Array&&(t[1]=0,t[2]=0),t[0]=1,t[3]=1,t},t.createCommonjsModule=e,t.createExpression=rn,t.createLayout=Gi,t.createStyleLayer=function(t){return"custom"===t.type?new nu(t):new iu[t.type](t)},t.cross=function(t,e,r){var n=e[0],i=e[1],a=e[2],o=r[0],s=r[1],l=r[2];return t[0]=i*l-a*s,t[1]=a*o-n*l,t[2]=n*s-i*o,t},t.deepEqual=function t(e,r){if(Array.isArray(e)){if(!Array.isArray(r)||e.length!==r.length)return!1;for(var n=0;n<e.length;n++)if(!t(e[n],r[n]))return!1;return!0}if("object"==typeof e&&null!==e&&null!==r){if("object"!=typeof r)return!1;if(Object.keys(e).length!==Object.keys(r).length)return!1;for(var i in e)if(!t(e[i],r[i]))return!1;return!0}return e===r},t.dot=function(t,e){return t[0]*e[0]+t[1]*e[1]+t[2]*e[2]},t.dot$1=function(t,e){return t[0]*e[0]+t[1]*e[1]+t[2]*e[2]+t[3]*e[3]},t.ease=l,t.emitValidationErrors=Gn,t.endsWith=m,t.enforceCacheSizeLimit=function(t){ut(),tt&&tt.then((function(e){e.keys().then((function(r){for(var n=0;n<r.length-t;n++)e.delete(r[n])}))}))},t.evaluateSizeForFeature=hc,t.evaluateSizeForZoom=pc,t.evaluateVariableOffset=Dc,t.evented=_i,t.extend=f,t.featureFilter=mn,t.filterObject=x,t.fromRotation=function(t,e){var r=Math.sin(e),n=Math.cos(e);return t[0]=n,t[1]=r,t[2]=0,t[3]=-r,t[4]=n,t[5]=0,t[6]=0,t[7]=0,t[8]=1,t},t.getAnchorAlignment=oc,t.getAnchorJustification=Rc,t.getArrayBuffer=kt,t.getImage=Mt,t.getJSON=function(t,e){return Tt(f(t,{type:"json"}),e)},t.getRTLTextPluginStatus=wi,t.getReferrer=xt,t.getVideo=function(t,e){var r,n,i=self.document.createElement("video");i.muted=!0,i.onloadstart=function(){e(null,i)};for(var a=0;a<t.length;a++){var o=self.document.createElement("source");r=t[a],n=void 0,(n=self.document.createElement("a")).href=r,n.protocol===self.document.location.protocol&&n.host===self.document.location.host||(i.crossOrigin="Anonymous"),o.src=t[a],i.appendChild(o)}return{cancel:function(){}}},t.identity=Eo,t.invert=function(t,e){var r=e[0],n=e[1],i=e[2],a=e[3],o=e[4],s=e[5],l=e[6],c=e[7],u=e[8],f=e[9],h=e[10],p=e[11],d=e[12],g=e[13],v=e[14],m=e[15],y=r*s-n*o,x=r*l-i*o,b=r*c-a*o,_=n*l-i*s,w=n*c-a*s,T=i*c-a*l,k=u*g-f*d,A=u*v-h*d,M=u*m-p*d,S=f*v-h*g,E=f*m-p*g,L=h*m-p*v,C=y*L-x*E+b*S+_*M-w*A+T*k;return C?(C=1/C,t[0]=(s*L-l*E+c*S)*C,t[1]=(i*E-n*L-a*S)*C,t[2]=(g*T-v*w+m*_)*C,t[3]=(h*w-f*T-p*_)*C,t[4]=(l*M-o*L-c*A)*C,t[5]=(r*L-i*M+a*A)*C,t[6]=(v*b-d*T-m*x)*C,t[7]=(u*T-h*b+p*x)*C,t[8]=(o*E-s*M+c*k)*C,t[9]=(n*M-r*E-a*k)*C,t[10]=(d*w-g*b+m*y)*C,t[11]=(f*b-u*w-p*y)*C,t[12]=(s*A-o*S-l*k)*C,t[13]=(r*S-n*A+i*k)*C,t[14]=(g*x-d*_-v*y)*C,t[15]=(u*_-f*x+h*y)*C,t):null},t.isChar=ii,t.isMapboxURL=G,t.keysDifference=function(t,e){var r=[];for(var n in t)n in e||r.push(n);return r},t.makeRequest=Tt,t.mapObject=y,t.mercatorXfromLng=xu,t.mercatorYfromLat=bu,t.mercatorZfromAltitude=_u,t.mul=Po,t.multiply=Lo,t.mvt=Hs,t.normalize=function(t,e){var r=e[0],n=e[1],i=e[2],a=r*r+n*n+i*i;return a>0&&(a=1/Math.sqrt(a)),t[0]=e[0]*a,t[1]=e[1]*a,t[2]=e[2]*a,t},t.number=Ze,t.offscreenCanvasSupported=vt,t.ortho=function(t,e,r,n,i,a,o){var s=1/(e-r),l=1/(n-i),c=1/(a-o);return t[0]=-2*s,t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=-2*l,t[6]=0,t[7]=0,t[8]=0,t[9]=0,t[10]=2*c,t[11]=0,t[12]=(e+r)*s,t[13]=(i+n)*l,t[14]=(o+a)*c,t[15]=1,t},t.parseGlyphPBF=function(t){return new

bl(t).readFields(jl,[])},t.pbf=bl,t.performSymbolLayout=function(t,e,r,n,i,a,o){t.createArrays();var s=512*t.overscaling;t.tilePixelRatio=ao/s,t.compareText={},t.iconsNeedLinear=!1;var l=t.layers[0].layout,c=t.layers[0]._unevaluatedLayout._values,u={};if("composite"===t.textSizeData.kind){var f=t.textSizeData,h=f.minZoom,p=f.maxZoom;u.compositeTextSizes=[c["text-size"].possiblyEvaluate(new Ai(h),o),c["text-size"].possiblyEvaluate(new Ai(p),o)]}if("composite"===t.iconSizeData.kind){var d=t.iconSizeData,g=d.minZoom,v=d.maxZoom;u.compositeIconSizes=[c["icon-size"].possiblyEvaluate(new Ai(g),o),c["icon-size"].possiblyEvaluate(new Ai(v),o)]}u.layoutTextSize=c["text-size"].possiblyEvaluate(new Ai(t.zoom+1),o),u.layoutIconSize=c["icon-size"].possiblyEvaluate(new Ai(t.zoom+1),o),u.textMaxSize=c["text-size"].possiblyEvaluate(new Ai(18));for(var m=l.get("text-line-height")*ml,y="map"===l.get("text-rotation-alignment")&&"point"!==l.get("symbol-placement"),x=l.get("text-keep-upright"),b=l.get("text-size"),_=function(){var a=k[T],s=l.get("text-font").evaluate(a,{},o).join(","),c=b.evaluate(a,{},o),f=u.layoutTextSize.evaluate(a,{},o),h=u.layoutIconSize.evaluate(a,{},o),p={horizontal:{},vertical:void 0},d=a.text,g=[0,0];if(d){var v=d.toString(),_=l.get("text-letter-spacing").evaluate(a,{},o)*ml,A=function(t){for(var e=0,r=t;e<r.length;e+=1)if(n=r[e].charCodeAt(0),ii.Arabic(n)||ii["Arabic Supplement"](n)||ii["Arabic Extended-A"](n)||ii["Arabic Presentation Forms-A"](n)||ii["Arabic Presentation Forms-B"](n))return!1;var n;return!0}(v)?_:0,M=l.get("text-anchor").evaluate(a,{},o),S=l.get("text-variable-anchor");if(!S){var E=l.get("text-radial-offset").evaluate(a,{},o);g=E?Dc(M,[E*ml,zc]):l.get("text-offset").evaluate(a,{},o).map((function(t){return t*ml}))}var L=y?"center":l.get("text-justify").evaluate(a,{},o),C=l.get("symbol-placement"),P="point"===C?l.get("text-max-width").evaluate(a,{},o)*ml:0,I=function(){t.allowVerticalPlacement&&ai(v)&&(p.vertical=Kl(d,e,r,i,s,P,m,M,"left",A,g,Wl.vertical,!0,C,f,c))};if(!y&&S){for(var O="auto"===L?S.map((function(t){return Rc(t)})):[L],z=!1,D=0;D<O.length;D++){var R=O[D];if(!p.horizontal[R])if(z)p.horizontal[R]=p.horizontal[0];else{var F=Kl(d,e,r,i,s,P,m,"center",R,A,g,Wl.horizontal,!1,C,f,c);F&&(p.horizontal[R]=F,z=1===F.positionedLines.length)}}I()}else{"auto"===L&&(L=Rc(M));var B=Kl(d,e,r,i,s,P,m,M,L,A,g,Wl.horizontal,!1,C,f,c);B&&(p.horizontal[L]=B),I(),ai(v)&&y&&x&&(p.vertical=Kl(d,e,r,i,s,P,m,M,L,A,g,Wl.vertical,!1,C,f,c))}}var N=void 0,j=!1;if(a.icon&&a.icon.name){var U=n[a.icon.name];U&&(N=function(t,e,r){var n=oc(r),i=n.horizontalAlign,a=n.verticalAlign,o=e[0],s=e[1],l=o-t.displaySize[0]*i,c=l+t.displaySize[0],u=s-t.displaySize[1]*a;return{image:t,top:u,bottom:u+t.displaySize[1],left:l,right:c}}(i[a.icon.name],l.get("icon-offset").evaluate(a,{},o),l.get("icon-anchor").evaluate(a,{},o)),j=U.sdf,void 0===t.sdfIcons?t.sdfIcons=U.sdf:t.sdfIcons!==U.sdf&&w("Style sheet warning: Cannot mix SDF and non-SDF icons in one buffer"),(U.pixelRatio!==t.pixelRatio||0!==l.get("icon-rotate").constantOr(1))&&(t.iconsNeedLinear=!0))}var V=Nc(p.horizontal)||p.vertical;t.iconsInText=!!V&&V.iconsInText,(V||N)&&function(t,e,r,n,i,a,o,s,l,c,u){var f=a.textMaxSize.evaluate(e,{});void 0===f&&(f=o);var h,p=t.layers[0].layout,d=p.get("icon-offset").evaluate(e,{},u),g=Nc(r.horizontal),v=24,m=o/v,y=t.tilePixelRatio*m,x=t.tilePixelRatio*f/v,b=t.tilePixelRatio*s,_=t.tilePixelRatio*p.get("symbol-spacing"),T=p.get("text-padding")*t.tilePixelRatio,k=p.get("icon-padding")*t.tilePixelRatio,A=p.get("text-max-angle")/180*Math.PI,M="map"===p.get("text-rotation-alignment")&&"point"!==p.get("symbol-placement"),S="map"===p.get("icon-rotation-alignment")&&"point"!==p.get("symbol-placement"),E=p.get("symbol-placement"),L=_/2,C=p.get("icon-text-fit");n&&"none"!==C&&(t.allowVerticalPlacement&&r.vertical&&(h=lc(n,r.vertical,C,p.get("icon-text-fit-padding"),d,m)),g&&(n=lc(n,g,C,p.get("icon-text-fit-padding"),d,m)));var P=function(s,f){f.x<0||f.x>=ao||f.y<0||f.y>=ao||function(t,e,r,n,i,a,o,s,l,c,u,f,h,p,d,g,v,m,y,x,b,_,T,k,A){var M,S,E,L,C,P=t.addToLineVertexArray(e,r),I=0,O=0,z=0,D=0,R=-1,F=-1,B={},N=Pa(""),j=0,U=0;if(void 0===s._unevaluatedLayout.getValue("text-radial-offset")?(j=(M=s.layout.get("text-offset").evaluate(b,{},k).map((function(t){return t*ml})))[0],U=M[1]):(j=s.layout.get("text-radial-

offset").evaluate(b,{},k)*ml,U=zc),t.allowVerticalPlacement&&n.vertical){var V=s.layout.get("text-rotate").evaluate(b,{},k)+90,q=n.vertical;L=new Ec(l,e,c,u,f,q,h,p,d,V),o&&(C=new Ec(l,e,c,u,f,o,v,m,d,V))}if(i){var H=s.layout.get("icon-rotate").evaluate(b,{}),G="none"!==s.layout.get("icon-text-fit"),Y=Tc(i,H,T,G),W=o?Tc(o,H,T,G):void 0;E=new Ec(l,e,c,u,f,i,v,m,!1,H),I=4*Y.length;var X=t.iconSizeData,Z=null;"source"===X.kind?(Z=[uc*s.layout.get("icon-size").evaluate(b,{})])[0]>Fc&&w(t.layerIds[0]+': Value for "icon-size" is >= 255. Reduce your "icon-size".'):"composite"===X.kind&&((Z=[uc*_.compositeIconSizes[0].evaluate(b,{},k),uc*_.compositeIconSizes[1].evaluate(b,{},k)])[0]>Fc||Z[1]>Fc)&&w(t.layerIds[0]+': Value for "icon-size" is >= 255. Reduce your "icon-size".'),t.addSymbols(t.icon,Y,Z,x,y,b,!1,e,P.lineStartIndex,P.lineLength,-1,k),R=t.icon.placedSymbolArray.length-1,W&&(O=4*W.length,t.addSymbols(t.icon,W,Z,x,y,b,Wl.vertical,e,P.lineStartIndex,P.lineLength,-1,k),F=t.icon.placedSymbolArray.length-1)}for(var J in n.horizontal){var K=n.horizontal[J];if(!S){N=Pa(K.text);var Q=s.layout.get("text-rotate").evaluate(b,{},k);S=new Ec(l,e,c,u,f,K,h,p,d,Q)}var $=1===K.positionedLines.length;if(z+=Bc(t,e,K,a,s,d,b,g,P,n.vertical?Wl.horizontal:Wl.horizontalOnly,$?Object.keys(n.horizontal):[J],B,R,_,k),$)break}n.vertical&&(D+=Bc(t,e,n.vertical,a,s,d,b,g,P,Wl.vertical,["vertical"],B,F,_,k));var tt=S?S.boxStartIndex:t.collisionBoxArray.length,et=S?S.boxEndIndex:t.collisionBoxArray.length,rt=L?L.boxStartIndex:t.collisionBoxArray.length,nt=L?L.boxEndIndex:t.collisionBoxArray.length,it=E?E.boxStartIndex:t.collisionBoxArray.length,at=E?E.boxEndIndex:t.collisionBoxArray.length,ot=C?C.boxStartIndex:t.collisionBoxArray.length,st=C?C.boxEndIndex:t.collisionBoxArray.length,lt=-1,ct=function(t,e){return t&&t.circleDiameter?Math.max(t.circleDiameter,e):e};lt=ct(S,lt),lt=ct(L,lt),lt=ct(E,lt);var ut=(lt=ct(C,lt))>-1?1:0;ut&&(lt*=A/ml),t.glyphOffsetArray.length>=Xc.MAX_GLYPHS&&w("Too many glyphs being rendered in a tile. See https://github.com/mapbox/mapbox-gl-js/issues/2907"),void 0!==b.sortKey&&t.addToSortKeyRanges(t.symbolInstances.length,b.sortKey),t.symbolInstances.emplaceBack(e.x,e.y,B.right>=0?B.right:-1,B.center>=0?B.center:-1,B.left>=0?B.left:-1,B.vertical||-1,R,F,N,tt,et,rt,nt,it,at,ot,st,c,z,D,I,O,ut,0,h,j,U,lt)}(t,f,s,r,n,i,h,t.layers[0],t.collisionBoxArray,e.index,e.sourceLayerIndex,t.index,y,T,M,l,b,k,S,d,e,a,c,u,o)};if("line"===E)for(var I=0,O=wc(e.geometry,0,0,ao,ao);I<O.length;I+=1)for(var z=O[I],D=0,R=bc(z,_,A,r.vertical||g,n,v,x,t.overscaling,ao);D<R.length;D+=1){var F=R[D];g&&jc(t,g.text,L,F)||P(z,F)}else if("line-center"===E)for(var B=0,N=e.geometry;B<N.length;B+=1){var j=N[B];if(j.length>1){var U=xc(j,A,r.vertical||g,n,v,x);U&&P(j,U)}}else if("Polygon"===e.type)for(var V=0,q=Ss(e.geometry,0);V<q.length;V+=1){var H=q[V],G=Pc(H,16);P(H[0],new cc(G.x,G.y,0))}else if("LineString"===e.type)for(var Y=0,W=e.geometry;Y<W.length;Y+=1){var X=W[Y];P(X,new cc(X[0].x,X[0].y,0))}else if("Point"===e.type)for(var Z=0,J=e.geometry;Z<J.length;Z+=1)for(var K=0,Q=J[Z];K<Q.length;K+=1){var $=Q[K];P([$],new cc($.x,$.y,0))}}(t,a,p,N,n,u,f,h,g,j,o)},T=0,k=t.features;T<k.length;T+=1)_();a&&t.generateCollisionDebugBuffers()},t.perspective=function(t,e,r,n,i){var a,o=1/Math.tan(e/2);return t[0]=o/r,t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=o,t[6]=0,t[7]=0,t[8]=0,t[9]=0,t[11]=-1,t[12]=0,t[13]=0,t[15]=0,null!=i&&i!==1/0?(a=1/(n-i),t[10]=(i+n)*a,t[14]=2*i*n*a):(t[10]=-1,t[14]=-2*n),t},t.pick=function(t,e){for(var r={},n=0;n<e.length;n++){var i=e[n];i in t&&(r[i]=t[i])}return r},t.plugin=ki,t.polygonIntersectsPolygon=uo,t.postMapLoadEvent=ot,t.postTurnstileEvent=it,t.potpack=ql,t.refProperties=["type","source","source-layer","minzoom","maxzoom","filter","layout"],t.register=Kn,t.registerForPluginStateChange=function(t){return t({pluginStatus:mi,pluginURL:yi}),_.on("pluginStateChange",t),t},t.rotate=function(t,e,r){var n=e[0],i=e[1],a=e[2],o=e[3],s=Math.sin(r),l=Math.cos(r);return t[0]=n*l+a*s,t[1]=i*l+o*s,t[2]=n*-s+a*l,t[3]=i*-s+o*l,t},t.rotateX=function(t,e,r){var n=Math.sin(r),i=Math.cos(r),a=e[4],o=e[5],s=e[6],l=e[7],c=e[8],u=e[9],f=e[10],h=e[11];return e!==t&&(t[0]=e[0],t[1]=e[1],t[2]=e[2],t[3]=e[3],t[12]=e[12],t[13]=e[13],t[14]=e[14],t[15]=e[15]),t[4]=a*i+c*n,t[5]=o*i+u*n,t[6]=s*i+f*n,t[7]=l*i+h*n,t[8]=c*i-a*n,t[9]=u*i-o*n,t[10]=f*i-s*n,t[11]=h*i-

l*n,t},t.rotateZ=function(t,e,r){var
n=Math.sin(r),i=Math.cos(r),a=e[0],o=e[1],s=e[2],l=e[3],c=e[4],u=e[5],f=e[6],h=e[7];return
e!==t&&(t[8]=e[8],t[9]=e[9],t[10]=e[10],t[11]=e[11],t[12]=e[12],t[13]=e[13],t[14]=e[14],t[15]=e[15]),t[0]=a*i+c*n
,t[1]=o*i+u*n,t[2]=s*i+f*n,t[3]=l*i+h*n,t[4]=c*i-a*n,t[5]=u*i-o*n,t[6]=f*i-s*n,t[7]=h*i-
l*n,t},t.scale=function(t,e,r){var n=r[0],i=r[1],a=r[2];return
t[0]=e[0]*n,t[1]=e[1]*n,t[2]=e[2]*n,t[3]=e[3]*n,t[4]=e[4]*i,t[5]=e[5]*i,t[6]=e[6]*i,t[7]=e[7]*i,t[8]=e[8]*a,t[9]=e[9]
*a,t[10]=e[10]*a,t[11]=e[11]*a,t[12]=e[12],t[13]=e[13],t[14]=e[14],t[15]=e[15],t},t.scale$1=function(t,e,r){return
t[0]=e[0]*r,t[1]=e[1]*r,t[2]=e[2]*r,t[3]=e[3]*r,t},t.scale$2=function(t,e,r){return
t[0]=e[0]*r,t[1]=e[1]*r,t[2]=e[2]*r,t},t.setCacheLimits=function(t,e){lt=t,ct=e},t.setRTLTextPlugin=function(t,e,r){
if(void 0===r&&(r=!1),mi===hi||mi===pi||mi===di)throw new Error("setRTLTextPlugin cannot be called multiple
times.");yi=F.resolveURL(t),mi=hi,vi=e,bi(),r||Ti()},t.sphericalToCartesian=function(t){var
e=t[0],r=t[1],n=t[2];return
r+=90,r*=Math.PI/180,n*=Math.PI/180,{x:e*Math.cos(r)*Math.sin(n),y:e*Math.sin(r)*Math.sin(n),z:e*Math.cos(n)
}},t.sqrLen=zo,t.styleSpec=It,t.sub=Io,t.symbolSize=dc,t.transformMat3=function(t,e,r){var
n=e[0],i=e[1],a=e[2];return
t[0]=n*r[0]+i*r[3]+a*r[6],t[1]=n*r[1]+i*r[4]+a*r[7],t[2]=n*r[2]+i*r[5]+a*r[8],t},t.transformMat4=Oo,t.translate=fu
nction(t,e,r){var n,i,a,o,s,l,c,u,f,h,p,d,g=r[0],v=r[1],m=r[2];return
e===t?(t[12]=e[0]*g+e[4]*v+e[8]*m+e[12],t[13]=e[1]*g+e[5]*v+e[9]*m+e[13],t[14]=e[2]*g+e[6]*v+e[10]*m+e[1
4],t[15]=e[3]*g+e[7]*v+e[11]*m+e[15]):(n=e[0],i=e[1],a=e[2],o=e[3],s=e[4],l=e[5],c=e[6],u=e[7],f=e[8],h=e[9],p=
e[10],d=e[11],t[0]=n,t[1]=i,t[2]=a,t[3]=o,t[4]=s,t[5]=l,t[6]=c,t[7]=u,t[8]=f,t[9]=h,t[10]=p,t[11]=d,t[12]=n*g+s*v+f*
m+e[12],t[13]=i*g+l*v+h*m+e[13],t[14]=a*g+c*v+p*m+e[14],t[15]=o*g+u*v+d*m+e[15]),t},t.triggerPluginComp
letionEvent=xi,t.uniqueId=p,t.validateCustomStyleLayer=function(t){var e=[],r=t.id;return void
0===r&&e.push({message:"layers."+r+': missing required property "id"'}),void
0===t.render&&e.push({message:"layers."+r+': missing required method
"render"'}),t.renderingMode&&"2d"!==t.renderingMode&&"3d"!==t.renderingMode&&e.push({message:"layers."
+r+': property "renderingMode" must be either "2d" or
"3d"'}),e},t.validateLight=Vn,t.validateStyle=Un,t.values=function(t){var e=[];for(var r in t)e.push(t[r]);return
e},t.vectorTile=Hs,t.version=r,t.warnOnce=w,t.webpSupported=N,t.window=self,t.wrap=u})),n(0,(function(t){funct
ion e(t){var r=typeof t;if("number"===r||"boolean"===r||"string"===r||null==t)return
JSON.stringify(t);if(Array.isArray(t)){for(var n="[",i=0,a=t;i<a.length;i++)n+=e(a[i])+",";return n+"]"}for(var
o=Object.keys(t).sort(),s="{",l=0;l<o.length;l++)s+=JSON.stringify(o[l])+":"+e(t[o[l]])+",";return s+"}"}function
r(r){for(var n="",i=0,a=t.refProperties;i<a.length;i+=1)n+="/"+e(r[a[i]]);return n}var
n=function(t){this.keyCache={},t&&this.replace(t)};n.prototype.replace=function(t){this._layerConfigs={},this._la
yers={},this.update(t,[])},n.prototype.update=function(e,n){for(var i=this,a=0,o=e;a<o.length;a+=1){var
s=o[a];this._layerConfigs[s.id]=s;var
l=this._layers[s.id]=t.createStyleLayer(s);l._featureFilter=t.featureFilter(l.filter),this.keyCache[s.id]&&delete
this.keyCache[s.id]}for(var c=0,u=n;c<u.length;c+=1){var f=u[c];delete this.keyCache[f],delete
this._layerConfigs[f],delete this._layers[f]}this.familiesBySource={};for(var h=0,p=function(t,e){for(var
n={},i=0;i<t.length;i++){var a=e&&e[t[i].id]||r(t[i]);e&&(e[t[i].id]=a);var o=n[a];o||(o=n[a]=[]),o.push(t[i])}var
s=[];for(var l in n)s.push(n[l]);return s}(t.values(this._layerConfigs),this.keyCache);h<p.length;h+=1){var
d=p[h].map((function(t){return i._layers[t.id]})),g=d[0];if("none"!==g.visibility){var
v=g.source||"",m=this.familiesBySource[v];m||(m=this.familiesBySource[v]={});var
y=g.sourceLayer||"_geojsonTileLayer",x=m[y];x||(x=m[y]=[]),x.push(d)}}};var i=function(e){var r={},n=[];for(var
i in e){var a=e[i],o=r[i]={};for(var s in a){var l=a[+s];if(l&&0!==l.bitmap.width&&0!==l.bitmap.height){var
c={x:0,y:0,w:l.bitmap.width+2,h:l.bitmap.height+2};n.push(c),o[s]={rect:c,metrics:l.metrics}}}}var
u=t.potpack(n),f=u.w,h=u.h,p=new t.AlphaImage({width:f||1,height:h||1});for(var d in e){var g=e[d];for(var v in
g){var m=g[+v];if(m&&0!==m.bitmap.width&&0!==m.bitmap.height){var
y=r[d][v].rect;t.AlphaImage.copy(m.bitmap,p,{x:0,y:0},{x:y.x+1,y:y.y+1},m.bitmap)}}}this.image=p,this.positions

=r};t.register("GlyphAtlas",i);var a=function(e){this.tileID=new
t.OverscaledTileID(e.tileID.overscaledZ,e.tileID.wrap,e.tileID.canonical.z,e.tileID.canonical.x,e.tileID.canonical.y),
this.uid=e.uid,this.zoom=e.zoom,this.pixelRatio=e.pixelRatio,this.tileSize=e.tileSize,this.source=e.source,this.overs
caling=this.tileID.overscaleFactor(),this.showCollisionBoxes=e.showCollisionBoxes,this.collectResourceTiming=!!
e.collectResourceTiming,this.returnDependencies=!!e.returnDependencies,this.promoteId=e.promoteId};function
o(e,r,n){for(var i=new t.EvaluationParameters(r),a=0,o=e;a<o.length;a+=1)o[a].recalculate(i,n)}function s(e,r){var
n=t.getArrayBuffer(e.request,(function(e,n,i,a){e?r(e):n&&r(null,{vectorTile:new t.vectorTile.VectorTile(new
t.pbf(n)),rawData:n,cacheControl:i,expires:a})}));return
function(){n.cancel(),r()}}a.prototype.parse=function(e,r,n,a,s){var
l=this;this.status="parsing",this.data=e,this.collisionBoxArray=new t.CollisionBoxArray;var c=new
t.DictionaryCoder(Object.keys(e.layers).sort()),u=new
t.FeatureIndex(this.tileID,this.promoteId);u.bucketLayerIDs=[];var
f,h,p,d,g={},v={featureIndex:u,iconDependencies:{},patternDependencies:{},glyphDependencies:{},availableImag
es:n},m=r.familiesBySource[this.source];for(var y in m){var
x=e.layers[y];if(x){1===x.version&&t.warnOnce('Vector tile source "'+this.source+'" layer "'+y+'" does not use
vector tile spec v2 and therefore may have some rendering errors.');for(var
b=c.encode(y),_=[],w=0;w<x.length;w++){var
T=x.feature(w),k=u.getId(T,y);_.push({feature:T,id:k,index:w,sourceLayerIndex:b})}for(var
A=0,M=m[y];A<M.length;A+=1){var
S=M[A],E=S[0];E.minzoom&&this.zoom<Math.floor(E.minzoom)||E.maxzoom&&this.zoom>=E.maxzoom||"none
"!==E.visibility&&(o(S,this.zoom,n),(g[E.id]=E.createBucket({index:u.bucketLayerIDs.length,layers:S,zoom:this.z
oom,pixelRatio:this.pixelRatio,overscaling:this.overscaling,collisionBoxArray:this.collisionBoxArray,sourceLayerI
ndex:b,sourceID:this.source})).populate(_,v,this.tileID.canonical),u.bucketLayerIDs.push(S.map((function(t){return
t.id})))))}}var L=t.mapObject(v.glyphDependencies,(function(t){return
Object.keys(t).map(Number)}));Object.keys(L).length?a.send("getGlyphs",{uid:this.uid,stacks:L},(function(t,e){f||(f
=t,h=e,I.call(l))})):h={};var
C=Object.keys(v.iconDependencies);C.length?a.send("getImages",{icons:C,source:this.source,tileID:this.tileID,type
:"icons"},(function(t,e){f||(f=t,p=e,I.call(l))})):p={};var P=Object.keys(v.patternDependencies);function
I(){if(f)return s(f);if(h&&p&&d){var e=new i(h),r=new t.ImageAtlas(p,d);for(var a in g){var l=g[a];l instanceof
t.SymbolBucket?(o(l.layers,this.zoom,n),t.performSymbolLayout(l,h,e.positions,p,r.iconPositions,this.showCollisio
nBoxes,this.tileID.canonical)):l.hasPattern&&(l instanceof t.LineBucket||l instanceof t.FillBucket||l instanceof
t.FillExtrusionBucket)&&(o(l.layers,this.zoom,n),l.addFeatures(v,this.tileID.canonical,r.patternPositions))}this.statu
s="done",s(null,{buckets:t.values(g).filter((function(t){return!t.isEmpty()})),featureIndex:u,collisionBoxArray:this.c
ollisionBoxArray,glyphAtlasImage:e.image,imageAtlas:r,glyphMap:this.returnDependencies?h:null,iconMap:this.re
turnDependencies?p:null,glyphPositions:this.returnDependencies?e.positions:null})}}P.length?a.send("getImages",{
icons:P,source:this.source,tileID:this.tileID,type:"patterns"},(function(t,e){f||(f=t,d=e,I.call(l))})):d={},I.call(this)};v
ar
l=function(t,e,r,n){this.actor=t,this.layerIndex=e,this.availableImages=r,this.loadVectorData=n||s,this.loading={},thi
s.loaded={}};l.prototype.loadTile=function(e,r){var n=this,i=e.uid;this.loading||(this.loading={});var
o=!!(e&&e.request&&e.request.collectResourceTiming)&&new
t.RequestPerformance(e.request),s=this.loading[i]=new a(e);s.abort=this.loadVectorData(e,(function(e,a){if(delete
n.loading[i],e||!a)return s.status="done",n.loaded[i]=s,r(e);var
l=a.rawData,c={};a.expires&&(c.expires=a.expires),a.cacheControl&&(c.cacheControl=a.cacheControl);var
u={};if(o){var
f=o.finish();f&&(u.resourceTiming=JSON.parse(JSON.stringify(f)))}s.vectorTile=a.vectorTile,s.parse(a.vectorTile,
n.layerIndex,n.availableImages,n.actor,(function(e,n){if(e||!n)return
r(e);r(null,t.extend({rawTileData:l.slice(0)},n,c,u))})),n.loaded=n.loaded||{},n.loaded[i]=s}))},l.prototype.reloadTile
=function(t,e){var r=this,n=this.loaded,i=t.uid,a=this;if(n&&n[i]){var

o=n[i];o.showCollisionBoxes=t.showCollisionBoxes;var s=function(t,n){var i=o.reloadCallback;i&&(delete o.reloadCallback,o.parse(o.vectorTile,a.layerIndex,r.availableImages,a.actor,i)),e(t,n)};"parsing"===o.status?o.reloadCallback=s:"done"===o.status&&(o.vectorTile?o.parse(o.vectorTile,this.layerIndex,this.availableImages,this.actor,s):s())}},l.prototype.abortTile=function(t,e){var r=this.loading,n=t.uid;r&&r[n]&&r[n].abort&&(r[n].abort(),delete r[n]),e()},l.prototype.removeTile=function(t,e){var r=this.loaded,n=t.uid;r&&r[n]&&delete r[n],e()};var c=t.window.ImageBitmap,u=function(){this.loaded={}};u.prototype.loadTile=function(e,r){var n=e.uid,i=e.encoding,a=e.rawImageData,o=c&&a instanceof c?this.getImageData(a):a,s=new t.DEMData(n,o,i);this.loaded=this.loaded||{},this.loaded[n]=s,r(null,s)},u.prototype.getImageData=function(e){this.offscreenCanvas&&this.offscreenCanvasContext||(this.offscreenCanvas=new OffscreenCanvas(e.width,e.height),this.offscreenCanvasContext=this.offscreenCanvas.getContext("2d")),this.offscreenCanvas.width=e.width,this.offscreenCanvas.height=e.height,this.offscreenCanvasContext.drawImage(e,0,0,e.width,e.height);var r=this.offscreenCanvasContext.getImageData(-1,-1,e.width+2,e.height+2);return this.offscreenCanvasContext.clearRect(0,0,this.offscreenCanvas.width,this.offscreenCanvas.height),new t.RGBAImage({width:r.width,height:r.height},r.data)},u.prototype.removeTile=function(t){var e=this.loaded,r=t.uid;e&&e[r]&&delete e[r]};var f=function t(e,r){var n,i=e&&e.type;if("FeatureCollection"===i)for(n=0;n<e.features.length;n++)t(e.features[n],r);else if("GeometryCollection"===i)for(n=0;n<e.geometries.length;n++)t(e.geometries[n],r);else if("Feature"===i)t(e.geometry,r);else if("Polygon"===i)h(e.coordinates,r);else if("MultiPolygon"===i)for(n=0;n<e.coordinates.length;n++)h(e.coordinates[n],r);return e};function h(t,e){if(0!==t.length){p(t[0],e);for(var r=1;r<t.length;r++)p(t[r],!e)}}function p(t,e){for(var r=0,n=0,i=t.length,a=i-1;n<i;a=n++)r+=(t[n][0]-t[a][0])*(t[a][1]+t[n][1]);r>=0!=!!e&&t.reverse()}var d=t.vectorTile.VectorTileFeature.prototype.toGeoJSON,g=function(e){this._feature=e,this.extent=t.EXTENT,this.type=e.type,this.properties=e.tags,"id"in e&&!isNaN(e.id)&&(this.id=parseInt(e.id,10))};g.prototype.loadGeometry=function(){if(1===this._feature.type){for(var e=[],r=0,n=this._feature.geometry;r<n.length;r+=1){var i=n[r];e.push([new t.Point$1(i[0],i[1])])}return e}for(var a=[],o=0,s=this._feature.geometry;o<s.length;o+=1){for(var l=[],c=0,u=s[o];c<u.length;c+=1){var f=u[c];l.push(new t.Point$1(f[0],f[1]))}a.push(l)}return a},g.prototype.toGeoJSON=function(t,e,r){return d.call(this,t,e,r)};var v=function(e){this.layers={_geojsonTileLayer:this},this.name="_geojsonTileLayer",this.extent=t.EXTENT,this.length=e.length,this._features=e};v.prototype.feature=function(t){return new g(this._features[t])};var m=t.vectorTile.VectorTileFeature,y=x;function x(t,e){this.options=e||{},this.features=t,this.length=t.length}function b(t,e){this.id="number"==typeof t.id?t.id:void 0,this.type=t.type,this.rawGeometry=1===t.type?[t.geometry]:t.geometry,this.properties=t.tags,this.extent=e||4096}x.prototype.feature=function(t){return new b(this.features[t],this.options.extent)},b.prototype.loadGeometry=function(){var e=this.rawGeometry;this.geometry=[];for(var r=0;r<e.length;r++){for(var n=e[r],i=[],a=0;a<n.length;a++)i.push(new t.Point$1(n[a][0],n[a][1]));this.geometry.push(i)}return this.geometry},b.prototype.bbox=function(){this.geometry||this.loadGeometry();for(var t=this.geometry,e=1/0,r=-1/0,n=1/0,i=-1/0,a=0;a<t.length;a++)for(var o=t[a],s=0;s<o.length;s++){var l=o[s];e=Math.min(e,l.x),r=Math.max(r,l.x),n=Math.min(n,l.y),i=Math.max(i,l.y)}return[e,n,r,i]},b.prototype.toGeoJSON=m.prototype.toGeoJSON;var _=A,w=A,T=function(t,e){e=e||{};var r={};for(var n in t)r[n]=new y(t[n].features,e),r[n].name=n,r[n].version=e.version,r[n].extent=e.extent;return A({layers:r})},k=y;function A(e){var r=new t.pbf;return function(t,e){for(var r in t.layers)e.writeMessage(3,M,t.layers[r])}(e,r),r.finish()}function M(t,e){var r;e.writeVarintField(15,t.version||1),e.writeStringField(1,t.name||""),e.writeVarintField(5,t.extent||4096);var n={keys:[],values:[],keycache:{},valuecache:{}};for(r=0;r<t.length;r++)n.feature=t.feature(r),e.writeMessage(2,S,n);var i=n.keys;for(r=0;r<i.length;r++)e.writeStringField(3,i[r]);var a=n.values;for(r=0;r<a.length;r++)e.writeMessage(4,I,a[r])}function S(t,e){var r=t.feature;void

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0!==r.id&&e.writeVarintField(1,r.id),e.writeMessage(2,E,t),e.writeVarintField(3,r.type),e.writeMessage(4,P,r)}func
tion E(t,e){var r=t.feature,n=t.keys,i=t.values,a=t.keycache,o=t.valuecache;for(var s in r.properties){var l=a[s];void
0===l&&(n.push(s),l=n.length-1,a[s]=l),e.writeVarint(l);var c=r.properties[s],u=typeof
c;"string"!==u&&"boolean"!==u&&"number"!==u&&(c=JSON.stringify(c));var f=u+":"+c,h=o[f];void
0===h&&(i.push(c),h=i.length-1,o[f]=h),e.writeVarint(h)}}function L(t,e){return(e<<3)+(7&t)}function
C(t){return t<<1^t>>31}function P(t,e){for(var r=t.loadGeometry(),n=t.type,i=0,a=0,o=r.length,s=0;s<o;s++){var
l=r[s],c=1;1===n&&(c=l.length),e.writeVarint(L(1,c));for(var u=3===n?l.length-
1:l.length,f=0;f<u;f++){1===f&&1!==n&&e.writeVarint(L(2,u-1));var h=l[f].x-i,p=l[f].y-
a;e.writeVarint(C(h)),e.writeVarint(C(p)),i+=h,a+=p}3===n&&e.writeVarint(L(7,1))}}function I(t,e){var r=typeof
t;"string"===r?e.writeStringField(1,t):"boolean"===r?e.writeBooleanField(7,t):"number"===r&&(t%1!=0?e.writeD
oubleField(3,t):t<0?e.writeSVarintField(6,t):e.writeVarintField(5,t))}function O(t,e,r,n,i,a){if(!(i-n<=r)){var
o=n+i>>1;z(t,e,o,n,i,a%2),O(t,e,r,n,o-1,a+1),O(t,e,r,o+1,i,a+1)}}function z(t,e,r,n,i,a){for(;i>n;){if(i-n>600){var
o=i-n+1,s=r-n+1,l=Math.log(o),c=.5*Math.exp(2*l/3),u=.5*Math.sqrt(l*c*(o-c)/o)*(s-o/2<0?-
1:1);z(t,e,r,Math.max(n,Math.floor(r-s*c/o+u)),Math.min(i,Math.floor(r+(o-s)*c/o+u)),a)}var
f=e[2*r+a],h=n,p=i;for(D(t,e,n,r),e[2*i+a]>f&&D(t,e,n,i);h<p;){for(D(t,e,h,p),h++,p--
;e[2*h+a]<f;)h++;for(;e[2*p+a]>f;)p--}e[2*n+a]===f?D(t,e,n,p):D(t,e,++p,i),p<=r&&(n=p+1),r<=p&&(i=p-
1)}}function D(t,e,r,n){R(t,r,n),R(e,2*r,2*n),R(e,2*r+1,2*n+1)}function R(t,e,r){var n=t[e];t[e]=t[r],t[r]=n}function
F(t,e,r,n){var i=t-r,a=e-n;return i*i+a*a}_.fromVectorTileJs=w,_.fromGeojsonVt=T,_.GeoJSONWrapper=k;var
B=function(t){return t[0]},N=function(t){return t[1]},j=function(t,e,r,n,i){void 0===e&&(e=B),void
0===r&&(r=N),void 0===n&&(n=64),void 0===i&&(i=Float64Array),this.nodeSize=n,this.points=t;for(var
a=t.length<65536?Uint16Array:Uint32Array,o=this.ids=new a(t.length),s=this.coords=new
i(2*t.length),l=0;l<t.length;l++)o[l]=l,s[2*l]=e(t[l]),s[2*l+1]=r(t[l]);O(o,s,n,0,o.length-
1,0)};j.prototype.range=function(t,e,r,n){return function(t,e,r,n,i,a,o){for(var s,l,c=[0,t.length-
1,0],u=[];c.length;){var f=c.pop(),h=c.pop(),p=c.pop();if(h-p<=o)for(var
d=p;d<=h;d++)s=e[2*d],l=e[2*d+1],s>=r&&s<=i&&l>=n&&l<=a&&u.push(t[d]);else{var
g=Math.floor((p+h)/2);s=e[2*g],l=e[2*g+1],s>=r&&s<=i&&l>=n&&l<=a&&u.push(t[g]);var
v=(f+1)%2;(0===f?r<=s:n<=l)&&(c.push(p),c.push(g-
1),c.push(v)),(0===f?i>=s:a>=l)&&(c.push(g+1),c.push(h),c.push(v))}}return
u}(this.ids,this.coords,t,e,r,n,this.nodeSize)},j.prototype.within=function(t,e,r){return function(t,e,r,n,i,a){for(var
o=[0,t.length-1,0],s=[],l=i*i;o.length;){var c=o.pop(),u=o.pop(),f=o.pop();if(u-f<=a)for(var
h=f;h<=u;h++)F(e[2*h],e[2*h+1],r,n)<=l&&s.push(t[h]);else{var
p=Math.floor((f+u)/2),d=e[2*p],g=e[2*p+1];F(d,g,r,n)<=l&&s.push(t[p]);var v=(c+1)%2;(0===c?r-i<=d:n-
i<=g)&&(o.push(f),o.push(p-1),o.push(v)),(0===c?r+i>=d:n+i>=g)&&(o.push(p+1),o.push(u),o.push(v))}}return
s}(this.ids,this.coords,t,e,r,this.nodeSize)};var
U={minZoom:0,maxZoom:16,radius:40,extent:512,nodeSize:64,log:!1,generateId:!1,reduce:null,map:function(t){ret
urn t}},V=function(t){this.options=Z(Object.create(U),t),this.trees=new Array(this.options.maxZoom+1)};function
q(t,e,r,n,i){return{x:t,y:e,zoom:1/0,id:r,parentId:-1,numPoints:n,properties:i}}function H(t,e){var
r=t.geometry.coordinates,n=r[0],i=r[1];return{x:W(n),y:X(i),zoom:1/0,index:e,parentId:-1}}function
G(t){return{type:"Feature",id:t.id,properties:Y(t),geometry:{type:"Point",coordinates:[(n=t.x,360*(n-
.5)),(e=t.y,r=(180-360*e)*Math.PI/180,360*Math.atan(Math.exp(r))/Math.PI-90)]}};var e,r,n}function Y(t){var
e=t.numPoints,r=e>=1e4?Math.round(e/1e3)+"k":e>=1e3?Math.round(e/100)/10+"k":e;return
Z(Z({},t.properties),{cluster:!0,cluster_id:t.id,point_count:e,point_count_abbreviated:r})}function W(t){return
t/360+.5}function X(t){var e=Math.sin(t*Math.PI/180),r=.5-.25*Math.log((1+e)/(1-e))/Math.PI;return
r<0?0:r>1?1:r}function Z(t,e){for(var r in e)t[r]=e[r];return t}function J(t){return t.x}function K(t){return
t.y}function Q(t,e,r,n){for(var i,a=n,o=r-e>>1,s=r-e,l=t[e],c=t[e+1],u=t[r],f=t[r+1],h=e+3;h<r;h+=3){var
p=$(t[h],t[h+1],l,c,u,f);if(p>a)i=h,a=p;else if(p===a){var d=Math.abs(h-o);d<s&&(i=h,s=d)}}a>n&&(i-
e>3&&Q(t,e,i,n),t[i+2]=a,r-i>3&&Q(t,i,r,n))}function $(t,e,r,n,i,a){var o=i-r,s=a-n;if(0!==o||0!==s){var l=((t-
r)*o+(e-n)*s)/(o*o+s*s);l>1?(r=i,n=a):l>0&&(r+=o*l,n+=s*l)}return(o=t-r)*o+(s=e-n)*s}function tt(t,e,r,n){var
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i={id:void 0===t?null:t,type:e,geometry:r,tags:n,minX:1/0,minY:1/0,maxX:-1/0,maxY:-1/0};return function(t){var e=t.geometry,r=t.type;if("Point"===r||"MultiPoint"===r||"LineString"===r)et(t,e);else if("Polygon"===r||"MultiLineString"===r)for(var n=0;n<e.length;n++)et(t,e[n]);else if("MultiPolygon"===r)for(n=0;n<e.length;n++)for(var i=0;i<e[n].length;i++)et(t,e[n][i])}(i),i}function et(t,e){for(var r=0;r<e.length;r+=3)t.minX=Math.min(t.minX,e[r]),t.minY=Math.min(t.minY,e[r+1]),t.maxX=Math.max(t.maxX,e[r]),t.maxY=Math.max(t.maxY,e[r+1])}function rt(t,e,r,n){if(e.geometry){var i=e.geometry.coordinates,a=e.geometry.type,o=Math.pow(r.tolerance/((1<<r.maxZoom)*r.extent),2),s=[],l=e.id;if(r.promoteId?l=e.properties[r.promoteId]:r.generateId&&(l=n||0),"Point"===a)nt(i,s);else if("MultiPoint"===a)for(var c=0;c<i.length;c++)nt(i[c],s);else if("LineString"===a)it(i,s,o,!1);else if("MultiLineString"===a){if(r.lineMetrics){for(c=0;c<i.length;c++)s=[],it(i[c],s,o,!1),t.push(tt(l,"LineString",s,e.properties));return}at(i,s,o,!1)}else if("Polygon"===a)at(i,s,o,!0);else{if("MultiPolygon"!==a){if("GeometryCollection"===a){for(c=0;c<e.geometry.geometries.length;c++)rt(t,{id:l,geometry:e.geometry.geometries[c],properties:e.properties},r,n);return}throw new Error("Input data is not a valid GeoJSON object.")}for(c=0;c<i.length;c++){var u=[];at(i[c],u,o,!0),s.push(u)}}t.push(tt(l,a,s,e.properties))}}function nt(t,e){e.push(ot(t[0])),e.push(st(t[1])),e.push(0)}function it(t,e,r,n){for(var i,a,o=0,s=0;s<t.length;s++){var l=ot(t[s][0]),c=st(t[s][1]);e.push(l),e.push(c),e.push(0),s>0&&(o+=n?(i*c-l*a)/2:Math.sqrt(Math.pow(l-i,2)+Math.pow(c-a,2))),i=l,a=c}var u=e.length-3;e[2]=1,Q(e,0,u,r),e[u+2]=1,e.size=Math.abs(o),e.start=0,e.end=e.size}function at(t,e,r,n){for(var i=0;i<t.length;i++){var a=[];it(t[i],a,r,n),e.push(a)}}function ot(t){return t/360+.5}function st(t){var e=Math.sin(t*Math.PI/180),r=.5-.25*Math.log((1+e)/(1-e))/Math.PI;return r<0?0:r>1?1:r}function lt(t,e,r,n,i,a,o,s){if(n/=e,a>=(r/=e)&&o<n)return t;if(o<r||a>=n)return null;for(var l=[],c=0;c<t.length;c++){var u=t[c],f=u.geometry,h=u.type,p=0===i?u.minX:u.minY,d=0===i?u.maxX:u.maxY;if(p>=r&&d<n)l.push(u);else if(!(d<r||p>=n)){var g=[];if("Point"===h||"MultiPoint"===h)ct(f,g,r,n,i);else if("LineString"===h)ut(f,g,r,n,i,!1,s.lineMetrics);else if("MultiLineString"===h)ht(f,g,r,n,i,!1);else if("Polygon"===h)ht(f,g,r,n,i,!0);else if("MultiPolygon"===h)for(var v=0;v<f.length;v++){var m=[];ht(f[v],m,r,n,i,!0),m.length&&g.push(m)}if(g.length){if(s.lineMetrics&&"LineString"===h){for(v=0;v<g.length;v++)l.push(tt(u.id,h,g[v],u.tags));continue}"LineString"!==h&&"MultiLineString"!==h||(1===g.length?(h="LineString",g=g[0]):h="MultiLineString"),"Point"!==h&&"MultiPoint"!==h||(h=3===g.length?"Point":"MultiPoint"),l.push(tt(u.id,h,g,u.tags))}}}return l.length?l:null}function ct(t,e,r,n,i){for(var a=0;a<t.length;a+=3){var o=t[a+i];o>=r&&o<=n&&(e.push(t[a]),e.push(t[a+1]),e.push(t[a+2]))}}function ut(t,e,r,n,i,a,o){for(var s,l,c=ft(t),u=0===i?dt:gt,f=t.start,h=0;h<t.length-3;h+=3){var p=t[h],d=t[h+1],g=t[h+2],v=t[h+3],m=t[h+4],y=0===i?p:d,x=0===i?v:m,b=!1;o&&(s=Math.sqrt(Math.pow(p-v,2)+Math.pow(d-m,2))),y<r?x>r&&(l=u(c,p,d,v,m,r),o&&(c.start=f+s*l)):y>n?x<n&&(l=u(c,p,d,v,m,n),o&&(c.start=f+s*l)):pt(c,p,d,g),x<r&&y>=r&&(l=u(c,p,d,v,m,r),b=!0),x>n&&y<=n&&(l=u(c,p,d,v,m,n),b=!0),!a&&b&&(o&&(c.end=f+s*l),e.push(c),c=ft(t)),o&&(f+=s)}var _=t.length-3;p=t[_],d=t[_+1],g=t[_+2],(y=0===i?p:d)>=r&&y<=n&&pt(c,p,d,g),_=c.length-3,a&&_>=3&&(c[_]!==c[0]||c[_+1]!==c[1])&&pt(c,c[0],c[1],c[2]),c.length&&e.push(c)}function ft(t){var e=[];return e.size=t.size,e.start=t.start,e.end=t.end,e}function ht(t,e,r,n,i,a){for(var o=0;o<t.length;o++)ut(t[o],e,r,n,i,a,!1)}function pt(t,e,r,n){t.push(e),t.push(r),t.push(n)}function dt(t,e,r,n,i,a){var o=(a-e)/(n-e);return t.push(a),t.push(r+(i-r)*o),t.push(1),o}function gt(t,e,r,n,i,a){var o=(a-r)/(i-r);return t.push(e+(n-e)*o),t.push(a),t.push(1),o}function vt(t,e){for(var r=[],n=0;n<t.length;n++){var i,a=t[n],o=a.type;if("Point"===o||"MultiPoint"===o||"LineString"===o)i=mt(a.geometry,e);else if("MultiLineString"===o||"Polygon"===o){i=[];for(var s=0;s<a.geometry.length;s++)i.push(mt(a.geometry[s],e))}else if("MultiPolygon"===o)for(i=[],s=0;s<a.geometry.length;s++){for(var

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l=[],c=0;c<a.geometry[s].length;c++)l.push(mt(a.geometry[s][c],e));i.push(l)}r.push(tt(a.id,o,i,a.tags))}return
r}function mt(t,e){var r=[];r.size=t.size,void 0!==t.start&&(r.start=t.start,r.end=t.end);for(var
n=0;n<t.length;n+=3)r.push(t[n]+e,t[n+1],t[n+2]);return r}function yt(t,e){if(t.transformed)return t;var
r,n,i,a=1<<t.z,o=t.x,s=t.y;for(r=0;r<t.features.length;r++){var
l=t.features[r],c=l.geometry,u=l.type;if(l.geometry=[],1===u)for(n=0;n<c.length;n+=2)l.geometry.push(xt(c[n],c[n+
1],e,a,o,s));else for(n=0;n<c.length;n++){var
f=[];for(i=0;i<c[n].length;i+=2)f.push(xt(c[n][i],c[n][i+1],e,a,o,s));l.geometry.push(f)}}return
t.transformed=!0,t}function xt(t,e,r,n,i,a){return[Math.round(r*(t*n-i)),Math.round(r*(e*n-a))]}function
bt(t,e,r,n,i){for(var
a=e===i.maxZoom?0:i.tolerance/((1<<e)*i.extent),o={features:[],numPoints:0,numSimplified:0,numFeatures:0,sour
ce:null,x:r,y:n,z:e,transformed:!1,minX:2,minY:1,maxX:-
1,maxY:0},s=0;s<t.length;s++){o.numFeatures++,_t(o,t[s],a,i);var
l=t[s].minX,c=t[s].minY,u=t[s].maxX,f=t[s].maxY;l<o.minX&&(o.minX=l),c<o.minY&&(o.minY=c),u>o.maxX&
&(o.maxX=u),f>o.maxY&&(o.maxY=f)}return o}function _t(t,e,r,n){var
i=e.geometry,a=e.type,o=[];if("Point"===a||"MultiPoint"===a)for(var
s=0;s<i.length;s+=3)o.push(i[s]),o.push(i[s+1]),t.numPoints++,t.numSimplified++;else
if("LineString"===a)wt(o,i,t,r,!1,!1);else
if("MultiLineString"===a||"Polygon"===a)for(s=0;s<i.length;s++)wt(o,i[s],t,r,"Polygon"===a,0===s);else
if("MultiPolygon"===a)for(var l=0;l<i.length;l++){var
c=i[l];for(s=0;s<c.length;s++)wt(o,c[s],t,r,!0,0===s)}if(o.length){var
u=e.tags||null;if("LineString"===a&&n.lineMetrics){for(var f in
u={},e.tags)u[f]=e.tags[f];u.mapbox_clip_start=i.start/i.size,u.mapbox_clip_end=i.end/i.size}var
h={geometry:o,type:"Polygon"===a||"MultiPolygon"===a?3:"LineString"===a||"MultiLineString"===a?2:1,tags:u}
;null!==e.id&&(h.id=e.id),t.features.push(h)}}function wt(t,e,r,n,i,a){var
o=n*n;if(n>0&&e.size<(i?o:n))r.numPoints+=e.length/3;else{for(var
s=[],l=0;l<e.length;l+=3)(0===n||e[l+2]>o)&&(r.numSimplified++,s.push(e[l]),s.push(e[l+1])),r.numPoints++;i&&f
unction(t,e){for(var r=0,n=0,i=t.length,a=i-2;n<i;a=n,n+=2)r+=(t[n]-
t[a])*(t[n+1]+t[a+1]);if(r>0===e)for(n=0,i=t.length;n<i/2;n+=2){var o=t[n],s=t[n+1];t[n]=t[i-2-n],t[n+1]=t[i-1-
n],t[i-2-n]=o,t[i-1-n]=s}}(s,a),t.push(s)}}function Tt(t,e){var r=(e=this.options=function(t,e){for(var r in
e)t[r]=e[r];return t}(Object.create(this.options),e)).debug;if(r&&console.time("preprocess
data"),e.maxZoom<0||e.maxZoom>24)throw new Error("maxZoom should be in the 0-24
range");if(e.promoteId&&e.generateId)throw new Error("promoteId and generateId cannot be used together.");var
n=function(t,e){var r=[];if("FeatureCollection"===t.type)for(var
n=0;n<t.features.length;n++)rt(r,t.features[n],e,n);else"Feature"===t.type?rt(r,t,e):rt(r,{geometry:t},e);return
r}(t,e);this.tiles={},this.tileCoords=[],r&&(console.timeEnd("preprocess data"),console.log("index: maxZoom: %d,
maxPoints: %d",e.indexMaxZoom,e.indexMaxPoints),console.time("generate
tiles"),this.stats={},this.total=0),(n=function(t,e){var r=e.buffer/e.extent,n=t,i=lt(t,1,-1-r,r,0,-1,2,e),a=lt(t,1,1-
r,2+r,0,-1,2,e);return(i||a)&&(n=lt(t,1,-r,1+r,0,-1,2,e)||[],i&&(n=vt(i,1).concat(n)),a&&(n=n.concat(vt(a,-
1)))),n}(n,e)).length&&this.splitTile(n,0,0,0),r&&(n.length&&console.log("features: %d, points:
%d",this.tiles[0].numFeatures,this.tiles[0].numPoints),console.timeEnd("generate tiles"),console.log("tiles
generated:",this.total,JSON.stringify(this.stats)))}function kt(t,e,r){return 32*((1<<t)*r+e)+t}function At(t,e){var
r=t.tileID.canonical;if(!this._geoJSONIndex)return e(null,null);var
n=this._geoJSONIndex.getTile(r.z,r.x,r.y);if(!n)return e(null,null);var i=new
v(n.features),a=_(i);0===a.byteOffset&&a.byteLength===a.buffer.byteLength||(a=new
Uint8Array(a)),e(null,{vectorTile:i,rawData:a.buffer})}V.prototype.load=function(t){var
e=this.options,r=e.log,n=e.minZoom,i=e.maxZoom,a=e.nodeSize;r&&console.time("total time");var o="prepare
"+t.length+" points";r&&console.time(o),this.points=t;for(var
s=[],l=0;l<t.length;l++)t[l].geometry&&s.push(H(t[l],l));this.trees[i+1]=new
```

j(s,J,K,a,Float32Array),r&&console.timeEnd(o);for(var c=i;c>=n;c--){var u=+Date.now();s=this._cluster(s,c),this.trees[c]=new j(s,J,K,a,Float32Array),r&&console.log("z%d: %d clusters in %dms",c,s.length,+Date.now()-u)}return r&&console.timeEnd("total time"),this},V.prototype.getClusters=function(t,e){var r=((t[0]+180)%360+360)%360-180,n=Math.max(-90,Math.min(90,t[1])),i=180===t[2]?180:((t[2]+180)%360+360)%360-180,a=Math.max(-90,Math.min(90,t[3]));if(t[2]-t[0]>=360)r=-180,i=180;else if(r>i){var o=this.getClusters([r,n,180,a],e),s=this.getClusters([-180,n,i,a],e);return o.concat(s)}for(var l=this.trees[this._limitZoom(e)],c=[],u=0,f=l.range(W(r),X(a),W(i),X(n));u<f.length;u+=1){var h=f[u],p=l.points[h];c.push(p.numPoints?G(p):this.points[p.index])}return c},V.prototype.getChildren=function(t){var e=this._getOriginId(t),r=this._getOriginZoom(t),n="No cluster with the specified id.",i=this.trees[r];if(!i)throw new Error(n);var a=i.points[e];if(!a)throw new Error(n);for(var o=this.options.radius/(this.options.extent*Math.pow(2,r-1)),s=[],l=0,c=i.within(a.x,a.y,o);l<c.length;l+=1){var u=c[l],f=i.points[u];f.parentId===t&&s.push(f.numPoints?G(f):this.points[f.index])}if(0===s.length)throw new Error(n);return s},V.prototype.getLeaves=function(t,e,r){e=e||10,r=r||0;var n=[];return this._appendLeaves(n,t,e,r,0),n},V.prototype.getTile=function(t,e,r){var n=this.trees[this._limitZoom(t)],i=Math.pow(2,t),a=this.options,o=a.extent,s=a.radius/o,l=(r-s)/i,c=(r+1+s)/i,u={features:[]};return this._addTileFeatures(n.range((e-s)/i,l,(e+1+s)/i,c),n.points,e,r,i,u),0===e&&this._addTileFeatures(n.range(1-s/i,l,1,c),n.points,i,r,i,u),e===i-1&&this._addTileFeatures(n.range(0,l,s/i,c),n.points,-1,r,i,u),u.features.length?u:null},V.prototype.getClusterExpansionZoom=function(t){for(var e=this._getOriginZoom(t)-1;e<=this.options.maxZoom;){var r=this.getChildren(t);if(e++,1!==r.length)break;t=r[0].properties.cluster_id}return e},V.prototype._appendLeaves=function(t,e,r,n,i){for(var a=0,o=this.getChildren(e);a<o.length;a+=1){var s=o[a],l=s.properties;if(l&&l.cluster?i+l.point_count<=n?i+=l.point_count:i=this._appendLeaves(t,l.cluster_id,r,n,i):i<n?i++:t.push(s),t.length===r)break}return i},V.prototype._addTileFeatures=function(t,e,r,n,i,a){for(var o=0,s=t;o<s.length;o+=1){var l=e[s[o]],c=l.numPoints,u={type:1,geometry:[[Math.round(this.options.extent*(l.x*i-r)),Math.round(this.options.extent*(l.y*i-n))]],tags:c?Y(l):this.points[l.index].properties},f=void 0;c?f=l.id:this.options.generateId?f=l.index:this.points[l.index].id&&(f=this.points[l.index].id),void 0!==f&&(u.id=f),a.features.push(u)}},V.prototype._limitZoom=function(t){return Math.max(this.options.minZoom,Math.min(t,this.options.maxZoom+1))},V.prototype._cluster=function(t,e){for(var r=[],n=this.options,i=n.radius,a=n.extent,o=n.reduce,s=i/(a*Math.pow(2,e)),l=0;l<t.length;l++){var c=t[l];if(!(c.zoom<=e)){c.zoom=e;for(var u=this.trees[e+1],f=u.within(c.x,c.y,s),h=c.numPoints||1,p=c.x*h,d=c.y*h,g=o&&h>1?this._map(c,!0):null,v=(l<<5)+(e+1)+this.points.length,m=0,y=f;m<y.length;m+=1){var x=y[m],b=u.points[x];if(!(b.zoom<=e)){b.zoom=e;var _=b.numPoints||1;p+=b.x*_,d+=b.y*_,h+=_,b.parentId=v,o&&(g||(g=this._map(c,!0)),o(g,this._map(b)))}}1===h?r.push(c):(c.parentId=v,r.push(q(p/h,d/h,v,h,g)))}}return r},V.prototype._getOriginId=function(t){return t-this.points.length>>5},V.prototype._getOriginZoom=function(t){return(t-this.points.length)%32},V.prototype._map=function(t,e){if(t.numPoints)return e?Z({},t.properties):t.properties;var r=this.points[t.index].properties,n=this.options.map(r);return e&&n===r?Z({},n):n},Tt.prototype.options={maxZoom:14,indexMaxZoom:5,indexMaxPoints:1e5,tolerance:3,extent:4096,buffer:64,lineMetrics:!1,promoteId:null,generateId:!1,debug:0},Tt.prototype.splitTile=function(t,e,r,n,i,a,o){for(var s=[t,e,r,n],l=this.options,c=l.debug;s.length;){n=s.pop(),r=s.pop(),e=s.pop(),t=s.pop();var u=1<<e,f=kt(e,r,n),h=this.tiles[f];if(!h&&(c>1&&console.time("creation"),h=this.tiles[f]=bt(t,e,r,n,l),this.tileCoords.push({z:e,x:r,y:n}),c)){c>1&&(console.log("tile z%d-%d-%d (features: %d, points: %d, simplified: %d)",e,r,n,h.numFeatures,h.numPoints,h.numSimplified),console.timeEnd("creation"));var p="z"+e;this.stats[p]=(this.stats[p]||0)+1,this.total++}if(h.source=t,i){if(e===l.maxZoom||e===i)continue;var d=1<<i-e;if(r!==Math.floor(a/d)||n!==Math.floor(o/d))continue}else if(e===l.indexMaxZoom||h.numPoints<=l.indexMaxPoints)continue;if(h.source=null,0!==t.length){c>1&&console.

time("clipping");var g,v,m,y,x,b,_=.5*l.buffer/l.extent,w=.5-_,T=.5+_,k=1+_;g=v=m=y=null,x=lt(t,u,r-_,r+T,0,h.minX,h.maxX,l),b=lt(t,u,r+w,r+k,0,h.minX,h.maxX,l),t=null,x&&(g=lt(x,u,n-_,n+T,1,h.minY,h.maxY,l),v=lt(x,u,n+w,n+k,1,h.minY,h.maxY,l),x=null),b&&(m=lt(b,u,n-_,n+T,1,h.minY,h.maxY,l),y=lt(b,u,n+w,n+k,1,h.minY,h.maxY,l),b=null),c>1&&console.timeEnd("clipping"),s.push(g||[],e+1,2*r,2*n),s.push(v||[],e+1,2*r,2*n+1),s.push(m||[],e+1,2*r+1,2*n),s.push(y||[],e+1,2*r+1,2*n+1)}},Tt.prototype.getTile=function(t,e,r){var n=this.options,i=n.extent,a=n.debug;if(t<0||t>24)return null;var o=1<<t,s=kt(t,e=(e%o+o)%o,r);if(this.tiles[s])return yt(this.tiles[s],i);a>1&&console.log("drilling down to z%d-%d-%d",t,e,r);for(var l,c=t,u=e,f=r;!l&&c>0;)c--,u=Math.floor(u/2),f=Math.floor(f/2),l=this.tiles[kt(c,u,f)];return l&&l.source?(a>1&&console.log("found parent tile z%d-%d-%d",c,u,f),a>1&&console.time("drilling down"),this.splitTile(l.source,c,u,f,t,e,r),a>1&&console.timeEnd("drilling down"),this.tiles[s]?yt(this.tiles[s],i):null):null};var Mt=function(e){function r(t,r,n,i){e.call(this,t,r,n,At),i&&(this.loadGeoJSON=i)}return e&&(r.__proto__=e),r.prototype=Object.create(e&&e.prototype),r.prototype.constructor=r,r.prototype.loadData=function(t,e){this._pendingCallback&&this._pendingCallback(null,{abandoned:!0}),this._pendingCallback=e,this._pendingLoadDataParams=t,this._state&&"Idle"!==this._state?this._state="NeedsLoadData":(this._state="Coalescing",this._loadData())},r.prototype._loadData=function(){var e=this;if(this._pendingCallback&&this._pendingLoadDataParams){var r=this._pendingCallback,n=this._pendingLoadDataParams;delete this._pendingCallback,delete this._pendingLoadDataParams;var i=!!(n&&n.request&&n.request.collectResourceTiming)&&new t.RequestPerformance(n.request);this.loadGeoJSON(n,(function(a,o){if(a||!o)return r(a);if("object"!=typeof o)return r(new Error("Input data given to '"+n.source+"' is not a valid GeoJSON object."));f(o,!0);try{e._geoJSONIndex=n.cluster?new V(function(e){var r=e.superclusterOptions,n=e.clusterProperties;if(!n||!r)return r;for(var i={},a={},o={accumulated:null,zoom:0},s={properties:null},l=Object.keys(n),c=0,u=l;c<u.length;c+=1){var f=u[c],h=n[f],p=h[0],d=h[1],g=t.createExpression(d),v=t.createExpression("string"==typeof p?[p,["accumulated"],["get",f]]:p);i[f]=g.value,a[f]=v.value}return r.map=function(t){s.properties=t;for(var e={},r=0,n=l;r<n.length;r+=1){var a=n[r];e[a]=i[a].evaluate(o,s)}return e},r.reduce=function(t,e){s.properties=e;for(var r=0,n=l;r<n.length;r+=1){var i=n[r];o.accumulated=t[i],t[i]=a[i].evaluate(o,s)}},r}(n)).load(o.features):function(t,e){return new Tt(t,e)}(o,n.geojsonVtOptions)}catch(a){return r(a)}e.loaded={};var s={};if(i){var l=i.finish();l&&(s.resourceTiming={},s.resourceTiming[n.source]=JSON.parse(JSON.stringify(l)))}r(null,s)}))}},r.prototype.coalesce=function(){"Coalescing"===this._state?this._state="Idle":"NeedsLoadData"===this._state&&(this._state="Coalescing",this._loadData())},r.prototype.reloadTile=function(t,r){var n=this.loaded,i=t.uid;return n&&n[i]?e.prototype.reloadTile.call(this,t,r):this.loadTile(t,r)},r.prototype.loadGeoJSON=function(e,r){if(e.request)t.getJSON(e.request,r);else{if("string"!=typeof e.data)return r(new Error("Input data given to '"+e.source+"' is not a valid GeoJSON object."));try{return r(null,JSON.parse(e.data))}catch(t){return r(new Error("Input data given to '"+e.source+"' is not a valid GeoJSON object."))}}},r.prototype.removeSource=function(t,e){this._pendingCallback&&this._pendingCallback(null,{abandoned:!0}),e()},r.prototype.getClusterExpansionZoom=function(t,e){try{e(null,this._geoJSONIndex.getClusterExpansionZoom(t.clusterId))}catch(t){e(t)}},r.prototype.getClusterChildren=function(t,e){try{e(null,this._geoJSONIndex.getChildren(t.clusterId))}catch(t){e(t)}},r.prototype.getClusterLeaves=function(t,e){try{e(null,this._geoJSONIndex.getLeaves(t.clusterId,t.limit,t.offset))}catch(t){e(t)}},r}(l),St=function(e){var r=this;this.self=e,this.actor=new t.Actor(e,this),this.layerIndexes={},this.availableImages={},this.workerSourceTypes={vector:l,geojson:Mt},this.workerSources={},this.demWorkerSources={},this.self.registerWorkerSource=function(t,e){if(r.workerSourceTypes[t])throw new Error('Worker source with name "'+t+'" already registered.');r.workerSourceTypes[t]=e},this.self.registerRTLTextPlugin=function(e){if(t.plugin.isParsed())throw new Error("RTL text plugin already registered.");t.plugin.applyArabicShaping=e.applyArabicShaping,t.plugin.processBidirectionalText=e.processBidire

ctionalText,t.plugin.processStyledBidirectionalText=e.processStyledBidirectionalText}};return St.prototype.setReferrer=function(t,e){this.referrer=e},St.prototype.setImages=function(t,e,r){for(var n in this.availableImages[t]=e,this.workerSources[t]){var i=this.workerSources[t][n];for(var a in i)i[a].availableImages=e}r()},St.prototype.setLayers=function(t,e,r){this.getLayerIndex(t).replace(e),r()},St.prototype.updateLayers=function(t,e,r){this.getLayerIndex(t).update(e.layers,e.removedIds),r()},St.prototype.loadTile=function(t,e,r){this.getWorkerSource(t,e.type,e.source).loadTile(e,r)},St.prototype.loadDEMTile=function(t,e,r){this.getDEMWorkerSource(t,e.source).loadTile(e,r)},St.prototype.reloadTile=function(t,e,r){this.getWorkerSource(t,e.type,e.source).reloadTile(e,r)},St.prototype.abortTile=function(t,e,r){this.getWorkerSource(t,e.type,e.source).abortTile(e,r)},St.prototype.removeTile=function(t,e,r){this.getWorkerSource(t,e.type,e.source).removeTile(e,r)},St.prototype.removeDEMTile=function(t,e){this.getDEMWorkerSource(t,e.source).removeTile(e)},St.prototype.removeSource=function(t,e,r){if(this.workerSources[t]&&this.workerSources[t][e.type]&&this.workerSources[t][e.type][e.source]){var n=this.workerSources[t][e.type][e.source];delete this.workerSources[t][e.type][e.source],void 0!==n.removeSource?n.removeSource(e,r):r()}},St.prototype.loadWorkerSource=function(t,e,r){try{this.self.importScripts(e.url),r()}catch(t){r(t.toString())}},St.prototype.syncRTLPluginState=function(e,r,n){try{t.plugin.setState(r);var i=t.plugin.getPluginURL();if(t.plugin.isLoaded()&&!t.plugin.isParsed()&&null!=i){this.self.importScripts(i);var a=t.plugin.isParsed();n(a?void 0:new Error("RTL Text Plugin failed to import scripts from "+i),a)}}catch(t){n(t.toString())}},St.prototype.getAvailableImages=function(t){var e=this.availableImages[t];return e||(e=[]),e},St.prototype.getLayerIndex=function(t){var e=this.layerIndexes[t];return e||(e=this.layerIndexes[t]=new n),e},St.prototype.getWorkerSource=function(t,e,r){var n=this;if(this.workerSources[t]||(this.workerSources[t]={}),this.workerSources[t][e]||(this.workerSources[t][e]={}),!this.workerSources[t][e][r]){var i={send:function(e,r,i){n.actor.send(e,r,i,t)}};this.workerSources[t][e][r]=new this.workerSourceTypes[e](i,this.getLayerIndex(t),this.getAvailableImages(t))}return this.workerSources[t][e][r]},St.prototype.getDEMWorkerSource=function(t,e){return this.demWorkerSources[t]||(this.demWorkerSources[t]={}),this.demWorkerSources[t][e]||(this.demWorkerSources[t][e]=new u),this.demWorkerSources[t][e]},St.prototype.enforceCacheSizeLimit=function(e,r){t.enforceCacheSizeLimit(r)},"undefined"!=typeof WorkerGlobalScope&&void 0!==t.window&&t.window instanceof WorkerGlobalScope&&(t.window.worker=new St(t.window)),St})),n(0,(function(t){var e=t.createCommonjsModule((function(t){function e(t){return!r(t)}function r(t){return"undefined"!=typeof window&&"undefined"!=typeof document?Array.prototype&&Array.prototype.every&&Array.prototype.filter&&Array.prototype.forEach&&Array.prototype.indexOf&&Array.prototype.lastIndexOf&&Array.prototype.map&&Array.prototype.some&&Array.prototype.reduce&&Array.prototype.reduceRight&&Array.isArray?Function.prototype&&Function.prototype.bind?Object.keys&&Object.create&&Object.getPrototypeOf&&Object.getOwnPropertyNames&&Object.isSealed&&Object.isFrozen&&Object.isExtensible&&Object.getOwnPropertyDescriptor&&Object.defineProperty&&Object.defineProperties&&Object.seal&&Object.freeze&&Object.preventExtensions?"JSON"in window&&"parse"in JSON&&"stringify"in JSON?function(){if(!("Worker"in window&&"Blob"in window&&"URL"in window))return!1;var t,e,r=new Blob([""],{type:"text/javascript"}),n=URL.createObjectURL(r);try{e=new Worker(n),t=!0}catch(e){t=!1}return e&&e.terminate(),URL.revokeObjectURL(n),t}()?"Uint8ClampedArray"in window?ArrayBuffer.isView?function(){var t=document.createElement("canvas");t.width=t.height=1;var e=t.getContext("2d");if(!e)return!1;var r=e.getImageData(0,0,1,1);return r&&r.width===t.width}()?(r=t&&t.failIfMajorPerformanceCaveat,void 0===n[r]&&(n[r]=function(t){var r=function(t){var r=document.createElement("canvas"),n=Object.create(e.webGLContextAttributes);return n.failIfMajorPerformanceCaveat=t,r.probablySupportsContext?r.probablySupportsContext("webgl",n)||r.probablySupportsContext("experimental-webgl",n):r.supportsContext?r.supportsContext("webgl",n)||r.supportsContext("experimental-webgl",n):r.getContext("webgl",n)||r.getContext("experimental-webgl",n)}(t);if(!r)return!1;var n=r.createShader(r.VERTEX_SHADER);return!(!n||r.isContextLost())&&(r.shaderSource(n,"void main()

{}"),r.compileShader(n),!0===r.getShaderParameter(n,r.COMPILE_STATUS))}(r)),n[r]?void 0:"insufficient WebGL support"):"insufficient Canvas/getImageData support":"insufficient ArrayBuffer support":"insufficient Uint8ClampedArray support":"insufficient worker support":"insufficient JSON support":"insufficient Object support":"insufficient Function support":"insufficent Array support":"not a browser";var r}t.exports?t.exports=e:window&&(window.mapboxgl=window.mapboxgl||{},window.mapboxgl.supported=e,window.mapboxgl.notSupportedReason=r);var n={};e.webGLContextAttributes={antialias:!1,alpha:!0,stencil:!0,depth:!0}})),r={create:function(e,r,n){var i=t.window.document.createElement(e);return void 0!==r&&(i.className=r),n&&n.appendChild(i),i},createNS:function(e,r){return t.window.document.createElementNS(e,r)}},n=t.window.document.documentElement.style;function i(t){if(!n)return t[0];for(var e=0;e<t.length;e++)if(t[e]in n)return t[e];return t[0]}var a,o=i(["userSelect","MozUserSelect","WebkitUserSelect","msUserSelect"]);r.disableDrag=function(){n&&o&&(a=n[o],n[o]="none")},r.enableDrag=function(){n&&o&&(n[o]=a)};var s=i(["transform","WebkitTransform"]);r.setTransform=function(t,e){t.style[s]=e};var l=!1;try{var c=Object.defineProperty({},"passive",{get:function(){l=!0}});t.window.addEventListener("test",c,c),t.window.removeEventListener("test",c,c)}catch(t){l=!1}r.addEventListener=function(t,e,r,n){void 0===n&&(n={}),"passive"in n&&l?t.addEventListener(e,r,n):t.addEventListener(e,r,n.capture)},r.removeEventListener=function(t,e,r,n){void 0===n&&(n={}),"passive"in n&&l?t.removeEventListener(e,r,n):t.removeEventListener(e,r,n.capture)};var u=function(e){e.preventDefault(),e.stopPropagation(),t.window.removeEventListener("click",u,!0)};function f(t){var e=t.userImage;return!!(e&&e.render&&e.render())&&(t.data.replace(new Uint8Array(e.data.buffer)),!0)}r.suppressClick=function(){t.window.addEventListener("click",u,!0),t.window.setTimeout((function(){t.window.removeEventListener("click",u,!0)}),0)},r.mousePos=function(e,r){var n=e.getBoundingClientRect();return new t.Point(r.clientX-n.left-e.clientLeft,r.clientY-n.top-e.clientTop)},r.touchPos=function(e,r){for(var n=e.getBoundingClientRect(),i=[],a=0;a<r.length;a++)i.push(new t.Point(r[a].clientX-n.left-e.clientLeft,r[a].clientY-n.top-e.clientTop));return i},r.mouseButton=function(e){return void 0!==t.window.InstallTrigger&&2===e.button&&e.ctrlKey&&t.window.navigator.platform.toUpperCase().indexOf("MAC")>=0?0:e.button},r.remove=function(t){t.parentNode&&t.parentNode.removeChild(t)};var h=function(e){function r(){e.call(this),this.images={},this.updatedImages={},this.callbackDispatchedThisFrame={},this.loaded=!1,this.requestors=[],this.patterns={},this.atlasImage=new t.RGBAImage({width:1,height:1}),this.dirty=!0}return e&&(r.__proto__=e),r.prototype=Object.create(e&&e.prototype),r.prototype.constructor=r,r.prototype.isLoaded=function(){return this.loaded},r.prototype.setLoaded=function(t){if(this.loaded!==t&&(this.loaded=t,t)){for(var e=0,r=this.requestors;e<r.length;e+=1){var n=r[e],i=n.ids,a=n.callback;this._notify(i,a)}this.requestors=[]}},r.prototype.getImage=function(t){return this.images[t]},r.prototype.addImage=function(t,e){this._validate(t,e)&&(this.images[t]=e)},r.prototype._validate=function(e,r){var n=!0;return this._validateStretch(r.stretchX,r.data&&r.data.width)||(this.fire(new t.ErrorEvent(new Error('Image "'+e+'" has invalid "stretchX" value'))),n=!1),this._validateStretch(r.stretchY,r.data&&r.data.height)||(this.fire(new t.ErrorEvent(new Error('Image "'+e+'" has invalid "stretchY" value'))),n=!1),this._validateContent(r.content,r)||(this.fire(new t.ErrorEvent(new Error('Image "'+e+'" has invalid "content" value'))),n=!1),n},r.prototype._validateStretch=function(t,e){if(!t)return!0;for(var r=0,n=0,i=t;n<i.length;n+=1){var a=i[n];if(a[0]<r||a[1]<a[0]||e<a[1])return!1;r=a[1]}return!0},r.prototype._validateContent=function(t,e){return!(t&&(4!==t.length||t[0]<0||e.data.width<t[0]||t[1]<0||e.data.height<t[1]||t[2]<0||e.data.width<t[2]||t[3]<0||e.data.height<t[3]||t[2]<t[0]||t[3]<t[1]))},r.prototype.updateImage=function(t,e){var r=this.images[t];e.version=r.version+1,this.images[t]=e,this.updatedImages[t]=!0},r.prototype.removeImage=function(t){var e=this.images[t];delete this.images[t],delete this.patterns[t],e.userImage&&e.userImage.onRemove&&e.userImage.onRemove()},r.prototype.listImages=functio

n(){return Object.keys(this.images)},r.prototype.getImages=function(t,e){var r=!0;if(!this.isLoaded())for(var n=0,i=t;n<i.length;n+=1){var a=i[n];this.images[a]||(r=!1)}this.isLoaded()||r?this._notify(t,e):this.requestors.push({ids:t,callback:e})},r.prototype._notify=function(e,r){for(var n={},i=0,a=e;i<a.length;i+=1){var o=a[i];this.images[o]||this.fire(new t.Event("styleimagemissing",{id:o}));var s=this.images[o];s?n[o]={data:s.data.clone(),pixelRatio:s.pixelRatio,sdf:s.sdf,version:s.version,stretchX:s.stretchX,stretchY:s.stretchY,content:s.content,hasRenderCallback:Boolean(s.userImage&&s.userImage.render)}:t.warnOnce('Image "'+o+'" could not be loaded. Please make sure you have added the image with map.addImage() or a "sprite" property in your style. You can provide missing images by listening for the "styleimagemissing" map event.')}r(null,n)},r.prototype.getPixelSize=function(){var t=this.atlasImage;return{width:t.width,height:t.height}},r.prototype.getPattern=function(e){var r=this.patterns[e],n=this.getImage(e);if(!n)return null;if(r&&r.position.version===n.version)return r.position;if(r)r.position.version=n.version;else{var i={w:n.data.width+2,h:n.data.height+2,x:0,y:0},a=new t.ImagePosition(i,n);this.patterns[e]={bin:i,position:a}}return this._updatePatternAtlas(),this.patterns[e].position},r.prototype.bind=function(e){var r=e.gl;this.atlasTexture?this.dirty&&(this.atlasTexture.update(this.atlasImage),this.dirty=!1):this.atlasTexture=new t.Texture(e,this.atlasImage,r.RGBA),this.atlasTexture.bind(r.LINEAR,r.CLAMP_TO_EDGE)},r.prototype._updatePatternAtlas=function(){var e=[];for(var r in this.patterns)e.push(this.patterns[r].bin);var n=t.potpack(e),i=n.w,a=n.h,o=this.atlasImage;for(var s in o.resize({width:i||1,height:a||1}),this.patterns){var l=this.patterns[s].bin,c=l.x+1,u=l.y+1,f=this.images[s].data,h=f.width,p=f.height;t.RGBAImage.copy(f,o,{x:0,y:0},{x:c,y:u},{width:h,height:p}),t.RGBAImage.copy(f,o,{x:0,y:p-1},{x:c,y:u-1},{width:h,height:1}),t.RGBAImage.copy(f,o,{x:0,y:0},{x:c,y:u+p},{width:h,height:1}),t.RGBAImage.copy(f,o,{x:h-1,y:0},{x:c-1,y:u},{width:1,height:p}),t.RGBAImage.copy(f,o,{x:0,y:0},{x:c+h,y:u},{width:1,height:p})}this.dirty=!0},r.prototype.beginFrame=function(){this.callbackDispatchedThisFrame={}},r.prototype.dispatchRenderCallbacks=function(t){for(var e=0,r=t;e<r.length;e+=1){var n=r[e];if(!this.callbackDispatchedThisFrame[n]){this.callbackDispatchedThisFrame[n]=!0;var i=this.images[n];f(i)&&this.updateImage(n,i)}}},r}(t.Evented),p=v,d=v,g=1e20;function v(t,e,r,n,i,a){this.fontSize=t||24,this.buffer=void 0===e?3:e,this.cutoff=n||.25,this.fontFamily=i||"sans-serif",this.fontWeight=a||"normal",this.radius=r||8;var o=this.size=this.fontSize+2*this.buffer;this.canvas=document.createElement("canvas"),this.canvas.width=this.canvas.height=o,this.ctx=this.canvas.getContext("2d"),this.ctx.font=this.fontWeight+" "+this.fontSize+"px "+this.fontFamily,this.ctx.textBaseline="middle",this.ctx.fillStyle="black",this.gridOuter=new Float64Array(o*o),this.gridInner=new Float64Array(o*o),this.f=new Float64Array(o),this.d=new Float64Array(o),this.z=new Float64Array(o+1),this.v=new Int16Array(o),this.middle=Math.round(o/2*(navigator.userAgent.indexOf("Gecko/")>=0?1.2:1))}function m(t,e,r,n,i,a,o){for(var s=0;s<e;s++){for(var l=0;l<r;l++)n[l]=t[l*e+s];for(y(n,i,a,o,r),l=0;l<r;l++)t[l*e+s]=i[l]}for(l=0;l<r;l++){for(s=0;s<e;s++)n[s]=t[l*e+s];for(y(n,i,a,o,e),s=0;s<e;s++)t[l*e+s]=Math.sqrt(i[s])}}function y(t,e,r,n,i){r[0]=0,n[0]=-g,n[1]=+g;for(var a=1,o=0;a<i;a++){for(var s=(t[a]+a*a-(t[r[o]]+r[o]*r[o]))/(2*a-2*r[o]);s<=n[o];)o--,s=(t[a]+a*a-(t[r[o]]+r[o]*r[o]))/(2*a-2*r[o]);r[++o]=a,n[o]=s,n[o+1]=+g}for(a=0,o=0;a<i;a++){for(;n[o+1]<a;)o++;e[a]=(a-r[o])*(a-r[o])+t[r[o]]}}v.prototype.draw=function(t){this.ctx.clearRect(0,0,this.size,this.size),this.ctx.fillText(t,this.buffer,this.middle);for(var e=this.ctx.getImageData(0,0,this.size,this.size),r=new Uint8ClampedArray(this.size*this.size),n=0;n<this.size*this.size;n++){var i=e.data[4*n+3]/255;this.gridOuter[n]=1===i?0:0===i?g:Math.pow(Math.max(0,.5-i),2),this.gridInner[n]=1===i?g:0===i?0:Math.pow(Math.max(0,i-.5),2)}for(m(this.gridOuter,this.size,this.size,this.f,this.d,this.v,this.z),m(this.gridInner,this.size,this.size,this.f,this.d,t

his.v,this.z),n=0;n<this.size*this.size;n++){var a=this.gridOuter[n]-
this.gridInner[n];r[n]=Math.max(0,Math.min(255,Math.round(255-255*(a/this.radius+this.cutoff))))}return
r},p.default=d;var
x=function(t,e){this.requestManager=t,this.localIdeographFontFamily=e,this.entries={}};x.prototype.setURL=funct
ion(t){this.url=t},x.prototype.getGlyphs=function(e,r){var n=this,i=[];for(var a in e)for(var
o=0,s=e[a];o<s.length;o+=1){var l=s[o];i.push({stack:a,id:l})}t.asyncAll(i,(function(t,e){var
r=t.stack,i=t.id,a=n.entries[r];a||(a=n.entries[r]={glyphs:{},requests:{},ranges:{}});var o=a.glyphs[i];if(void
0===o){if(o=n._tinySDF(a,r,i))return a.glyphs[i]=o,void e(null,{stack:r,id:i,glyph:o});var
s=Math.floor(i/256);if(256*s>65535)e(new Error("glyphs > 65535 not supported"));else
if(a.ranges[s])e(null,{stack:r,id:i,glyph:o});else{var
l=a.requests[s];l||(l=a.requests[s]=[],x.loadGlyphRange(r,s,n.url,n.requestManager,(function(t,e){if(e){for(var r in
e)n._doesCharSupportLocalGlyph(+r)||(a.glyphs[+r]=e[+r]);a.ranges[s]=!0}for(var
i=0,o=l;i<o.length;i+=1)(0,o[i])(t,e);delete
a.requests[s]}))),l.push((function(t,n){t?e(t):n&&e(null,{stack:r,id:i,glyph:n[i]||null})}))}))}else
e(null,{stack:r,id:i,glyph:o})})),(function(t,e){if(t)r(t);else if(e){for(var n={},i=0,a=e;i<a.length;i+=1){var
o=a[i],s=o.stack,l=o.id,c=o.glyph;(n[s]||(n[s]={}))[l]=c&&{id:c.id,bitmap:c.bitmap.clone(),metrics:c.metrics}}r(null
,n)}}))},x.prototype._doesCharSupportLocalGlyph=function(e){return!!this.localIdeographFontFamily&&(t.isChar[
"CJK Unified Ideographs"](e)||t.isChar["Hangul
Syllables"](e)||t.isChar.Hiragana(e)||t.isChar.Katakana(e))},x.prototype._tinySDF=function(e,r,n){var
i=this.localIdeographFontFamily;if(i&&this._doesCharSupportLocalGlyph(n)){var a=e.tinySDF;if(!a){var
o="400";/bold/i.test(r)?o="900":/medium/i.test(r)?o="500":/light/i.test(r)&&(o="200"),a=e.tinySDF=new
x.TinySDF(24,3,8,.25,i,o)}return{id:n,bitmap:new
t.AlphaImage({width:30,height:30},a.draw(String.fromCharCode(n))),metrics:{width:24,height:24,left:0,top:-
8,advance:24}}}},x.loadGlyphRange=function(e,r,n,i,a){var
o=256*r,s=o+255,l=i.transformRequest(i.normalizeGlyphsURL(n).replace("{fontstack}",e).replace("{range}",o+"-
"+s),t.ResourceType.Glyphs);t.getArrayBuffer(l,(function(e,r){if(e)a(e);else if(r){for(var
n={},i=0,o=t.parseGlyphPBF(r);i<o.length;i+=1){var s=o[i];n[s.id]=s}a(null,n)}}))},x.TinySDF=p;var
b=function(){this.specification=t.styleSpec.light.position};b.prototype.possiblyEvaluate=function(e,r){return
t.sphericalToCartesian(e.expression.evaluate(r))},b.prototype.interpolate=function(e,r,n){return{x:t.number(e.x,r.x,n
),y:t.number(e.y,r.y,n),z:t.number(e.z,r.z,n)}};var _=new t.Properties({anchor:new
t.DataConstantProperty(t.styleSpec.light.anchor),position:new b,color:new
t.DataConstantProperty(t.styleSpec.light.color),intensity:new
t.DataConstantProperty(t.styleSpec.light.intensity)}),w="-transition",T=function(e){function
r(r){e.call(this),this._transitionable=new
t.Transitionable(_),this.setLight(r),this._transitioning=this._transitionable.untransitioned()}return
e&&(r.__proto__=e),r.prototype=Object.create(e&&e.prototype),r.prototype.constructor=r,r.prototype.getLight=fun
ction(){return this._transitionable.serialize()},r.prototype.setLight=function(e,r){if(void
0===r&&(r={}),!this._validate(t.validateLight,e,r))for(var n in e){var
i=e[n];t.endsWith(n,w)?this._transitionable.setTransition(n.slice(0,-
w.length),i):this._transitionable.setValue(n,i)}},r.prototype.updateTransitions=function(t){this._transitioning=this._t
ransitionable.transitioned(t,this._transitioning)},r.prototype.hasTransition=function(){return
this._transitioning.hasTransition()},r.prototype.recalculate=function(t){this.properties=this._transitioning.possiblyE
valuate(t)},r.prototype._validate=function(e,r,n){return(!n||!1!==n.validate)&&t.emitValidationErrors(this,e.call(t.va
lidateStyle,t.extend({value:r,style:{glyphs:!0,sprite:!0},styleSpec:t.styleSpec})))},r}(t.Evented),k=function(t,e){this.
width=t,this.height=e,this.nextRow=0,this.data=new
Uint8Array(this.width*this.height),this.dashEntry={}};k.prototype.getDash=function(t,e){var
r=t.join(",")+String(e);return
this.dashEntry[r]||(this.dashEntry[r]=this.addDash(t,e)),this.dashEntry[r]},k.prototype.getDashRanges=function(t,e,r

){var n=[],i=t.length%2==1?-t[t.length-1]*r:0,a=t[0]*r,o=!0;n.push({left:i,right:a,isDash:o,zeroLength:0===t[0]});for(var s=t[0],l=1;l<t.length;l++){o=!o;var c=t[l];i=s*r,a=(s+=c)*r,n.push({left:i,right:a,isDash:o,zeroLength:0===c})}return n},k.prototype.addRoundDash=function(t,e,r){for(var n=e/2,i=-r;i<=r;i++)for(var a=this.nextRow+r+i,o=this.width*a,s=0,l=t[s],c=0;c<this.width;c++){c/l.right>1&&(l=t[++s]);var u=Math.abs(c-l.left),f=Math.abs(c-l.right),h=Math.min(u,f),p=void 0,d=i/r*(n+1);if(l.isDash){var g=n-Math.abs(d);p=Math.sqrt(h*h+g*g)}else p=n-Math.sqrt(h*h+d*d);this.data[o+c]=Math.max(0,Math.min(255,p+128))}},k.prototype.addRegularDash=function(t){for(var e=t.length-1;e>=0;--e){var r=t[e],n=t[e+1];r.zeroLength?t.splice(e,1):n&&n.isDash===r.isDash&&(n.left=r.left,t.splice(e,1))}var i=t[0],a=t[t.length-1];i.isDash===a.isDash&&(i.left=a.left-this.width,a.right=i.right+this.width);for(var o=this.width*this.nextRow,s=0,l=t[s],c=0;c<this.width;c++){c/l.right>1&&(l=t[++s]);var u=Math.abs(c-l.left),f=Math.abs(c-l.right),h=Math.min(u,f),p=l.isDash?h:-h;this.data[o+c]=Math.max(0,Math.min(255,p+128))}},k.prototype.addDash=function(e,r){var n=r?7:0,i=2*n+1;if(this.nextRow+i>this.height)return t.warnOnce("LineAtlas out of space"),null;for(var a=0,o=0;o<e.length;o++)a+=e[o];if(0!==a){var s=this.width/a,l=this.getDashRanges(e,this.width,s);r?this.addRoundDash(l,s,n):this.addRegularDash(l)}var c={y:(this.nextRow+n+.5)/this.height,height:2*n/this.height,width:a};return this.nextRow+=i,this.dirty=!0,c},k.prototype.bind=function(t){var e=t.gl;this.texture?(e.bindTexture(e.TEXTURE_2D,this.texture),this.dirty&&(this.dirty=!1,e.texSubImage2D(e.TEXTURE_2D,0,0,0,this.width,this.height,e.ALPHA,e.UNSIGNED_BYTE,this.data))):(this.texture=e.createTexture(),e.bindTexture(e.TEXTURE_2D,this.texture),e.texParameteri(e.TEXTURE_2D,e.TEXTURE_WRAP_S,e.REPEAT),e.texParameteri(e.TEXTURE_2D,e.TEXTURE_WRAP_T,e.REPEAT),e.texParameteri(e.TEXTURE_2D,e.TEXTURE_MIN_FILTER,e.LINEAR),e.texParameteri(e.TEXTURE_2D,e.TEXTURE_MAG_FILTER,e.LINEAR),e.texImage2D(e.TEXTURE_2D,0,e.ALPHA,this.width,this.height,0,e.ALPHA,e.UNSIGNED_BYTE,this.data))};var A=function e(r,n){this.workerPool=r,this.actors=[],this.currentActor=0,this.id=t.uniqueId();for(var i=this.workerPool.acquire(this.id),a=0;a<i.length;a++){var o=i[a],s=new e.Actor(o,n,this.id);s.name="Worker "+a,this.actors.push(s)}};function M(e,r,n){var i=function(i,a){if(i)return n(i);if(a){var o=t.pick(t.extend(a,e),["tiles","minzoom","maxzoom","attribution","mapbox_logo","bounds","scheme","tileSize","encoding"]);a.vector_layers&&(o.vectorLayers=a.vector_layers,o.vectorLayerIds=o.vectorLayers.map((function(t){return t.id}))),o.tiles=r.canonicalizeTileset(o,e.url),n(null,o)}};return e.url?t.getJSON(r.transformRequest(r.normalizeSourceURL(e.url),t.ResourceType.Source),i):t.browser.frame((function(){return i(null,e)}))}A.prototype.broadcast=function(e,r,n){n=n||function(){},t.asyncAll(this.actors,(function(t,n){t.send(e,r,n)}),n)},A.prototype.getActor=function(){return this.currentActor=(this.currentActor+1)%this.actors.length,this.actors[this.currentActor]},A.prototype.remove=function(){this.actors.forEach((function(t){t.remove()})),this.actors=[],this.workerPool.release(this.id)},A.Actor=t.Actor;var S=function(e,r,n){this.bounds=t.LngLatBounds.convert(this.validateBounds(e)),this.minzoom=r||0,this.maxzoom=n||24};S.prototype.validateBounds=function(t){return Array.isArray(t)&&4===t.length?[Math.max(-180,t[0]),Math.max(-90,t[1]),Math.min(180,t[2]),Math.min(90,t[3])]:[-180,-90,180,90]},S.prototype.contains=function(e){var r=Math.pow(2,e.z),n=Math.floor(t.mercatorXfromLng(this.bounds.getWest())*r),i=Math.floor(t.mercatorYfromLat(this.bounds.getNorth())*r),a=Math.ceil(t.mercatorXfromLng(this.bounds.getEast())*r),o=Math.ceil(t.mercatorYfromLat(this.bounds.getSouth())*r);return e.x>=n&&e.x<a&&e.y>=i&&e.y<o};var E=function(e){function r(r,n,i,a){if(e.call(this),this.id=r,this.dispatcher=i,this.type="vector",this.minzoom=0,this.maxzoom=22,this.scheme="xyz",this.tileSize=512,this.reparseOverscaled=!0,this.isTileClipped=!0,this._loaded=!1,t.extend(this,t.pick(n,["url",

"scheme","tileSize","promoteId"])),this._options=t.extend({type:"vector"},n),this._collectResourceTiming=n.collectResourceTiming,512!==this.tileSize)throw new Error("vector tile sources must have a tileSize of 512");this.setEventedParent(a)}return e&&(r.__proto__=e),r.prototype=Object.create(e&&e.prototype),r.prototype.constructor=r,r.prototype.load=function(){var e=this;this._loaded=!1,this.fire(new t.Event("dataloading",{dataType:"source"})),this._tileJSONRequest=M(this._options,this.map._requestManager,(function(r,n){e._tileJSONRequest=null,e._loaded=!0,r?e.fire(new t.ErrorEvent(r)):n&&(t.extend(e,n),n.bounds&&(e.tileBounds=new S(n.bounds,e.minzoom,e.maxzoom)),t.postTurnstileEvent(n.tiles,e.map._requestManager._customAccessToken),t.postMapLoadEvent(n.tiles,e.map._getMapId(),e.map._requestManager._skuToken,e.map._requestManager._customAccessToken),e.fire(new t.Event("data",{dataType:"source",sourceDataType:"metadata"})),e.fire(new t.Event("data",{dataType:"source",sourceDataType:"content"}))))}))},r.prototype.loaded=function(){return this._loaded},r.prototype.hasTile=function(t){return!this.tileBounds||this.tileBounds.contains(t.canonical)},r.prototype.onAdd=function(t){this.map=t,this.load()},r.prototype.onRemove=function(){this._tileJSONRequest&&(this._tileJSONRequest.cancel(),this._tileJSONRequest=null)},r.prototype.serialize=function(){return t.extend({},this._options)},r.prototype.loadTile=function(e,r){var n=this.map._requestManager.normalizeTileURL(e.tileID.canonical.url(this.tiles,this.scheme)),i={request:this.map._requestManager.transformRequest(n,t.ResourceType.Tile),uid:e.uid,tileID:e.tileID,zoom:e.tileID.overscaledZ,tileSize:this.tileSize*e.tileID.overscaleFactor(),type:this.type,source:this.id,pixelRatio:t.browser.devicePixelRatio,showCollisionBoxes:this.map.showCollisionBoxes,promoteId:this.promoteId};function a(n,i){return delete e.request,e.aborted?r(null):n&&404!==n.status?r(n):(i&&i.resourceTiming&&(e.resourceTiming=i.resourceTiming),this.map._refreshExpiredTiles&&i&&e.setExpiryData(i),e.loadVectorData(i,this.map.painter),t.cacheEntryPossiblyAdded(this.dispatcher),r(null),void(e.reloadCallback&&(this.loadTile(e,e.reloadCallback),e.reloadCallback=null)))}i.request.collectResourceTiming=this._collectResourceTiming,e.actor&&"expired"!==e.state?"loading"===e.state?e.reloadCallback=r:e.request=e.actor.send("reloadTile",i,a.bind(this)):(e.actor=this.dispatcher.getActor(),e.request=e.actor.send("loadTile",i,a.bind(this)))},r.prototype.abortTile=function(t){t.request&&(t.request.cancel(),delete t.request),t.actor&&t.actor.send("abortTile",{uid:t.uid,type:this.type,source:this.id},void 0)},r.prototype.unloadTile=function(t){t.unloadVectorData(),t.actor&&t.actor.send("removeTile",{uid:t.uid,type:this.type,source:this.id},void 0)},r.prototype.hasTransition=function(){return!1},r}(t.Evented),L=function(e){function r(r,n,i,a){e.call(this),this.id=r,this.dispatcher=i,this.setEventedParent(a),this.type="raster",this.minzoom=0,this.maxzoom=22,this.roundZoom=!0,this.scheme="xyz",this.tileSize=512,this._loaded=!1,this._options=t.extend({type:"raster"},n),t.extend(this,t.pick(n,["url","scheme","tileSize"]))}return e&&(r.__proto__=e),r.prototype=Object.create(e&&e.prototype),r.prototype.constructor=r,r.prototype.load=function(){var e=this;this._loaded=!1,this.fire(new t.Event("dataloading",{dataType:"source"})),this._tileJSONRequest=M(this._options,this.map._requestManager,(function(r,n){e._tileJSONRequest=null,e._loaded=!0,r?e.fire(new t.ErrorEvent(r)):n&&(t.extend(e,n),n.bounds&&(e.tileBounds=new S(n.bounds,e.minzoom,e.maxzoom)),t.postTurnstileEvent(n.tiles),t.postMapLoadEvent(n.tiles,e.map._getMapId(),e.map._requestManager._skuToken),e.fire(new t.Event("data",{dataType:"source",sourceDataType:"metadata"})),e.fire(new t.Event("data",{dataType:"source",sourceDataType:"content"}))))}))},r.prototype.loaded=function(){return this._loaded},r.prototype.onAdd=function(t){this.map=t,this.load()},r.prototype.onRemove=function(){this._tileJSONRequest&&(this._tileJSONRequest.cancel(),this._tileJSONRequest=null)},r.prototype.serialize=function(){return t.extend({},this._options)},r.prototype.hasTile=function(t){return!this.tileBounds||this.tileBounds.contains(t.canonical)},r.prototype.loadTile=function(e,r){var n=this,i=this.map._requestManager.normalizeTileURL(e.tileID.canonical.url(this.tiles,this.scheme),this.tileSize);e.request=t.getImage(this.map._requestManager.transformRequest(i,t.ResourceType.Tile),(function(i,a){if(delete

e.request,e.aborted)e.state="unloaded",r(null);else if(i)e.state="errored",r(i);else if(a){n.map._refreshExpiredTiles&&e.setExpiryData(a),delete a.cacheControl,delete a.expires;var o=n.map.painter.context,s=o.gl;e.texture=n.map.painter.getTileTexture(a.width),e.texture?e.texture.update(a,{useMipmap:!0}):(e.texture=new t.Texture(o,a,s.RGBA,{useMipmap:!0}),e.texture.bind(s.LINEAR,s.CLAMP_TO_EDGE,s.LINEAR_MIPMAP_NEAREST),o.extTextureFilterAnisotropic&&s.texParameterf(s.TEXTURE_2D,o.extTextureFilterAnisotropic.TEXTURE_MAX_ANISOTROPY_EXT,o.extTextureFilterAnisotropicMax)),e.state="loaded",t.cacheEntryPossiblyAdded(n.dispatcher),r(null)}}))},r.prototype.abortTile=function(t,e){t.request&&(t.request.cancel(),delete t.request),e()},r.prototype.unloadTile=function(t,e){t.texture&&this.map.painter.saveTileTexture(t.texture),e()},r.prototype.hasTransition=function(){return!1},r}(t.Evented),C=function(e){function r(r,n,i,a){e.call(this,r,n,i,a),this.type="raster-dem",this.maxzoom=22,this._options=t.extend({type:"raster-dem"},n),this.encoding=n.encoding||"mapbox"}return e&&(r.__proto__=e),r.prototype=Object.create(e&&e.prototype),r.prototype.constructor=r,r.prototype.serialize=function(){return{type:"raster-dem",url:this.url,tileSize:this.tileSize,tiles:this.tiles,bounds:this.bounds,encoding:this.encoding}},r.prototype.loadTile=function(e,r){var n=this.map._requestManager.normalizeTileURL(e.tileID.canonical.url(this.tiles,this.scheme),this.tileSize);function i(t,n){t&&(e.state="errored",r(t)),n&&(e.dem=n,e.needsHillshadePrepare=!0,e.state="loaded",r(null))}e.request=t.getImage(this.map._requestManager.transformRequest(n,t.ResourceType.Tile),function(n,a){if(delete e.request,e.aborted)e.state="unloaded",r(null);else if(n)e.state="errored",r(n);else if(a){this.map._refreshExpiredTiles&&e.setExpiryData(a),delete a.cacheControl,delete a.expires;var o=t.window.ImageBitmap&&a instanceof t.window.ImageBitmap&&t.offscreenCanvasSupported()?a:t.browser.getImageData(a,1),s={uid:e.uid,coord:e.tileID,source:this.id,rawImageData:o,encoding:this.encoding};e.actor&&"expired"!==e.state||(e.actor=this.dispatcher.getActor(),e.actor.send("loadDEMTile",s,i.bind(this)))}}.bind(this)),e.neighboringTiles=this._getNeighboringTiles(e.tileID)},r.prototype._getNeighboringTiles=function(e){var r=e.canonical,n=Math.pow(2,r.z),i=(r.x-1+n)%n,a=0===r.x?e.wrap-1:e.wrap,o=(r.x+1+n)%n,s=r.x+1===n?e.wrap+1:e.wrap,l={};return l[new t.OverscaledTileID(e.overscaledZ,a,r.z,i,r.y).key]={backfilled:!1},l[new t.OverscaledTileID(e.overscaledZ,s,r.z,o,r.y).key]={backfilled:!1},r.y>0&&(l[new t.OverscaledTileID(e.overscaledZ,a,r.z,i,r.y-1).key]={backfilled:!1},l[new t.OverscaledTileID(e.overscaledZ,e.wrap,r.z,r.x,r.y-1).key]={backfilled:!1},l[new t.OverscaledTileID(e.overscaledZ,s,r.z,o,r.y-1).key]={backfilled:!1}),r.y+1<n&&(l[new t.OverscaledTileID(e.overscaledZ,a,r.z,i,r.y+1).key]={backfilled:!1},l[new t.OverscaledTileID(e.overscaledZ,e.wrap,r.z,r.x,r.y+1).key]={backfilled:!1},l[new t.OverscaledTileID(e.overscaledZ,s,r.z,o,r.y+1).key]={backfilled:!1}),l},r.prototype.unloadTile=function(t){t.demTexture&&this.map.painter.saveTileTexture(t.demTexture),t.fbo&&(t.fbo.destroy(),delete t.fbo),t.dem&&delete t.dem,delete t.neighboringTiles,t.state="unloaded",t.actor&&t.actor.send("removeDEMTile",{uid:t.uid,source:this.id})},r}(L),P=function(e){function r(r,n,i,a){e.call(this),this.id=r,this.type="geojson",this.minzoom=0,this.maxzoom=18,this.tileSize=512,this.isTileClipped=!0,this.reparseOverscaled=!0,this._removed=!1,this._loaded=!1,this.actor=i.getActor(),this.setEventedParent(a),this._data=n.data,this._options=t.extend({},n),this._collectResourceTiming=n.collectResourceTiming,this._resourceTiming=[],void 0!==n.maxzoom&&(this.maxzoom=n.maxzoom),n.type&&(this.type=n.type),n.attribution&&(this.attribution=n.attribution),this.promoteId=n.promoteId;var o=t.EXTENT/this.tileSize;this.workerOptions=t.extend({source:this.id,cluster:n.cluster||!1,geojsonVtOptions:{buffer:(void 0!==n.buffer?n.buffer:128)*o,tolerance:(void 0!==n.tolerance?n.tolerance:.375)*o,extent:t.EXTENT,maxZoom:this.maxzoom,lineMetrics:n.lineMetrics||!1,genera

teId:n.generateId||!1},superclusterOptions:{maxZoom:void
0!==n.clusterMaxZoom?Math.min(n.clusterMaxZoom,this.maxzoom-1):this.maxzoom-
1,extent:t.EXTENT,radius:(n.clusterRadius||50)*o,log:!1,generateId:n.generateId||!1},clusterProperties:n.clusterProperties},n.workerOptions)}return
e&&(r.__proto__=e),r.prototype=Object.create(e&&e.prototype),r.prototype.constructor=r,r.prototype.load=function(){var e=this;this.fire(new
t.Event("dataloading",{dataType:"source"})),this._updateWorkerData((function(r){if(r)e.fire(new
t.ErrorEvent(r));else{var
n={dataType:"source",sourceDataType:"metadata"};e._collectResourceTiming&&e._resourceTiming&&e._resourceTiming.length>0&&(n.resourceTiming=e._resourceTiming,e._resourceTiming=[]),e.fire(new
t.Event("data",n))}}))},r.prototype.onAdd=function(t){this.map=t,this.load()},r.prototype.setData=function(e){var r=this;return this._data=e,this.fire(new
t.Event("dataloading",{dataType:"source"})),this._updateWorkerData((function(e){if(e)r.fire(new
t.ErrorEvent(e));else{var
n={dataType:"source",sourceDataType:"content"};r._collectResourceTiming&&r._resourceTiming&&r._resourceTiming.length>0&&(n.resourceTiming=r._resourceTiming,r._resourceTiming=[]),r.fire(new
t.Event("data",n))}})),this},r.prototype.getClusterExpansionZoom=function(t,e){return
this.actor.send("geojson.getClusterExpansionZoom",{clusterId:t,source:this.id},e),this},r.prototype.getClusterChildren=function(t,e){return
this.actor.send("geojson.getClusterChildren",{clusterId:t,source:this.id},e),this},r.prototype.getClusterLeaves=function(t,e,r,n){return
this.actor.send("geojson.getClusterLeaves",{source:this.id,clusterId:t,limit:e,offset:r},n),this},r.prototype._updateWorkerData=function(e){var r=this;this._loaded=!1;var
n=t.extend({},this.workerOptions),i=this._data;"string"==typeof
i?(n.request=this.map._requestManager.transformRequest(t.browser.resolveURL(i),t.ResourceType.Source),n.request.collectResourceTiming=this._collectResourceTiming):n.data=JSON.stringify(i),this.actor.send(this.type+".loadData",n,(function(t,i){r._removed||i&&i.abandoned||(r._loaded=!0,i&&i.resourceTiming&&i.resourceTiming[r.id]&&(r._resourceTiming=i.resourceTiming[r.id].slice(0)),r.actor.send(r.type+".coalesce",{source:n.source},null),e(t))}))},r.prototype.loaded=function(){return this._loaded},r.prototype.loadTile=function(e,r){var
n=this,i=e.actor?"reloadTile":"loadTile";e.actor=this.actor;var
a={type:this.type,uid:e.uid,tileID:e.tileID,zoom:e.tileID.overscaledZ,maxZoom:this.maxzoom,tileSize:this.tileSize,source:this.id,pixelRatio:t.browser.devicePixelRatio,showCollisionBoxes:this.map.showCollisionBoxes,promoteId:this.promoteId};e.request=this.actor.send(i,a,(function(t,a){return delete
e.request,e.unloadVectorData(),e.aborted?r(null):t?r(t):(e.loadVectorData(a,n.map.painter,"reloadTile"===i),r(null))}))},r.prototype.abortTile=function(t){t.request&&(t.request.cancel(),delete
t.request),t.aborted=!0},r.prototype.unloadTile=function(t){t.unloadVectorData(),this.actor.send("removeTile",{uid:t.uid,type:this.type,source:this.id})},r.prototype.onRemove=function(){this._removed=!0,this.actor.send("removeSource",{type:this.type,source:this.id})},r.prototype.serialize=function(){return
t.extend({},this._options,{type:this.type,data:this._data})},r.prototype.hasTransition=function(){return!1},r}(t.Evented),I=t.createLayout([{name:"a_pos",type:"Int16",components:2},{name:"a_texture_pos",type:"Int16",components:2}]),O=function(e){function
r(t,r,n,i){e.call(this),this.id=t,this.dispatcher=n,this.coordinates=r.coordinates,this.type="image",this.minzoom=0,this.maxzoom=22,this.tileSize=512,this.tiles={},this._loaded=!1,this.setEventedParent(i),this.options=r}return
e&&(r.__proto__=e),r.prototype=Object.create(e&&e.prototype),r.prototype.constructor=r,r.prototype.load=function(e,r){var n=this;this._loaded=!1,this.fire(new
t.Event("dataloading",{dataType:"source"})),this.url=this.options.url,t.getImage(this.map._requestManager.transformRequest(this.url,t.ResourceType.Image),(function(i,a){n._loaded=!0,i?n.fire(new
t.ErrorEvent(i)):a&&(n.image=a,e&&(n.coordinates=e),r&&r(),n._finishLoading())}))},r.prototype.loaded=function

(){return this._loaded},r.prototype.updateImage=function(t){var e=this;return this.image&&t.url?(this.options.url=t.url,this.load(t.coordinates,(function(){e.texture=null})),this):this},r.prototype._finishLoading=function(){this.map&&(this.setCoordinates(this.coordinates),this.fire(new t.Event("data",{dataType:"source",sourceDataType:"metadata"})))},r.prototype.onAdd=function(t){this.map=t,this.load()},r.prototype.setCoordinates=function(e){var r=this;this.coordinates=e;var n=e.map(t.MercatorCoordinate.fromLngLat);this.tileID=function(e){for(var r=1/0,n=1/0,i=-1/0,a=-1/0,o=0,s=e;o<s.length;o+=1){var l=s[o];r=Math.min(r,l.x),n=Math.min(n,l.y),i=Math.max(i,l.x),a=Math.max(a,l.y)}var c=i-r,u=a-n,f=Math.max(c,u),h=Math.max(0,Math.floor(-Math.log(f)/Math.LN2)),p=Math.pow(2,h);return new t.CanonicalTileID(h,Math.floor((r+i)/2*p),Math.floor((n+a)/2*p))}(n),this.minzoom=this.maxzoom=this.tileID.z;var i=n.map((function(t){return r.tileID.getTilePoint(t)._round()}));return this._boundsArray=new t.StructArrayLayout4i8,this._boundsArray.emplaceBack(i[0].x,i[0].y,0,0),this._boundsArray.emplaceBack(i[1].x,i[1].y,t.EXTENT,0),this._boundsArray.emplaceBack(i[3].x,i[3].y,0,t.EXTENT),this._boundsArray.emplaceBack(i[2].x,i[2].y,t.EXTENT,t.EXTENT),this.boundsBuffer&&(this.boundsBuffer.destroy(),delete this.boundsBuffer),this.fire(new t.Event("data",{dataType:"source",sourceDataType:"content"})),this},r.prototype.prepare=function(){if(0!==Object.keys(this.tiles).length&&this.image){var e=this.map.painter.context,r=e.gl;for(var n in this.boundsBuffer||(this.boundsBuffer=e.createVertexBuffer(this._boundsArray,I.members)),this.boundsSegments||(this.boundsSegments=t.SegmentVector.simpleSegment(0,0,4,2)),this.texture||(this.texture=new t.Texture(e,this.image,r.RGBA),this.texture.bind(r.LINEAR,r.CLAMP_TO_EDGE)),this.tiles){var i=this.tiles[n];"loaded"!==i.state&&(i.state="loaded",i.texture=this.texture)}}},r.prototype.loadTile=function(t,e){this.tileID&&this.tileID.equals(t.tileID.canonical)?(this.tiles[String(t.tileID.wrap)]=t,t.buckets={},e(null)):(t.state="errored",e(null))},r.prototype.serialize=function(){return{type:"image",url:this.options.url,coordinates:this.coordinates}},r.prototype.hasTransition=function(){return!1},r}(t.Evented),z=function(e){function r(t,r,n,i){e.call(this,t,r,n,i),this.roundZoom=!0,this.type="video",this.options=r}return e&&(r.__proto__=e),r.prototype=Object.create(e&&e.prototype),r.prototype.constructor=r,r.prototype.load=function(){var e=this;this._loaded=!1;var r=this.options;this.urls=[];for(var n=0,i=r.urls;n<i.length;n+=1){var a=i[n];this.urls.push(this.map._requestManager.transformRequest(a,t.ResourceType.Source).url)}t.getVideo(this.urls,(function(r,n){e._loaded=!0,r?e.fire(new t.ErrorEvent(r)):n&&(e.video=n,e.video.loop=!0,e.video.addEventListener("playing",(function(){e.map.triggerRepaint()})),e.map&&e.video.play(),e._finishLoading())}))},r.prototype.pause=function(){this.video&&this.video.pause()},r.prototype.play=function(){this.video&&this.video.play()},r.prototype.seek=function(e){if(this.video){var r=this.video.seekable;e<r.start(0)||e>r.end(0)?this.fire(new t.ErrorEvent(new t.ValidationError("sources."+this.id,null,"Playback for this video can be set only between the "+r.start(0)+" and "+r.end(0)+"-second mark."))):this.video.currentTime=e}},r.prototype.getVideo=function(){return this.video},r.prototype.onAdd=function(t){this.map||(this.map=t,this.load(),this.video&&(this.video.play(),this.setCoordinates(this.coordinates)))},r.prototype.prepare=function(){if(!(0===Object.keys(this.tiles).length||this.video.readyState<2)){var e=this.map.painter.context,r=e.gl;for(var n in this.boundsBuffer||(this.boundsBuffer=e.createVertexBuffer(this._boundsArray,I.members)),this.boundsSegments||(this.boundsSegments=t.SegmentVector.simpleSegment(0,0,4,2)),this.texture?this.video.paused||(this.texture.bind(r.LINEAR,r.CLAMP_TO_EDGE),r.texSubImage2D(r.TEXTURE_2D,0,0,0,r.RGBA,r.UNSIGNED_BYTE,this.video)):(this.texture=new t.Texture(e,this.video,r.RGBA),this.texture.bind(r.LINEAR,r.CLAMP_TO_EDGE)),this.tiles){var i=this.tiles[n];"loaded"!==i.state&&(i.state="loaded",i.texture=this.texture)}}},r.prototype.serialize=function(){return{type:"video",urls:this.urls,coordinates:this.coordinates}},r.prototype.hasTransition=function(){return this.video&&!this.video.paused},r}(O),D=function(e){function r(r,n,i,a){e.call(this,r,n,i,a),n.coordinates?Array.isArray(n.coordinates)&&4===n.coordinates.length&&!n.coordinates.some((function(t){return!Array.isArray(t)||2!==t.length||t.some((function(t){return"number"!=typeof

t})))))||this.fire(new t.ErrorEvent(new t.ValidationError("sources."+r,null,'"coordinates" property must be an array of 4 longitude/latitude array pairs'))):this.fire(new t.ErrorEvent(new t.ValidationError("sources."+r,null,'missing required property "coordinates"'))),n.animate&&"boolean"!=typeof n.animate&&this.fire(new t.ErrorEvent(new t.ValidationError("sources."+r,null,'optional "animate" property must be a boolean value'))),n.canvas?"string"==typeof n.canvas||n.canvas instanceof t.window.HTMLCanvasElement||this.fire(new t.ErrorEvent(new t.ValidationError("sources."+r,null,'"canvas" must be either a string representing the ID of the canvas element from which to read, or an HTMLCanvasElement instance'))):this.fire(new t.ErrorEvent(new t.ValidationError("sources."+r,null,'missing required property "canvas"'))),this.options=n,this.animate=void 0===n.animate||n.animate}return e&&(r.__proto__=e),r.prototype=Object.create(e&&e.prototype),r.prototype.constructor=r,r.prototype.load=function(){this._loaded=!0,this.canvas||(this.canvas=this.options.canvas instanceof t.window.HTMLCanvasElement?this.options.canvas:t.window.document.getElementById(this.options.canvas)),this.width=this.canvas.width,this.height=this.canvas.height,this._hasInvalidDimensions()?this.fire(new t.ErrorEvent(new Error("Canvas dimensions cannot be less than or equal to zero."))):(this.play=function(){this._playing=!0,this.map.triggerRepaint()},this.pause=function(){this._playing&&(this.prepare(),this._playing=!1)},this._finishLoading())},r.prototype.getCanvas=function(){return this.canvas},r.prototype.onAdd=function(t){this.map=t,this.load(),this.canvas&&this.animate&&this.play()},r.prototype.onRemove=function(){this.pause()},r.prototype.prepare=function(){var e=!1;if(this.canvas.width!==this.width&&(this.width=this.canvas.width,e=!0),this.canvas.height!==this.height&&(this.height=this.canvas.height,e=!0),!this._hasInvalidDimensions()&&0!==Object.keys(this.tiles).length){var r=this.map.painter.context,n=r.gl;for(var i in this.boundsBuffer||(this.boundsBuffer=r.createVertexBuffer(this._boundsArray,I.members)),this.boundsSegments||(this.boundsSegments=t.SegmentVector.simpleSegment(0,0,4,2)),this.texture?(e||this._playing)&&this.texture.update(this.canvas,{premultiply:!0}):this.texture=new t.Texture(r,this.canvas,n.RGBA,{premultiply:!0}),this.tiles){var a=this.tiles[i];"loaded"!==a.state&&(a.state="loaded",a.texture=this.texture)}}},r.prototype.serialize=function(){return{type:"canvas",coordinates:this.coordinates}},r.prototype.hasTransition=function(){return this._playing},r.prototype._hasInvalidDimensions=function(){for(var t=0,e=[this.canvas.width,this.canvas.height];t<e.length;t+=1){var r=e[t];if(isNaN(r)||r<=0)return!0}return!1},r}(O),R={vector:E,raster:L,"raster-dem":C,geojson:P,video:z,image:O,canvas:D};function F(e,r){var n=t.identity([]);return t.translate(n,n,[1,1,0]),t.scale(n,n,[.5*e.width,.5*e.height,1]),t.multiply(n,n,e.calculatePosMatrix(r.toUnwrapped()))}function B(t,e,r,n,i,a){var o=function(t,e,r){if(t)for(var n=0,i=t;n<i.length;n+=1){var a=e[i[n]];if(a&&a.source===r&&"fill-extrusion"===a.type)return!0}else for(var o in e){var s=e[o];if(s.source===r&&"fill-extrusion"===s.type)return!0}return!1}(i&&i.layers,e,t.id),s=a.maxPitchScaleFactor(),l=t.tilesIn(n,s,o);l.sort(N);for(var c=[],u=0,f=l;u<f.length;u+=1){var h=f[u];c.push({wrappedTileID:h.tileID.wrapped().key,queryResults:h.tile.queryRenderedFeatures(e,r,t._state,h.queryGeometry,h.cameraQueryGeometry,h.scale,i,a,s,F(t.transform,h.tileID))})}var p=function(t){for(var e={},r={},n=0,i=t;n<i.length;n+=1){var a=i[n],o=a.queryResults,s=a.wrappedTileID,l=r[s]=r[s]||{};for(var c in o)for(var u=o[c],f=l[c]=l[c]||{},h=e[c]=e[c]||[],p=0,d=u;p<d.length;p+=1){var g=d[p];f[g.featureIndex]||(f[g.featureIndex]=!0,h.push(g))}}return e}(c);for(var d in p)p[d].forEach((function(e){var r=e.feature,n=t.getFeatureState(r.layer["source-layer"],r.id);r.source=r.layer.source,r.layer["source-layer"]&&(r.sourceLayer=r.layer["source-layer"]),r.state=n}));return p}function N(t,e){var r=t.tileID,n=e.tileID;return r.overscaledZ-n.overscaledZ||r.canonical.y-n.canonical.y||r.wrap-n.wrap||r.canonical.x-n.canonical.x}var j=function(t,e){this.max=t,this.onRemove=e,this.reset()};j.prototype.reset=function(){for(var t in this.data)for(var e=0,r=this.data[t];e<r.length;e+=1){var n=r[e];n.timeout&&clearTimeout(n.timeout),this.onRemove(n.value)}return this.data={},this.order=[],this},j.prototype.add=function(t,e,r){var n=this,i=t.wrapped().key;void

0===this.data[i]&&(this.data[i]=[]);var a={value:e,timeout:void 0};if(void 0!==r&&(a.timeout=setTimeout((function(){n.remove(t,a)}),r)),this.data[i].push(a),this.order.push(i),this.order.length>this.max){var o=this._getAndRemoveByKey(this.order[0]);o&&this.onRemove(o)}return this},j.prototype.has=function(t){return t.wrapped().key in this.data},j.prototype.getAndRemove=function(t){return this.has(t)?this._getAndRemoveByKey(t.wrapped().key):null},j.prototype._getAndRemoveByKey=function(t){var e=this.data[t].shift();return e.timeout&&clearTimeout(e.timeout),0===this.data[t].length&&delete this.data[t],this.order.splice(this.order.indexOf(t),1),e.value},j.prototype.getByKey=function(t){var e=this.data[t];return e?e[0].value:null},j.prototype.get=function(t){return this.has(t)?this.data[t.wrapped().key][0].value:null},j.prototype.remove=function(t,e){if(!this.has(t))return this;var r=t.wrapped().key,n=void 0===e?0:this.data[r].indexOf(e),i=this.data[r][n];return this.data[r].splice(n,1),i.timeout&&clearTimeout(i.timeout),0===this.data[r].length&&delete this.data[r],this.onRemove(i.value),this.order.splice(this.order.indexOf(r),1),this},j.prototype.setMaxSize=function(t){for(this.max=t;this.order.length>this.max;){var e=this._getAndRemoveByKey(this.order[0]);e&&this.onRemove(e)}return this},j.prototype.filter=function(t){var e=[];for(var r in this.data)for(var n=0,i=this.data[r];n<i.length;n+=1){var a=i[n];t(a.value)||e.push(a)}for(var o=0,s=e;o<s.length;o+=1){var l=s[o];this.remove(l.value.tileID,l)}};var U=function(t,e,r){this.context=t;var n=t.gl;this.buffer=n.createBuffer(),this.dynamicDraw=Boolean(r),this.context.unbindVAO(),t.bindElementBuffer.set(this.buffer),n.bufferData(n.ELEMENT_ARRAY_BUFFER,e.arrayBuffer,this.dynamicDraw?n.DYNAMIC_DRAW:n.STATIC_DRAW),this.dynamicDraw||delete e.arrayBuffer};U.prototype.bind=function(){this.context.bindElementBuffer.set(this.buffer)},U.prototype.updateData=function(t){var e=this.context.gl;this.context.unbindVAO(),this.bind(),e.bufferSubData(e.ELEMENT_ARRAY_BUFFER,0,t.arrayBuffer)},U.prototype.destroy=function(){var t=this.context.gl;this.buffer&&(t.deleteBuffer(this.buffer),delete this.buffer)};var V={Int8:"BYTE",Uint8:"UNSIGNED_BYTE",Int16:"SHORT",Uint16:"UNSIGNED_SHORT",Int32:"INT",Uint32:"UNSIGNED_INT",Float32:"FLOAT"},q=function(t,e,r,n){this.length=e.length,this.attributes=r,this.itemSize=e.bytesPerElement,this.dynamicDraw=n,this.context=t;var i=t.gl;this.buffer=i.createBuffer(),t.bindVertexBuffer.set(this.buffer),i.bufferData(i.ARRAY_BUFFER,e.arrayBuffer,this.dynamicDraw?i.DYNAMIC_DRAW:i.STATIC_DRAW),this.dynamicDraw||delete e.arrayBuffer};q.prototype.bind=function(){this.context.bindVertexBuffer.set(this.buffer)},q.prototype.updateData=function(t){var e=this.context.gl;this.bind(),e.bufferSubData(e.ARRAY_BUFFER,0,t.arrayBuffer)},q.prototype.enableAttributes=function(t,e){for(var r=0;r<this.attributes.length;r++){var n=this.attributes[r],i=e.attributes[n.name];void 0!==i&&t.enableVertexAttribArray(i)}},q.prototype.setVertexAttribPointers=function(t,e,r){for(var n=0;n<this.attributes.length;n++){var i=this.attributes[n],a=e.attributes[i.name];void 0!==a&&t.vertexAttribPointer(a,i.components,t[V[i.type]],!1,this.itemSize,i.offset+this.itemSize*(r||0))}},q.prototype.destroy=function(){var t=this.context.gl;this.buffer&&(t.deleteBuffer(this.buffer),delete this.buffer)};var H=function(t){this.gl=t.gl,this.default=this.getDefault(),this.current=this.default,this.dirty=!1};H.prototype.get=function(){return this.current},H.prototype.set=function(t){},H.prototype.getDefault=function(){return this.default},H.prototype.setDefault=function(){this.set(this.default)};var G=function(e){function r(){e.apply(this,arguments)}return e&&(r.__proto__=e),r.prototype=Object.create(e&&e.prototype),r.prototype.constructor=r,r.prototype.getDefault=function(){return t.Color.transparent},r.prototype.set=function(t){var e=this.current;(t.r!==e.r||t.g!==e.g||t.b!==e.b||t.a!==e.a||this.dirty)&&(this.gl.clearColor(t.r,t.g,t.b,t.a),this.current=t,this.dirty=!1)},r}(H),Y=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return 1},e.prototype.set=function(t){(t!==this.current||this.dirty)&&(this.gl.clearDepth(t),this.current=t,this.dirty=!1)},e}(

H),W=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=f
unction(){return
0},e.prototype.set=function(t){(t!==this.current||this.dirty)&&(this.gl.clearStencil(t),this.current=t,this.dirty=!1)},e}
(H),X=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=f
unction(){return[!0,!0,!0,!0]},e.prototype.set=function(t){var
e=this.current;(t[0]!==e[0]||t[1]!==e[1]||t[2]!==e[2]||t[3]!==e[3]||this.dirty)&&(this.gl.colorMask(t[0],t[1],t[2],t[3]),t
his.current=t,this.dirty=!1)},e}(H),Z=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=f
unction(){return!0},e.prototype.set=function(t){(t!==this.current||this.dirty)&&(this.gl.depthMask(t),this.current=t,t
his.dirty=!1)},e}(H),J=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=f
unction(){return
255},e.prototype.set=function(t){(t!==this.current||this.dirty)&&(this.gl.stencilMask(t),this.current=t,this.dirty=!1)},
e}(H),K=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=f
unction(){return{func:this.gl.ALWAYS,ref:0,mask:255}},e.prototype.set=function(t){var
e=this.current;(t.func!==e.func||t.ref!==e.ref||t.mask!==e.mask||this.dirty)&&(this.gl.stencilFunc(t.func,t.ref,t.mask),
this.current=t,this.dirty=!1)},e}(H),Q=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=f
unction(){var t=this.gl;return[t.KEEP,t.KEEP,t.KEEP]},e.prototype.set=function(t){var
e=this.current;(t[0]!==e[0]||t[1]!==e[1]||t[2]!==e[2]||this.dirty)&&(this.gl.stencilOp(t[0],t[1],t[2]),this.current=t,this.
dirty=!1)},e}(H),$=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=f
unction(){return!1},e.prototype.set=function(t){if(t!==this.current||this.dirty){var
e=this.gl;t?e.enable(e.STENCIL_TEST):e.disable(e.STENCIL_TEST),this.current=t,this.dirty=!1}},e}(H),tt=functi
on(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=f
unction(){return[0,1]},e.prototype.set=function(t){var
e=this.current;(t[0]!==e[0]||t[1]!==e[1]||this.dirty)&&(this.gl.depthRange(t[0],t[1]),this.current=t,this.dirty=!1)},e}(
H),et=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=f
unction(){return!1},e.prototype.set=function(t){if(t!==this.current||this.dirty){var
e=this.gl;t?e.enable(e.DEPTH_TEST):e.disable(e.DEPTH_TEST),this.current=t,this.dirty=!1}},e}(H),rt=function(t)
{function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=f
unction(){return
this.gl.LESS},e.prototype.set=function(t){(t!==this.current||this.dirty)&&(this.gl.depthFunc(t),this.current=t,this.dirt
y=!1)},e}(H),nt=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=f
unction(){return!1},e.prototype.set=function(t){if(t!==this.current||this.dirty){var
e=this.gl;t?e.enable(e.BLEND):e.disable(e.BLEND),this.current=t,this.dirty=!1}},e}(H),it=function(t){function
e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=f
unction(){var t=this.gl;return[t.ONE,t.ZERO]},e.prototype.set=function(t){var
e=this.current;(t[0]!==e[0]||t[1]!==e[1]||this.dirty)&&(this.gl.blendFunc(t[0],t[1]),this.current=t,this.dirty=!1)},e}(H)
,at=function(e){function r(){e.apply(this,arguments)}return

e&&(r.__proto__=e),r.prototype=Object.create(e&&e.prototype),r.prototype.constructor=r,r.prototype.getDefault=function(){return t.Color.transparent},r.prototype.set=function(t){var e=this.current;(t.r!==e.r||t.g!==e.g||t.b!==e.b||t.a!==e.a||this.dirty)&&(this.gl.blendColor(t.r,t.g,t.b,t.a),this.current=t,this.dirty=!1)},r}(H),ot=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return this.gl.FUNC_ADD},e.prototype.set=function(t){(t!==this.current||this.dirty)&&(this.gl.blendEquation(t),this.current=t,this.dirty=!1)},e}(H),st=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return!1},e.prototype.set=function(t){if(t!==this.current||this.dirty){var e=this.gl;t?e.enable(e.CULL_FACE):e.disable(e.CULL_FACE),this.current=t,this.dirty=!1}},e}(H),lt=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return this.gl.BACK},e.prototype.set=function(t){(t!==this.current||this.dirty)&&(this.gl.cullFace(t),this.current=t,this.dirty=!1)},e}(H),ct=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return this.gl.CCW},e.prototype.set=function(t){(t!==this.current||this.dirty)&&(this.gl.frontFace(t),this.current=t,this.dirty=!1)},e}(H),ut=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return null},e.prototype.set=function(t){(t!==this.current||this.dirty)&&(this.gl.useProgram(t),this.current=t,this.dirty=!1)},e}(H),ft=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return this.gl.TEXTURE0},e.prototype.set=function(t){(t!==this.current||this.dirty)&&(this.gl.activeTexture(t),this.current=t,this.dirty=!1)},e}(H),ht=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){var t=this.gl;return[0,0,t.drawingBufferWidth,t.drawingBufferHeight]},e.prototype.set=function(t){var e=this.current;(t[0]!==e[0]||t[1]!==e[1]||t[2]!==e[2]||t[3]!==e[3]||this.dirty)&&(this.gl.viewport(t[0],t[1],t[2],t[3]),this.current=t,this.dirty=!1)},e}(H),pt=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return null},e.prototype.set=function(t){if(t!==this.current||this.dirty){var e=this.gl;e.bindFramebuffer(e.FRAMEBUFFER,t),this.current=t,this.dirty=!1}},e}(H),dt=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return null},e.prototype.set=function(t){if(t!==this.current||this.dirty){var e=this.gl;e.bindRenderbuffer(e.RENDERBUFFER,t),this.current=t,this.dirty=!1}},e}(H),gt=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return null},e.prototype.set=function(t){if(t!==this.current||this.dirty){var e=this.gl;e.bindTexture(e.TEXTURE_2D,t),this.current=t,this.dirty=!1}},e}(H),vt=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return null},e.prototype.set=function(t){if(t!==this.current||this.dirty){var e=this.gl;e.bindBuffer(e.ARRAY_BUFFER,t),this.current=t,this.dirty=!1}},e}(H),mt=function(t){function e(){t.apply(this,arguments)}return

t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return null},e.prototype.set=function(t){var
e=this.gl;e.bindBuffer(e.ELEMENT_ARRAY_BUFFER,t),this.current=t,this.dirty=!1},e}(H),yt=function(t){function e(e){t.call(this,e),this.vao=e.extVertexArrayObject}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return
null},e.prototype.set=function(t){this.vao&&(t!==this.current||this.dirty)&&(this.vao.bindVertexArrayOES(t),this.current=t,this.dirty=!1)},e}(H),xt=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return 4},e.prototype.set=function(t){if(t!==this.current||this.dirty){var
e=this.gl;e.pixelStorei(e.UNPACK_ALIGNMENT,t),this.current=t,this.dirty=!1}},e}(H),bt=function(t){function
e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return!1},e.prototype.set=function(t){if(t!==this.current||this.dirty){var
e=this.gl;e.pixelStorei(e.UNPACK_PREMULTIPLY_ALPHA_WEBGL,t),this.current=t,this.dirty=!1}},e}(H),_t=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return!1},e.prototype.set=function(t){if(t!==this.current||this.dirty){var
e=this.gl;e.pixelStorei(e.UNPACK_FLIP_Y_WEBGL,t),this.current=t,this.dirty=!1}},e}(H),wt=function(t){function e(e,r){t.call(this,e),this.context=e,this.parent=r}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.getDefault=function(){return null},e}(H),Tt=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.setDirty=function(){this.dirty=!0},e.prototype.set=function(t){if(t!==this.current||this.dirty){this.context.bindFramebuffer.set(this.parent);var
e=this.gl;e.framebufferTexture2D(e.FRAMEBUFFER,e.COLOR_ATTACHMENT0,e.TEXTURE_2D,t,0),this.current=t,this.dirty=!1}},e}(wt),kt=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.set=function(t){if(t!==this.current||this.dirty){this.context.bindFramebuffer.set(this.parent);var
e=this.gl;e.framebufferRenderbuffer(e.FRAMEBUFFER,e.DEPTH_ATTACHMENT,e.RENDERBUFFER,t),this.current=t,this.dirty=!1}},e}(wt),At=function(t,e,r,n){this.context=t,this.width=e,this.height=r;var
i=t.gl,a=this.framebuffer=i.createFramebuffer();this.colorAttachment=new Tt(t,a),n&&(this.depthAttachment=new kt(t,a))};At.prototype.destroy=function(){var
t=this.context.gl,e=this.colorAttachment.get();if(e&&t.deleteTexture(e),this.depthAttachment){var
r=this.depthAttachment.get();r&&t.deleteRenderbuffer(r)}t.deleteFramebuffer(this.framebuffer)};var
Mt=function(t,e,r){this.func=t,this.mask=e,this.range=r};Mt.ReadOnly=!1,Mt.ReadWrite=!0,Mt.disabled=new
Mt(519,Mt.ReadOnly,[0,1]);var
St=7680,Et=function(t,e,r,n,i,a){this.test=t,this.ref=e,this.mask=r,this.fail=n,this.depthFail=i,this.pass=a};Et.disabled=new Et({func:519,mask:0},0,0,St,St,St);var
Lt=function(t,e,r){this.blendFunction=t,this.blendColor=e,this.mask=r};Lt.disabled=new
Lt(Lt.Replace=[1,0],t.Color.transparent,[!1,!1,!1,!1]),Lt.unblended=new
Lt(Lt.Replace,t.Color.transparent,[!0,!0,!0,!0]),Lt.alphaBlended=new
Lt([1,771],t.Color.transparent,[!0,!0,!0,!0]);var
Ct=function(t,e,r){this.enable=t,this.mode=e,this.frontFace=r};Ct.disabled=new
Ct(!1,1029,2305),Ct.backCCW=new Ct(!0,1029,2305);var
Pt=function(t){this.gl=t,this.extVertexArrayObject=this.gl.getExtension("OES_vertex_array_object"),this.clearColor=new G(this),this.clearDepth=new Y(this),this.clearStencil=new W(this),this.colorMask=new
X(this),this.depthMask=new Z(this),this.stencilMask=new J(this),this.stencilFunc=new K(this),this.stencilOp=new

Q(this),this.stencilTest=new $(this),this.depthRange=new tt(this),this.depthTest=new et(this),this.depthFunc=new rt(this),this.blend=new nt(this),this.blendFunc=new it(this),this.blendColor=new at(this),this.blendEquation=new ot(this),this.cullFace=new st(this),this.cullFaceSide=new lt(this),this.frontFace=new ct(this),this.program=new ut(this),this.activeTexture=new ft(this),this.viewport=new ht(this),this.bindFramebuffer=new pt(this),this.bindRenderbuffer=new dt(this),this.bindTexture=new gt(this),this.bindVertexBuffer=new vt(this),this.bindElementBuffer=new mt(this),this.bindVertexArrayOES=this.extVertexArrayObject&&new yt(this),this.pixelStoreUnpack=new xt(this),this.pixelStoreUnpackPremultiplyAlpha=new bt(this),this.pixelStoreUnpackFlipY=new _t(this),this.extTextureFilterAnisotropic=t.getExtension("EXT_texture_filter_anisotropic")||t.getExtension("MOZ_EXT_texture_filter_anisotropic")||t.getExtension("WEBKIT_EXT_texture_filter_anisotropic"),this.extTextureFilterAnisotropic&&(this.extTextureFilterAnisotropicMax=t.getParameter(this.extTextureFilterAnisotropic.MAX_TEXTURE_MAX_ANISOTROPY_EXT)),this.extTextureHalfFloat=t.getExtension("OES_texture_half_float"),this.extTextureHalfFloat&&(t.getExtension("OES_texture_half_float_linear"),this.extRenderToTextureHalfFloat=t.getExtension("EXT_color_buffer_half_float")),this.extTimerQuery=t.getExtension("EXT_disjoint_timer_query")};Pt.prototype.setDefault=function(){this.unbindVAO(),this.clearColor.setDefault(),this.clearDepth.setDefault(),this.clearStencil.setDefault(),this.colorMask.setDefault(),this.depthMask.setDefault(),this.stencilMask.setDefault(),this.stencilFunc.setDefault(),this.stencilOp.setDefault(),this.stencilTest.setDefault(),this.depthRange.setDefault(),this.depthTest.setDefault(),this.depthFunc.setDefault(),this.blend.setDefault(),this.blendFunc.setDefault(),this.blendColor.setDefault(),this.blendEquation.setDefault(),this.cullFace.setDefault(),this.cullFaceSide.setDefault(),this.frontFace.setDefault(),this.program.setDefault(),this.activeTexture.setDefault(),this.bindFramebuffer.setDefault(),this.pixelStoreUnpack.setDefault(),this.pixelStoreUnpackPremultiplyAlpha.setDefault(),this.pixelStoreUnpackFlipY.setDefault()},Pt.prototype.setDirty=function(){this.clearColor.dirty=!0,this.clearDepth.dirty=!0,this.clearStencil.dirty=!0,this.colorMask.dirty=!0,this.depthMask.dirty=!0,this.stencilMask.dirty=!0,this.stencilFunc.dirty=!0,this.stencilOp.dirty=!0,this.stencilTest.dirty=!0,this.depthRange.dirty=!0,this.depthTest.dirty=!0,this.depthFunc.dirty=!0,this.blend.dirty=!0,this.blendFunc.dirty=!0,this.blendColor.dirty=!0,this.blendEquation.dirty=!0,this.cullFace.dirty=!0,this.cullFaceSide.dirty=!0,this.frontFace.dirty=!0,this.program.dirty=!0,this.activeTexture.dirty=!0,this.viewport.dirty=!0,this.bindFramebuffer.dirty=!0,this.bindRenderbuffer.dirty=!0,this.bindTexture.dirty=!0,this.bindVertexBuffer.dirty=!0,this.bindElementBuffer.dirty=!0,this.extVertexArrayObject&&(this.bindVertexArrayOES.dirty=!0),this.pixelStoreUnpack.dirty=!0,this.pixelStoreUnpackPremultiplyAlpha.dirty=!0,this.pixelStoreUnpackFlipY.dirty=!0},Pt.prototype.createIndexBuffer=function(t,e){return new U(this,t,e)},Pt.prototype.createVertexBuffer=function(t,e,r){return new q(this,t,e,r)},Pt.prototype.createRenderbuffer=function(t,e,r){var n=this.gl,i=n.createRenderbuffer();return this.bindRenderbuffer.set(i),n.renderbufferStorage(n.RENDERBUFFER,t,e,r),this.bindRenderbuffer.set(null),i},Pt.prototype.createFramebuffer=function(t,e,r){return new At(this,t,e,r)},Pt.prototype.clear=function(t){var e=t.color,r=t.depth,n=this.gl,i=0;e&&(i|=n.COLOR_BUFFER_BIT,this.clearColor.set(e),this.colorMask.set([!0,!0,!0,!0])),void 0!==r&&(i|=n.DEPTH_BUFFER_BIT,this.depthRange.set([0,1]),this.clearDepth.set(r),this.depthMask.set(!0)),n.clear(i)},Pt.prototype.setCullFace=function(t){!1===t.enable?this.cullFace.set(!1):(this.cullFace.set(!0),this.cullFaceSide.set(t.mode),this.frontFace.set(t.frontFace))},Pt.prototype.setDepthMode=function(t){t.func!==this.gl.ALWAYS||t.mask?(this.depthTest.set(!0),this.depthFunc.set(t.func),this.depthMask.set(t.mask),this.depthRange.set(t.range)):this.depthTest.set(!1)},Pt.prototype.setStencilMode=function(t){t.test.func!==this.gl.ALWAYS||t.mask?(this.stencilTest.set(!0),this.stencilMask.set(t.mask),this.stencilOp.set([t.fail,t.depthFail,t.pass]),this.stencilFunc.set({func:t.test.func,ref:t.ref,mask:t.test.mask})):this.stencilTest.set(!1)},Pt.prototype.setColorMode=function(e){t.deepEqual(e.blendFunction,Lt.Replace)?this.blend.set(!1):(this.blend.set(!0),this.blendFunc.set(e.blendFunction),this.blendColor.set(e.blendColor)),this.colorMask.set(e.mask)},Pt.prototype.unbindVAO=function(){this.extVertexArrayObject&&this.bindVertexArrayOES.set(null)};var It=function(e){function r(r,n,i){var a=this;e.call(this),this.id=r,this.dispatcher=i,this.on("data",(function(t){"source"===t.dataType&&"metadata"===t.sourceDataType&&(a._sourceLoaded=!0),a._sourceLoaded&&!a._paused&&"source"===t.dataType&&"content"===t.sourceDataType&&(a.reload(),a.transform&&a.update(a.transform))})),this.on("error",(function(){a._sourceErr

ored=!0})),this._source=function(e,r,n,i){var a=new R[r.type](e,r,n,i);if(a.id!==e)throw new Error("Expected Source id to be "+e+" instead of "+a.id);return t.bindAll(["load","abort","unload","serialize","prepare"],a),a}(r,n,i,this),this._tiles={},this._cache=new j(0,this._unloadTile.bind(this)),this._timers={},this._cacheTimers={},this._maxTileCacheSize=null,this._loadedParentTiles={},this._coveredTiles={},this._state=new t.SourceFeatureState}return e&&(r.__proto__=e),r.prototype=Object.create(e&&e.prototype),r.prototype.constructor=r,r.prototype.onAdd=function(t){this.map=t,this._maxTileCacheSize=t?t._maxTileCacheSize:null,this._source&&this._source.onAdd&&this._source.onAdd(t)},r.prototype.onRemove=function(t){this._source&&this._source.onRemove&&this._source.onRemove(t)},r.prototype.loaded=function(){if(this._sourceErrored)return!0;if(!this._sourceLoaded)return!1;if(!this._source.loaded())return!1;for(var t in this._tiles){var e=this._tiles[t];if("loaded"!==e.state&&"errored"!==e.state)return!1}return!0},r.prototype.getSource=function(){return this._source},r.prototype.pause=function(){this._paused=!0},r.prototype.resume=function(){if(this._paused){var t=this._shouldReloadOnResume;this._paused=!1,this._shouldReloadOnResume=!1,t&&this.reload(),this.transform&&this.update(this.transform)}},r.prototype._loadTile=function(t,e){return this._source.loadTile(t,e)},r.prototype._unloadTile=function(t){if(this._source.unloadTile)return this._source.unloadTile(t,(function(){}))},r.prototype._abortTile=function(t){if(this._source.abortTile)return this._source.abortTile(t,(function(){}))},r.prototype.serialize=function(){return this._source.serialize()},r.prototype.prepare=function(t){for(var e in this._source.prepare&&this._source.prepare(),this._state.coalesceChanges(this._tiles,this.map?this.map.painter:null),this._tiles){var r=this._tiles[e];r.upload(t),r.prepare(this.map.style.imageManager)}},r.prototype.getIds=function(){return t.values(this._tiles).map((function(t){return t.tileID})).sort(Ot).map((function(t){return t.key}))},r.prototype.getRenderableIds=function(e){var r=this,n=[];for(var i in this._tiles)this._isIdRenderable(i,e)&&n.push(this._tiles[i]);return e?n.sort((function(e,n){var i=e.tileID,a=n.tileID,o=new t.Point(i.canonical.x,i.canonical.y)._rotate(r.transform.angle),s=new t.Point(a.canonical.x,a.canonical.y)._rotate(r.transform.angle);return i.overscaledZ-a.overscaledZ||s.y-o.y||s.x-o.x})).map((function(t){return t.tileID.key})):n.map((function(t){return t.tileID})).sort(Ot).map((function(t){return t.key}))},r.prototype.hasRenderableParent=function(t){var e=this.findLoadedParent(t,0);return!!e&&this._isIdRenderable(e.tileID.key)},r.prototype._isIdRenderable=function(t,e){return this._tiles[t]&&this._tiles[t].hasData()&&!this._coveredTiles[t]&&(e||!this._tiles[t].holdingForFade())},r.prototype.reload=function(){if(this._paused)this._shouldReloadOnResume=!0;else for(var t in this._cache.reset(),this._tiles)"errored"!==this._tiles[t].state&&this._reloadTile(t,"reloading")},r.prototype._reloadTile=function(t,e){var r=this._tiles[t];r&&("loading"!==r.state&&(r.state=e),this._loadTile(r,this._tileLoaded.bind(this,r,t,e)))},r.prototype._tileLoaded=function(e,r,n,i){if(i)return e.state="errored",void(404!==i.status?this._source.fire(new t.ErrorEvent(i,{tile:e})):this.update(this.transform));e.timeAdded=t.browser.now(),"expired"===n&&(e.refreshedUponExpiration=!0),this._setTileReloadTimer(r,e),"raster-dem"===this.getSource().type&&e.dem&&this._backfillDEM(e),this._state.initializeTileState(e,this.map?this.map.painter:null),this._source.fire(new t.Event("data",{dataType:"source",tile:e,coord:e.tileID}))},r.prototype._backfillDEM=function(t){for(var e=this.getRenderableIds(),r=0;r<e.length;r++){var n=e[r];if(t.neighboringTiles&&t.neighboringTiles[n]){var i=this.getTileByID(n);a(t,i),a(i,t)}}function a(t,e){t.needsHillshadePrepare=!0;var r=e.tileID.canonical.x-t.tileID.canonical.x,n=e.tileID.canonical.y-t.tileID.canonical.y,i=Math.pow(2,t.tileID.canonical.z),a=e.tileID.key;0===r&&0===n||Math.abs(n)>1||(Math.abs(r)>1&&(1===Math.abs(r+i)?r+=i:1===Math.abs(r-i)&&(r-=i)),e.dem&&t.dem&&(t.dem.backfillBorder(e.dem,r,n),t.neighboringTiles&&t.neighboringTiles[a]&&(t.neighbori

ngTiles[a].backfilled=!0))))},r.prototype.getTile=function(t){return
this.getTileByID(t.key)},r.prototype.getTileByID=function(t){return
this._tiles[t]},r.prototype._retainLoadedChildren=function(t,e,r,n){for(var i in this._tiles){var
a=this._tiles[i];if(!(n[i]||!a.hasData()||a.tileID.overscaledZ<=e||a.tileID.overscaledZ>r)){for(var
o=a.tileID;a&&a.tileID.overscaledZ>e+1;){var s=a.tileID.scaledTo(a.tileID.overscaledZ-
1);(a=this._tiles[s.key])&&a.hasData()&&(o=s)}for(var l=o;l.overscaledZ>e;)if(t[(l=l.scaledTo(l.overscaledZ-
1)).key]){n[o.key]=o;break}}}},r.prototype.findLoadedParent=function(t,e){if(t.key in this._loadedParentTiles){var
r=this._loadedParentTiles[t.key];return r&&r.tileID.overscaledZ>=e?r:null}for(var n=t.overscaledZ-1;n>=e;n--){var
i=t.scaledTo(n),a=this._getLoadedTile(i);if(a)return a}},r.prototype._getLoadedTile=function(t){var
e=this._tiles[t.key];return
e&&e.hasData()?e:this._cache.getByKey(t.wrapped().key)},r.prototype.updateCacheSize=function(t){var
e=(Math.ceil(t.width/this._source.tileSize)+1)*(Math.ceil(t.height/this._source.tileSize)+1),r=Math.floor(5*e),n="nu
mber"==typeof
this._maxTileCacheSize?Math.min(this._maxTileCacheSize,r):r;this._cache.setMaxSize(n)},r.prototype.handleWra
pJump=function(t){var e=(t-(void
0===this._prevLng?t:this._prevLng))/360,r=Math.round(e);if(this._prevLng=t,r){var n={};for(var i in
this._tiles){var a=this._tiles[i];a.tileID=a.tileID.unwrapTo(a.tileID.wrap+r),n[a.tileID.key]=a}for(var o in
this._tiles=n,this._timers)clearTimeout(this._timers[o]),delete this._timers[o];for(var s in this._tiles){var
l=this._tiles[s];this._setTileReloadTimer(s,l)}}},r.prototype.update=function(e){var
n=this;if(this.transform=e,this._sourceLoaded&&!this._paused){var
i;this.updateCacheSize(e),this.handleWrapJump(this.transform.center.lng),this._coveredTiles={},this.used?this._sou
rce.tileID?i=e.getVisibleUnwrappedCoordinates(this._source.tileID).map((function(e){return new
t.OverscaledTileID(e.canonical.z,e.wrap,e.canonical.z,e.canonical.x,e.canonical.y)})):(i=e.coveringTiles({tileSize:th
is._source.tileSize,minzoom:this._source.minzoom,maxzoom:this._source.maxzoom,roundZoom:this._source.round
Zoom,reparseOverscaled:this._source.reparseOverscaled}),this._source.hasTile&&(i=i.filter((function(t){return
n._source.hasTile(t)})))):i=[];var a=e.coveringZoomLevel(this._source),o=Math.max(a-
r.maxOverzooming,this._source.minzoom),s=Math.max(a+r.maxUnderzooming,this._source.minzoom),l=this._upda
teRetainedTiles(i,a);if(zt(this._source.type)){for(var c={},u={},f=0,h=Object.keys(l);f<h.length;f+=1){var
p=h[f],d=l[p],g=this._tiles[p];if(g&&!(g.fadeEndTime&&g.fadeEndTime<=t.browser.now())){var
v=this.findLoadedParent(d,o);v&&(this._addTile(v.tileID),c[v.tileID.key]=v.tileID),u[p]=d}}for(var m in
this._retainLoadedChildren(u,a,s,l),c)l[m]||(this._coveredTiles[m]=!0,l[m]=c[m])}for(var y in
l)this._tiles[y].clearFadeHold();for(var x=0,b=t.keysDifference(this._tiles,l);x<b.length;x+=1){var
_=b[x],w=this._tiles[_];w.hasSymbolBuckets&&!w.holdingForFade()?w.setHoldDuration(this.map._fadeDuration):
w.hasSymbolBuckets&&!w.symbolFadeFinished()||this._removeTile(_)}this._updateLoadedParentTileCache()}},r.
prototype.releaseSymbolFadeTiles=function(){for(var t in
this._tiles)this._tiles[t].holdingForFade()&&this._removeTile(t)},r.prototype._updateRetainedTiles=function(t,e){fo
r(var n={},i={},a=Math.max(e-
r.maxOverzooming,this._source.minzoom),o=Math.max(e+r.maxUnderzooming,this._source.minzoom),s={},l=0,c=
t;l<c.length;l+=1){var
u=c[l],f=this._addTile(u);n[u.key]=u,f.hasData()||e<this._source.maxzoom&&(s[u.key]=u)}this._retainLoadedChild
ren(s,e,o,n);for(var h=0,p=t;h<p.length;h+=1){var
d=p[h],g=this._tiles[d.key];if(!g.hasData()){if(e+1>this._source.maxzoom){var
v=d.children(this._source.maxzoom)[0],m=this.getTile(v);if(m&&m.hasData()){n[v.key]=v;continue}}else{var
y=d.children(this._source.maxzoom);if(n[y[0].key]&&n[y[1].key]&&n[y[2].key]&&n[y[3].key])continue}for(var
x=g.wasRequested(),b=d.overscaledZ-1;b>=a;--b){var
=d.scaledTo(b);if(i[.key])break;if(i[_.key]=!0,!(g=this.getTile(_))&&x&&(g=this._addTile(_)),g&&(n[_.key]=_,
x=g.wasRequested(),g.hasData()))break}}}return n},r.prototype._updateLoadedParentTileCache=function(){for(var
t in this._loadedParentTiles={},this._tiles){for(var e=[],r=void 0,n=this._tiles[t].tileID;n.overscaledZ>0;){if(n.key in

this._loadedParentTiles){r=this._loadedParentTiles[n.key];break}e.push(n.key);var i=n.scaledTo(n.overscaledZ-1);if(r=this._getLoadedTile(i))break;n=i}for(var a=0,o=e;a<o.length;a+=1){var s=o[a];this._loadedParentTiles[s]=r}}},r.prototype._addTile=function(e){var r=this._tiles[e.key];if(r)return r;(r=this._cache.getAndRemove(e))&&(this._setTileReloadTimer(e.key,r),r.tileID=e,this._state.initializeTileState(r,this.map?this.map.painter:null),this._cacheTimers[e.key]&&(clearTimeout(this._cacheTimers[e.key]),delete this._cacheTimers[e.key],this._setTileReloadTimer(e.key,r)));var n=Boolean(r);return n||(r=new t.Tile(e,this._source.tileSize*e.overscaleFactor()),this._loadTile(r,this._tileLoaded.bind(this,r,e.key,r.state))),r?(r.uses++,this._tiles[e.key]=r,n||this._source.fire(new t.Event("dataloading",{tile:r,coord:r.tileID,dataType:"source"})),r):null},r.prototype._setTileReloadTimer=function(t,e){var r=this;t in this._timers&&(clearTimeout(this._timers[t]),delete this._timers[t]);var n=e.getExpiryTimeout();n&&(this._timers[t]=setTimeout((function(){r._reloadTile(t,"expired"),delete r._timers[t]}),n))},r.prototype._removeTile=function(t){var e=this._tiles[t];e&&(e.uses--,delete this._tiles[t],this._timers[t]&&(clearTimeout(this._timers[t]),delete this._timers[t]),e.uses>0||(e.hasData()&&"reloading"!==e.state?this._cache.add(e.tileID,e,e.getExpiryTimeout()):(e.aborted=!0,this._abortTile(e),this._unloadTile(e))))},r.prototype.clearTiles=function(){for(var t in this._shouldReloadOnResume=!1,this._paused=!1,this._tiles)this._removeTile(t);this._cache.reset()},r.prototype.tilesIn=function(e,r,n){var i=this,a=[],o=this.transform;if(!o)return a;for(var s=n?o.getCameraQueryGeometry(e):e,l=e.map((function(t){return o.pointCoordinate(t)})),c=s.map((function(t){return o.pointCoordinate(t)})),u=this.getIds(),f=1/0,h=1/0,p=-1/0,d=-1/0,g=0,v=c;g<v.length;g+=1){var m=v[g];f=Math.min(f,m.x),h=Math.min(h,m.y),p=Math.max(p,m.x),d=Math.max(d,m.y)}for(var y=function(e){var n=i._tiles[u[e]];if(!n.holdingForFade()){var s=n.tileID,g=Math.pow(2,o.zoom-n.tileID.overscaledZ),v=r*n.queryPadding*t.EXTENT/n.tileSize/g,m=[s.getTilePoint(new t.MercatorCoordinate(f,h)),s.getTilePoint(new t.MercatorCoordinate(p,d))];if(m[0].x-v<t.EXTENT&&m[0].y-v<t.EXTENT&&m[1].x+v>=0&&m[1].y+v>=0){var y=l.map((function(t){return s.getTilePoint(t)})),x=c.map((function(t){return s.getTilePoint(t)}));a.push({tile:n,tileID:s,queryGeometry:y,cameraQueryGeometry:x,scale:g})}}},x=0;x<u.length;x++)y(x);return a},r.prototype.getVisibleCoordinates=function(t){for(var e=this,r=this.getRenderableIds(t).map((function(t){return e._tiles[t].tileID})),n=0,i=r;n<i.length;n+=1){var a=i[n];a.posMatrix=this.transform.calculatePosMatrix(a.toUnwrapped())}return r},r.prototype.hasTransition=function(){if(this._source.hasTransition())return!0;if(zt(this._source.type))for(var e in this._tiles){var r=this._tiles[e];if(void 0!==r.fadeEndTime&&r.fadeEndTime>=t.browser.now())return!0}return!1},r.prototype.setFeatureState=function(t,e,r){t=t||"_geojsonTileLayer",this._state.updateState(t,e,r)},r.prototype.removeFeatureState=function(t,e,r){t=t||"_geojsonTileLayer",this._state.removeFeatureState(t,e,r)},r.prototype.getFeatureState=function(t,e){return t=t||"_geojsonTileLayer",this._state.getState(t,e)},r.prototype.setDependencies=function(t,e,r){var n=this._tiles[t];n&&n.setDependencies(e,r)},r.prototype.reloadTilesForDependencies=function(t,e){for(var r in this._tiles)this._tiles[r].hasDependency(t,e)&&this._reloadTile(r,"reloading");this._cache.filter((function(r){return!r.hasDependency(t,e)}))},r}(t.Evented);function Ot(t,e){var r=Math.abs(2*t.wrap)-+(t.wrap<0),n=Math.abs(2*e.wrap)-+(e.wrap<0);return t.overscaledZ-e.overscaledZ||n-r||e.canonical.y-t.canonical.y||e.canonical.x-t.canonical.x}function zt(t){return"raster"===t||"image"===t||"video"===t}function Dt(){return new t.window.Worker(ta.workerUrl)}It.maxOverzooming=10,It.maxUnderzooming=3;var Rt="mapboxgl_preloaded_worker_pool",Ft=function(){this.active={}};Ft.prototype.acquire=function(t){if(!this.workers)for(this.workers=[];this.workers.length<Ft.workerCount;)this.workers.push(new Dt);return this.active[t]=!0,this.workers.slice()},Ft.prototype.release=function(t){delete this.active[t],0===this.numActive()&&(this.workers.forEach((function(t){t.terminate()})),this.workers=null)},Ft.prototype.isPreloaded=function(){return!!this.active[Rt]},Ft.prototype.numActive=function(){return Object.keys(this.active).length};var Bt,Nt=Math.floor(t.browser.hardwareConcurrency/2);function jt(){return

Bt||(Bt=new Ft),Bt}function Ut(e,r){var n={};for(var i in e)"ref"!==i&&(n[i]=e[i]);return t.refProperties.forEach((function(t){t in r&&(n[t]=r[t])})),n}function Vt(t){t=t.slice();for(var e=Object.create(null),r=0;r<t.length;r++)e[t[r].id]=t[r];for(var n=0;n<t.length;n++)"ref"in t[n]&&(t[n]=Ut(t[n],e[t[n].ref]));return t}Ft.workerCount=Math.max(Math.min(Nt,6),1);var qt={setStyle:"setStyle",addLayer:"addLayer",removeLayer:"removeLayer",setPaintProperty:"setPaintProperty",setLayoutProperty:"setLayoutProperty",setFilter:"setFilter",addSource:"addSource",removeSource:"removeSource",setGeoJSONSourceData:"setGeoJSONSourceData",setLayerZoomRange:"setLayerZoomRange",setLayerProperty:"setLayerProperty",setCenter:"setCenter",setZoom:"setZoom",setBearing:"setBearing",setPitch:"setPitch",setSprite:"setSprite",setGlyphs:"setGlyphs",setTransition:"setTransition",setLight:"setLight"};function Ht(t,e,r){r.push({command:qt.addSource,args:[t,e[t]]})}function Gt(t,e,r){e.push({command:qt.removeSource,args:[t]}),r[t]=!0}function Yt(t,e,r,n){Gt(t,r,n),Ht(t,e,r)}function Wt(e,r,n){var i;for(i in e[n])if(e[n].hasOwnProperty(i)&&"data"!==i&&!t.deepEqual(e[n][i],r[n][i]))return!1;for(i in r[n])if(r[n].hasOwnProperty(i)&&"data"!==i&&!t.deepEqual(e[n][i],r[n][i]))return!1;return!0}function Xt(e,r,n,i,a,o){var s;for(s in r=r||{},e=e||{})e.hasOwnProperty(s)&&(t.deepEqual(e[s],r[s])||n.push({command:o,args:[i,s,r[s],a]}));for(s in r)r.hasOwnProperty(s)&&!e.hasOwnProperty(s)&&(t.deepEqual(e[s],r[s])||n.push({command:o,args:[i,s,r[s],a]}))}function Zt(t){return t.id}function Jt(t,e){return t[e.id]=e,t}function Kt(e,r){if(!e)return[{command:qt.setStyle,args:[r]}];var n=[];try{if(!t.deepEqual(e.version,r.version))return[{command:qt.setStyle,args:[r]}];t.deepEqual(e.center,r.center)||n.push({command:qt.setCenter,args:[r.center]}),t.deepEqual(e.zoom,r.zoom)||n.push({command:qt.setZoom,args:[r.zoom]}),t.deepEqual(e.bearing,r.bearing)||n.push({command:qt.setBearing,args:[r.bearing]}),t.deepEqual(e.pitch,r.pitch)||n.push({command:qt.setPitch,args:[r.pitch]}),t.deepEqual(e.sprite,r.sprite)||n.push({command:qt.setSprite,args:[r.sprite]}),t.deepEqual(e.glyphs,r.glyphs)||n.push({command:qt.setGlyphs,args:[r.glyphs]}),t.deepEqual(e.transition,r.transition)||n.push({command:qt.setTransition,args:[r.transition]}),t.deepEqual(e.light,r.light)||n.push({command:qt.setLight,args:[r.light]});var i={},a=[];!function(e,r,n,i){var a;for(a in r=r||{},e=e||{})e.hasOwnProperty(a)&&(r.hasOwnProperty(a)||Gt(a,n,i));for(a in r)r.hasOwnProperty(a)&&(e.hasOwnProperty(a)?t.deepEqual(e[a],r[a])||("geojson"===e[a].type&&"geojson"===r[a].type&&Wt(e,r,a)?n.push({command:qt.setGeoJSONSourceData,args:[a,r[a].data]}):Yt(a,r,n,i)):Ht(a,r,n))}(e.sources,r.sources,a,i);var o=[];e.layers&&e.layers.forEach((function(t){i[t.source]?n.push({command:qt.removeLayer,args:[t.id]}):o.push(t)})),n=n.concat(a),function(e,r,n){r=r||[];var i,a,o,s,l,c,u,f=(e=e||[]).map(Zt),h=r.map(Zt),p=e.reduce(Jt,{}),d=r.reduce(Jt,{}),g=f.slice(),v=Object.create(null);for(i=0,a=0;i<f.length;i++)o=f[i],d.hasOwnProperty(o)?a++:(n.push({command:qt.removeLayer,args:[o]}),g.splice(g.indexOf(o,a),1));for(i=0,a=0;i<h.length;i++)o=h[h.length-1-i],g[g.length-1-i]!==o&&(p.hasOwnProperty(o)?(n.push({command:qt.removeLayer,args:[o]}),g.splice(g.lastIndexOf(o,g.length-a),1)):a++,c=g[g.length-i],n.push({command:qt.addLayer,args:[d[o],c]}),g.splice(g.length-i,0,o),v[o]=!0);for(i=0;i<h.length;i++)if(s=p[o=h[i]],l=d[o],!v[o]&&!t.deepEqual(s,l))if(t.deepEqual(s.source,l.source)&&t.deepEqual(s["source-layer"],l["source-layer"])&&t.deepEqual(s.type,l.type)){for(u in Xt(s.layout,l.layout,n,o,null,qt.setLayoutProperty),Xt(s.paint,l.paint,n,o,null,qt.setPaintProperty),t.deepEqual(s.filter,l.filter)||n.push({command:qt.setFilter,args:[o,l.filter]}),t.deepEqual(s.minzoom,l.minzoom)&&t.deepEqual(s.maxzoom,l.maxzoom)||n.push({command:qt.setLayerZoomRange,args:[o,l.minzoom,l.maxzoom]}),s)s.hasOwnProperty(u)&&"layout"!==u&&"paint"!==u&&"filter"!==u&&"metadata"!==u&&"minzoom"!==u&&"maxzoom"!==u&&(0===u.indexOf("paint.")?Xt(s[u],l[u],n,o,u.slice(6),qt.setPaintProperty):t.deepEqual(s[u],l[u])||n.push({command:qt.setLayerProperty,args:[o,u,l[u]]}));for(u in l)l.hasOwnProperty(u)&&!s.hasOwnProperty(u)&&"layout"!==u&&"paint"!==u&&"filter"!==u&&"metadata"!==u&&"minzoom"!==u&&"maxzoom"!==u&&(0===u.indexOf("paint.")?Xt(s[u],l[u],n,o,u.slice(6),qt.setPaintProperty):t.deepEqual(s[u],l[u])||n.push({command:qt.setLayerProperty,args:[o,u,l[u]]}))}else n.push({command:qt.removeLayer,args:[o]}),c=g[g.lastIndexOf(o)+1],n.push({command:qt.addLayer,args:[l,c]})}(

o,r.layers,n)}catch(t){console.warn("Unable to compute style diff:",t),n=[{command:qt.setStyle,args:[r]}]}return n}var Qt=function(t,e){this.reset(t,e)};Qt.prototype.reset=function(t,e){this.points=t||[],this._distances=[0];for(var r=1;r<this.points.length;r++)this._distances[r]=this._distances[r-1]+this.points[r].dist(this.points[r-1]);this.length=this._distances[this._distances.length-1],this.padding=Math.min(e||0,.5*this.length),this.paddedLength=this.length-2*this.padding},Qt.prototype.lerp=function(e){if(1===this.points.length)return this.points[0];e=t.clamp(e,0,1);for(var r=1,n=this._distances[r],i=e*this.paddedLength+this.padding;n<i&&r<this._distances.length;)n=this._distances[++r];var a=r-1,o=this._distances[a],s=n-o,l=s>0?(i-o)/s:0;return this.points[a].mult(1-l).add(this.points[r].mult(l))};var $t=function(t,e,r){var n=this.boxCells=[],i=this.circleCells=[];this.xCellCount=Math.ceil(t/r),this.yCellCount=Math.ceil(e/r);for(var a=0;a<this.xCellCount*this.yCellCount;a++)n.push([]),i.push([]);this.circleKeys=[],this.boxKeys=[],this.bboxes=[],this.circles=[],this.width=t,this.height=e,this.xScale=this.xCellCount/t,this.yScale=this.yCellCount/e,this.boxUid=0,this.circleUid=0};function te(e,r,n,i,a){var o=t.create();return r?(t.scale(o,o,[1/a,1/a,1]),n||t.rotateZ(o,o,i.angle)):t.multiply(o,i.labelPlaneMatrix,e),o}function ee(e,r,n,i,a){if(r){var o=t.clone(e);return t.scale(o,o,[a,a,1]),n||t.rotateZ(o,o,-i.angle),o}return i.glCoordMatrix}function re(e,r){var n=[e.x,e.y,0,1];pe(n,n,r);var i=n[3];return{point:new t.Point(n[0]/i,n[1]/i),signedDistanceFromCamera:i}}function ne(t,e){return.5+t/e*.5}function ie(t,e){var r=t[0]/t[3],n=t[1]/t[3];return r>=-e[0]&&r<=e[0]&&n>=-e[1]&&n<=e[1]}function ae(e,r,n,i,a,o,s,l){var c=i?e.textSizeData:e.iconSizeData,u=t.evaluateSizeForZoom(c,n.transform.zoom),f=[256/n.width*2+1,256/n.height*2+1],h=i?e.text.dynamicLayoutVertexArray:e.icon.dynamicLayoutVertexArray;h.clear();for(var p=e.lineVertexArray,d=i?e.text.placedSymbolArray:e.icon.placedSymbolArray,g=n.transform.width/n.transform.height,v=!1,m=0;m<d.length;m++){var y=d.get(m);if(y.hidden||y.writingMode===t.WritingMode.vertical&&!v)he(y.numGlyphs,h);else{v=!1;var x=[y.anchorX,y.anchorY,0,1];if(t.transformMat4(x,x,r),ie(x,f)){var b=x[3],_=ne(n.transform.cameraToCenterDistance,b),w=t.evaluateSizeForFeature(c,u,y),T=s?w/_:w*_,k=new t.Point(y.anchorX,y.anchorY),A=re(k,a).point,M={},S=le(y,T,!1,l,r,a,o,e.glyphOffsetArray,p,h,A,k,M,g);v=S.useVertical,(S.notEnoughRoom||v||S.needsFlipping&&le(y,T,!0,l,r,a,o,e.glyphOffsetArray,p,h,A,k,M,g).notEnoughRoom)&&he(y.numGlyphs,h)}else he(y.numGlyphs,h)}}i?e.text.dynamicLayoutVertexBuffer.updateData(h):e.icon.dynamicLayoutVertexBuffer.updateData(h)}function oe(t,e,r,n,i,a,o,s,l,c,u){var f=s.glyphStartIndex+s.numGlyphs,h=s.lineStartIndex,p=s.lineStartIndex+s.lineLength,d=e.getoffsetX(s.glyphStartIndex),g=e.getoffsetX(f-1),v=ue(t*d,r,n,i,a,o,s.segment,h,p,l,c,u);if(!v)return null;var m=ue(t*g,r,n,i,a,o,s.segment,h,p,l,c,u);return m?{first:v,last:m}:null}function se(e,r,n,i){return e===t.WritingMode.horizontal&&Math.abs(n.y-r.y)>Math.abs(n.x-r.x)*i?{useVertical:!0}:(e===t.WritingMode.vertical?r.y<n.y:r.x>n.x)?{needsFlipping:!0}:null}function le(e,r,n,i,a,o,s,l,c,u,f,h,p,d){var g,v=r/24,m=e.lineOffsetX*v,y=e.lineOffsetY*v;if(e.numGlyphs>1){var x=e.glyphStartIndex+e.numGlyphs,b=e.lineStartIndex,_=e.lineStartIndex+e.lineLength,w=oe(v,l,m,y,n,f,h,e,c,o,p);if(!w)return{notEnoughRoom:!0};var T=re(w.first.point,s).point,k=re(w.last.point,s).point;if(i&&!n){var A=se(e.writingMode,T,k,d);if(A)return A}g=[w.first];for(var M=e.glyphStartIndex+1;M<x-1;M++)g.push(ue(v*l.getoffsetX(M),m,y,n,f,h,e.segment,b,_,c,o,p));g.push(w.last)}else{if(i&&!n){var S=re(h,a).point,E=e.lineStartIndex+e.segment+1,L=new t.Point(c.getx(E),c.gety(E)),C=re(L,a),P=C.signedDistanceFromCamera>0?C.point:ce(h,L,S,1,a),I=se(e.writingMode,S,P,d);if(I)return I}var O=ue(v*l.getoffsetX(e.glyphStartIndex),m,y,n,f,h,e.segment,e.lineStartIndex,e.lineStartIndex+e.lineLength,c,o,p);if(!O)return{notEnoughRoom:!0};g=[O]}for(var z=0,D=g;z<D.length;z+=1){var R=D[z];t.addDynamicAttributes(u,R.point,R.angle)}return{}}function ce(t,e,r,n,i){var a=re(t.add(t.sub(e)._unit()),i).point,o=r.sub(a);return r.add(o._mult(n/o.mag()))}function ue(e,r,n,i,a,o,s,l,c,u,f,h){var

p=i?e-r:e+r,d=p>0?1:-1,g=0;i&&(d*=-1,g=Math.PI),d<0&&(g+=Math.PI);for(var v=d>0?l+s:l+s+1,m=a,y=a,x=0,b=0,_=Math.abs(p),w=[];x+b<=_;){if((v+=d)<l||v>=c)return null;if(y=m,w.push(m),void 0===(m=h[v])){var T=new t.Point(u.getx(v),u.gety(v)),k=re(T,f);if(k.signedDistanceFromCamera>0)m=h[v]=k.point;else{var A=v-d;m=ce(0===x?o:new t.Point(u.getx(A),u.gety(A)),T,y,_-x+1,f)}}x+=b,b=y.dist(m)}var M=(_-x)/b,S=m.sub(y),E=S.mult(M)._add(y);E._add(S._unit()._perp()._mult(n*d));var L=g+Math.atan2(m.y-y.y,m.x-y.x);return w.push(E),{point:E,angle:L,path:w}}$t.prototype.keysLength=function(){return this.boxKeys.length+this.circleKeys.length},$t.prototype.insert=function(t,e,r,n,i){this._forEachCell(e,r,n,i,this._insertBoxCell,this.boxUid++),this.boxKeys.push(t),this.bboxes.push(e),this.bboxes.push(r),this.bboxes.push(n),this.bboxes.push(i)},$t.prototype.insertCircle=function(t,e,r,n){this._forEachCell(e-n,r-n,e+n,r+n,this._insertCircleCell,this.circleUid++),this.circleKeys.push(t),this.circles.push(e),this.circles.push(r),this.circles.push(n)},$t.prototype._insertBoxCell=function(t,e,r,n,i,a){this.boxCells[i].push(a)},$t.prototype._insertCircleCell=function(t,e,r,n,i,a){this.circleCells[i].push(a)},$t.prototype._query=function(t,e,r,n,i,a){if(r<0||t>this.width||n<0||e>this.height)return!i&&[];var o=[];if(t<=0&&e<=0&&this.width<=r&&this.height<=n){if(i)return!0;for(var s=0;s<this.boxKeys.length;s++)o.push({key:this.boxKeys[s],x1:this.bboxes[4*s],y1:this.bboxes[4*s+1],x2:this.bboxes[4*s+2],y2:this.bboxes[4*s+3]});for(var l=0;l<this.circleKeys.length;l++){var c=this.circles[3*l],u=this.circles[3*l+1],f=this.circles[3*l+2];o.push({key:this.circleKeys[l],x1:c-f,y1:u-f,x2:c+f,y2:u+f})}return a?o.filter(a):o}var h={hitTest:i,seenUids:{box:{},circle:{}}};return this._forEachCell(t,e,r,n,this._queryCell,o,h,a),i?o.length>0:o},$t.prototype._queryCircle=function(t,e,r,n,i){var a=t-r,o=t+r,s=e-r,l=e+r;if(o<0||a>this.width||l<0||s>this.height)return!n&&[];var c=[],u={hitTest:n,circle:{x:t,y:e,radius:r},seenUids:{box:{},circle:{}}};return this._forEachCell(a,s,o,l,this._queryCellCircle,c,u,i),n?c.length>0:c},$t.prototype.query=function(t,e,r,n,i){return this._query(t,e,r,n,!1,i)},$t.prototype.hitTest=function(t,e,r,n,i){return this._query(t,e,r,n,!0,i)},$t.prototype.hitTestCircle=function(t,e,r,n){return this._queryCircle(t,e,r,!0,n)},$t.prototype._queryCell=function(t,e,r,n,i,a,o,s){var l=o.seenUids,c=this.boxCells[i];if(null!==c)for(var u=this.bboxes,f=0,h=c;f<h.length;f+=1){var p=h[f];if(!l.box[p]){l.box[p]=!0;var d=4*p;if(t<=u[d+2]&&e<=u[d+3]&&r>=u[d+0]&&n>=u[d+1]&&(!s||s(this.boxKeys[p]))){if(o.hitTest)return a.push(!0),!0;a.push({key:this.boxKeys[p],x1:u[d],y1:u[d+1],x2:u[d+2],y2:u[d+3]})}}}var g=this.circleCells[i];if(null!==g)for(var v=this.circles,m=0,y=g;m<y.length;m+=1){var x=y[m];if(!l.circle[x]){l.circle[x]=!0;var b=3*x;if(this._circleAndRectCollide(v[b],v[b+1],v[b+2],t,e,r,n)&&(!s||s(this.circleKeys[x]))){if(o.hitTest)return a.push(!0),!0;var _=v[b],w=v[b+1],T=v[b+2];a.push({key:this.circleKeys[x],x1:_-T,y1:w-T,x2:_+T,y2:w+T})}}}},$t.prototype._queryCellCircle=function(t,e,r,n,i,a,o,s){var l=o.circle,c=o.seenUids,u=this.boxCells[i];if(null!==u)for(var f=this.bboxes,h=0,p=u;h<p.length;h+=1){var d=p[h];if(!c.box[d]){c.box[d]=!0;var g=4*d;if(this._circleAndRectCollide(l.x,l.y,l.radius,f[g+0],f[g+1],f[g+2],f[g+3])&&(!s||s(this.boxKeys[d])))return a.push(!0),!0}}var v=this.circleCells[i];if(null!==v)for(var m=this.circles,y=0,x=v;y<x.length;y+=1){var b=x[y];if(!c.circle[b]){c.circle[b]=!0;var _=3*b;if(this._circlesCollide(m[_],m[_+1],m[_+2],l.x,l.y,l.radius)&&(!s||s(this.circleKeys[b])))return a.push(!0),!0}}},$t.prototype._forEachCell=function(t,e,r,n,i,a,o,s){for(var l=this._convertToXCellCoord(t),c=this._convertToYCellCoord(e),u=this._convertToXCellCoord(r),f=this._convertToYCellCoord(n),h=l;h<=u;h++)for(var p=c;p<=f;p++){var d=this.xCellCount*p+h;if(i.call(this,t,e,r,n,d,a,o,s))return}},$t.prototype._convertToXCellCoord=function(t){return Math.max(0,Math.min(this.xCellCount-1,Math.floor(t*this.xScale)))},$t.prototype._convertToYCellCoord=function(t){return Math.max(0,Math.min(this.yCellCount-1,Math.floor(t*this.yScale)))},$t.prototype._circlesCollide=function(t,e,r,n,i,a){var o=n-t,s=i-e,l=r+a;return

l*l>o*o+s*s},$t.prototype._circleAndRectCollide=function(t,e,r,n,i,a,o){var s=(a-n)/2,l=Math.abs(t-(n+s));if(l>s+r)return!1;var c=(o-i)/2,u=Math.abs(e-(i+c));if(u>c+r)return!1;if(l<=s||u<=c)return!0;var f=l-s,h=u-c;return f*f+h*h<=r*r};var fe=new Float32Array([-1/0,-1/0,0,-1/0,-1/0,0,-1/0,-1/0,0,-1/0,-1/0,0]);function he(t,e){for(var r=0;r<t;r++){var n=e.length;e.resize(n+4),e.float32.set(fe,3*n)}}function pe(t,e,r){var n=e[0],i=e[1];return t[0]=r[0]*n+r[4]*i+r[12],t[1]=r[1]*n+r[5]*i+r[13],t[3]=r[3]*n+r[7]*i+r[15],t}var de=100,ge=function(t,e,r){void 0===e&&(e=new $t(t.width+200,t.height+200,25)),void 0===r&&(r=new $t(t.width+200,t.height+200,25)),this.transform=t,this.grid=e,this.ignoredGrid=r,this.pitchfactor=Math.cos(t._pitch)*t.cameraToCenterDistance,this.screenRightBoundary=t.width+de,this.screenBottomBoundary=t.height+de,this.gridRightBoundary=t.width+200,this.gridBottomBoundary=t.height+200};function ve(e,r,n){return r*(t.EXTENT/(e.tileSize*Math.pow(2,n-e.tileID.overscaledZ)))}ge.prototype.placeCollisionBox=function(t,e,r,n,i){var a=this.projectAndGetPerspectiveRatio(n,t.anchorPointX,t.anchorPointY),o=r*a.perspectiveRatio,s=t.x1*o+a.point.x,l=t.y1*o+a.point.y,c=t.x2*o+a.point.x,u=t.y2*o+a.point.y;return!this.isInsideGrid(s,l,c,u)||!e&&this.grid.hitTest(s,l,c,u,i)?{box:[],offscreen:!1}:{box:[s,l,c,u],offscreen:this.isOffscreen(s,l,c,u)}},ge.prototype.placeCollisionCircles=function(e,r,n,i,a,o,s,l,c,u,f,h,p){var d=[],g=new t.Point(r.anchorX,r.anchorY),v=re(g,o),m=ne(this.transform.cameraToCenterDistance,v.signedDistanceFromCamera),y=(u?a/m:a*m)/t.ONE_EM,x=re(g,s).point,b=oe(y,i,r.lineOffsetX*y,r.lineOffsetY*y,!1,x,g,r,n,s,{}),_=!1,w=!1,T=!0;if(b){for(var k=.5*h*m+p,A=new t.Point(-100,-100),M=new t.Point(this.screenRightBoundary,this.screenBottomBoundary),S=new Qt,E=b.first,L=b.last,C=[],P=E.path.length-1;P>=1;P--)C.push(E.path[P]);for(var I=1;I<L.path.length;I++)C.push(L.path[I]);var O=2.5*k;if(l){var z=C.map((function(t){return re(t,l)}));C=z.some((function(t){return t.signedDistanceFromCamera<=0}))?[]:z.map((function(t){return t.point}))}var D=[];if(C.length>0){for(var R=C[0].clone(),F=C[0].clone(),B=1;B<C.length;B++)R.x=Math.min(R.x,C[B].x),R.y=Math.min(R.y,C[B].y),F.x=Math.max(F.x,C[B].x),F.y=Math.max(F.y,C[B].y);D=R.x>=A.x&&F.x<=M.x&&R.y>=A.y&&F.y<=M.y?[C]:F.x<A.x||R.x>M.x||F.y<A.y||R.y>M.y?[]:t.clipLine([C],A.x,A.y,M.x,M.y)}for(var N=0,j=D;N<j.length;N+=1){var U,V=j[N];S.reset(V,.25*k),U=S.length<=.5*k?1:Math.ceil(S.paddedLength/O)+1;for(var q=0;q<U;q++){var H=q/Math.max(U-1,1),G=S.lerp(H),Y=G.x+de,W=G.y+de;d.push(Y,W,k,0);var X=Y-k,Z=W-k,J=Y+k,K=W+k;if(T=T&&this.isOffscreen(X,Z,J,K),w=w||this.isInsideGrid(X,Z,J,K),!e&&this.grid.hitTestCircle(Y,W,k,f)&&(_=!0,!c))return{circles:[],offscreen:!1,collisionDetected:_}}}}return{circles:!c&&_||!w?[]:d,offscreen:T,collisionDetected:_}},ge.prototype.queryRenderedSymbols=function(e){if(0===e.length||0===this.grid.keysLength()&&0===this.ignoredGrid.keysLength())return{};for(var r=[],n=1/0,i=1/0,a=-1/0,o=-1/0,s=0,l=e;s<l.length;s+=1){var c=l[s],u=new t.Point(c.x+de,c.y+de);n=Math.min(n,u.x),i=Math.min(i,u.y),a=Math.max(a,u.x),o=Math.max(o,u.y),r.push(u)}for(var f={},h={},p=0,d=this.grid.query(n,i,a,o).concat(this.ignoredGrid.query(n,i,a,o));p<d.length;p+=1){var g=d[p],v=g.key;if(void 0===f[v.bucketInstanceId]&&(f[v.bucketInstanceId]={}),!f[v.bucketInstanceId][v.featureIndex]){var m=[new t.Point(g.x1,g.y1),new t.Point(g.x2,g.y1),new t.Point(g.x2,g.y2),new t.Point(g.x1,g.y2)];t.polygonIntersectsPolygon(r,m)&&(f[v.bucketInstanceId][v.featureIndex]=!0,void 0===h[v.bucketInstanceId]&&(h[v.bucketInstanceId]=[]),h[v.bucketInstanceId].push(v.featureIndex))}}return h},ge.prototype.insertCollisionBox=function(t,e,r,n,i){var a={bucketInstanceId:r,featureIndex:n,collisionGroupID:i};(e?this.ignoredGrid:this.grid).insert(a,t[0],t[1],t[2],t[3])},ge.prototype.insertCollisionCircles=function(t,e,r,n,i){for(var a=e?this.ignoredGrid:this.grid,o={bucketInstanceId:r,featureIndex:n,collisionGroupID:i},s=0;s<t.length;s+=4)a.insertCircle(o,t[s],t[s+1],t[s+2])},ge.prototype.projectAndGetPerspectiveRatio=function(e,r,n){var i=[r,n,0,1];return pe(i,i,e),{point:new t.Point((i[0]/i[3]+1)/2*this.transform.width+de,(-i[1]/i[3]+1)/2*this.transform.height+de),perspectiveRatio:.5+this.transform.cameraToCenterDistance/i[3]*.5}},ge.prototype.isOffscreen=function(t,e,r,n){return r<de||t>=this.screenRightBoundary||n<de||e>this.screenBottomBoundary},ge.prototype.isInsideGrid=function(t,e,r,n

){return
r>=0&&t<this.gridRightBoundary&&n>=0&&e<this.gridBottomBoundary},ge.prototype.getViewportMatrix=funct
ion(){var e=t.identity([]);return t.translate(e,e,[-100,-100,0]),e};var
me=function(t,e,r,n){this.opacity=t?Math.max(0,Math.min(1,t.opacity+(t.placed?e:-
e))):n&&r?1:0,this.placed=r};me.prototype.isHidden=function(){return 0===this.opacity&&!this.placed};var
ye=function(t,e,r,n,i){this.text=new me(t?t.text:null,e,r,i),this.icon=new
me(t?t.icon:null,e,n,i)};ye.prototype.isHidden=function(){return this.text.isHidden()&&this.icon.isHidden()};var
xe=function(t,e,r){this.text=t,this.icon=e,this.skipFade=r},be=function(){this.invProjMatrix=t.create(),this.viewport
Matrix=t.create(),this.circles=[]},_e=function(t,e,r,n,i){this.bucketInstanceId=t,this.featureIndex=e,this.sourceLayerI
ndex=r,this.bucketIndex=n,this.tileID=i},we=function(t){this.crossSourceCollisions=t,this.maxGroupID=0,this.colli
sionGroups={}};function Te(e,r,n,i,a){var o=t.getAnchorAlignment(e),s=-(o.horizontalAlign-.5)*r,l=-
(o.verticalAlign-.5)*n,c=t.evaluateVariableOffset(e,i);return new t.Point(s+c[0]*a,l+c[1]*a)}function
ke(e,r,n,i,a,o){var s=e.x1,l=e.x2,c=e.y1,u=e.y2,f=e.anchorPointX,h=e.anchorPointY,p=new t.Point(r,n);return
i&&p._rotate(a?o:-
o),{x1:s+p.x,y1:c+p.y,x2:l+p.x,y2:u+p.y,anchorPointX:f,anchorPointY:h}}we.prototype.get=function(t){if(this.cros
sSourceCollisions)return{ID:0,predicate:null};if(!this.collisionGroups[t]){var
e=++this.maxGroupID;this.collisionGroups[t]={ID:e,predicate:function(t){return t.collisionGroupID===e}}}return
this.collisionGroups[t]};var Ae=function(t,e,r,n){this.transform=t.clone(),this.collisionIndex=new
ge(this.transform),this.placements={},this.opacities={},this.variableOffsets={},this.stale=!1,this.commitTime=0,thi
s.fadeDuration=e,this.retainedQueryData={},this.collisionGroups=new
we(r),this.collisionCircleArrays={},this.prevPlacement=n,n&&(n.prevPlacement=void
0),this.placedOrientations={}};function
Me(t,e,r,n,i){t.emplaceBack(e?1:0,r?1:0,n||0,i||0),t.emplaceBack(e?1:0,r?1:0,n||0,i||0),t.emplaceBack(e?1:0,r?1:0,n||0,
i||0),t.emplaceBack(e?1:0,r?1:0,n||0,i||0)}Ae.prototype.getBucketParts=function(e,r,n,i){var
a=n.getBucket(r),o=n.latestFeatureIndex;if(a&&o&&r.id===a.layerIds[0]){var
s=n.collisionBoxArray,l=a.layers[0].layout,c=Math.pow(2,this.transform.zoom-
n.tileID.overscaledZ),u=n.tileSize/t.EXTENT,f=this.transform.calculatePosMatrix(n.tileID.toUnwrapped()),h="map
"===l.get("text-pitch-alignment"),p="map"===l.get("text-rotation-
alignment"),d=ve(n,1,this.transform.zoom),g=te(f,h,p,this.transform,d),v=null;if(h){var
m=ee(f,h,p,this.transform,d);v=t.multiply([],this.transform.labelPlaneMatrix,m)}this.retainedQueryData[a.bucketIns
tanceId]=new _e(a.bucketInstanceId,o,a.sourceLayerIndex,a.index,n.tileID);var
y={bucket:a,layout:l,posMatrix:f,textLabelPlaneMatrix:g,labelToScreenMatrix:v,scale:c,textPixelRatio:u,holdingFo
rFade:n.holdingForFade(),collisionBoxArray:s,partiallyEvaluatedTextSize:t.evaluateSizeForZoom(a.textSizeData,th
is.transform.zoom),collisionGroup:this.collisionGroups.get(a.sourceID)};if(i)for(var
x=0,b=a.sortKeyRanges;x<b.length;x+=1){var
_=b[x],w=_.sortKey,T=_.symbolInstanceStart,k=_.symbolInstanceEnd;e.push({sortKey:w,symbolInstanceStart:T,sy
mbolInstanceEnd:k,parameters:y})}else
e.push({symbolInstanceStart:0,symbolInstanceEnd:a.symbolInstances.length,parameters:y})}},Ae.prototype.attemp
tAnchorPlacement=function(t,e,r,n,i,a,o,s,l,c,u,f,h,p,d){var
g,v=[f.textOffset0,f.textOffset1],m=Te(t,r,n,v,i),y=this.collisionIndex.placeCollisionBox(ke(e,m.x,m.y,a,o,this.transf
orm.angle),u,s,l,c.predicate);if(!d||0!==this.collisionIndex.placeCollisionBox(ke(d,m.x,m.y,a,o,this.transform.angle),
u,s,l,c.predicate).box.length)return
y.box.length>0?(this.prevPlacement&&this.prevPlacement.variableOffsets[f.crossTileID]&&this.prevPlacement.pla
cements[f.crossTileID]&&this.prevPlacement.placements[f.crossTileID].text&&(g=this.prevPlacement.variableOffs
ets[f.crossTileID].anchor),this.variableOffsets[f.crossTileID]={textOffset:v,width:r,height:n,anchor:t,textBoxScale:i
,prevAnchor:g},this.markUsedJustification(h,t,f,p),h.allowVerticalPlacement&&(this.markUsedOrientation(h,p,f),th
is.placedOrientations[f.crossTileID]=p),{shift:m,placedGlyphBoxes:y}):void
0},Ae.prototype.placeLayerBucketPart=function(e,r,n){var

i=this,a=e.parameters,o=a.bucket,s=a.layout,l=a.posMatrix,c=a.textLabelPlaneMatrix,u=a.labelToScreenMatrix,f=a.textPixelRatio,h=a.holdingForFade,p=a.collisionBoxArray,d=a.partiallyEvaluatedTextSize,g=a.collisionGroup,v=s.get("text-optional"),m=s.get("icon-optional"),y=s.get("text-allow-overlap"),x=s.get("icon-allow-overlap"),b="map"===s.get("text-rotation-alignment"),_="map"===s.get("text-pitch-alignment"),w="none"!==s.get("icon-text-fit"),T="viewport-y"===s.get("symbol-z-order"),k=y&&(x||!o.hasIconData()||m),A=x&&(y||!o.hasTextData()||v);!o.collisionArrays&&p&&o.deserializeCollisionBoxes(p);var M=function(e,a){if(!r[e.crossTileID])if(h)i.placements[e.crossTileID]=new xe(!1,!1,!1);else{var p,T=!1,M=!1,S=!0,E=null,L={box:null,offscreen:null},C={box:null,offscreen:null},P=null,I=null,O=0,z=0,D=0;a.textFeatureIndex?O=a.textFeatureIndex:e.useRuntimeCollisionCircles&&(O=e.featureIndex),a.verticalTextFeatureIndex&&(z=a.verticalTextFeatureIndex);var R=a.textBox;if(R){var F=function(r){var n=t.WritingMode.horizontal;if(o.allowVerticalPlacement&&!r&&i.prevPlacement){var a=i.prevPlacement.placedOrientations[e.crossTileID];a&&(i.placedOrientations[e.crossTileID]=a,n=a,i.markUsedOrientation(o,n,e))}return n},B=function(r,n){if(o.allowVerticalPlacement&&e.numVerticalGlyphVertices>0&&a.verticalTextBox)for(var i=0,s=o.writingModes;i<s.length&&(s[i]===t.WritingMode.vertical?(L=n(),C=L):L=r(),!(L&&L.box&&L.box.length));i+=1);else L=r()};if(s.get("text-variable-anchor")){var N=s.get("text-variable-anchor");if(i.prevPlacement&&i.prevPlacement.variableOffsets[e.crossTileID]){var j=i.prevPlacement.variableOffsets[e.crossTileID];N.indexOf(j.anchor)>0&&(N=N.filter((function(t){return t!==j.anchor}))).unshift(j.anchor)}var U=function(t,r,n){for(var a=t.x2-t.x1,s=t.y2-t.y1,c=e.textBoxScale,u=w&&!x?r:null,h={box:[],offscreen:!1},p=y?2*N.length:N.length,d=0;d<p;++d){var v=N[d%N.length],m=d>=N.length,k=i.attemptAnchorPlacement(v,t,a,s,c,b,_,f,l,g,m,e,o,n,u);if(k&&(h=k.placedGlyphBoxes)&&h.box&&h.box.length){T=!0,E=k.shift;break}}return h};B((function(){return U(R,a.iconBox,t.WritingMode.horizontal)})),(function(){var r=a.verticalTextBox,n=L&&L.box&&L.box.length;return o.allowVerticalPlacement&&!n&&e.numVerticalGlyphVertices>0&&r?U(r,a.verticalIconBox,t.WritingMode.vertical):{box:null,offscreen:null}})),L&&(T=L.box,S=L.offscreen);var V=F(L&&L.box);if(!T&&i.prevPlacement){var q=i.prevPlacement.variableOffsets[e.crossTileID];q&&(i.variableOffsets[e.crossTileID]=q,i.markUsedJustification(o,q.anchor,e,V))}}else{var H=function(t,r){var n=i.collisionIndex.placeCollisionBox(t,y,f,l,g.predicate);return n&&n.box&&n.box.length&&(i.markUsedOrientation(o,r,e),i.placedOrientations[e.crossTileID]=r),n};B((function(){return H(R,t.WritingMode.horizontal)})),(function(){var r=a.verticalTextBox;return o.allowVerticalPlacement&&e.numVerticalGlyphVertices>0&&r?H(r,t.WritingMode.vertical):{box:null,offscreen:null}})),F(L&&L.box&&L.box.length)}}if(T=(p=L)&&p.box&&p.box.length>0,S=p&&p.offscreen,e.useRuntimeCollisionCircles){var G=o.text.placedSymbolArray.get(e.centerJustifiedTextSymbolIndex),Y=t.evaluateSizeForFeature(o.textSizeData,d,G),W=s.get("text-padding"),X=e.collisionCircleDiameter;P=i.collisionIndex.placeCollisionCircles(y,G,o.lineVertexArray,o.glyphOffsetArray,Y,l,c,u,n,_,g.predicate,X,W),T=y||P.circles.length>0&&!P.collisionDetected,S=S&&P.offscreen}if(a.iconFeatureIndex&&(D=a.iconFeatureIndex),a.iconBox){var Z=function(t){var e=w&&E?ke(t,E.x,E.y,b,_,i.transform.angle):t;return i.collisionIndex.placeCollisionBox(e,x,f,l,g.predicate)};M=C&&C.box&&C.box.length&&a.verticalIconBox?(I=Z(a.verticalIconBox)).box.length>0:(I=Z(a.iconBox)).box.length>0,S=S&&I.offscreen}var J=v||0===e.numHorizontalGlyphVertices&&0===e.numVerticalGlyphVertices,K=m||0===e.numIconVertices;if(J||K?K?J||(M=M&&T):T=M&&T:M=T=M&&T,T&&p&&p.box&&(C&&C.box&&z?i.collisionIndex.insertCollisionBox(p.box,s.get("text-ignore-placement"),o.bucketInstanceId,z,g.ID):i.collisionIndex.insertCollisionBox(p.box,s.get("text-ignore-placement"),o.bucketInstanceId,O,g.ID)),M&&I&&i.collisionIndex.insertCollisionBox(I.box,s.get("icon-ignore-placement"),o.bucketInstanceId,D,g.ID),P&&(T&&i.collisionIndex.insertCollisionCircles(P.circles,s.get("text-ignore-placement"),o.bucketInstanceId,O,g.ID),n)){var Q=o.bucketInstanceId,$=i.collisionCircleArrays[Q];void

0===$&&($=i.collisionCircleArrays[Q]=new be);for(var tt=0;tt<P.circles.length;tt+=4)$.circles.push(P.circles[tt+0]),$.circles.push(P.circles[tt+1]),$.circles.push(P.circles[tt+2]),$.circles.push(P.collisionDetected?1:0)}i.placements[e.crossTileID]=new xe(T||k,M||A,S||o.justReloaded),r[e.crossTileID]=!0}};if(T)for(var S=o.getSortedSymbolIndexes(this.transform.angle),E=S.length-1;E>=0;--E){var L=S[E];M(o.symbolInstances.get(L),o.collisionArrays[L])}else for(var C=e.symbolInstanceStart;C<e.symbolInstanceEnd;C++)M(o.symbolInstances.get(C),o.collisionArrays[C]);if(n&&o.bucketInstanceId in this.collisionCircleArrays){var P=this.collisionCircleArrays[o.bucketInstanceId];t.invert(P.invProjMatrix,l),P.viewportMatrix=this.collisionIndex.getViewportMatrix()}o.justReloaded=!1},Ae.prototype.markUsedJustification=function(e,r,n,i){var a,o={left:n.leftJustifiedTextSymbolIndex,center:n.centerJustifiedTextSymbolIndex,right:n.rightJustifiedTextSymbolIndex};a=i===t.WritingMode.vertical?n.verticalPlacedTextSymbolIndex:o[t.getAnchorJustification(r)];for(var s=0,l=[n.leftJustifiedTextSymbolIndex,n.centerJustifiedTextSymbolIndex,n.rightJustifiedTextSymbolIndex,n.verticalPlacedTextSymbolIndex];s<l.length;s+=1){var c=l[s];c>=0&&(e.text.placedSymbolArray.get(c).crossTileID=a>=0&&c!==a?0:n.crossTileID)}},Ae.prototype.markUsedOrientation=function(e,r,n){for(var i=r===t.WritingMode.horizontal||r===t.WritingMode.horizontalOnly?r:0,a=r===t.WritingMode.vertical?r:0,o=0,s=[n.leftJustifiedTextSymbolIndex,n.centerJustifiedTextSymbolIndex,n.rightJustifiedTextSymbolIndex];o<s.length;o+=1){var l=s[o];e.text.placedSymbolArray.get(l).placedOrientation=i}n.verticalPlacedTextSymbolIndex&&(e.text.placedSymbolArray.get(n.verticalPlacedTextSymbolIndex).placedOrientation=a)},Ae.prototype.commit=function(t){this.commitTime=t,this.zoomAtLastRecencyCheck=this.transform.zoom;var e=this.prevPlacement,r=!1;this.prevZoomAdjustment=e?e.zoomAdjustment(this.transform.zoom):0;var n=e?e.symbolFadeChange(t):1,i=e?e.opacities:{},a=e?e.variableOffsets:{},o=e?e.placedOrientations:{};for(var s in this.placements){var l=this.placements[s],c=i[s];c?(this.opacities[s]=new ye(c,n,l.text,l.icon),r=r||l.text!==c.text.placed||l.icon!==c.icon.placed):(this.opacities[s]=new ye(null,n,l.text,l.icon,l.skipFade),r=r||l.text||l.icon)}for(var u in i){var f=i[u];if(!this.opacities[u]){var h=new ye(f,n,!1,!1);h.isHidden()||(this.opacities[u]=h,r=r||f.text.placed||f.icon.placed)}}for(var p in a)this.variableOffsets[p]||!this.opacities[p]||this.opacities[p].isHidden()||(this.variableOffsets[p]=a[p]);for(var d in o)this.placedOrientations[d]||!this.opacities[d]||this.opacities[d].isHidden()||(this.placedOrientations[d]=o[d]);r?this.lastPlacementChangeTime=t:"number"!=typeof this.lastPlacementChangeTime&&(this.lastPlacementChangeTime=e?e.lastPlacementChangeTime:t)},Ae.prototype.updateLayerOpacities=function(t,e){for(var r={},n=0,i=e;n<i.length;n+=1){var a=i[n],o=a.getBucket(t);o&&a.latestFeatureIndex&&t.id===o.layerIds[0]&&this.updateBucketOpacities(o,r,a.collisionBoxArray)}},Ae.prototype.updateBucketOpacities=function(e,r,n){var i=this;e.hasTextData()&&e.text.opacityVertexArray.clear(),e.hasIconData()&&e.icon.opacityVertexArray.clear(),e.hasIconCollisionBoxData()&&e.iconCollisionBox.collisionVertexArray.clear(),e.hasTextCollisionBoxData()&&e.textCollisionBox.collisionVertexArray.clear();var a=e.layers[0].layout,o=new ye(null,0,!1,!1,!0),s=a.get("text-allow-overlap"),l=a.get("icon-allow-overlap"),c=a.get("text-variable-anchor"),u="map"===a.get("text-rotation-alignment"),f="map"===a.get("text-pitch-alignment"),h="none"!==a.get("icon-text-fit"),p=new ye(null,0,s&&(l||!e.hasIconData()||a.get("icon-optional")),l&&(s||!e.hasTextData()||a.get("text-optional")),!0);!e.collisionArrays&&n&&(e.hasIconCollisionBoxData()||e.hasTextCollisionBoxData())&&e.deserializeCollisionBoxes(n);for(var d=function(t,e,r){for(var n=0;n<e/4;n++)t.opacityVertexArray.emplaceBack(r)},g=function(n){var a=e.symbolInstances.get(n),s=a.numHorizontalGlyphVertices,l=a.numVerticalGlyphVertices,g=a.crossTileID,v=r[g],m=i.opacities[g];v?m=o:m||(m=p,i.opacities[g]=m),r[g]=!0;var y=s>0||l>0,x=a.numIconVertices>0,b=i.placedOrientations[a.crossTileID],_=b===t.WritingMode.vertical,w=b===t.WritingMode.horizontal||b===t.WritingMode.horizontalOnly;if(y){var T=ze(m.text),k=_?De:T;d(e.text,s,k);var

A=w?De:T;d(e.text,l,A);var
M=m.text.isHidden();[a.rightJustifiedTextSymbolIndex,a.centerJustifiedTextSymbolIndex,a.leftJustifiedTextSymbolIndex].forEach((function(t){t>=0&&(e.text.placedSymbolArray.get(t).hidden=M||_?1:0)})),a.verticalPlacedTextSymbolIndex>=0&&(e.text.placedSymbolArray.get(a.verticalPlacedTextSymbolIndex).hidden=M||w?1:0);var
S=i.variableOffsets[a.crossTileID];S&&i.markUsedJustification(e,S.anchor,a,b);var
E=i.placedOrientations[a.crossTileID];E&&(i.markUsedJustification(e,"left",a,E),i.markUsedOrientation(e,E,a))}if(x){var L=ze(m.icon),C=!(h&&a.verticalPlacedIconSymbolIndex&&_);if(a.placedIconSymbolIndex>=0){var
P=C?L:De;d(e.icon,a.numIconVertices,P),e.icon.placedSymbolArray.get(a.placedIconSymbolIndex).hidden=m.icon.isHidden()}if(a.verticalPlacedIconSymbolIndex>=0){var
I=C?De:L;d(e.icon,a.numVerticalIconVertices,I),e.icon.placedSymbolArray.get(a.verticalPlacedIconSymbolIndex).hidden=m.icon.isHidden()}}if(e.hasIconCollisionBoxData()||e.hasTextCollisionBoxData()){var
O=e.collisionArrays[n];if(O){var z=new t.Point(0,0);if(O.textBox||O.verticalTextBox){var D=!0;if(c){var
R=i.variableOffsets[g];R?(z=Te(R.anchor,R.width,R.height,R.textOffset,R.textBoxScale),u&&z._rotate(f?i.transform.angle:-
i.transform.angle)):D=!1}O.textBox&&Me(e.textCollisionBox.collisionVertexArray,m.text.placed,!D||_,z.x,z.y),O.verticalTextBox&&Me(e.textCollisionBox.collisionVertexArray,m.text.placed,!D||w,z.x,z.y)}var
F=Boolean(!w&&O.verticalIconBox);O.iconBox&&Me(e.iconCollisionBox.collisionVertexArray,m.icon.placed,F,h?z.x:0,h?z.y:0),O.verticalIconBox&&Me(e.iconCollisionBox.collisionVertexArray,m.icon.placed,!F,h?z.x:0,h?z.y:0)}}},v=0;v<e.symbolInstances.length;v++)g(v);if(e.sortFeatures(this.transform.angle),this.retainedQueryData[e.bucketInstanceId]&&(this.retainedQueryData[e.bucketInstanceId].featureSortOrder=e.featureSortOrder),e.hasTextData()&&e.text.opacityVertexBuffer&&e.text.opacityVertexBuffer.updateData(e.text.opacityVertexArray),e.hasIconData()&&e.icon.opacityVertexBuffer&&e.icon.opacityVertexBuffer.updateData(e.icon.opacityVertexArray),e.hasIconCollisionBoxData()&&e.iconCollisionBox.collisionVertexBuffer&&e.iconCollisionBox.collisionVertexBuffer.updateData(e.iconCollisionBox.collisionVertexArray),e.hasTextCollisionBoxData()&&e.textCollisionBox.collisionVertexBuffer&&e.textCollisionBox.collisionVertexBuffer.updateData(e.textCollisionBox.collisionVertexArray),e.bucketInstanceId in this.collisionCircleArrays){var
m=this.collisionCircleArrays[e.bucketInstanceId];e.placementInvProjMatrix=m.invProjMatrix,e.placementViewportMatrix=m.viewportMatrix,e.collisionCircleArray=m.circles,delete
this.collisionCircleArrays[e.bucketInstanceId]}},Ae.prototype.symbolFadeChange=function(t){return
0===this.fadeDuration?1:(t-
this.commitTime)/this.fadeDuration+this.prevZoomAdjustment},Ae.prototype.zoomAdjustment=function(t){return
Math.max(0,(this.transform.zoom-t)/1.5)},Ae.prototype.hasTransitions=function(t){return this.stale||t-
this.lastPlacementChangeTime<this.fadeDuration},Ae.prototype.stillRecent=function(t,e){var
r=this.zoomAtLastRecencyCheck===e?1-this.zoomAdjustment(e):1;return
this.zoomAtLastRecencyCheck=e,this.commitTime+this.fadeDuration*r>t},Ae.prototype.setStale=function(){this.stale=!0};var
Se=Math.pow(2,25),Ee=Math.pow(2,24),Le=Math.pow(2,17),Ce=Math.pow(2,16),Pe=Math.pow(2,9),Ie=Math.pow(2,8),Oe=Math.pow(2,1);function ze(t){if(0===t.opacity&&!t.placed)return 0;if(1===t.opacity&&t.placed)return
4294967295;var e=t.placed?1:0,r=Math.floor(127*t.opacity);return r*Se+e*Ee+r*Le+e*Ce+r*Pe+e*Ie+r*Oe+e}var
De=0,Re=function(t){this._sortAcrossTiles="viewport-y"!==t.layout.get("symbol-z-order")&&void
0!==t.layout.get("symbol-sort-
key").constantOr(1),this._currentTileIndex=0,this._currentPartIndex=0,this._seenCrossTileIDs={},this._bucketParts=[]};Re.prototype.continuePlacement=function(t,e,r,n,i){for(var
a=this._bucketParts;this._currentTileIndex<t.length;){var
o=t[this._currentTileIndex];if(e.getBucketParts(a,n,o,this._sortAcrossTiles),this._currentTileIndex++,i())return!0}for(this._sortAcrossTiles&&(this._sortAcrossTiles=!1,a.sort((function(t,e){return t.sortKey-
e.sortKey})));this._currentPartIndex<a.length;){var
s=a[this._currentPartIndex];if(e.placeLayerBucketPart(s,this._seenCrossTileIDs,r),this._currentPartIndex++,i())retur

n!0}return!1};var Fe=function(t,e,r,n,i,a,o){this.placement=new Ae(t,i,a,o),this._currentPlacementIndex=e.length-1,this._forceFullPlacement=r,this._showCollisionBoxes=n,this._done=!1};Fe.prototype.isDone=function(){return this._done},Fe.prototype.continuePlacement=function(e,r,n){for(var i=this,a=t.browser.now(),o=function(){var e=t.browser.now()-a;return!i._forceFullPlacement&&e>2};this._currentPlacementIndex>=0;){var s=r[e[this._currentPlacementIndex]],l=this.placement.collisionIndex.transform.zoom;if("symbol"===s.type&&(!s.minzoom||s.minzoom<=l)&&(!s.maxzoom||s.maxzoom>l)){if(this._inProgressLayer||(this._inProgressLayer=new Re(s)),this._inProgressLayer.continuePlacement(n[s.source],this.placement,this._showCollisionBoxes,s,o))return;delete this._inProgressLayer}this._currentPlacementIndex--}this._done=!0},Fe.prototype.commit=function(t){return this.placement.commit(t),this.placement};var Be=512/t.EXTENT/2,Ne=function(t,e,r){this.tileID=t,this.indexedSymbolInstances={},this.bucketInstanceId=r;for(var n=0;n<e.length;n++){var i=e.get(n),a=i.key;this.indexedSymbolInstances[a]||(this.indexedSymbolInstances[a]=[]),this.indexedSymbolInstances[a].push({crossTileID:i.crossTileID,coord:this.getScaledCoordinates(i,t)})}};Ne.prototype.getScaledCoordinates=function(e,r){var n=r.canonical.z-this.tileID.canonical.z,i=Be/Math.pow(2,n);return{x:Math.floor((r.canonical.x*t.EXTENT+e.anchorX)*i),y:Math.floor((r.canonical.y*t.EXTENT+e.anchorY)*i)}},Ne.prototype.findMatches=function(t,e,r){for(var n=this.tileID.canonical.z<e.canonical.z?1:Math.pow(2,this.tileID.canonical.z-e.canonical.z),i=0;i<t.length;i++){var a=t.get(i);if(!a.crossTileID){var o=this.indexedSymbolInstances[a.key];if(o)for(var s=this.getScaledCoordinates(a,e),l=0,c=o;l<c.length;l+=1){var u=c[l];if(Math.abs(u.coord.x-s.x)<=n&&Math.abs(u.coord.y-s.y)<=n&&!r[u.crossTileID]){r[u.crossTileID]=!0,a.crossTileID=u.crossTileID;break}}}}};var je=function(){this.maxCrossTileID=0};je.prototype.generate=function(){return++this.maxCrossTileID};var Ue=function(){this.indexes={},this.usedCrossTileIDs={},this.lng=0};Ue.prototype.handleWrapJump=function(t){var e=Math.round((t-this.lng)/360);if(0!==e)for(var r in this.indexes){var n=this.indexes[r],i={};for(var a in n){var o=n[a];o.tileID=o.tileID.unwrapTo(o.tileID.wrap+e),i[o.tileID.key]=o}this.indexes[r]=i}this.lng=t},Ue.prototype.addBucket=function(t,e,r){if(this.indexes[t.overscaledZ]&&this.indexes[t.overscaledZ][t.key]){if(this.indexes[t.overscaledZ][t.key].bucketInstanceId===e.bucketInstanceId)return!1;this.removeBucketCrossTileIDs(t.overscaledZ,this.indexes[t.overscaledZ][t.key])}for(var n=0;n<e.symbolInstances.length;n++)e.symbolInstances.get(n).crossTileID=0;this.usedCrossTileIDs[t.overscaledZ]||(this.usedCrossTileIDs[t.overscaledZ]={});var i=this.usedCrossTileIDs[t.overscaledZ];for(var a in this.indexes){var o=this.indexes[a];if(Number(a)>t.overscaledZ)for(var s in o){var l=o[s];l.tileID.isChildOf(t)&&l.findMatches(e.symbolInstances,t,i)}else{var c=o[t.scaledTo(Number(a)).key];c&&c.findMatches(e.symbolInstances,t,i)}}for(var u=0;u<e.symbolInstances.length;u++){var f=e.symbolInstances.get(u);f.crossTileID||(f.crossTileID=r.generate(),i[f.crossTileID]=!0)}return void 0===this.indexes[t.overscaledZ]&&(this.indexes[t.overscaledZ]={}),this.indexes[t.overscaledZ][t.key]=new Ne(t,e.symbolInstances,e.bucketInstanceId),!0},Ue.prototype.removeBucketCrossTileIDs=function(t,e){for(var r in e.indexedSymbolInstances)for(var n=0,i=e.indexedSymbolInstances[r];n<i.length;n+=1){var a=i[n];delete this.usedCrossTileIDs[t][a.crossTileID]}},Ue.prototype.removeStaleBuckets=function(t){var e=!1;for(var r in this.indexes){var n=this.indexes[r];for(var i in n)t[n[i].bucketInstanceId]||(this.removeBucketCrossTileIDs(r,n[i]),delete n[i],e=!0)}return e};var Ve=function(){this.layerIndexes={},this.crossTileIDs=new je,this.maxBucketInstanceId=0,this.bucketsInCurrentPlacement={}};Ve.prototype.addLayer=function(t,e,r){var n=this.layerIndexes[t.id];void 0===n&&(n=this.layerIndexes[t.id]=new Ue);var i=!1,a={};n.handleWrapJump(r);for(var o=0,s=e;o<s.length;o+=1){var l=s[o],c=l.getBucket(t);c&&t.id===c.layerIds[0]&&(c.bucketInstanceId||(c.bucketInstanceId=++this.maxBucketInstanceId),n.addBucket(l.tileID,c,this.crossTileIDs)&&(i=!0),a[c.bucketInstanceId]=!0)}return n.removeStaleBuckets(a)&&(i=!0),i},Ve.prototype.pruneUnusedLayers=function(t){var e={};for(var r in

t.forEach((function(t){e[t]=!0})),this.layerIndexes)e[r]||delete this.layerIndexes[r]};var qe=function(e,r){return t.emitValidationErrors(e,r&&r.filter((function(t){return"source.canvas"!==t.identifier})))},He=t.pick(qt,["addLayer","removeLayer","setPaintProperty","setLayoutProperty","setFilter","addSource","removeSource","setLayerZoomRange","setLight","setTransition","setGeoJSONSourceData"]),Ge=t.pick(qt,["setCenter","setZoom","setBearing","setPitch"]),Ye=function(){var e={},r=t.styleSpec.$version;for(var n in t.styleSpec.$root){var i,a=t.styleSpec.$root[n];if(a.required)null!=(i="version"===n?r:"array"===a.type?[]:{})&&(e[n]=i)}return e}(),We=function(e){function r(n,i){var a=this;void 0===i&&(i={}),e.call(this),this.map=n,this.dispatcher=new A(jt(),this),this.imageManager=new h,this.imageManager.setEventedParent(this),this.glyphManager=new x(n._requestManager,i.localIdeographFontFamily),this.lineAtlas=new k(256,512),this.crossTileSymbolIndex=new Ve,this._layers={},this._serializedLayers={},this._order=[],this.sourceCaches={},this.zoomHistory=new t.ZoomHistory,this._loaded=!1,this._availableImages=[],this._resetUpdates(),this.dispatcher.broadcast("setReferrer",t.getReferrer());var o=this;this._rtlTextPluginCallback=r.registerForPluginStateChange((function(e){var r={pluginStatus:e.pluginStatus,pluginURL:e.pluginURL};o.dispatcher.broadcast("syncRTLPluginState",r,(function(e,r){if(t.triggerPluginCompletionEvent(e),r&&r.every((function(t){return t})))for(var n in o.sourceCaches)o.sourceCaches[n].reload()}))})),this.on("data",(function(t){if("source"===t.dataType&&"metadata"===t.sourceDataType){var e=a.sourceCaches[t.sourceId];if(e){var r=e.getSource();if(r&&r.vectorLayerIds)for(var n in a._layers){var i=a._layers[n];i.source===r.id&&a._validateLayer(i)}}}}))}return e&&(r.__proto__=e),r.prototype=Object.create(e&&e.prototype),r.prototype.constructor=r,r.prototype.loadURL=function(e,r){var n=this;void 0===r&&(r={}),this.fire(new t.Event("dataloading",{dataType:"style"}));var i="boolean"==typeof r.validate?r.validate:!t.isMapboxURL(e);e=this.map._requestManager.normalizeStyleURL(e,r.accessToken);var a=this.map._requestManager.transformRequest(e,t.ResourceType.Style);this._request=t.getJSON(a,(function(e,r){n._request=null,e?n.fire(new t.ErrorEvent(e)):r&&n._load(r,i)}))},r.prototype.loadJSON=function(e,r){var n=this;void 0===r&&(r={}),this.fire(new t.Event("dataloading",{dataType:"style"})),this._request=t.browser.frame((function(){n._request=null,n._load(e,!1!==r.validate)}))},r.prototype.loadEmpty=function(){this.fire(new t.Event("dataloading",{dataType:"style"})),this._load(Ye,!1)},r.prototype._load=function(e,r){if(!r||!qe(this,t.validateStyle(e))){for(var n in this._loaded=!0,this.stylesheet=e,e.sources)this.addSource(n,e.sources[n],{validate:!1});e.sprite?this._loadSprite(e.sprite):this.imageManager.setLoaded(!0),this.glyphManager.setURL(e.glyphs);var i=Vt(this.stylesheet.layers);this._order=i.map((function(t){return t.id})),this._layers={},this._serializedLayers={};for(var a=0,o=i;a<o.length;a+=1){var s=o[a];(s=t.createStyleLayer(s)).setEventedParent(this,{layer:{id:s.id}}),this._layers[s.id]=s,this._serializedLayers[s.id]=s.serialize()}this.dispatcher.broadcast("setLayers",this._serializeLayers(this._order)),this.light=new T(this.stylesheet.light),this.fire(new t.Event("data",{dataType:"style"})),this.fire(new t.Event("style.load"))}},r.prototype._loadSprite=function(e){var r=this;this._spriteRequest=function(e,r,n){var i,a,o,s=t.browser.devicePixelRatio>1?"@2x":"",l=t.getJSON(r.transformRequest(r.normalizeSpriteURL(e,s,".json"),t.ResourceType.SpriteJSON),(function(t,e){l=null,o||(o=t,i=e,u())})),c=t.getImage(r.transformRequest(r.normalizeSpriteURL(e,s,".png"),t.ResourceType.SpriteImage),(function(t,e){c=null,o||(o=t,a=e,u())}));function u(){if(o)n(o);else if(i&&a){var e=t.browser.getImageData(a),r={};for(var s in i){var l=i[s],c=l.width,u=l.height,f=l.x,h=l.y,p=l.sdf,d=l.pixelRatio,g=l.stretchX,v=l.stretchY,m=l.content,y=new t.RGBAImage({width:c,height:u});t.RGBAImage.copy(e,y,{x:f,y:h},{x:0,y:0},{width:c,height:u}),r[s]={data:y,pixelRatio:d,sdf:p,stretchX:g,stretchY:v,content:m}}n(null,r)}}return{cancel:function(){l&&(l.cancel(),l=null),c&&(c.cancel(),c=null)}}}(e,this.map._requestManager,(function(e,n){if(r._spriteRequest=null,e)r.fire(new t.ErrorEvent(e));else if(n)for(var i in n)r.imageManager.addImage(i,n[i]);r.imageManager.setLoaded(!0),r._availableImages=r.imageManager.listImages(),r.dispatcher.broadcast("setImages",r._availableImages),r.fire(new t.Event("data",{dataType:"style"}))}))},r.prototype._validateLayer=function(e){var

r=this.sourceCaches[e.source];if(r){var n=e.sourceLayer;if(n){var
i=r.getSource();("geojson"===i.type||i.vectorLayerIds&&-1===i.vectorLayerIds.indexOf(n))&&this.fire(new
t.ErrorEvent(new Error('Source layer "'+n+'" does not exist on source "'+i.id+'" as specified by style layer
"'+e.id+'"')))}},r.prototype.loaded=function(){if(!this._loaded)return!1;if(Object.keys(this._updatedSources).length
)return!1;for(var t in
this.sourceCaches)if(!this.sourceCaches[t].loaded())return!1;return!!this.imageManager.isLoaded()},r.prototype._ser
ializeLayers=function(t){for(var e=[],r=0,n=t;r<n.length;r+=1){var
i=n[r],a=this._layers[i];"custom"!==a.type&&e.push(a.serialize())}return
e},r.prototype.hasTransitions=function(){if(this.light&&this.light.hasTransition())return!0;for(var t in
this.sourceCaches)if(this.sourceCaches[t].hasTransition())return!0;for(var e in
this._layers)if(this._layers[e].hasTransition())return!0;return!1},r.prototype._checkLoaded=function(){if(!this._load
ed)throw new Error("Style is not done loading")},r.prototype.update=function(e){if(this._loaded){var
r=this._changed;if(this._changed){var
n=Object.keys(this._updatedLayers),i=Object.keys(this._removedLayers);for(var a
in(n.length||i.length)&&this._updateWorkerLayers(n,i),this._updatedSources){var
o=this._updatedSources[a];"reload"===o?this._reloadSource(a):"clear"===o&&this._clearSource(a)}for(var s in
this._updateTilesForChangedImages(),this._updatedPaintProps)this._layers[s].updateTransitions(e);this.light.update
Transitions(e),this._resetUpdates()}for(var l in this.sourceCaches)this.sourceCaches[l].used=!1;for(var
c=0,u=this._order;c<u.length;c+=1){var
f=u[c],h=this._layers[f];h.recalculate(e,this._availableImages),!h.isHidden(e.zoom)&&h.source&&(this.sourceCach
es[h.source].used=!0)}this.light.recalculate(e),this.z=e.zoom,r&&this.fire(new
t.Event("data",{dataType:"style"}))}},r.prototype._updateTilesForChangedImages=function(){var
t=Object.keys(this._changedImages);if(t.length){for(var e in
this.sourceCaches)this.sourceCaches[e].reloadTilesForDependencies(["icons","patterns"],t);this._changedImages={
}}},r.prototype._updateWorkerLayers=function(t,e){this.dispatcher.broadcast("updateLayers",{layers:this._serialize
Layers(t),removedIds:e})},r.prototype._resetUpdates=function(){this._changed=!1,this._updatedLayers={},this._re
movedLayers={},this._updatedSources={},this._updatedPaintProps={},this._changedImages={}},r.prototype.setSta
te=function(e){var
r=this;if(this._checkLoaded(),qe(this,t.validateStyle(e)))return!1;(e=t.clone$1(e)).layers=Vt(e.layers);var
n=Kt(this.serialize(),e).filter((function(t){return!(t.command in Ge)}));if(0===n.length)return!1;var
i=n.filter((function(t){return!(t.command in He)}));if(i.length>0)throw new Error("Unimplemented:
"+i.map((function(t){return t.command})).join(", ")+".");return
n.forEach((function(t){"setTransition"!==t.command&&r[t.command].apply(r,t.args)})),this.stylesheet=e,!0},r.prot
otype.addImage=function(e,r){if(this.getImage(e))return this.fire(new t.ErrorEvent(new Error("An image with this
name already
exists.")));this.imageManager.addImage(e,r),this._availableImages=this.imageManager.listImages(),this._changedI
mages[e]=!0,this._changed=!0,this.fire(new
t.Event("data",{dataType:"style"}))},r.prototype.updateImage=function(t,e){this.imageManager.updateImage(t,e)},r
.prototype.getImage=function(t){return
this.imageManager.getImage(t)},r.prototype.removeImage=function(e){if(!this.getImage(e))return this.fire(new
t.ErrorEvent(new Error("No image with this name
exists.")));this.imageManager.removeImage(e),this._availableImages=this.imageManager.listImages(),this._changed
Images[e]=!0,this._changed=!0,this.fire(new
t.Event("data",{dataType:"style"}))},r.prototype.listImages=function(){return
this._checkLoaded(),this.imageManager.listImages()},r.prototype.addSource=function(e,r,n){var i=this;if(void
0===n&&(n={}),this._checkLoaded(),void 0!==this.sourceCaches[e])throw new Error("There is already a source
with this ID");if(!r.type)throw new Error("The type property must be defined, but the only the following properties
were given: "+Object.keys(r).join(",

")+".");if(!(["vector","raster","geojson","video","image"].indexOf(r.type)>=0&&this._validate(t.validateStyle.source,"sources."+e,r,null,n))){this.map&&this.map._collectResourceTiming&&(r.collectResourceTiming=!0);var a=this.sourceCaches[e]=new It(e,r,this.dispatcher);a.style=this,a.setEventedParent(this,(function(){return{isSourceLoaded:i.loaded(),source:a.serialize(),sourceId:e}})),a.onAdd(this.map),this._changed=!0},r.prototype.removeSource=function(e){if(this._checkLoaded(),void 0===this.sourceCaches[e])throw new Error("There is no source with this ID");for(var r in this._layers)if(this._layers[r].source===e)return this.fire(new t.ErrorEvent(new Error('Source "'+e+'" cannot be removed while layer "'+r+'" is using it.')));var n=this.sourceCaches[e];delete this.sourceCaches[e],delete this._updatedSources[e],n.fire(new t.Event("data",{sourceDataType:"metadata",dataType:"source",sourceId:e})),n.setEventedParent(null),n.clearTiles(),n.onRemove&&n.onRemove(this.map),this._changed=!0},r.prototype.setGeoJSONSourceData=function(t,e){this._checkLoaded(),this.sourceCaches[t].getSource().setData(e),this._changed=!0},r.prototype.getSource=function(t){return this.sourceCaches[t]&&this.sourceCaches[t].getSource()},r.prototype.addLayer=function(e,r,n){void 0===n&&(n={}),this._checkLoaded();var i=e.id;if(this.getLayer(i))this.fire(new t.ErrorEvent(new Error('Layer with id "'+i+'" already exists on this map')));else{var a;if("custom"===e.type){if(qe(this,t.validateCustomStyleLayer(e)))return;a=t.createStyleLayer(e)}else{if("object"==typeof e.source&&(this.addSource(i,e.source),e=t.clone$1(e),e=t.extend(e,{source:i})),this._validate(t.validateStyle.layer,"layers."+i,e,{arrayIndex:-1},n))return;a=t.createStyleLayer(e),this._validateLayer(a),a.setEventedParent(this,{layer:{id:i}}),this._serializedLayers[a.id]=a.serialize()}var o=r?this._order.indexOf(r):this._order.length;if(r&&-1===o)this.fire(new t.ErrorEvent(new Error('Layer with id "'+r+'" does not exist on this map.')));else{if(this._order.splice(o,0,i),this._layerOrderChanged=!0,this._layers[i]=a,this._removedLayers[i]&&a.source&&"custom"!==a.type){var s=this._removedLayers[i];delete this._removedLayers[i],s.type!==a.type?this._updatedSources[a.source]="clear":(this._updatedSources[a.source]="reload",this.sourceCaches[a.source].pause())}this._updateLayer(a),a.onAdd&&a.onAdd(this.map)}}},r.prototype.moveLayer=function(e,r){if(this._checkLoaded(),this._changed=!0,this._layers[e]){if(e!==r){var n=this._order.indexOf(e);this._order.splice(n,1);var i=r?this._order.indexOf(r):this._order.length;r&&-1===i?this.fire(new t.ErrorEvent(new Error('Layer with id "'+r+'" does not exist on this map.'))):(this._order.splice(i,0,e),this._layerOrderChanged=!0)}}else this.fire(new t.ErrorEvent(new Error("The layer '"+e+"' does not exist in the map's style and cannot be moved.")))},r.prototype.removeLayer=function(e){this._checkLoaded();var r=this._layers[e];if(r){r.setEventedParent(null);var n=this._order.indexOf(e);this._order.splice(n,1),this._layerOrderChanged=!0,this._changed=!0,this._removedLayers[e]=r,delete this._layers[e],delete this._serializedLayers[e],delete this._updatedLayers[e],delete this._updatedPaintProps[e],r.onRemove&&r.onRemove(this.map)}else this.fire(new t.ErrorEvent(new Error("The layer '"+e+"' does not exist in the map's style and cannot be removed.")))},r.prototype.getLayer=function(t){return this._layers[t]},r.prototype.hasLayer=function(t){return t in this._layers},r.prototype.setLayerZoomRange=function(e,r,n){this._checkLoaded();var i=this.getLayer(e);i?i.minzoom===r&&i.maxzoom===n||(null!=r&&(i.minzoom=r),null!=n&&(i.maxzoom=n),this._updateLayer(i)):this.fire(new t.ErrorEvent(new Error("The layer '"+e+"' does not exist in the map's style and cannot have zoom extent.")))},r.prototype.setFilter=function(e,r,n){void 0===n&&(n={}),this._checkLoaded();var i=this.getLayer(e);if(i){if(!t.deepEqual(i.filter,r))return null==r?(i.filter=void 0,void this._updateLayer(i)):void(this._validate(t.validateStyle.filter,"layers."+i.id+".filter",r,null,n)||(i.filter=t.clone$1(r),this._updateLayer(i)))}else this.fire(new t.ErrorEvent(new Error("The layer '"+e+"' does not exist in the map's style and cannot be filtered.")))},r.prototype.getFilter=function(e){return t.clone$1(this.getLayer(e).filter)},r.prototype.setLayoutProperty=function(e,r,n,i){void 0===i&&(i={}),this._checkLoaded();var

a=this.getLayer(e);a?t.deepEqual(a.getLayoutProperty(r),n)||(a.setLayoutProperty(r,n,i),this._updateLayer(a)):this.fire(new t.ErrorEvent(new Error("The layer '"+e+"' does not exist in the map's style and cannot be styled."))),r.prototype.getLayoutProperty=function(e,r){var n=this.getLayer(e);if(n)return n.getLayoutProperty(r);this.fire(new t.ErrorEvent(new Error("The layer '"+e+"' does not exist in the map's style."))),r.prototype.setPaintProperty=function(e,r,n,i){void 0===i&&(i={}),this._checkLoaded();var a=this.getLayer(e);a?t.deepEqual(a.getPaintProperty(r),n)||(a.setPaintProperty(r,n,i)&&this._updateLayer(a),this._changed=!0,this._updatedPaintProps[e]=!0):this.fire(new t.ErrorEvent(new Error("The layer '"+e+"' does not exist in the map's style and cannot be styled."))),r.prototype.getPaintProperty=function(t,e){return this.getLayer(t).getPaintProperty(e)},r.prototype.setFeatureState=function(e,r){this._checkLoaded();var n=e.source,i=e.sourceLayer,a=this.sourceCaches[n];if(void 0!==a){var o=a.getSource().type;"geojson"===o&&i?this.fire(new t.ErrorEvent(new Error("GeoJSON sources cannot have a sourceLayer parameter."))):"vector"!==o||i?(void 0===e.id&&this.fire(new t.ErrorEvent(new Error("The feature id parameter must be provided."))),a.setFeatureState(i,e.id,r)):this.fire(new t.ErrorEvent(new Error("The sourceLayer parameter must be provided for vector source types.")))}else this.fire(new t.ErrorEvent(new Error("The source '"+n+"' does not exist in the map's style."))),r.prototype.removeFeatureState=function(e,r){this._checkLoaded();var n=e.source,i=this.sourceCaches[n];if(void 0!==i){var a=i.getSource().type,o="vector"===a?e.sourceLayer:void 0;"vector"!==a||o?r&&"string"!=typeof e.id&&"number"!=typeof e.id?this.fire(new t.ErrorEvent(new Error("A feature id is requred to remove its specific state property."))):i.removeFeatureState(o,e.id,r):this.fire(new t.ErrorEvent(new Error("The sourceLayer parameter must be provided for vector source types.")))}else this.fire(new t.ErrorEvent(new Error("The source '"+n+"' does not exist in the map's style."))),r.prototype.getFeatureState=function(e){this._checkLoaded();var r=e.source,n=e.sourceLayer,i=this.sourceCaches[r];if(void 0!==i){if("vector"!==i.getSource().type||n)return void 0===e.id&&this.fire(new t.ErrorEvent(new Error("The feature id parameter must be provided."))),i.getFeatureState(n,e.id);this.fire(new t.ErrorEvent(new Error("The sourceLayer parameter must be provided for vector source types.")))}else this.fire(new t.ErrorEvent(new Error("The source '"+r+"' does not exist in the map's style."))),r.prototype.getTransition=function(){return t.extend({duration:300,delay:0},this.stylesheet&&this.stylesheet.transition)},r.prototype.serialize=function(){return t.filterObject({version:this.stylesheet.version,name:this.stylesheet.name,metadata:this.stylesheet.metadata,light:this.stylesheet.light,center:this.stylesheet.center,zoom:this.stylesheet.zoom,bearing:this.stylesheet.bearing,pitch:this.stylesheet.pitch,sprite:this.stylesheet.sprite,glyphs:this.stylesheet.glyphs,transition:this.stylesheet.transition,sources:t.mapObject(this.sourceCaches,(function(t){return t.serialize()})),layers:this._serializeLayers(this._order)},(function(t){return void 0!==t}))},r.prototype._updateLayer=function(t){this._updatedLayers[t.id]=!0,t.source&&!this._updatedSources[t.source]&&"raster"!==this.sourceCaches[t.source].getSource().type&&(this._updatedSources[t.source]="reload",this.sourceCaches[t.source].pause()),this._changed=!0},r.prototype._flattenAndSortRenderedFeatures=function(t){for(var e=this,r=function(t){return"fill-extrusion"===e._layers[t].type},n={},i=[],a=this._order.length-1;a>=0;a--){var o=this._order[a];if(r(o)){n[o]=a;for(var s=0,l=t;s<l.length;s+=1){var c=l[s][o];if(c)for(var u=0,f=c;u<f.length;u+=1){var h=f[u];i.push(h)}}}}i.sort((function(t,e){return e.intersectionZ-t.intersectionZ}));for(var p=[],d=this._order.length-1;d>=0;d--){var g=this._order[d];if(r(g))for(var v=i.length-1;v>=0;v--){var m=i[v].feature;if(n[m.layer.id]<d)break;p.push(m),i.pop()}else for(var y=0,x=t;y<x.length;y+=1){var b=x[y][g];if(b)for(var _=0,w=b;_<w.length;_+=1){var T=w[_];p.push(T.feature)}}}return p},r.prototype.queryRenderedFeatures=function(e,r,n){r&&r.filter&&this._validate(t.validateStyle.filter,"queryRenderedFeatures.filter",r.filter,null,r);var i={};if(r&&r.layers){if(!Array.isArray(r.layers))return this.fire(new t.ErrorEvent(new Error("parameters.layers must be an Array."))),[];for(var a=0,o=r.layers;a<o.length;a+=1){var s=o[a],l=this._layers[s];if(!l)return this.fire(new t.ErrorEvent(new Error("The layer '"+s+"' does not exist in the map's style and cannot be queried for features."))),[];i[l.source]=!0}}var c=[];for(var u in r.availableImages=this._availableImages,this.sourceCaches)r.layers&&!i[u]||c.push(B(this.sourceCaches[u],this._lay

ers,this._serializedLayers,e,r,n));return this.placement&&c.push(function(t,e,r,n,i,a,o){for(var s={},l=a.queryRenderedSymbols(n),c=[],u=0,f=Object.keys(l).map(Number);u<f.length;u+=1){var h=f[u];c.push(o[h])}c.sort(N);for(var p=function(){var r=g[d],n=r.featureIndex.lookupSymbolFeatures(l[r.bucketInstanceId],e,r.bucketIndex,r.sourceLayerIndex,i.filter,i.layers,i.availableImages,t);for(var a in n){var o=s[a]=s[a]||[],c=n[a];c.sort((function(t,e){var n=r.featureSortOrder;if(n){var i=n.indexOf(t.featureIndex);return n.indexOf(e.featureIndex)-i}return e.featureIndex-t.featureIndex}));for(var u=0,f=c;u<f.length;u+=1){var h=f[u];o.push(h)}}},d=0,g=c;d<g.length;d+=1)p();var v=function(e){s[e].forEach((function(n){var i=n.feature,a=t[e],o=r[a.source].getFeatureState(i.layer["source-layer"],i.id);i.source=i.layer.source,i.layer["source-layer"]&&(i.sourceLayer=i.layer["source-layer"]),i.state=o}))};for(var m in s)v(m);return s}(this._layers,this._serializedLayers,this.sourceCaches,e,r,this.placement.collisionIndex,this.placement.retainedQueryData)),this._flattenAndSortRenderedFeatures(c)},r.prototype.querySourceFeatures=function(e,r){r&&r.filter&&this._validate(t.validateStyle.filter,"querySourceFeatures.filter",r.filter,null,r);var n=this.sourceCaches[e];return n?function(t,e){for(var r=t.getRenderableIds().map((function(e){return t.getTileByID(e)})),n=[],i={},a=0;a<r.length;a++){var o=r[a],s=o.tileID.canonical.key;i[s]||(i[s]=!0,o.querySourceFeatures(n,e))}return n}(n,r):[]},r.prototype.addSourceType=function(t,e,n){return r.getSourceType(t)?n(new Error('A source type called "'+t+'" already exists.')):(r.setSourceType(t,e),e.workerSourceURL?void this.dispatcher.broadcast("loadWorkerSource",{name:t,url:e.workerSourceURL},n):n(null,null))},r.prototype.getLight=function(){return this.light.getLight()},r.prototype.setLight=function(e,r){void 0===r&&(r={}),this._checkLoaded();var n=this.light.getLight(),i=!1;for(var a in e)if(!t.deepEqual(e[a],n[a])){i=!0;break}if(i){var o={now:t.browser.now(),transition:t.extend({duration:300,delay:0},this.stylesheet.transition)};this.light.setLight(e,r),this.light.updateTransitions(o)}},r.prototype._validate=function(e,r,n,i,a){return void 0===a&&(a={}),(!a||!1!==a.validate)&&qe(this,e.call(t.validateStyle,t.extend({key:r,style:this.serialize(),value:n,styleSpec:t.styleSpec},i)))},r.prototype._remove=function(){for(var e in this._request&&(this._request.cancel(),this._request=null),this._spriteRequest&&(this._spriteRequest.cancel(),this._spriteRequest=null),t.evented.off("pluginStateChange",this._rtlTextPluginCallback),this._layers)this._layers[e].setEventedParent(null);for(var r in this.sourceCaches)this.sourceCaches[r].clearTiles(),this.sourceCaches[r].setEventedParent(null);this.imageManager.setEventedParent(null),this.setEventedParent(null),this.dispatcher.remove()},r.prototype._clearSource=function(t){this.sourceCaches[t].clearTiles()},r.prototype._reloadSource=function(t){this.sourceCaches[t].resume(),this.sourceCaches[t].reload()},r.prototype._updateSources=function(t){for(var e in this.sourceCaches)this.sourceCaches[e].update(t)},r.prototype._generateCollisionBoxes=function(){for(var t in this.sourceCaches)this._reloadSource(t)},r.prototype._updatePlacement=function(e,r,n,i,a){void 0===a&&(a=!1);for(var o=!1,s=!1,l={},c=0,u=this._order;c<u.length;c+=1){var f=u[c],h=this._layers[f];if("symbol"===h.type){if(!l[h.source]){var p=this.sourceCaches[h.source];l[h.source]=p.getRenderableIds(!0).map((function(t){return p.getTileByID(t)})).sort((function(t,e){return e.tileID.overscaledZ-t.tileID.overscaledZ||(t.tileID.isLessThan(e.tileID)?-1:1)}))}var d=this.crossTileSymbolIndex.addLayer(h,l[h.source],e.center.lng);o=o||d}}if(this.crossTileSymbolIndex.pruneUnusedLayers(this._order),((a=a||this._layerOrderChanged||0===n)||!this.pauseablePlacement||this.pauseablePlacement.isDone()&&!this.placement.stillRecent(t.browser.now(),e.zoom))&&(this.pauseablePlacement=new Fe(e,this._order,a,r,n,i,this.placement),this._layerOrderChanged=!1),this.pauseablePlacement.isDone()?this.placement.setStale():(this.pauseablePlacement.continuePlacement(this._order,this._layers,l),this.pauseablePlacement.isDone()&&(this.placement=this.pauseablePlacement.commit(t.browser.now()),s=!0),o&&this.pauseablePlacement.placement.setStale()),s||o)for(var g=0,v=this._order;g<v.length;g+=1){var m=v[g],y=this._layers[m];"symbol"===y.type&&this.placement.updateLayerOpacities(y,l[y.source])}return!this.pa

useablePlacement.isDone()||this.placement.hasTransitions(t.browser.now())},r.prototype._releaseSymbolFadeTiles=function(){for(var t in this.sourceCaches)this.sourceCaches[t].releaseSymbolFadeTiles()},r.prototype.getImages=function(t,e,r){this.imageManager.getImages(e.icons,r),this._updateTilesForChangedImages();var n=this.sourceCaches[e.source];n&&n.setDependencies(e.tileID.key,e.type,e.icons)},r.prototype.getGlyphs=function(t,e,r){this.glyphManager.getGlyphs(e.stacks,r)},r.prototype.getResource=function(e,r,n){return t.makeRequest(r,n)},r}(t.Evented);We.getSourceType=function(t){return R[t]},We.setSourceType=function(t,e){R[t]=e},We.registerForPluginStateChange=t.registerForPluginStateChange;var Xe=t.createLayout([{name:"a_pos",type:"Int16",components:2}]),Ze=_r("#ifdef GL_ES\nprecision mediump float;\n#else\n#if !defined(lowp)\n#define lowp\n#endif\n#if !defined(mediump)\n#define mediump\n#endif\n#if !defined(highp)\n#define highp\n#endif\n#endif","#ifdef GL_ES\nprecision highp float;\n#else\n#if !defined(lowp)\n#define lowp\n#endif\n#if !defined(mediump)\n#define mediump\n#endif\n#if !defined(highp)\n#define highp\n#endif\n#endif\nvec2 unpack_float(const float packedValue) {int packedIntValue=int(packedValue);int v0=packedIntValue/256;return vec2(v0,packedIntValue-v0*256);}vec2 unpack_opacity(const float packedOpacity) {int intOpacity=int(packedOpacity)/2;return vec2(float(intOpacity)/127.0,mod(packedOpacity,2.0));}vec4 decode_color(const vec2 encodedColor) {return vec4(unpack_float(encodedColor[0])/255.0,unpack_float(encodedColor[1])/255.0\n);}float unpack_mix_vec2(const vec2 packedValue,const float t) {return mix(packedValue[0],packedValue[1],t);}vec4 unpack_mix_color(const vec4 packedColors,const float t) {vec4 minColor=decode_color(vec2(packedColors[0],packedColors[1]));vec4 maxColor=decode_color(vec2(packedColors[2],packedColors[3]));return mix(minColor,maxColor,t);}vec2 get_pattern_pos(const vec2 pixel_coord_upper,const vec2 pixel_coord_lower,const vec2 pattern_size,const float tile_units_to_pixels,const vec2 pos) {vec2 offset=mod(mod(mod(pixel_coord_upper,pattern_size)*256.0,pattern_size)*256.0+pixel_coord_lower,pattern_size);return (tile_units_to_pixels*pos+offset)/pattern_size;}"),Je=_r("uniform vec4 u_color;uniform float u_opacity;void main() {gl_FragColor=u_color*u_opacity;\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","attribute vec2 a_pos;uniform mat4 u_matrix;void main() {gl_Position=u_matrix*vec4(a_pos,0,1);}"),Ke=_r("uniform vec2 u_pattern_tl_a;uniform vec2 u_pattern_br_a;uniform vec2 u_pattern_tl_b;uniform vec2 u_pattern_br_b;uniform vec2 u_texsize;uniform float u_mix;uniform float u_opacity;uniform sampler2D u_image;varying vec2 v_pos_a;varying vec2 v_pos_b;void main() {vec2 imagecoord=mod(v_pos_a,1.0);vec2 pos=mix(u_pattern_tl_a/u_texsize,u_pattern_br_a/u_texsize,imagecoord);vec4 color1=texture2D(u_image,pos);vec2 imagecoord_b=mod(v_pos_b,1.0);vec2 pos2=mix(u_pattern_tl_b/u_texsize,u_pattern_br_b/u_texsize,imagecoord_b);vec4 color2=texture2D(u_image,pos2);gl_FragColor=mix(color1,color2,u_mix)*u_opacity;\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","uniform mat4 u_matrix;uniform vec2 u_pattern_size_a;uniform vec2 u_pattern_size_b;uniform vec2 u_pixel_coord_upper;uniform vec2 u_pixel_coord_lower;uniform float u_scale_a;uniform float u_scale_b;uniform float u_tile_units_to_pixels;attribute vec2 a_pos;varying vec2 v_pos_a;varying vec2 v_pos_b;void main() {gl_Position=u_matrix*vec4(a_pos,0,1);v_pos_a=get_pattern_pos(u_pixel_coord_upper,u_pixel_coord_lower,u_scale_a*u_pattern_size_a,u_tile_units_to_pixels,a_pos);v_pos_b=get_pattern_pos(u_pixel_coord_upper,u_pixel_coord_lower,u_scale_b*u_pattern_size_b,u_tile_units_to_pixels,a_pos);}"),Qe=_r("varying vec3 v_data;\n#pragma mapbox: define highp vec4 color\n#pragma mapbox: define mediump float radius\n#pragma mapbox: define lowp float blur\n#pragma mapbox: define lowp float opacity\n#pragma mapbox: define highp vec4 stroke_color\n#pragma mapbox: define mediump float stroke_width\n#pragma mapbox: define lowp float stroke_opacity\nvoid main() {\n#pragma mapbox: initialize highp vec4 color\n#pragma mapbox: initialize mediump float radius\n#pragma mapbox: initialize lowp float blur\n#pragma mapbox: initialize lowp float opacity\n#pragma mapbox: initialize highp vec4 stroke_color\n#pragma mapbox: initialize mediump float stroke_width\n#pragma mapbox: initialize lowp float stroke_opacity\nvec2 extrude=v_data.xy;float extrude_length=length(extrude);lowp

float antialiasblur=v_data.z;float antialiased_blur=-max(blur,antialiasblur);float opacity_t=smoothstep(0.0,antialiased_blur,extrude_length-1.0);float color_t=stroke_width < 0.01 ? 0.0 : smoothstep(antialiased_blur,0.0,extrude_length-radius/(radius+stroke_width));gl_FragColor=opacity_t*mix(color*opacity,stroke_color*stroke_opacity,color_t);\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","uniform mat4 u_matrix;uniform bool u_scale_with_map;uniform bool u_pitch_with_map;uniform vec2 u_extrude_scale;uniform lowp float u_device_pixel_ratio;uniform highp float u_camera_to_center_distance;attribute vec2 a_pos;varying vec3 v_data;\n#pragma mapbox: define highp vec4 color\n#pragma mapbox: define mediump float radius\n#pragma mapbox: define lowp float blur\n#pragma mapbox: define lowp float opacity\n#pragma mapbox: define highp vec4 stroke_color\n#pragma mapbox: define mediump float stroke_width\n#pragma mapbox: define lowp float stroke_opacity\nvoid main(void) {\n#pragma mapbox: initialize highp vec4 color\n#pragma mapbox: initialize mediump float radius\n#pragma mapbox: initialize lowp float blur\n#pragma mapbox: initialize lowp float opacity\n#pragma mapbox: initialize highp vec4 stroke_color\n#pragma mapbox: initialize mediump float stroke_width\n#pragma mapbox: initialize lowp float stroke_opacity\nvec2 extrude=vec2(mod(a_pos,2.0)*2.0-1.0);vec2 circle_center=floor(a_pos*0.5);if (u_pitch_with_map) {vec2 corner_position=circle_center;if (u_scale_with_map) {corner_position+=extrude*(radius+stroke_width)*u_extrude_scale;} else {vec4 projected_center=u_matrix*vec4(circle_center,0,1);corner_position+=extrude*(radius+stroke_width)*u_extrude_scale*(projected_center.w/u_camera_to_center_distance);}gl_Position=u_matrix*vec4(corner_position,0,1);} else {gl_Position=u_matrix*vec4(circle_center,0,1);if (u_scale_with_map) {gl_Position.xy+=extrude*(radius+stroke_width)*u_extrude_scale*u_camera_to_center_distance;} else {gl_Position.xy+=extrude*(radius+stroke_width)*u_extrude_scale*gl_Position.w;}}lowp float antialiasblur=1.0/u_device_pixel_ratio/(radius+stroke_width);v_data=vec3(extrude.x,extrude.y,antialiasblur);}"),$e=_r("void main() {gl_FragColor=vec4(1.0);}","attribute vec2 a_pos;uniform mat4 u_matrix;void main() {gl_Position=u_matrix*vec4(a_pos,0,1);}"),tr=_r("uniform highp float u_intensity;varying vec2 v_extrude;\n#pragma mapbox: define highp float weight\n#define GAUSS_COEF 0.3989422804014327\nvoid main() {\n#pragma mapbox: initialize highp float weight\nfloat d=-0.5*3.0*3.0*dot(v_extrude,v_extrude);float val=weight*u_intensity*GAUSS_COEF*exp(d);gl_FragColor=vec4(val,1.0,1.0,1.0);\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","uniform mat4 u_matrix;uniform float u_extrude_scale;uniform float u_opacity;uniform float u_intensity;attribute vec2 a_pos;varying vec2 v_extrude;\n#pragma mapbox: define highp float weight\n#pragma mapbox: define mediump float radius\nconst highp float ZERO=1.0/255.0/16.0;\n#define GAUSS_COEF 0.3989422804014327\nvoid main(void) {\n#pragma mapbox: initialize highp float weight\n#pragma mapbox: initialize mediump float radius\nvec2 unscaled_extrude=vec2(mod(a_pos,2.0)*2.0-1.0);float S=sqrt(-2.0*log(ZERO/weight/u_intensity/GAUSS_COEF))/3.0;v_extrude=S*unscaled_extrude;vec2 extrude=v_extrude*radius*u_extrude_scale;vec4 pos=vec4(floor(a_pos*0.5)+extrude,0,1);gl_Position=u_matrix*pos;}"),er=_r("uniform sampler2D u_image;uniform sampler2D u_color_ramp;uniform float u_opacity;varying vec2 v_pos;void main() {float t=texture2D(u_image,v_pos).r;vec4 color=texture2D(u_color_ramp,vec2(t,0.5));gl_FragColor=color*u_opacity;\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(0.0);\n#endif\n}","uniform mat4 u_matrix;uniform vec2 u_world;attribute vec2 a_pos;varying vec2 v_pos;void main() {gl_Position=u_matrix*vec4(a_pos*u_world,0,1);v_pos.x=a_pos.x;v_pos.y=1.0-a_pos.y;}"),rr=_r("varying float v_placed;varying float v_notUsed;void main() {float alpha=0.5;gl_FragColor=vec4(1.0,0.0,0.0,1.0)*alpha;if (v_placed > 0.5) {gl_FragColor=vec4(0.0,0.0,1.0,0.5)*alpha;}if (v_notUsed > 0.5) {gl_FragColor*=.1;}}","attribute vec2 a_pos;attribute vec2 a_anchor_pos;attribute vec2 a_extrude;attribute vec2 a_placed;attribute vec2 a_shift;uniform mat4 u_matrix;uniform vec2 u_extrude_scale;uniform float u_camera_to_center_distance;varying float v_placed;varying float v_notUsed;void main() {vec4 projectedPoint=u_matrix*vec4(a_anchor_pos,0,1);highp float camera_to_anchor_distance=projectedPoint.w;highp float

collision_perspective_ratio=clamp(0.5+0.5*(u_camera_to_center_distance/camera_to_anchor_distance),0.0,4.0);gl_Position=u_matrix*vec4(a_pos,0.0,1.0);gl_Position.xy+=(a_extrude+a_shift)*u_extrude_scale*gl_Position.w*collision_perspective_ratio;v_placed=a_placed.x;v_notUsed=a_placed.y;}"),nr=_r("varying float v_radius;varying vec2 v_extrude;varying float v_perspective_ratio;varying float v_collision;void main() {float alpha=0.5*min(v_perspective_ratio,1.0);float stroke_radius=0.9*max(v_perspective_ratio,1.0);float distance_to_center=length(v_extrude);float distance_to_edge=abs(distance_to_center-v_radius);float opacity_t=smoothstep(-stroke_radius,0.0,-distance_to_edge);vec4 color=mix(vec4(0.0,0.0,1.0,0.5),vec4(1.0,0.0,0.0,1.0),v_collision);gl_FragColor=color*alpha*opacity_t;}","attribute vec2 a_pos;attribute float a_radius;attribute vec2 a_flags;uniform mat4 u_matrix;uniform mat4 u_inv_matrix;uniform vec2 u_viewport_size;uniform float u_camera_to_center_distance;varying float v_radius;varying vec2 v_extrude;varying float v_perspective_ratio;varying float v_collision;vec3 toTilePosition(vec2 screenPos) {vec4 rayStart=u_inv_matrix*vec4(screenPos,-1.0,1.0);vec4 rayEnd =u_inv_matrix*vec4(screenPos, 1.0,1.0);rayStart.xyz/=rayStart.w;rayEnd.xyz /=rayEnd.w;highp float t=(0.0-rayStart.z)/(rayEnd.z-rayStart.z);return mix(rayStart.xyz,rayEnd.xyz,t);}void main() {vec2 quadCenterPos=a_pos;float radius=a_radius;float collision=a_flags.x;float vertexIdx=a_flags.y;vec2 quadVertexOffset=vec2(mix(-1.0,1.0,float(vertexIdx >=2.0)),mix(-1.0,1.0,float(vertexIdx >=1.0 && vertexIdx <=2.0)));vec2 quadVertexExtent=quadVertexOffset*radius;vec3 tilePos=toTilePosition(quadCenterPos);vec4 clipPos=u_matrix*vec4(tilePos,1.0);highp float camera_to_anchor_distance=clipPos.w;highp float collision_perspective_ratio=clamp(0.5+0.5*(u_camera_to_center_distance/camera_to_anchor_distance),0.0,4.0);float padding_factor=1.2;v_radius=radius;v_extrude=quadVertexExtent*padding_factor;v_perspective_ratio=collision_perspective_ratio;v_collision=collision;gl_Position=vec4(clipPos.xyz/clipPos.w,1.0)+vec4(quadVertexExtent*padding_factor/u_viewport_size*2.0,0.0,0.0);}"),ir=_r("uniform highp vec4 u_color;uniform sampler2D u_overlay;varying vec2 v_uv;void main() {vec4 overlay_color=texture2D(u_overlay,v_uv);gl_FragColor=mix(u_color,overlay_color,overlay_color.a);}","attribute vec2 a_pos;varying vec2 v_uv;uniform mat4 u_matrix;uniform float u_overlay_scale;void main() {v_uv=a_pos/8192.0;gl_Position=u_matrix*vec4(a_pos*u_overlay_scale,0,1);}"),ar=_r("#pragma mapbox: define highp vec4 color\n#pragma mapbox: define lowp float opacity\nvoid main() {\n#pragma mapbox: initialize highp vec4 color\n#pragma mapbox: initialize lowp float opacity\ngl_FragColor=color*opacity;\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","attribute vec2 a_pos;uniform mat4 u_matrix;\n#pragma mapbox: define highp vec4 color\n#pragma mapbox: define lowp float opacity\nvoid main() {\n#pragma mapbox: initialize highp vec4 color\n#pragma mapbox: initialize lowp float opacity\ngl_Position=u_matrix*vec4(a_pos,0,1);}"),or=_r("varying vec2 v_pos;\n#pragma mapbox: define highp vec4 outline_color\n#pragma mapbox: define lowp float opacity\nvoid main() {\n#pragma mapbox: initialize highp vec4 outline_color\n#pragma mapbox: initialize lowp float opacity\nfloat dist=length(v_pos-gl_FragCoord.xy);float alpha=1.0-smoothstep(0.0,1.0,dist);gl_FragColor=outline_color*(alpha*opacity);\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","attribute vec2 a_pos;uniform mat4 u_matrix;uniform vec2 u_world;varying vec2 v_pos;\n#pragma mapbox: define highp vec4 outline_color\n#pragma mapbox: define lowp float opacity\nvoid main() {\n#pragma mapbox: initialize highp vec4 outline_color\n#pragma mapbox: initialize lowp float opacity\ngl_Position=u_matrix*vec4(a_pos,0,1);v_pos=(gl_Position.xy/gl_Position.w+1.0)/2.0*u_world;}"),sr=_r("uniform vec2 u_texsize;uniform sampler2D u_image;uniform float u_fade;varying vec2 v_pos_a;varying vec2 v_pos_b;varying vec2 v_pos;\n#pragma mapbox: define lowp float opacity\n#pragma mapbox: define lowp vec4 pattern_from\n#pragma mapbox: define lowp vec4 pattern_to\nvoid main() {\n#pragma mapbox: initialize lowp float opacity\n#pragma mapbox: initialize mediump vec4 pattern_from\n#pragma mapbox: initialize mediump vec4 pattern_to\nvec2 pattern_tl_a=pattern_from.xy;vec2 pattern_br_a=pattern_from.zw;vec2 pattern_tl_b=pattern_to.xy;vec2 pattern_br_b=pattern_to.zw;vec2 imagecoord=mod(v_pos_a,1.0);vec2 pos=mix(pattern_tl_a/u_texsize,pattern_br_a/u_texsize,imagecoord);vec4 color1=texture2D(u_image,pos);vec2

imagecoord_b=mod(v_pos_b,1.0);vec2 pos2=mix(pattern_tl_b/u_texsize,pattern_br_b/u_texsize,imagecoord_b);vec4 color2=texture2D(u_image,pos2);float dist=length(v_pos-gl_FragCoord.xy);float alpha=1.0-smoothstep(0.0,1.0,dist);gl_FragColor=mix(color1,color2,u_fade)*alpha*opacity;\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","uniform mat4 u_matrix;uniform vec2 u_world;uniform vec2 u_pixel_coord_upper;uniform vec2 u_pixel_coord_lower;uniform vec3 u_scale;attribute vec2 a_pos;varying vec2 v_pos_a;varying vec2 v_pos_b;varying vec2 v_pos;\n#pragma mapbox: define lowp float opacity\n#pragma mapbox: define lowp vec4 pattern_from\n#pragma mapbox: define lowp vec4 pattern_to\n#pragma mapbox: define lowp float pixel_ratio_from\n#pragma mapbox: define lowp float pixel_ratio_to\nvoid main() {\n#pragma mapbox: initialize lowp float opacity\n#pragma mapbox: initialize mediump vec4 pattern_from\n#pragma mapbox: initialize mediump vec4 pattern_to\n#pragma mapbox: initialize lowp float pixel_ratio_from\n#pragma mapbox: initialize lowp float pixel_ratio_to\nvec2 pattern_tl_a=pattern_from.xy;vec2 pattern_br_a=pattern_from.zw;vec2 pattern_tl_b=pattern_to.xy;vec2 pattern_br_b=pattern_to.zw;float tileRatio=u_scale.x;float fromScale=u_scale.y;float toScale=u_scale.z;gl_Position=u_matrix*vec4(a_pos,0,1);vec2 display_size_a=(pattern_br_a-pattern_tl_a)/pixel_ratio_from;vec2 display_size_b=(pattern_br_b-pattern_tl_b)/pixel_ratio_to;v_pos_a=get_pattern_pos(u_pixel_coord_upper,u_pixel_coord_lower,fromScale*display_size_a,tileRatio,a_pos);v_pos_b=get_pattern_pos(u_pixel_coord_upper,u_pixel_coord_lower,toScale*display_size_b,tileRatio,a_pos);v_pos=(gl_Position.xy/gl_Position.w+1.0)/2.0*u_world;}"),lr=_r("uniform vec2 u_texsize;uniform float u_fade;uniform sampler2D u_image;varying vec2 v_pos_a;varying vec2 v_pos_b;\n#pragma mapbox: define lowp float opacity\n#pragma mapbox: define lowp vec4 pattern_from\n#pragma mapbox: define lowp vec4 pattern_to\nvoid main() {\n#pragma mapbox: initialize lowp float opacity\n#pragma mapbox: initialize mediump vec4 pattern_from\n#pragma mapbox: initialize mediump vec4 pattern_to\nvec2 pattern_tl_a=pattern_from.xy;vec2 pattern_br_a=pattern_from.zw;vec2 pattern_tl_b=pattern_to.xy;vec2 pattern_br_b=pattern_to.zw;vec2 imagecoord=mod(v_pos_a,1.0);vec2 pos=mix(pattern_tl_a/u_texsize,pattern_br_a/u_texsize,imagecoord);vec4 color1=texture2D(u_image,pos);vec2 imagecoord_b=mod(v_pos_b,1.0);vec2 pos2=mix(pattern_tl_b/u_texsize,pattern_br_b/u_texsize,imagecoord_b);vec4 color2=texture2D(u_image,pos2);gl_FragColor=mix(color1,color2,u_fade)*opacity;\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","uniform mat4 u_matrix;uniform vec2 u_pixel_coord_upper;uniform vec2 u_pixel_coord_lower;uniform vec3 u_scale;attribute vec2 a_pos;varying vec2 v_pos_a;varying vec2 v_pos_b;\n#pragma mapbox: define lowp float opacity\n#pragma mapbox: define lowp vec4 pattern_from\n#pragma mapbox: define lowp vec4 pattern_to\n#pragma mapbox: define lowp float pixel_ratio_from\n#pragma mapbox: define lowp float pixel_ratio_to\nvoid main() {\n#pragma mapbox: initialize lowp float opacity\n#pragma mapbox: initialize mediump vec4 pattern_from\n#pragma mapbox: initialize mediump vec4 pattern_to\n#pragma mapbox: initialize lowp float pixel_ratio_from\n#pragma mapbox: initialize lowp float pixel_ratio_to\nvec2 pattern_tl_a=pattern_from.xy;vec2 pattern_br_a=pattern_from.zw;vec2 pattern_tl_b=pattern_to.xy;vec2 pattern_br_b=pattern_to.zw;float tileZoomRatio=u_scale.x;float fromScale=u_scale.y;float toScale=u_scale.z;vec2 display_size_a=(pattern_br_a-pattern_tl_a)/pixel_ratio_from;vec2 display_size_b=(pattern_br_b-pattern_tl_b)/pixel_ratio_to;gl_Position=u_matrix*vec4(a_pos,0,1);v_pos_a=get_pattern_pos(u_pixel_coord_upper,u_pixel_coord_lower,fromScale*display_size_a,tileZoomRatio,a_pos);v_pos_b=get_pattern_pos(u_pixel_coord_upper,u_pixel_coord_lower,toScale*display_size_b,tileZoomRatio,a_pos);}"),cr=_r("varying vec4 v_color;void main() {gl_FragColor=v_color;\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","uniform mat4 u_matrix;uniform vec3 u_lightcolor;uniform lowp vec3 u_lightpos;uniform lowp float u_lightintensity;uniform float u_vertical_gradient;uniform lowp float u_opacity;attribute vec2 a_pos;attribute vec4 a_normal_ed;varying vec4 v_color;\n#pragma mapbox: define highp float base\n#pragma mapbox: define highp float height\n#pragma

mapbox: define highp vec4 color\nvoid main() {\n#pragma mapbox: initialize highp float base\n#pragma mapbox: initialize highp float height\n#pragma mapbox: initialize highp vec4 color\nvec3 normal=a_normal_ed.xyz;base=max(0.0,base);height=max(0.0,height);float t=mod(normal.x,2.0);gl_Position=u_matrix*vec4(a_pos,t > 0.0 ? height : base,1);float colorvalue=color.r*0.2126+color.g*0.7152+color.b*0.0722;v_color=vec4(0.0,0.0,0.0,1.0);vec4 ambientlight=vec4(0.03,0.03,0.03,1.0);color+=ambientlight;float directional=clamp(dot(normal/16384.0,u_lightpos),0.0,1.0);directional=mix((1.0-u_lightintensity),max((1.0-colorvalue+u_lightintensity),1.0),directional);if (normal.y !=0.0) {directional*=((1.0-u_vertical_gradient)+(u_vertical_gradient*clamp((t+base)*pow(height/150.0,0.5),mix(0.7,0.98,1.0-u_lightintensity),1.0)));}v_color.r+=clamp(color.r*directional*u_lightcolor.r,mix(0.0,0.3,1.0-u_lightcolor.r),1.0);v_color.g+=clamp(color.g*directional*u_lightcolor.g,mix(0.0,0.3,1.0-u_lightcolor.g),1.0);v_color.b+=clamp(color.b*directional*u_lightcolor.b,mix(0.0,0.3,1.0-u_lightcolor.b),1.0);v_color*=u_opacity;}"),ur=_r("uniform vec2 u_texsize;uniform float u_fade;uniform sampler2D u_image;varying vec2 v_pos_a;varying vec2 v_pos_b;varying vec4 v_lighting;\n#pragma mapbox: define lowp float base\n#pragma mapbox: define lowp float height\n#pragma mapbox: define lowp vec4 pattern_from\n#pragma mapbox: define lowp vec4 pattern_to\n#pragma mapbox: define lowp float pixel_ratio_from\n#pragma mapbox: define lowp float pixel_ratio_to\nvoid main() {\n#pragma mapbox: initialize lowp float base\n#pragma mapbox: initialize lowp float height\n#pragma mapbox: initialize mediump vec4 pattern_from\n#pragma mapbox: initialize mediump vec4 pattern_to\n#pragma mapbox: initialize lowp float pixel_ratio_from\n#pragma mapbox: initialize lowp float pixel_ratio_to\nvec2 pattern_tl_a=pattern_from.xy;vec2 pattern_br_a=pattern_from.zw;vec2 pattern_tl_b=pattern_to.xy;vec2 pattern_br_b=pattern_to.zw;vec2 imagecoord=mod(v_pos_a,1.0);vec2 pos=mix(pattern_tl_a/u_texsize,pattern_br_a/u_texsize,imagecoord);vec4 color1=texture2D(u_image,pos);vec2 imagecoord_b=mod(v_pos_b,1.0);vec2 pos2=mix(pattern_tl_b/u_texsize,pattern_br_b/u_texsize,imagecoord_b);vec4 color2=texture2D(u_image,pos2);vec4 mixedColor=mix(color1,color2,u_fade);gl_FragColor=mixedColor*v_lighting;\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","uniform mat4 u_matrix;uniform vec2 u_pixel_coord_upper;uniform vec2 u_pixel_coord_lower;uniform float u_height_factor;uniform vec3 u_scale;uniform float u_vertical_gradient;uniform lowp float u_opacity;uniform vec3 u_lightcolor;uniform lowp vec3 u_lightpos;uniform lowp float u_lightintensity;attribute vec2 a_pos;attribute vec4 a_normal_ed;varying vec2 v_pos_a;varying vec2 v_pos_b;varying vec4 v_lighting;\n#pragma mapbox: define lowp float base\n#pragma mapbox: define lowp float height\n#pragma mapbox: define lowp vec4 pattern_from\n#pragma mapbox: define lowp vec4 pattern_to\n#pragma mapbox: define lowp float pixel_ratio_from\n#pragma mapbox: define lowp float pixel_ratio_to\nvoid main() {\n#pragma mapbox: initialize lowp float base\n#pragma mapbox: initialize lowp float height\n#pragma mapbox: initialize mediump vec4 pattern_from\n#pragma mapbox: initialize mediump vec4 pattern_to\n#pragma mapbox: initialize lowp float pixel_ratio_from\n#pragma mapbox: initialize lowp float pixel_ratio_to\nvec2 pattern_tl_a=pattern_from.xy;vec2 pattern_br_a=pattern_from.zw;vec2 pattern_tl_b=pattern_to.xy;vec2 pattern_br_b=pattern_to.zw;float tileRatio=u_scale.x;float fromScale=u_scale.y;float toScale=u_scale.z;vec3 normal=a_normal_ed.xyz;float edgedistance=a_normal_ed.w;vec2 display_size_a=(pattern_br_a-pattern_tl_a)/pixel_ratio_from;vec2 display_size_b=(pattern_br_b-pattern_tl_b)/pixel_ratio_to;base=max(0.0,base);height=max(0.0,height);float t=mod(normal.x,2.0);float z=t > 0.0 ? height : base;gl_Position=u_matrix*vec4(a_pos,z,1);vec2 pos=normal.x==1.0 && normal.y==0.0 && normal.z==16384.0\n? a_pos\n: vec2(edgedistance,z*u_height_factor);v_pos_a=get_pattern_pos(u_pixel_coord_upper,u_pixel_coord_lower,fromScale*display_size_a,tileRatio,pos);v_pos_b=get_pattern_pos(u_pixel_coord_upper,u_pixel_coord_lower,toScale*display_size_b,tileRatio,pos);v_lighting=vec4(0.0,0.0,0.0,1.0);float directional=clamp(dot(normal/16383.0,u_lightpos),0.0,1.0);directional=mix((1.0-u_lightintensity),max((0.5+u_lightintensity),1.0),directional);if (normal.y !=0.0) {directional*=((1.0-

u_vertical_gradient)+(u_vertical_gradient*clamp((t+base)*pow(height/150.0,0.5),mix(0.7,0.98,1.0-u_lightintensity),1.0)));}v_lighting.rgb+=clamp(directional*u_lightcolor,mix(vec3(0.0),vec3(0.3),1.0-u_lightcolor),vec3(1.0));v_lighting*=u_opacity;}"),fr=_r("#ifdef GL_ES\nprecision highp float;\n#endif\nuniform sampler2D u_image;varying vec2 v_pos;uniform vec2 u_dimension;uniform float u_zoom;uniform float u_maxzoom;uniform vec4 u_unpack;float getElevation(vec2 coord,float bias) {vec4 data=texture2D(u_image,coord)*255.0;data.a=-1.0;return dot(data,u_unpack)/4.0;}void main() {vec2 epsilon=1.0/u_dimension;float a=getElevation(v_pos+vec2(-epsilon.x,-epsilon.y),0.0);float b=getElevation(v_pos+vec2(0,-epsilon.y),0.0);float c=getElevation(v_pos+vec2(epsilon.x,-epsilon.y),0.0);float d=getElevation(v_pos+vec2(-epsilon.x,0),0.0);float e=getElevation(v_pos,0.0);float f=getElevation(v_pos+vec2(epsilon.x,0),0.0);float g=getElevation(v_pos+vec2(-epsilon.x,epsilon.y),0.0);float h=getElevation(v_pos+vec2(0,epsilon.y),0.0);float i=getElevation(v_pos+vec2(epsilon.x,epsilon.y),0.0);float exaggeration=u_zoom < 2.0 ? 0.4 : u_zoom < 4.5 ? 0.35 : 0.3;vec2 deriv=vec2((c+f+f+i)-(a+d+d+g),(g+h+h+i)-(a+b+b+c))/ pow(2.0,(u_zoom-u_maxzoom)*exaggeration+19.2562-u_zoom);gl_FragColor=clamp(vec4(deriv.x/2.0+0.5,deriv.y/2.0+0.5,1.0,1.0),0.0,1.0);\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","uniform mat4 u_matrix;uniform vec2 u_dimension;attribute vec2 a_pos;attribute vec2 a_texture_pos;varying vec2 v_pos;void main() {gl_Position=u_matrix*vec4(a_pos,0,1);highp vec2 epsilon=1.0/u_dimension;float scale=(u_dimension.x-2.0)/u_dimension.x;v_pos=(a_texture_pos/8192.0)*scale+epsilon;}"),hr=_r("uniform sampler2D u_image;varying vec2 v_pos;uniform vec2 u_latrange;uniform vec2 u_light;uniform vec4 u_shadow;uniform vec4 u_highlight;uniform vec4 u_accent;\n#define PI 3.141592653589793\nvoid main() {vec4 pixel=texture2D(u_image,v_pos);vec2 deriv=((pixel.rg*2.0)-1.0);float scaleFactor=cos(radians((u_latrange[0]-u_latrange[1])*(1.0-v_pos.y)+u_latrange[1]));float slope=atan(1.25*length(deriv)/scaleFactor);float aspect=deriv.x !=0.0 ? atan(deriv.y,-deriv.x) : PI/2.0*(deriv.y > 0.0 ? 1.0 :-1.0);float intensity=u_light.x;float azimuth=u_light.y+PI;float base=1.875-intensity*1.75;float maxValue=0.5*PI;float scaledSlope=intensity !=0.5 ? ((pow(base,slope)-1.0)/(pow(base,maxValue)-1.0))*maxValue : slope;float accent=cos(scaledSlope);vec4 accent_color=(1.0-accent)*u_accent*clamp(intensity*2.0,0.0,1.0);float shade=abs(mod((aspect+azimuth)/PI+0.5,2.0)-1.0);vec4 shade_color=mix(u_shadow,u_highlight,shade)*sin(scaledSlope)*clamp(intensity*2.0,0.0,1.0);gl_FragColor=accent_color*(1.0-shade_color.a)+shade_color;\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","uniform mat4 u_matrix;attribute vec2 a_pos;attribute vec2 a_texture_pos;varying vec2 v_pos;void main() {gl_Position=u_matrix*vec4(a_pos,0,1);v_pos=a_texture_pos/8192.0;}"),pr=_r("uniform lowp float u_device_pixel_ratio;varying vec2 v_width2;varying vec2 v_normal;varying float v_gamma_scale;\n#pragma mapbox: define highp vec4 color\n#pragma mapbox: define lowp float blur\n#pragma mapbox: define lowp float opacity\nvoid main() {\n#pragma mapbox: initialize highp vec4 color\n#pragma mapbox: initialize lowp float blur\n#pragma mapbox: initialize lowp float opacity\nfloat dist=length(v_normal)*v_width2.s;float blur2=(blur+1.0/u_device_pixel_ratio)*v_gamma_scale;float alpha=clamp(min(dist-(v_width2.t-blur2),v_width2.s-dist)/blur2,0.0,1.0);gl_FragColor=color*(alpha*opacity);\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","\n#define scale 0.015873016\nattribute vec2 a_pos_normal;attribute vec4 a_data;uniform mat4 u_matrix;uniform mediump float u_ratio;uniform vec2 u_units_to_pixels;uniform lowp float u_device_pixel_ratio;varying vec2 v_normal;varying vec2 v_width2;varying float v_gamma_scale;varying highp float v_linesofar;\n#pragma mapbox: define highp vec4 color\n#pragma mapbox: define lowp float blur\n#pragma mapbox: define lowp float opacity\n#pragma mapbox: define mediump float gapwidth\n#pragma mapbox: define lowp float offset\n#pragma mapbox: define mediump float width\nvoid main() {\n#pragma mapbox: initialize highp vec4 color\n#pragma mapbox: initialize lowp float blur\n#pragma mapbox: initialize lowp float opacity\n#pragma mapbox: initialize mediump float gapwidth\n#pragma mapbox: initialize lowp float offset\n#pragma mapbox: initialize mediump float width\nfloat ANTIALIASING=1.0/u_device_pixel_ratio/2.0;vec2 a_extrude=a_data.xy-128.0;float

a_direction=mod(a_data.z,4.0)-1.0;v_linesofar=(floor(a_data.z/4.0)+a_data.w*64.0)*2.0;vec2 pos=floor(a_pos_normal*0.5);mediump vec2 normal=a_pos_normal-2.0*pos;normal.y=normal.y*2.0-1.0;v_normal=normal;gapwidth=gapwidth/2.0;float halfwidth=width/2.0;offset=-1.0*offset;float inset=gapwidth+(gapwidth > 0.0 ? ANTIALIASING : 0.0);float outset=gapwidth+halfwidth*(gapwidth > 0.0 ? 2.0 : 1.0)+(halfwidth==0.0 ? 0.0 : ANTIALIASING);mediump vec2 dist=outset*a_extrude*scale;mediump float u=0.5*a_direction;mediump float t=1.0-abs(u);mediump vec2 offset2=offset*a_extrude*scale*normal.y*mat2(t,-u,u,t);vec4 projected_extrude=u_matrix*vec4(dist/u_ratio,0.0,0.0);gl_Position=u_matrix*vec4(pos+offset2/u_ratio,0.0,1.0)+projected_extrude;float extrude_length_without_perspective=length(dist);float extrude_length_with_perspective=length(projected_extrude.xy/gl_Position.w*u_units_to_pixels);v_gamma_scale=extrude_length_without_perspective/extrude_length_with_perspective;v_width2=vec2(outset,inset);}"),dr=_r("uniform lowp float u_device_pixel_ratio;uniform sampler2D u_image;varying vec2 v_width2;varying vec2 v_normal;varying float v_gamma_scale;varying highp float v_lineprogress;\n#pragma mapbox: define lowp float blur\n#pragma mapbox: define lowp float opacity\nvoid main() {\n#pragma mapbox: initialize lowp float blur\n#pragma mapbox: initialize lowp float opacity\nfloat dist=length(v_normal)*v_width2.s;float blur2=(blur+1.0/u_device_pixel_ratio)*v_gamma_scale;float alpha=clamp(min(dist-(v_width2.t-blur2),v_width2.s-dist)/blur2,0.0,1.0);vec4 color=texture2D(u_image,vec2(v_lineprogress,0.5));gl_FragColor=color*(alpha*opacity);\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","\n#define MAX_LINE_DISTANCE 32767.0\n#define scale 0.015873016\nattribute vec2 a_pos_normal;attribute vec4 a_data;uniform mat4 u_matrix;uniform mediump float u_ratio;uniform lowp float u_device_pixel_ratio;uniform vec2 u_units_to_pixels;varying vec2 v_normal;varying vec2 v_width2;varying float v_gamma_scale;varying highp float v_lineprogress;\n#pragma mapbox: define lowp float blur\n#pragma mapbox: define lowp float opacity\n#pragma mapbox: define mediump float gapwidth\n#pragma mapbox: define lowp float offset\n#pragma mapbox: define mediump float width\nvoid main() {\n#pragma mapbox: initialize lowp float blur\n#pragma mapbox: initialize lowp float opacity\n#pragma mapbox: initialize mediump float gapwidth\n#pragma mapbox: initialize lowp float offset\n#pragma mapbox: initialize mediump float width\nfloat ANTIALIASING=1.0/u_device_pixel_ratio/2.0;vec2 a_extrude=a_data.xy-128.0;float a_direction=mod(a_data.z,4.0)-1.0;v_lineprogress=(floor(a_data.z/4.0)+a_data.w*64.0)*2.0/MAX_LINE_DISTANCE;vec2 pos=floor(a_pos_normal*0.5);mediump vec2 normal=a_pos_normal-2.0*pos;normal.y=normal.y*2.0-1.0;v_normal=normal;gapwidth=gapwidth/2.0;float halfwidth=width/2.0;offset=-1.0*offset;float inset=gapwidth+(gapwidth > 0.0 ? ANTIALIASING : 0.0);float outset=gapwidth+halfwidth*(gapwidth > 0.0 ? 2.0 : 1.0)+(halfwidth==0.0 ? 0.0 : ANTIALIASING);mediump vec2 dist=outset*a_extrude*scale;mediump float u=0.5*a_direction;mediump float t=1.0-abs(u);mediump vec2 offset2=offset*a_extrude*scale*normal.y*mat2(t,-u,u,t);vec4 projected_extrude=u_matrix*vec4(dist/u_ratio,0.0,0.0);gl_Position=u_matrix*vec4(pos+offset2/u_ratio,0.0,1.0)+projected_extrude;float extrude_length_without_perspective=length(dist);float extrude_length_with_perspective=length(projected_extrude.xy/gl_Position.w*u_units_to_pixels);v_gamma_scale=extrude_length_without_perspective/extrude_length_with_perspective;v_width2=vec2(outset,inset);}"),gr=_r("uniform lowp float u_device_pixel_ratio;uniform vec2 u_texsize;uniform float u_fade;uniform mediump vec3 u_scale;uniform sampler2D u_image;varying vec2 v_normal;varying vec2 v_width2;varying float v_linesofar;varying float v_gamma_scale;varying float v_width;\n#pragma mapbox: define lowp vec4 pattern_from\n#pragma mapbox: define lowp vec4 pattern_to\n#pragma mapbox: define lowp float pixel_ratio_from\n#pragma mapbox: define lowp float pixel_ratio_to\n#pragma mapbox: define lowp float blur\n#pragma mapbox: define lowp float opacity\nvoid main() {\n#pragma mapbox: initialize mediump vec4 pattern_from\n#pragma mapbox: initialize mediump vec4 pattern_to\n#pragma mapbox: initialize lowp float pixel_ratio_from\n#pragma mapbox: initialize lowp float pixel_ratio_to\n#pragma mapbox: initialize lowp float

blur\n#pragma mapbox: initialize lowp float opacity\nvec2 pattern_tl_a=pattern_from.xy;vec2 pattern_br_a=pattern_from.zw;vec2 pattern_tl_b=pattern_to.xy;vec2 pattern_br_b=pattern_to.zw;float tileZoomRatio=u_scale.x;float fromScale=u_scale.y;float toScale=u_scale.z;vec2 display_size_a=(pattern_br_a-pattern_tl_a)/pixel_ratio_from;vec2 display_size_b=(pattern_br_b-pattern_tl_b)/pixel_ratio_to;vec2 pattern_size_a=vec2(display_size_a.x*fromScale/tileZoomRatio,display_size_a.y);vec2 pattern_size_b=vec2(display_size_b.x*toScale/tileZoomRatio,display_size_b.y);float aspect_a=display_size_a.y/v_width;float aspect_b=display_size_b.y/v_width;float dist=length(v_normal)*v_width2.s;float blur2=(blur+1.0/u_device_pixel_ratio)*v_gamma_scale;float alpha=clamp(min(dist-(v_width2.t-blur2),v_width2.s-dist)/blur2,0.0,1.0);float x_a=mod(v_linesofar/pattern_size_a.x*aspect_a,1.0);float x_b=mod(v_linesofar/pattern_size_b.x*aspect_b,1.0);float y=0.5*v_normal.y+0.5;vec2 texel_size=1.0/u_texsize;vec2 pos_a=mix(pattern_tl_a*texel_size-texel_size,pattern_br_a*texel_size+texel_size,vec2(x_a,y));vec2 pos_b=mix(pattern_tl_b*texel_size-texel_size,pattern_br_b*texel_size+texel_size,vec2(x_b,y));vec4 color=mix(texture2D(u_image,pos_a),texture2D(u_image,pos_b),u_fade);gl_FragColor=color*alpha*opacity;\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","\n#define scale 0.015873016\n#define LINE_DISTANCE_SCALE 2.0\nattribute vec2 a_pos_normal;attribute vec4 a_data;uniform mat4 u_matrix;uniform vec2 u_units_to_pixels;uniform mediump float u_ratio;uniform lowp float u_device_pixel_ratio;varying vec2 v_normal;varying vec2 v_width2;varying float v_linesofar;varying float v_gamma_scale;varying float v_width;\n#pragma mapbox: define lowp float blur\n#pragma mapbox: define lowp float opacity\n#pragma mapbox: define lowp float offset\n#pragma mapbox: define mediump float gapwidth\n#pragma mapbox: define mediump float width\n#pragma mapbox: define lowp float floorwidth\n#pragma mapbox: define lowp vec4 pattern_from\n#pragma mapbox: define lowp vec4 pattern_to\n#pragma mapbox: define lowp float pixel_ratio_from\n#pragma mapbox: define lowp float pixel_ratio_to\nvoid main() {\n#pragma mapbox: initialize lowp float blur\n#pragma mapbox: initialize lowp float opacity\n#pragma mapbox: initialize lowp float offset\n#pragma mapbox: initialize mediump float gapwidth\n#pragma mapbox: initialize mediump float width\n#pragma mapbox: initialize lowp float floorwidth\n#pragma mapbox: initialize mediump vec4 pattern_from\n#pragma mapbox: initialize mediump vec4 pattern_to\n#pragma mapbox: initialize lowp float pixel_ratio_from\n#pragma mapbox: initialize lowp float pixel_ratio_to\nfloat ANTIALIASING=1.0/u_device_pixel_ratio/2.0;vec2 a_extrude=a_data.xy-128.0;float a_direction=mod(a_data.z,4.0)-1.0;float a_linesofar=(floor(a_data.z/4.0)+a_data.w*64.0)*LINE_DISTANCE_SCALE;vec2 pos=floor(a_pos_normal*0.5);mediump vec2 normal=a_pos_normal-2.0*pos;normal.y=normal.y*2.0-1.0;v_normal=normal;gapwidth=gapwidth/2.0;float halfwidth=width/2.0;offset=-1.0*offset;float inset=gapwidth+(gapwidth > 0.0 ? ANTIALIASING : 0.0);float outset=gapwidth+halfwidth*(gapwidth > 0.0 ? 2.0 : 1.0)+(halfwidth==0.0 ? 0.0 : ANTIALIASING);mediump vec2 dist=outset*a_extrude*scale;mediump float u=0.5*a_direction;mediump float t=1.0-abs(u);mediump vec2 offset2=offset*a_extrude*scale*normal.y*mat2(t,-u,u,t);vec4 projected_extrude=u_matrix*vec4(dist/u_ratio,0.0,0.0);gl_Position=u_matrix*vec4(pos+offset2/u_ratio,0.0,1.0)+projected_extrude;float extrude_length_without_perspective=length(dist);float extrude_length_with_perspective=length(projected_extrude.xy/gl_Position.w*u_units_to_pixels);v_gamma_scale=extrude_length_without_perspective/extrude_length_with_perspective;v_linesofar=a_linesofar;v_width2=vec2(outset,inset);v_width=floorwidth;}"),vr=_r("uniform lowp float u_device_pixel_ratio;uniform sampler2D u_image;uniform float u_sdfgamma;uniform float u_mix;varying vec2 v_normal;varying vec2 v_width2;varying vec2 v_tex_a;varying vec2 v_tex_b;varying float v_gamma_scale;\n#pragma mapbox: define highp vec4 color\n#pragma mapbox: define lowp float blur\n#pragma mapbox: define lowp float opacity\n#pragma mapbox: define mediump float width\n#pragma mapbox: define lowp float floorwidth\nvoid main() {\n#pragma mapbox: initialize highp vec4 color\n#pragma mapbox: initialize lowp float blur\n#pragma mapbox: initialize lowp float

opacity\n#pragma mapbox: initialize mediump float width\n#pragma mapbox: initialize lowp float floorwidth\nfloat dist=length(v_normal)*v_width2.s;float blur2=(blur+1.0/u_device_pixel_ratio)*v_gamma_scale;float alpha=clamp(min(dist-(v_width2.t-blur2),v_width2.s-dist)/blur2,0.0,1.0);float sdfdist_a=texture2D(u_image,v_tex_a).a;float sdfdist_b=texture2D(u_image,v_tex_b).a;float sdfdist=mix(sdfdist_a,sdfdist_b,u_mix);alpha*=smoothstep(0.5-u_sdfgamma/floorwidth,0.5+u_sdfgamma/floorwidth,sdfdist);gl_FragColor=color*(alpha*opacity);\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","\n#define scale 0.015873016\n#define LINE_DISTANCE_SCALE 2.0\nattribute vec2 a_pos_normal;attribute vec4 a_data;uniform mat4 u_matrix;uniform mediump float u_ratio;uniform lowp float u_device_pixel_ratio;uniform vec2 u_patternscale_a;uniform float u_tex_y_a;uniform vec2 u_patternscale_b;uniform float u_tex_y_b;uniform vec2 u_units_to_pixels;varying vec2 v_normal;varying vec2 v_width2;varying vec2 v_tex_a;varying vec2 v_tex_b;varying float v_gamma_scale;\n#pragma mapbox: define highp vec4 color\n#pragma mapbox: define lowp float blur\n#pragma mapbox: define lowp float opacity\n#pragma mapbox: define mediump float gapwidth\n#pragma mapbox: define lowp float offset\n#pragma mapbox: define mediump float width\n#pragma mapbox: define lowp float floorwidth\nvoid main() {\n#pragma mapbox: initialize highp vec4 color\n#pragma mapbox: initialize lowp float blur\n#pragma mapbox: initialize lowp float opacity\n#pragma mapbox: initialize mediump float gapwidth\n#pragma mapbox: initialize lowp float offset\n#pragma mapbox: initialize mediump float width\n#pragma mapbox: initialize lowp float floorwidth\nfloat ANTIALIASING=1.0/u_device_pixel_ratio/2.0;vec2 a_extrude=a_data.xy-128.0;float a_direction=mod(a_data.z,4.0)-1.0;float a_linesofar=(floor(a_data.z/4.0)+a_data.w*64.0)*LINE_DISTANCE_SCALE;vec2 pos=floor(a_pos_normal*0.5);mediump vec2 normal=a_pos_normal-2.0*pos;normal.y=normal.y*2.0-1.0;v_normal=normal;gapwidth=gapwidth/2.0;float halfwidth=width/2.0;offset=-1.0*offset;float inset=gapwidth+(gapwidth > 0.0 ? ANTIALIASING : 0.0);float outset=gapwidth+halfwidth*(gapwidth > 0.0 ? 2.0 : 1.0)+(halfwidth==0.0 ? 0.0 : ANTIALIASING);mediump vec2 dist=outset*a_extrude*scale;mediump float u=0.5*a_direction;mediump float t=1.0-abs(u);mediump vec2 offset2=offset*a_extrude*scale*normal.y*mat2(t,-u,u,t);vec4 projected_extrude=u_matrix*vec4(dist/u_ratio,0.0,0.0);gl_Position=u_matrix*vec4(pos+offset2/u_ratio,0.0,1.0)+projected_extrude;float extrude_length_without_perspective=length(dist);float extrude_length_with_perspective=length(projected_extrude.xy/gl_Position.w*u_units_to_pixels);v_gamma_scale=extrude_length_without_perspective/extrude_length_with_perspective;v_tex_a=vec2(a_linesofar*u_patternscale_a.x/floorwidth,normal.y*u_patternscale_a.y+u_tex_y_a);v_tex_b=vec2(a_linesofar*u_patternscale_b.x/floorwidth,normal.y*u_patternscale_b.y+u_tex_y_b);v_width2=vec2(outset,inset);}"),mr=_r("uniform float u_fade_t;uniform float u_opacity;uniform sampler2D u_image0;uniform sampler2D u_image1;varying vec2 v_pos0;varying vec2 v_pos1;uniform float u_brightness_low;uniform float u_brightness_high;uniform float u_saturation_factor;uniform float u_contrast_factor;uniform vec3 u_spin_weights;void main() {vec4 color0=texture2D(u_image0,v_pos0);vec4 color1=texture2D(u_image1,v_pos1);if (color0.a > 0.0) {color0.rgb=color0.rgb/color0.a;}if (color1.a > 0.0) {color1.rgb=color1.rgb/color1.a;}vec4 color=mix(color0,color1,u_fade_t);color.a*=u_opacity;vec3 rgb=color.rgb;rgb=vec3(dot(rgb,u_spin_weights.xyz),dot(rgb,u_spin_weights.zxy),dot(rgb,u_spin_weights.yzx));float average=(color.r+color.g+color.b)/3.0;rgb+=(average-rgb)*u_saturation_factor;rgb=(rgb-0.5)*u_contrast_factor+0.5;vec3 u_high_vec=vec3(u_brightness_low,u_brightness_low,u_brightness_low);vec3 u_low_vec=vec3(u_brightness_high,u_brightness_high,u_brightness_high);gl_FragColor=vec4(mix(u_high_vec,u_low_vec,rgb)*color.a,color.a);\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","uniform mat4 u_matrix;uniform vec2 u_tl_parent;uniform float u_scale_parent;uniform float u_buffer_scale;attribute vec2 a_pos;attribute vec2 a_texture_pos;varying vec2 v_pos0;varying vec2 v_pos1;void main() {gl_Position=u_matrix*vec4(a_pos,0,1);v_pos0=(((a_texture_pos/8192.0)-0.5)/u_buffer_scale)+0.5;v_pos1=(v_pos0*u_scale_parent)+u_tl_parent;}"),yr=_r("uniform sampler2D u_texture;varying vec2 v_tex;varying float v_fade_opacity;\n#pragma mapbox: define lowp float opacity\nvoid main() {\n#pragma

mapbox: initialize lowp float opacity\nlowp float alpha=opacity*v_fade_opacity;gl_FragColor=texture2D(u_texture,v_tex)*alpha;\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","const float PI=3.141592653589793;attribute vec4 a_pos_offset;attribute vec4 a_data;attribute vec4 a_pixeloffset;attribute vec3 a_projected_pos;attribute float a_fade_opacity;uniform bool u_is_size_zoom_constant;uniform bool u_is_size_feature_constant;uniform highp float u_size_t;uniform highp float u_size;uniform highp float u_camera_to_center_distance;uniform highp float u_pitch;uniform bool u_rotate_symbol;uniform highp float u_aspect_ratio;uniform float u_fade_change;uniform mat4 u_matrix;uniform mat4 u_label_plane_matrix;uniform mat4 u_coord_matrix;uniform bool u_is_text;uniform bool u_pitch_with_map;uniform vec2 u_texsize;varying vec2 v_tex;varying float v_fade_opacity;\n#pragma mapbox: define lowp float opacity\nvoid main() {\n#pragma mapbox: initialize lowp float opacity\nvec2 a_pos=a_pos_offset.xy;vec2 a_offset=a_pos_offset.zw;vec2 a_tex=a_data.xy;vec2 a_size=a_data.zw;float a_size_min=floor(a_size[0]*0.5);vec2 a_pxoffset=a_pixeloffset.xy;vec2 a_minFontScale=a_pixeloffset.zw/256.0;highp float segment_angle=-a_projected_pos[2];float size;if (!u_is_size_zoom_constant && !u_is_size_feature_constant) {size=mix(a_size_min,a_size[1],u_size_t)/128.0;} else if (u_is_size_zoom_constant && !u_is_size_feature_constant) {size=a_size_min/128.0;} else {size=u_size;}vec4 projectedPoint=u_matrix*vec4(a_pos,0,1);highp float camera_to_anchor_distance=projectedPoint.w;highp float distance_ratio=u_pitch_with_map ?\ncamera_to_anchor_distance/u_camera_to_center_distance :\nu_camera_to_center_distance/camera_to_anchor_distance;highp float perspective_ratio=clamp(0.5+0.5*distance_ratio,0.0,4.0);size*=perspective_ratio;float fontScale=u_is_text ? size/24.0 : size;highp float symbol_rotation=0.0;if (u_rotate_symbol) {vec4 offsetProjectedPoint=u_matrix*vec4(a_pos+vec2(1,0),0,1);vec2 a=projectedPoint.xy/projectedPoint.w;vec2 b=offsetProjectedPoint.xy/offsetProjectedPoint.w;symbol_rotation=atan((b.y-a.y)/u_aspect_ratio,b.x-a.x);}highp float angle_sin=sin(segment_angle+symbol_rotation);highp float angle_cos=cos(segment_angle+symbol_rotation);mat2 rotation_matrix=mat2(angle_cos,-1.0*angle_sin,angle_sin,angle_cos);vec4 projected_pos=u_label_plane_matrix*vec4(a_projected_pos.xy,0.0,1.0);gl_Position=u_coord_matrix*vec4(projected_pos.xy/projected_pos.w+rotation_matrix*(a_offset/32.0*max(a_minFontScale,fontScale)+a_pxoffset/16.0),0.0,1.0);v_tex=a_tex/u_texsize;vec2 fade_opacity=unpack_opacity(a_fade_opacity);float fade_change=fade_opacity[1] > 0.5 ? u_fade_change :-u_fade_change;v_fade_opacity=max(0.0,min(1.0,fade_opacity[0]+fade_change));}"),xr=_r("#define SDF_PX 8.0\nuniform bool u_is_halo;uniform sampler2D u_texture;uniform highp float u_gamma_scale;uniform lowp float u_device_pixel_ratio;uniform bool u_is_text;varying vec2 v_data0;varying vec3 v_data1;\n#pragma mapbox: define highp vec4 fill_color\n#pragma mapbox: define highp vec4 halo_color\n#pragma mapbox: define lowp float opacity\n#pragma mapbox: define lowp float halo_width\n#pragma mapbox: define lowp float halo_blur\nvoid main() {\n#pragma mapbox: initialize highp vec4 fill_color\n#pragma mapbox: initialize highp vec4 halo_color\n#pragma mapbox: initialize lowp float opacity\n#pragma mapbox: initialize lowp float halo_width\n#pragma mapbox: initialize lowp float halo_blur\nfloat EDGE_GAMMA=0.105/u_device_pixel_ratio;vec2 tex=v_data0.xy;float gamma_scale=v_data1.x;float size=v_data1.y;float fade_opacity=v_data1[2];float fontScale=u_is_text ? size/24.0 : size;lowp vec4 color=fill_color;highp float gamma=EDGE_GAMMA/(fontScale*u_gamma_scale);lowp float buff=(256.0-64.0)/256.0;if (u_is_halo) {color=halo_color;gamma=(halo_blur*1.19/SDF_PX+EDGE_GAMMA)/(fontScale*u_gamma_scale);buff=(6.0-halo_width/fontScale)/SDF_PX;}lowp float dist=texture2D(u_texture,tex).a;highp float gamma_scaled=gamma*gamma_scale;highp float alpha=smoothstep(buff-gamma_scaled,buff+gamma_scaled,dist);gl_FragColor=color*(alpha*opacity*fade_opacity);\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","const float PI=3.141592653589793;attribute vec4 a_pos_offset;attribute vec4 a_data;attribute vec4 a_pixeloffset;attribute vec3 a_projected_pos;attribute float a_fade_opacity;uniform bool u_is_size_zoom_constant;uniform bool u_is_size_feature_constant;uniform highp

float u_size_t;uniform highp float u_size;uniform mat4 u_matrix;uniform mat4 u_label_plane_matrix;uniform mat4 u_coord_matrix;uniform bool u_is_text;uniform bool u_pitch_with_map;uniform highp float u_pitch;uniform bool u_rotate_symbol;uniform highp float u_aspect_ratio;uniform highp float u_camera_to_center_distance;uniform float u_fade_change;uniform vec2 u_texsize;varying vec2 v_data0;varying vec3 v_data1;\n#pragma mapbox: define highp vec4 fill_color\n#pragma mapbox: define highp vec4 halo_color\n#pragma mapbox: define lowp float opacity\n#pragma mapbox: define lowp float halo_width\n#pragma mapbox: define lowp float halo_blur\nvoid main() {\n#pragma mapbox: initialize highp vec4 fill_color\n#pragma mapbox: initialize highp vec4 halo_color\n#pragma mapbox: initialize lowp float opacity\n#pragma mapbox: initialize lowp float halo_width\n#pragma mapbox: initialize lowp float halo_blur\nvec2 a_pos=a_pos_offset.xy;vec2 a_offset=a_pos_offset.zw;vec2 a_tex=a_data.xy;vec2 a_size=a_data.zw;float a_size_min=floor(a_size[0]*0.5);vec2 a_pxoffset=a_pixeloffset.xy;highp float segment_angle=-a_projected_pos[2];float size;if (!u_is_size_zoom_constant && !u_is_size_feature_constant) {size=mix(a_size_min,a_size[1],u_size_t)/128.0;} else if (u_is_size_zoom_constant && !u_is_size_feature_constant) {size=a_size_min/128.0;} else {size=u_size;}vec4 projectedPoint=u_matrix*vec4(a_pos,0,1);highp float camera_to_anchor_distance=projectedPoint.w;highp float distance_ratio=u_pitch_with_map ?\ncamera_to_anchor_distance/u_camera_to_center_distance :\nu_camera_to_center_distance/camera_to_anchor_distance;highp float perspective_ratio=clamp(0.5+0.5*distance_ratio,0.0,4.0);size*=perspective_ratio;float fontScale=u_is_text ? size/24.0 : size;highp float symbol_rotation=0.0;if (u_rotate_symbol) {vec4 offsetProjectedPoint=u_matrix*vec4(a_pos+vec2(1,0),0,1);vec2 a=projectedPoint.xy/projectedPoint.w;vec2 b=offsetProjectedPoint.xy/offsetProjectedPoint.w;symbol_rotation=atan((b.y-a.y)/u_aspect_ratio,b.x-a.x);}highp float angle_sin=sin(segment_angle+symbol_rotation);highp float angle_cos=cos(segment_angle+symbol_rotation);mat2 rotation_matrix=mat2(angle_cos,-1.0*angle_sin,angle_sin,angle_cos);vec4 projected_pos=u_label_plane_matrix*vec4(a_projected_pos.xy,0.0,1.0);gl_Position=u_coord_matrix*vec4(projected_pos.xy/projected_pos.w+rotation_matrix*(a_offset/32.0*fontScale+a_pxoffset),0.0,1.0);float gamma_scale=gl_Position.w;vec2 fade_opacity=unpack_opacity(a_fade_opacity);float fade_change=fade_opacity[1] > 0.5 ? u_fade_change :-u_fade_change;float interpolated_fade_opacity=max(0.0,min(1.0,fade_opacity[0]+fade_change));v_data0=a_tex/u_texsize;v_data1=vec3(gamma_scale,size,interpolated_fade_opacity);}"),br=_r("#define SDF_PX 8.0\n#define SDF 1.0\n#define ICON 0.0\nuniform bool u_is_halo;uniform sampler2D u_texture;uniform sampler2D u_texture_icon;uniform highp float u_gamma_scale;uniform lowp float u_device_pixel_ratio;varying vec4 v_data0;varying vec4 v_data1;\n#pragma mapbox: define highp vec4 fill_color\n#pragma mapbox: define highp vec4 halo_color\n#pragma mapbox: define lowp float opacity\n#pragma mapbox: define lowp float halo_width\n#pragma mapbox: define lowp float halo_blur\nvoid main() {\n#pragma mapbox: initialize highp vec4 fill_color\n#pragma mapbox: initialize highp vec4 halo_color\n#pragma mapbox: initialize lowp float opacity\n#pragma mapbox: initialize lowp float halo_width\n#pragma mapbox: initialize lowp float halo_blur\nfloat fade_opacity=v_data1[2];if (v_data1.w==ICON) {vec2 tex_icon=v_data0.zw;lowp float alpha=opacity*fade_opacity;gl_FragColor=texture2D(u_texture_icon,tex_icon)*alpha;\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\nreturn;}vec2 tex=v_data0.xy;float EDGE_GAMMA=0.105/u_device_pixel_ratio;float gamma_scale=v_data1.x;float size=v_data1.y;float fontScale=size/24.0;lowp vec4 color=fill_color;highp float gamma=EDGE_GAMMA/(fontScale*u_gamma_scale);lowp float buff=(256.0-64.0)/256.0;if (u_is_halo) {color=halo_color;gamma=(halo_blur*1.19/SDF_PX+EDGE_GAMMA)/(fontScale*u_gamma_scale);buff=(6.0-halo_width/fontScale)/SDF_PX;}lowp float dist=texture2D(u_texture,tex).a;highp float gamma_scaled=gamma*gamma_scale;highp float alpha=smoothstep(buff-gamma_scaled,buff+gamma_scaled,dist);gl_FragColor=color*(alpha*opacity*fade_opacity);\n#ifdef OVERDRAW_INSPECTOR\ngl_FragColor=vec4(1.0);\n#endif\n}","const float PI=3.141592653589793;attribute vec4 a_pos_offset;attribute vec4 a_data;attribute vec3 a_projected_pos;attribute float a_fade_opacity;uniform bool

u_is_size_zoom_constant;uniform bool u_is_size_feature_constant;uniform highp float u_size_t;uniform highp float u_size;uniform mat4 u_matrix;uniform mat4 u_label_plane_matrix;uniform mat4 u_coord_matrix;uniform bool u_is_text;uniform bool u_pitch_with_map;uniform highp float u_pitch;uniform bool u_rotate_symbol;uniform highp float u_aspect_ratio;uniform highp float u_camera_to_center_distance;uniform float u_fade_change;uniform vec2 u_texsize;uniform vec2 u_texsize_icon;varying vec4 v_data0;varying vec4 v_data1;\n#pragma mapbox: define highp vec4 fill_color\n#pragma mapbox: define highp vec4 halo_color\n#pragma mapbox: define lowp float opacity\n#pragma mapbox: define lowp float halo_width\n#pragma mapbox: define lowp float halo_blur\nvoid main() {\n#pragma mapbox: initialize highp vec4 fill_color\n#pragma mapbox: initialize highp vec4 halo_color\n#pragma mapbox: initialize lowp float opacity\n#pragma mapbox: initialize lowp float halo_width\n#pragma mapbox: initialize lowp float halo_blur\nvec2 a_pos=a_pos_offset.xy;vec2 a_offset=a_pos_offset.zw;vec2 a_tex=a_data.xy;vec2 a_size=a_data.zw;float a_size_min=floor(a_size[0]*0.5);float is_sdf=a_size[0]-2.0*a_size_min;highp float segment_angle=-a_projected_pos[2];float size;if (!u_is_size_zoom_constant && !u_is_size_feature_constant) {size=mix(a_size_min,a_size[1],u_size_t)/128.0;} else if (u_is_size_zoom_constant && !u_is_size_feature_constant) {size=a_size_min/128.0;} else {size=u_size;}vec4 projectedPoint=u_matrix*vec4(a_pos,0,1);highp float camera_to_anchor_distance=projectedPoint.w;highp float distance_ratio=u_pitch_with_map ?\ncamera_to_anchor_distance/u_camera_to_center_distance :\nu_camera_to_center_distance/camera_to_anchor_distance;highp float perspective_ratio=clamp(0.5+0.5*distance_ratio,0.0,4.0);size*=perspective_ratio;float fontScale=size/24.0;highp float symbol_rotation=0.0;if (u_rotate_symbol) {vec4 offsetProjectedPoint=u_matrix*vec4(a_pos+vec2(1,0),0,1);vec2 a=projectedPoint.xy/projectedPoint.w;vec2 b=offsetProjectedPoint.xy/offsetProjectedPoint.w;symbol_rotation=atan((b.y-a.y)/u_aspect_ratio,b.x-a.x);}highp float angle_sin=sin(segment_angle+symbol_rotation);highp float angle_cos=cos(segment_angle+symbol_rotation);mat2 rotation_matrix=mat2(angle_cos,-1.0*angle_sin,angle_sin,angle_cos);vec4 projected_pos=u_label_plane_matrix*vec4(a_projected_pos.xy,0.0,1.0);gl_Position=u_coord_matrix*vec4(projected_pos.xy/projected_pos.w+rotation_matrix*(a_offset/32.0*fontScale),0.0,1.0);float gamma_scale=gl_Position.w;vec2 fade_opacity=unpack_opacity(a_fade_opacity);float fade_change=fade_opacity[1] > 0.5 ? u_fade_change :-u_fade_change;float interpolated_fade_opacity=max(0.0,min(1.0,fade_opacity[0]+fade_change));v_data0.xy=a_tex/u_texsize;v_data0.zw=a_tex/u_texsize_icon;v_data1=vec4(gamma_scale,size,interpolated_fade_opacity,is_sdf);}");function _r(t,e){var r=/#pragma mapbox: ([\w]+) ([\w]+) ([\w]+) ([\w]+)/g,n={};return{fragmentSource:t=t.replace(r,(function(t,e,r,i,a){return n[a]=!0,"define"===e?"\n#ifndef HAS_UNIFORM_u_"+a+"\nvarying "+r+" "+i+" "+a+";\n#else\nuniform "+r+" "+i+" u_"+a+";\n#endif\n":"\n#ifdef HAS_UNIFORM_u_"+a+"\n   "+r+" "+i+" "+a+" = u_"+a+";\n#endif\n"})),vertexSource:e=e.replace(r,(function(t,e,r,i,a){var o="float"===i?"vec2":"vec4",s=a.match(/color/)?"color":o;return n[a]?"define"===e?"\n#ifndef HAS_UNIFORM_u_"+a+"\nuniform lowp float u_"+a+"_t;\nattribute "+r+" "+o+" a_"+a+";\nvarying "+r+" "+i+" "+a+";\n#else\nuniform "+r+" "+i+" u_"+a+";\n#endif\n":"vec4"===s?"\n#ifndef HAS_UNIFORM_u_"+a+"\n   "+a+" = a_"+a+";\n#else\n   "+r+" "+i+" "+a+" = u_"+a+";\n#endif\n":"\n#ifndef HAS_UNIFORM_u_"+a+"\n   "+a+" = unpack_mix_"+s+"(a_"+a+", u_"+a+"_t);\n#else\n   "+r+" "+i+" "+a+" = u_"+a+";\n#endif\n":"define"===e?"\n#ifndef HAS_UNIFORM_u_"+a+"\nuniform lowp float u_"+a+"_t;\nattribute "+r+" "+o+" a_"+a+";\n#else\nuniform "+r+" "+i+" u_"+a+";\n#endif\n":"vec4"===s?"\n#ifndef HAS_UNIFORM_u_"+a+"\n   "+r+" "+i+" "+a+" = a_"+a+";\n#else\n   "+r+" "+i+" "+a+" = u_"+a+";\n#endif\n":"\n#ifndef HAS_UNIFORM_u_"+a+"\n   "+r+" "+i+" "+a+" = unpack_mix_"+s+"(a_"+a+", u_"+a+"_t);\n#else\n   "+r+" "+i+" "+a+" = u_"+a+";\n#endif\n"}))}}var wr=Object.freeze({__proto__:null,prelude:Ze,background:Je,backgroundPattern:Ke,circle:Qe,clippingMask:$e,heatmap:tr,heatmapTexture:er,collisionBox:rr,collisionCircle:nr,debug:ir,fill:ar,fillOutline:or,fillOutlinePattern:sr,fillPattern:lr,fillExtrusion:cr,fillExtrusionPattern:ur,hillshadePrepare:fr,hillshade:hr,line:pr,lineGradient:dr,linePattern:gr,li

neSDF:vr,raster:mr,symbolIcon:yr,symbolSDF:xr,symbolTextAndIcon:br}),Tr=function(){this.boundProgram=null,this.boundLayoutVertexBuffer=null,this.boundPaintVertexBuffers=[],this.boundIndexBuffer=null,this.boundVertexOffset=null,this.boundDynamicVertexBuffer=null,this.vao=null};Tr.prototype.bind=function(t,e,r,n,i,a,o,s){this.context=t;for(var
l=this.boundPaintVertexBuffers.length!==n.length,c=0;!l&&c<n.length;c++)this.boundPaintVertexBuffers[c]!==n[c]&&(l=!0);var
u=!this.vao||this.boundProgram!==e||this.boundLayoutVertexBuffer!==r||l||this.boundIndexBuffer!==i||this.boundVertexOffset!==a||this.boundDynamicVertexBuffer!==o||this.boundDynamicVertexBuffer2!==s;!t.extVertexArrayObject||u?this.freshBind(e,r,n,i,a,o,s):(t.bindVertexArrayOES.set(this.vao),o&&o.bind(),i&&i.dynamicDraw&&i.bind(),s&&s.bind())},Tr.prototype.freshBind=function(t,e,r,n,i,a,o){var
s,l=t.numAttributes,c=this.context,u=c.gl;if(c.extVertexArrayObject)this.vao&&this.destroy(),this.vao=c.extVertexArrayObject.createVertexArrayOES(),c.bindVertexArrayOES.set(this.vao),s=0,this.boundProgram=t,this.boundLayoutVertexBuffer=e,this.boundPaintVertexBuffers=r,this.boundIndexBuffer=n,this.boundVertexOffset=i,this.boundDynamicVertexBuffer=a,this.boundDynamicVertexBuffer2=o;else{s=c.currentNumAttributes||0;for(var
f=l;f<s;f++)u.disableVertexAttribArray(f)}e.enableAttributes(u,t);for(var
h=0,p=r;h<p.length;h+=1)p[h].enableAttributes(u,t);a&&a.enableAttributes(u,t),o&&o.enableAttributes(u,t),e.bind(),e.setVertexAttribPointers(u,t,i);for(var d=0,g=r;d<g.length;d+=1){var
v=g[d];v.bind(),v.setVertexAttribPointers(u,t,i)}a&&(a.bind(),a.setVertexAttribPointers(u,t,i)),n&&n.bind(),o&&(o.bind(),o.setVertexAttribPointers(u,t,i)),c.currentNumAttributes=l},Tr.prototype.destroy=function(){this.vao&&(this.context.extVertexArrayObject.deleteVertexArrayOES(this.vao),this.vao=null)};var kr=function(t,e,r,n,i){var
a=t.gl;this.program=a.createProgram();var o=r?r.defines():[];i&&o.push("#define
OVERDRAW_INSPECTOR;");var
s=o.concat(Ze.fragmentSource,e.fragmentSource).join("\n"),l=o.concat(Ze.vertexSource,e.vertexSource).join("\n"),c=a.createShader(a.FRAGMENT_SHADER);if(a.isContextLost())this.failedToCreate=!0;else{a.shaderSource(c,s),a.compileShader(c),a.attachShader(this.program,c);var
u=a.createShader(a.VERTEX_SHADER);if(a.isContextLost())this.failedToCreate=!0;else{a.shaderSource(u,l),a.compileShader(u),a.attachShader(this.program,u);for(var
f=r?r.layoutAttributes:[],h=0;h<f.length;h++)a.bindAttribLocation(this.program,h,f[h].name);a.linkProgram(this.program),a.deleteShader(u),a.deleteShader(c),this.numAttributes=a.getProgramParameter(this.program,a.ACTIVE_ATTRIBUTES),this.attributes={};for(var p={},d=0;d<this.numAttributes;d++){var
g=a.getActiveAttrib(this.program,d);g&&(this.attributes[g.name]=a.getAttribLocation(this.program,g.name))}for(var v=a.getProgramParameter(this.program,a.ACTIVE_UNIFORMS),m=0;m<v;m++){var
y=a.getActiveUniform(this.program,m);y&&(p[y.name]=a.getUniformLocation(this.program,y.name))}this.fixedUniforms=n(t,p),this.binderUniforms=r?r.getUniforms(t,p):[]}};function Ar(t,e,r){var
n=1/ve(r,1,e.transform.tileZoom),i=Math.pow(2,r.tileID.overscaledZ),a=r.tileSize*Math.pow(2,e.transform.tileZoom)/i,o=a*(r.tileID.canonical.x+r.tileID.wrap*i),s=a*r.tileID.canonical.y;return{u_image:0,u_texsize:r.imageAtlasTexture.size,u_scale:[n,t.fromScale,t.toScale],u_fade:t.t,u_pixel_coord_upper:[o>>16,s>>16],u_pixel_coord_lower:[65535&o,65535&s]}}kr.prototype.draw=function(t,e,r,n,i,a,o,s,l,c,u,f,h,p,d,g){var
v,m=t.gl;if(!this.failedToCreate){for(var y in
t.program.set(this.program),t.setDepthMode(r),t.setStencilMode(n),t.setColorMode(i),t.setCullFace(a),this.fixedUniforms)this.fixedUniforms[y].set(o[y]);p&&p.setUniforms(t,this.binderUniforms,f,{zoom:h});for(var
x=(v={},v[m.LINES]=2,v[m.TRIANGLES]=3,v[m.LINE_STRIP]=1,v)[e],b=0,_=u.get();b<_.length;b+=1){var
w=_[b],T=w.vaos||(w.vaos={});(T[s]||(T[s]=new
Tr)).bind(t,this,l,p?p.getPaintVertexBuffers():[],c,w.vertexOffset,d,g),m.drawElements(e,w.primitiveLength*x,m.UNSIGNED_SHORT,w.primitiveOffset*x*2)}}};var Mr=function(e,r,n,i){var
a=r.style.light,o=a.properties.get("position"),s=[o.x,o.y,o.z],l=t.create$1();"viewport"===a.properties.get("anchor")&&t.fromRotation(l,-r.transform.angle),t.transformMat3(s,s,l);var
c=a.properties.get("color");return{u_matrix:e,u_lightpos:s,u_lightintensity:a.properties.get("intensity"),u_lightcolor:

[c.r,c.g,c.b],u_vertical_gradient:+n,u_opacity:i}},Sr=function(e,r,n,i,a,o,s){return t.extend(Mr(e,r,n,i),Ar(o,r,s),{u_height_factor:-Math.pow(2,a.overscaledZ)/s.tileSize/8})},Er=function(t){return{u_matrix:t}},Lr=function(e,r,n,i){return t.extend(Er(e),Ar(n,r,i))},Cr=function(t,e){return{u_matrix:t,u_world:e}},Pr=function(e,r,n,i,a){return t.extend(Lr(e,r,n,i),{u_world:a})},Ir=function(e,r,n,i){var a,o,s=e.transform;if("map"===i.paint.get("circle-pitch-alignment")){var l=ve(n,1,s.zoom);a=!0,o=[l,l]}else a=!1,o=s.pixelsToGLUnits;return{u_camera_to_center_distance:s.cameraToCenterDistance,u_scale_with_map:+("map"===i.paint.get("circle-pitch-scale")),u_matrix:e.translatePosMatrix(r.posMatrix,n,i.paint.get("circle-translate"),i.paint.get("circle-translate-anchor")),u_pitch_with_map:+a,u_device_pixel_ratio:t.browser.devicePixelRatio,u_extrude_scale:o}},Or=function(t,e,r){var n=ve(r,1,e.zoom),i=Math.pow(2,e.zoom-r.tileID.overscaledZ),a=r.tileID.overscaleFactor();return{u_matrix:t,u_camera_to_center_distance:e.cameraToCenterDistance,u_pixels_to_tile_units:n,u_extrude_scale:[e.pixelsToGLUnits[0]/(n*i),e.pixelsToGLUnits[1]/(n*i)],u_overscale_factor:a}},zr=function(t,e,r){return{u_matrix:t,u_inv_matrix:e,u_camera_to_center_distance:r.cameraToCenterDistance,u_viewport_size:[r.width,r.height]}},Dr=function(t,e,r){return void 0===r&&(r=1),{u_matrix:t,u_color:e,u_overlay:0,u_overlay_scale:r}},Rr=function(t){return{u_matrix:t}},Fr=function(t,e,r,n){return{u_matrix:t,u_extrude_scale:ve(e,1,r),u_intensity:n}},Br=function(e,r,n){var i=e.transform;return{u_matrix:qr(e,r,n),u_ratio:1/ve(r,1,i.zoom),u_device_pixel_ratio:t.browser.devicePixelRatio,u_units_to_pixels:[1/i.pixelsToGLUnits[0],1/i.pixelsToGLUnits[1]]}},Nr=function(e,r,n){return t.extend(Br(e,r,n),{u_image:0})},jr=function(e,r,n,i){var a=e.transform,o=Vr(r,a);return{u_matrix:qr(e,r,n),u_texsize:r.imageAtlasTexture.size,u_ratio:1/ve(r,1,a.zoom),u_device_pixel_ratio:t.browser.devicePixelRatio,u_image:0,u_scale:[o,i.fromScale,i.toScale],u_fade:i.t,u_units_to_pixels:[1/a.pixelsToGLUnits[0],1/a.pixelsToGLUnits[1]]}},Ur=function(e,r,n,i,a){var o=e.transform,s=e.lineAtlas,l=Vr(r,o),c="round"===n.layout.get("line-cap"),u=s.getDash(i.from,c),f=s.getDash(i.to,c),h=u.width*a.fromScale,p=f.width*a.toScale;return t.extend(Br(e,r,n),{u_patternscale_a:[l/h,-u.height/2],u_patternscale_b:[l/p,-f.height/2],u_sdfgamma:s.width/(256*Math.min(h,p)*t.browser.devicePixelRatio)/2,u_image:0,u_tex_y_a:u.y,u_tex_y_b:f.y,u_mix:a.t})};function Vr(t,e){return 1/ve(t,1,e.tileZoom)}function qr(t,e,r){return t.translatePosMatrix(e.tileID.posMatrix,e,r.paint.get("line-translate"),r.paint.get("line-translate-anchor"))}var Hr=function(t,e,r,n,i){return{u_matrix:t,u_tl_parent:e,u_scale_parent:r,u_buffer_scale:1,u_fade_t:n.mix,u_opacity:n.opacity*i.paint.get("raster-opacity"),u_image0:0,u_image1:1,u_brightness_low:i.paint.get("raster-brightness-min"),u_brightness_high:i.paint.get("raster-brightness-max"),u_saturation_factor:(o=i.paint.get("raster-saturation"),o>0?1-1/(1.001-o):-o),u_contrast_factor:(a=i.paint.get("raster-contrast"),a>0?1/(1-a):1+a),u_spin_weights:Gr(i.paint.get("raster-hue-rotate"))};var a,o};function Gr(t){t*=Math.PI/180;var e=Math.sin(t),r=Math.cos(t);return[(2*r+1)/3,(-Math.sqrt(3)*e-r+1)/3,(Math.sqrt(3)*e-r+1)/3]}var Yr,Wr=function(t,e,r,n,i,a,o,s,l,c){var u=i.transform;return{u_is_size_zoom_constant:+("constant"===t||"source"===t),u_is_size_feature_constant:+("constant"===t||"camera"===t),u_size_t:e?e.uSizeT:0,u_size:e?e.uSize:0,u_camera_to_center_distance:u.cameraToCenterDistance,u_pitch:u.pitch/360*2*Math.PI,u_rotate_symbol:+r,u_aspect_ratio:u.width/u.height,u_fade_change:i.options.fadeDuration?i.symbolFadeChange:1,u_matrix:a,u_label_plane_matrix:o,u_coord_matrix:s,u_is_text:+l,u_pitch_with_map:+n,u_texsize:c,u_texture:0}},Xr=function(e,r,n,i,a,o,s,l,c,u,f){var h=a.transform;return t.extend(Wr(e,r,n,i,a,o,s,l,c,u),{u_gamma_scale:i?Math.cos(h._pitch)*h.cameraToCenterDistance:1,u_device_pixel_ratio:t.browser.devicePixelRatio,u_is_halo:+f})},Zr=function(e,r,n,i,a,o,s,l,c,u){return t.extend(Xr(e,r,n,i,a,o,s,l,c,u),{u_texsize_icon:u,u_texture_icon:1})},Jr=function(t,e,r){return{u_matrix:t,u_opacity:e,u_color:r}},Kr=function(e,r,n,i,a,o){return t.extend(function(t,e,r,n){var i=r.imageManager.getPattern(t.from.toString()),a=r.imageManager.getPattern(t.to.toString()),o=r.imageManager.getPixelSize(),s=o.width,l=o.height,c=Math.pow(2,n.tileID.overscaledZ),u=n.tileSize*Math.pow(2,r.transform.tileZoom)/c,f=u*(n.tileID.canonical.x+n.tileID.wrap*c),h=u*n.tileID.canonical.y;return{u_image:0,u_pattern_tl_a:i.tl,u_pa

ttern_br_a:i.br,u_pattern_tl_b:a.tl,u_pattern_br_b:a.br,u_texsize:[s,l],u_mix:e.t,u_pattern_size_a:i.displaySize,u_pattern_size_b:a.displaySize,u_scale_a:e.fromScale,u_scale_b:e.toScale,u_tile_units_to_pixels:1/ve(n,1,r.transform.tileZoom),u_pixel_coord_upper:[f>>16,h>>16],u_pixel_coord_lower:[65535&f,65535&h]}}(i,o,n,a),{u_matrix:e,u_opacity:r})},Qr={fillExtrusion:function(e,r){return{u_matrix:new t.UniformMatrix4f(e,r.u_matrix),u_lightpos:new t.Uniform3f(e,r.u_lightpos),u_lightintensity:new t.Uniform1f(e,r.u_lightintensity),u_lightcolor:new t.Uniform3f(e,r.u_lightcolor),u_vertical_gradient:new t.Uniform1f(e,r.u_vertical_gradient),u_opacity:new t.Uniform1f(e,r.u_opacity)}},fillExtrusionPattern:function(e,r){return{u_matrix:new t.UniformMatrix4f(e,r.u_matrix),u_lightpos:new t.Uniform3f(e,r.u_lightpos),u_lightintensity:new t.Uniform1f(e,r.u_lightintensity),u_lightcolor:new t.Uniform3f(e,r.u_lightcolor),u_vertical_gradient:new t.Uniform1f(e,r.u_vertical_gradient),u_height_factor:new t.Uniform1f(e,r.u_height_factor),u_image:new t.Uniform1i(e,r.u_image),u_texsize:new t.Uniform2f(e,r.u_texsize),u_pixel_coord_upper:new t.Uniform2f(e,r.u_pixel_coord_upper),u_pixel_coord_lower:new t.Uniform2f(e,r.u_pixel_coord_lower),u_scale:new t.Uniform3f(e,r.u_scale),u_fade:new t.Uniform1f(e,r.u_fade),u_opacity:new t.Uniform1f(e,r.u_opacity)}},fill:function(e,r){return{u_matrix:new t.UniformMatrix4f(e,r.u_matrix)}},fillPattern:function(e,r){return{u_matrix:new t.UniformMatrix4f(e,r.u_matrix),u_image:new t.Uniform1i(e,r.u_image),u_texsize:new t.Uniform2f(e,r.u_texsize),u_pixel_coord_upper:new t.Uniform2f(e,r.u_pixel_coord_upper),u_pixel_coord_lower:new t.Uniform2f(e,r.u_pixel_coord_lower),u_scale:new t.Uniform3f(e,r.u_scale),u_fade:new t.Uniform1f(e,r.u_fade)}},fillOutline:function(e,r){return{u_matrix:new t.UniformMatrix4f(e,r.u_matrix),u_world:new t.Uniform2f(e,r.u_world)}},fillOutlinePattern:function(e,r){return{u_matrix:new t.UniformMatrix4f(e,r.u_matrix),u_world:new t.Uniform2f(e,r.u_world),u_image:new t.Uniform1i(e,r.u_image),u_texsize:new t.Uniform2f(e,r.u_texsize),u_pixel_coord_upper:new t.Uniform2f(e,r.u_pixel_coord_upper),u_pixel_coord_lower:new t.Uniform2f(e,r.u_pixel_coord_lower),u_scale:new t.Uniform3f(e,r.u_scale),u_fade:new t.Uniform1f(e,r.u_fade)}},circle:function(e,r){return{u_camera_to_center_distance:new t.Uniform1f(e,r.u_camera_to_center_distance),u_scale_with_map:new t.Uniform1i(e,r.u_scale_with_map),u_pitch_with_map:new t.Uniform1i(e,r.u_pitch_with_map),u_extrude_scale:new t.Uniform2f(e,r.u_extrude_scale),u_device_pixel_ratio:new t.Uniform1f(e,r.u_device_pixel_ratio),u_matrix:new t.UniformMatrix4f(e,r.u_matrix)}},collisionBox:function(e,r){return{u_matrix:new t.UniformMatrix4f(e,r.u_matrix),u_camera_to_center_distance:new t.Uniform1f(e,r.u_camera_to_center_distance),u_pixels_to_tile_units:new t.Uniform1f(e,r.u_pixels_to_tile_units),u_extrude_scale:new t.Uniform2f(e,r.u_extrude_scale),u_overscale_factor:new t.Uniform1f(e,r.u_overscale_factor)}},collisionCircle:function(e,r){return{u_matrix:new t.UniformMatrix4f(e,r.u_matrix),u_inv_matrix:new t.UniformMatrix4f(e,r.u_inv_matrix),u_camera_to_center_distance:new t.Uniform1f(e,r.u_camera_to_center_distance),u_viewport_size:new t.Uniform2f(e,r.u_viewport_size)}},debug:function(e,r){return{u_color:new t.UniformColor(e,r.u_color),u_matrix:new t.UniformMatrix4f(e,r.u_matrix),u_overlay:new t.Uniform1i(e,r.u_overlay),u_overlay_scale:new t.Uniform1f(e,r.u_overlay_scale)}},clippingMask:function(e,r){return{u_matrix:new t.UniformMatrix4f(e,r.u_matrix)}},heatmap:function(e,r){return{u_extrude_scale:new t.Uniform1f(e,r.u_extrude_scale),u_intensity:new t.Uniform1f(e,r.u_intensity),u_matrix:new t.UniformMatrix4f(e,r.u_matrix)}},heatmapTexture:function(e,r){return{u_matrix:new t.UniformMatrix4f(e,r.u_matrix),u_world:new t.Uniform2f(e,r.u_world),u_image:new t.Uniform1i(e,r.u_image),u_color_ramp:new t.Uniform1i(e,r.u_color_ramp),u_opacity:new

t.Uniform1f(e,r.u_opacity)}},hillshade:function(e,r){return{u_matrix:new
t.UniformMatrix4f(e,r.u_matrix),u_image:new t.Uniform1i(e,r.u_image),u_latrange:new
t.Uniform2f(e,r.u_latrange),u_light:new t.Uniform2f(e,r.u_light),u_shadow:new
t.UniformColor(e,r.u_shadow),u_highlight:new t.UniformColor(e,r.u_highlight),u_accent:new
t.UniformColor(e,r.u_accent)}},hillshadePrepare:function(e,r){return{u_matrix:new
t.UniformMatrix4f(e,r.u_matrix),u_image:new t.Uniform1i(e,r.u_image),u_dimension:new
t.Uniform2f(e,r.u_dimension),u_zoom:new t.Uniform1f(e,r.u_zoom),u_maxzoom:new
t.Uniform1f(e,r.u_maxzoom),u_unpack:new t.Uniform4f(e,r.u_unpack)}},line:function(e,r){return{u_matrix:new
t.UniformMatrix4f(e,r.u_matrix),u_ratio:new t.Uniform1f(e,r.u_ratio),u_device_pixel_ratio:new
t.Uniform1f(e,r.u_device_pixel_ratio),u_units_to_pixels:new
t.Uniform2f(e,r.u_units_to_pixels)}},lineGradient:function(e,r){return{u_matrix:new
t.UniformMatrix4f(e,r.u_matrix),u_ratio:new t.Uniform1f(e,r.u_ratio),u_device_pixel_ratio:new
t.Uniform1f(e,r.u_device_pixel_ratio),u_units_to_pixels:new t.Uniform2f(e,r.u_units_to_pixels),u_image:new
t.Uniform1i(e,r.u_image)}},linePattern:function(e,r){return{u_matrix:new
t.UniformMatrix4f(e,r.u_matrix),u_texsize:new t.Uniform2f(e,r.u_texsize),u_ratio:new
t.Uniform1f(e,r.u_ratio),u_device_pixel_ratio:new t.Uniform1f(e,r.u_device_pixel_ratio),u_image:new
t.Uniform1i(e,r.u_image),u_units_to_pixels:new t.Uniform2f(e,r.u_units_to_pixels),u_scale:new
t.Uniform3f(e,r.u_scale),u_fade:new t.Uniform1f(e,r.u_fade)}},lineSDF:function(e,r){return{u_matrix:new
t.UniformMatrix4f(e,r.u_matrix),u_ratio:new t.Uniform1f(e,r.u_ratio),u_device_pixel_ratio:new
t.Uniform1f(e,r.u_device_pixel_ratio),u_units_to_pixels:new
t.Uniform2f(e,r.u_units_to_pixels),u_patternscale_a:new t.Uniform2f(e,r.u_patternscale_a),u_patternscale_b:new
t.Uniform2f(e,r.u_patternscale_b),u_sdfgamma:new t.Uniform1f(e,r.u_sdfgamma),u_image:new
t.Uniform1i(e,r.u_image),u_tex_y_a:new t.Uniform1f(e,r.u_tex_y_a),u_tex_y_b:new
t.Uniform1f(e,r.u_tex_y_b),u_mix:new t.Uniform1f(e,r.u_mix)}},raster:function(e,r){return{u_matrix:new
t.UniformMatrix4f(e,r.u_matrix),u_tl_parent:new t.Uniform2f(e,r.u_tl_parent),u_scale_parent:new
t.Uniform1f(e,r.u_scale_parent),u_buffer_scale:new t.Uniform1f(e,r.u_buffer_scale),u_fade_t:new
t.Uniform1f(e,r.u_fade_t),u_opacity:new t.Uniform1f(e,r.u_opacity),u_image0:new
t.Uniform1i(e,r.u_image0),u_image1:new t.Uniform1i(e,r.u_image1),u_brightness_low:new
t.Uniform1f(e,r.u_brightness_low),u_brightness_high:new
t.Uniform1f(e,r.u_brightness_high),u_saturation_factor:new
t.Uniform1f(e,r.u_saturation_factor),u_contrast_factor:new t.Uniform1f(e,r.u_contrast_factor),u_spin_weights:new
t.Uniform3f(e,r.u_spin_weights)}},symbolIcon:function(e,r){return{u_is_size_zoom_constant:new
t.Uniform1i(e,r.u_is_size_zoom_constant),u_is_size_feature_constant:new
t.Uniform1i(e,r.u_is_size_feature_constant),u_size_t:new t.Uniform1f(e,r.u_size_t),u_size:new
t.Uniform1f(e,r.u_size),u_camera_to_center_distance:new
t.Uniform1f(e,r.u_camera_to_center_distance),u_pitch:new t.Uniform1f(e,r.u_pitch),u_rotate_symbol:new
t.Uniform1i(e,r.u_rotate_symbol),u_aspect_ratio:new t.Uniform1f(e,r.u_aspect_ratio),u_fade_change:new
t.Uniform1f(e,r.u_fade_change),u_matrix:new t.UniformMatrix4f(e,r.u_matrix),u_label_plane_matrix:new
t.UniformMatrix4f(e,r.u_label_plane_matrix),u_coord_matrix:new
t.UniformMatrix4f(e,r.u_coord_matrix),u_is_text:new t.Uniform1i(e,r.u_is_text),u_pitch_with_map:new
t.Uniform1i(e,r.u_pitch_with_map),u_texsize:new t.Uniform2f(e,r.u_texsize),u_texture:new
t.Uniform1i(e,r.u_texture)}},symbolSDF:function(e,r){return{u_is_size_zoom_constant:new
t.Uniform1i(e,r.u_is_size_zoom_constant),u_is_size_feature_constant:new
t.Uniform1i(e,r.u_is_size_feature_constant),u_size_t:new t.Uniform1f(e,r.u_size_t),u_size:new
t.Uniform1f(e,r.u_size),u_camera_to_center_distance:new
t.Uniform1f(e,r.u_camera_to_center_distance),u_pitch:new t.Uniform1f(e,r.u_pitch),u_rotate_symbol:new
t.Uniform1i(e,r.u_rotate_symbol),u_aspect_ratio:new t.Uniform1f(e,r.u_aspect_ratio),u_fade_change:new
t.Uniform1f(e,r.u_fade_change),u_matrix:new t.UniformMatrix4f(e,r.u_matrix),u_label_plane_matrix:new

t.UniformMatrix4f(e,r.u_label_plane_matrix),u_coord_matrix:new
t.UniformMatrix4f(e,r.u_coord_matrix),u_is_text:new t.Uniform1i(e,r.u_is_text),u_pitch_with_map:new
t.Uniform1i(e,r.u_pitch_with_map),u_texsize:new t.Uniform2f(e,r.u_texsize),u_texture:new
t.Uniform1i(e,r.u_texture),u_gamma_scale:new t.Uniform1f(e,r.u_gamma_scale),u_device_pixel_ratio:new
t.Uniform1f(e,r.u_device_pixel_ratio),u_is_halo:new
t.Uniform1i(e,r.u_is_halo)}},symbolTextAndIcon:function(e,r){return{u_is_size_zoom_constant:new
t.Uniform1i(e,r.u_is_size_zoom_constant),u_is_size_feature_constant:new
t.Uniform1i(e,r.u_is_size_feature_constant),u_size_t:new t.Uniform1f(e,r.u_size_t),u_size:new
t.Uniform1f(e,r.u_size),u_camera_to_center_distance:new
t.Uniform1f(e,r.u_camera_to_center_distance),u_pitch:new t.Uniform1f(e,r.u_pitch),u_rotate_symbol:new
t.Uniform1i(e,r.u_rotate_symbol),u_aspect_ratio:new t.Uniform1f(e,r.u_aspect_ratio),u_fade_change:new
t.Uniform1f(e,r.u_fade_change),u_matrix:new t.UniformMatrix4f(e,r.u_matrix),u_label_plane_matrix:new
t.UniformMatrix4f(e,r.u_label_plane_matrix),u_coord_matrix:new
t.UniformMatrix4f(e,r.u_coord_matrix),u_is_text:new t.Uniform1i(e,r.u_is_text),u_pitch_with_map:new
t.Uniform1i(e,r.u_pitch_with_map),u_texsize:new t.Uniform2f(e,r.u_texsize),u_texsize_icon:new
t.Uniform2f(e,r.u_texsize_icon),u_texture:new t.Uniform1i(e,r.u_texture),u_texture_icon:new
t.Uniform1i(e,r.u_texture_icon),u_gamma_scale:new t.Uniform1f(e,r.u_gamma_scale),u_device_pixel_ratio:new
t.Uniform1f(e,r.u_device_pixel_ratio),u_is_halo:new
t.Uniform1i(e,r.u_is_halo)}},background:function(e,r){return{u_matrix:new
t.UniformMatrix4f(e,r.u_matrix),u_opacity:new t.Uniform1f(e,r.u_opacity),u_color:new
t.UniformColor(e,r.u_color)}},backgroundPattern:function(e,r){return{u_matrix:new
t.UniformMatrix4f(e,r.u_matrix),u_opacity:new t.Uniform1f(e,r.u_opacity),u_image:new
t.Uniform1i(e,r.u_image),u_pattern_tl_a:new t.Uniform2f(e,r.u_pattern_tl_a),u_pattern_br_a:new
t.Uniform2f(e,r.u_pattern_br_a),u_pattern_tl_b:new t.Uniform2f(e,r.u_pattern_tl_b),u_pattern_br_b:new
t.Uniform2f(e,r.u_pattern_br_b),u_texsize:new t.Uniform2f(e,r.u_texsize),u_mix:new
t.Uniform1f(e,r.u_mix),u_pattern_size_a:new t.Uniform2f(e,r.u_pattern_size_a),u_pattern_size_b:new
t.Uniform2f(e,r.u_pattern_size_b),u_scale_a:new t.Uniform1f(e,r.u_scale_a),u_scale_b:new
t.Uniform1f(e,r.u_scale_b),u_pixel_coord_upper:new
t.Uniform2f(e,r.u_pixel_coord_upper),u_pixel_coord_lower:new
t.Uniform2f(e,r.u_pixel_coord_lower),u_tile_units_to_pixels:new
t.Uniform1f(e,r.u_tile_units_to_pixels)}}};function $r(e,r,n,i,a,o,s){for(var
l=e.context,c=l.gl,u=e.useProgram("collisionBox"),f=[],h=0,p=0,d=0;d<i.length;d++){var
g=i[d],v=r.getTile(g),m=v.getBucket(n);if(m){var
y=g.posMatrix;0===a[0]&&0===a[1]||(y=e.translatePosMatrix(g.posMatrix,v,a,o));var
x=s?m.textCollisionBox:m.iconCollisionBox,b=m.collisionCircleArray;if(b.length>0){var
=t.create(),w=y;t.mul(,m.placementInvProjMatrix,e.transform.glCoordMatrix),t.mul(_,_,m.placementViewportM
atrix),f.push({circleArray:b,circleOffset:p,transform:w,invTransform:_}),p=h+=b.length/4}x&&u.draw(l,c.LINES,
Mt.disabled,Et.disabled,e.colorModeForRenderPass(),Ct.disabled,Or(y,e.transform,v),n.id,x.layoutVertexBuffer,x.in
dexBuffer,x.segments,null,e.transform.zoom,null,null,x.collisionVertexBuffer)}}if(s&&f.length){var
T=e.useProgram("collisionCircle"),k=new t.StructArrayLayout2f1f2i16;k.resize(4*h),k._trim();for(var
A=0,M=0,S=f;M<S.length;M+=1)for(var E=S[M],L=0;L<E.circleArray.length/4;L++){var
C=4*L,P=E.circleArray[C+0],I=E.circleArray[C+1],O=E.circleArray[C+2],z=E.circleArray[C+3];k.emplace(A++,P
,I,O,z,0),k.emplace(A++,P,I,O,z,1),k.emplace(A++,P,I,O,z,2),k.emplace(A++,P,I,O,z,3)}(!Yr||Yr.length<2*h)&&(Y
r=function(e){var r=2*e,n=new t.StructArrayLayout3ui6;n.resize(r),n._trim();for(var i=0;i<r;i++){var
a=6*i;n.uint16[a+0]=4*i+0,n.uint16[a+1]=4*i+1,n.uint16[a+2]=4*i+2,n.uint16[a+3]=4*i+2,n.uint16[a+4]=4*i+3,n.
uint16[a+5]=4*i+0}return n}(h));for(var
D=l.createIndexBuffer(Yr,!0),R=l.createVertexBuffer(k,t.collisionCircleLayout.members,!0),F=0,B=f;F<B.length;F
+=1){var

N=B[F],j=zr(N.transform,N.invTransform,e.transform);T.draw(l,c.TRIANGLES,Mt.disabled,Et.disabled,e.colorMo
deForRenderPass(),Ct.disabled,j,n.id,R,D,t.SegmentVector.simpleSegment(0,2*N.circleOffset,N.circleArray.length,
N.circleArray.length/2),null,e.transform.zoom,null,null,null)}R.destroy(),D.destroy()}}var tn=t.identity(new
Float32Array(16));function en(e,r,n,i,a,o){var s=t.getAnchorAlignment(e),l=-(s.horizontalAlign-.5)*r,c=-
(s.verticalAlign-.5)*n,u=t.evaluateVariableOffset(e,i);return new t.Point((l/a+u[0])*o,(c/a+u[1])*o)}function
rn(e,r,n,i,a,o,s,l,c,u,f){var
h=e.text.placedSymbolArray,p=e.text.dynamicLayoutVertexArray,d=e.icon.dynamicLayoutVertexArray,g={};p.cle
ar();for(var v=0;v<h.length;v++){var
m=h.get(v),y=e.allowVerticalPlacement&&!m.placedOrientation,x=m.hidden||!m.crossTileID||y?null:i[m.crossTileI
D];if(x){var b=new
t.Point(m.anchorX,m.anchorY),_=re(b,n?l:s),w=ne(o.cameraToCenterDistance,_.signedDistanceFromCamera),T=a.
evaluateSizeForFeature(e.textSizeData,u,m)*w/t.ONE_EM;n&&(T*=e.tilePixelRatio/c);for(var
k=x.width,A=x.height,M=en(x.anchor,k,A,x.textOffset,x.textBoxScale,T),S=n?re(b.add(M),s).point:_.point.add(r?
M.rotate(-
o.angle):M),E=e.allowVerticalPlacement&&m.placedOrientation===t.WritingMode.vertical?Math.PI/2:0,L=0;L<m.
numGlyphs;L++)t.addDynamicAttributes(p,S,E);f&&m.associatedIconIndex>=0&&(g[m.associatedIconIndex]={sh
iftedAnchor:S,angle:E})}else he(m.numGlyphs,p)}if(f){d.clear();for(var
C=e.icon.placedSymbolArray,P=0;P<C.length;P++){var I=C.get(P);if(I.hidden)he(I.numGlyphs,d);else{var
O=g[P];if(O)for(var z=0;z<I.numGlyphs;z++)t.addDynamicAttributes(d,O.shiftedAnchor,O.angle);else
he(I.numGlyphs,d)}}e.icon.dynamicLayoutVertexBuffer.updateData(d)}e.text.dynamicLayoutVertexBuffer.update
Data(p)}function nn(t,e,r){return r.iconsInText&&e?"symbolTextAndIcon":t?"symbolSDF":"symbolIcon"}function
an(e,r,n,i,a,o,s,l,c,u,f,h){for(var
p=e.context,d=p.gl,g=e.transform,v="map"===l,m="map"===c,y=v&&"point"!==n.layout.get("symbol-
placement"),x=v&&!m&&!y,b=void 0!==n.layout.get("symbol-sort-
key").constantOr(1),_=e.depthModeForSublayer(0,Mt.ReadOnly),w=n.layout.get("text-variable-
anchor"),T=[],k=0,A=i;k<A.length;k+=1){var M=A[k],S=r.getTile(M),E=S.getBucket(n);if(E){var
L=a?E.text:E.icon;if(L&&L.segments.get().length){var
C=L.programConfigurations.get(n.id),P=a||E.sdfIcons,I=a?E.textSizeData:E.iconSizeData,O=m||0!==g.pitch,z=e.use
Program(nn(P,a,E),C),D=t.evaluateSizeForZoom(I,g.zoom),R=void 0,F=[0,0],B=void 0,N=void 0,j=null,U=void
0;if(a){if(B=S.glyphAtlasTexture,N=d.LINEAR,R=S.glyphAtlasTexture.size,E.iconsInText){F=S.imageAtlasTextu
re.size,j=S.imageAtlasTexture;var
V="composite"===I.kind||"camera"===I.kind;U=O||e.options.rotating||e.options.zooming||V?d.LINEAR:d.NEARES
T}}else{var q=1!==n.layout.get("icon-
size").constantOr(0)||E.iconsNeedLinear;B=S.imageAtlasTexture,N=P||e.options.rotating||e.options.zooming||q||O?d.
LINEAR:d.NEAREST,R=S.imageAtlasTexture.size}var
H=ve(S,1,e.transform.zoom),G=te(M.posMatrix,m,v,e.transform,H),Y=ee(M.posMatrix,m,v,e.transform,H),W=w&
&E.hasTextData(),X="none"!==n.layout.get("icon-text-
fit")&&W&&E.hasIconData();y&&ae(E,M.posMatrix,e,a,G,Y,m,u);var
Z=e.translatePosMatrix(M.posMatrix,S,o,s),J=y||a&&w||X?tn:G,K=e.translatePosMatrix(Y,S,o,s,!0),Q=P&&0!==n.
paint.get(a?"text-halo-width":"icon-halo-
width").constantOr(1),$={program:z,buffers:L,uniformValues:P?E.iconsInText?Zr(I.kind,D,x,m,e,Z,J,K,R,F):Xr(I.k
ind,D,x,m,e,Z,J,K,a,R,!0):Wr(I.kind,D,x,m,e,Z,J,K,a,R),atlasTexture:B,atlasTextureIcon:j,atlasInterpolation:N,atlasI
nterpolationIcon:U,isSDF:P,hasHalo:Q};if(b)for(var tt=0,et=L.segments.get();tt<et.length;tt+=1){var
rt=et[tt];T.push({segments:new t.SegmentVector([rt]),sortKey:rt.sortKey,state:$})}else
T.push({segments:L.segments,sortKey:0,state:$})}}}b&&T.sort((function(t,e){return t.sortKey-e.sortKey}));for(var
nt=0,it=T;nt<it.length;nt+=1){var
at=it[nt],ot=at.state;if(p.activeTexture.set(d.TEXTURE0),ot.atlasTexture.bind(ot.atlasInterpolation,d.CLAMP_TO_
EDGE),ot.atlasTextureIcon&&(p.activeTexture.set(d.TEXTURE1),ot.atlasTextureIcon&&ot.atlasTextureIcon.bind(

ot.atlasInterpolationIcon,d.CLAMP_TO_EDGE)),ot.isSDF){var st=ot.uniformValues;ot.hasHalo&&(st.u_is_halo=1,on(ot.buffers,at.segments,n,e,ot.program,_,f,h,st)),st.u_is_halo=0}on(ot.buffers,at.segments,n,e,ot.program,_,f,h,ot.uniformValues)}}function on(t,e,r,n,i,a,o,s,l){var c=n.context,u=c.gl;i.draw(c,u.TRIANGLES,a,o,s,Ct.disabled,l,r.id,t.layoutVertexBuffer,t.indexBuffer,e,r.paint,n.transform.zoom,t.programConfigurations.get(r.id),t.dynamicLayoutVertexBuffer,t.opacityVertexBuffer)}function sn(t,e,r,n,i,a,o){var s,l,c,u,f,h=t.context.gl,p=r.paint.get("fill-pattern"),d=p&&p.constantOr(1),g=r.getCrossfadeParameters();o?(l=d&&!r.getPaintProperty("fill-outline-color")?"fillOutlinePattern":"fillOutline",s=h.LINES):(l=d?"fillPattern":"fill",s=h.TRIANGLES);for(var v=0,m=n;v<m.length;v+=1){var y=m[v],x=e.getTile(y);if(!d||x.patternsLoaded()){var b=x.getBucket(r);if(b){var _=b.programConfigurations.get(r.id),w=t.useProgram(l,_);d&&(t.context.activeTexture.set(h.TEXTURE0),x.imageAtlasTexture.bind(h.LINEAR,h.CLAMP_TO_EDGE),_.updatePaintBuffers(g));var T=p.constantOr(null);if(T&&x.imageAtlas){var k=x.imageAtlas,A=k.patternPositions[T.to.toString()],M=k.patternPositions[T.from.toString()];A&&M&&_.setConstantPatternPositions(A,M)}var S=t.translatePosMatrix(y.posMatrix,x,r.paint.get("fill-translate"),r.paint.get("fill-translate-anchor"));if(o){u=b.indexBuffer2,f=b.segments2;var E=[h.drawingBufferWidth,h.drawingBufferHeight];c="fillOutlinePattern"===l&&d?Pr(S,t,g,x,E):Cr(S,E)}else u=b.indexBuffer,f=b.segments,c=d?Lr(S,t,g,x):Er(S);w.draw(t.context,s,i,t.stencilModeForClipping(y),a,Ct.disabled,c,r.id,b.layoutVertexBuffer,u,f,r.paint,t.transform.zoom,_)}}}}function ln(t,e,r,n,i,a,o){for(var s=t.context,l=s.gl,c=r.paint.get("fill-extrusion-pattern"),u=c.constantOr(1),f=r.getCrossfadeParameters(),h=r.paint.get("fill-extrusion-opacity"),p=0,d=n;p<d.length;p+=1){var g=d[p],v=e.getTile(g),m=v.getBucket(r);if(m){var y=m.programConfigurations.get(r.id),x=t.useProgram(u?"fillExtrusionPattern":"fillExtrusion",y);u&&(t.context.activeTexture.set(l.TEXTURE0),v.imageAtlasTexture.bind(l.LINEAR,l.CLAMP_TO_EDGE),y.updatePaintBuffers(f));var b=c.constantOr(null);if(b&&v.imageAtlas){var _=v.imageAtlas,w=_.patternPositions[b.to.toString()],T=_.patternPositions[b.from.toString()];w&&T&&y.setConstantPatternPositions(w,T)}var k=t.translatePosMatrix(g.posMatrix,v,r.paint.get("fill-extrusion-translate"),r.paint.get("fill-extrusion-translate-anchor")),A=r.paint.get("fill-extrusion-vertical-gradient"),M=u?Sr(k,t,A,h,g,f,v):Mr(k,t,A,h);x.draw(s,s.gl.TRIANGLES,i,a,o,Ct.backCCW,M,r.id,m.layoutVertexBuffer,m.indexBuffer,m.segments,r.paint,t.transform.zoom,y)}}}function cn(e,r,n,i,a,o){var s=e.context,l=s.gl,c=r.fbo;if(c){var u=e.useProgram("hillshade");s.activeTexture.set(l.TEXTURE0),l.bindTexture(l.TEXTURE_2D,c.colorAttachment.get());var f=function(e,r,n){var i=n.paint.get("hillshade-shadow-color"),a=n.paint.get("hillshade-highlight-color"),o=n.paint.get("hillshade-accent-color"),s=n.paint.get("hillshade-illumination-direction")*(Math.PI/180);"viewport"===n.paint.get("hillshade-illumination-anchor")&&(s-=e.transform.angle);var l,c,u,f=!e.options.moving;return{u_matrix:e.transform.calculatePosMatrix(r.tileID.toUnwrapped(),f),u_image:0,u_latrange:(l=r.tileID,c=Math.pow(2,l.canonical.z),u=l.canonical.y,[new t.MercatorCoordinate(0,u/c).toLngLat().lat,new t.MercatorCoordinate(0,(u+1)/c).toLngLat().lat]),u_light:[n.paint.get("hillshade-exaggeration"),s],u_shadow:i,u_highlight:a,u_accent:o}}(e,r,n);u.draw(s,l.TRIANGLES,i,a,o,Ct.disabled,f,n.id,e.rasterBoundsBuffer,e.quadTriangleIndexBuffer,e.rasterBoundsSegments)}}function un(e,r,n,i,a,o,s){var l=e.context,c=l.gl,u=r.dem;if(u&&u.data){var f=u.dim,h=u.stride,p=u.getPixels();if(l.activeTexture.set(c.TEXTURE1),l.pixelStoreUnpackPremultiplyAlpha.set(!1),r.demTexture=r.demTexture||e.getTileTexture(h),r.demTexture){var d=r.demTexture;d.update(p,{premultiply:!1}),d.bind(c.NEAREST,c.CLAMP_TO_EDGE)}else r.demTexture=new t.Texture(l,p,c.RGBA,{premultiply:!1}),r.demTexture.bind(c.NEAREST,c.CLAMP_TO_EDGE);l.activeTexture.set(c.TEXTURE0);var g=r.fbo;if(!g){var v=new t.Texture(l,{width:f,height:f,data:null},c.RGBA);v.bind(c.LINEAR,c.CLAMP_TO_EDGE),(g=r.fbo=l.createFramebuffer(f,f,!0)).colorAttachment.set(v.texture)}l.bindFramebuffer.set(g.framebuffer),l.viewport.set([0,0,f,f]),e.useProgram("hillshadePrepare").draw(l,c.TRIANGLES,a,o,s,Ct.disabled,function(e,r,n){var i=r.stride,a=t.create();return

t.ortho(a,0,t.EXTENT,-t.EXTENT,0,0,1),t.translate(a,a,[0,-t.EXTENT,0]),{u_matrix:a,u_image:1,u_dimension:[i,i],u_zoom:e.overscaledZ,u_maxzoom:n,u_unpack:r.getUnpackVector()}}(r.tileID,u,i),n.id,e.rasterBoundsBuffer,e.quadTriangleIndexBuffer,e.rasterBoundsSegments),r.needsHillshadePrepare=!1}}function fn(e,r,n,i,a){var o=i.paint.get("raster-fade-duration");if(o>0){var s=t.browser.now(),l=(s-e.timeAdded)/o,c=r?(s-r.timeAdded)/o:-1,u=n.getSource(),f=a.coveringZoomLevel({tileSize:u.tileSize,roundZoom:u.roundZoom}),h=!r||Math.abs(r.tileID.overscaledZ-f)>Math.abs(e.tileID.overscaledZ-f),p=h&&e.refreshedUponExpiration?1:t.clamp(h?l:1-c,0,1);return e.refreshedUponExpiration&&l>=1&&(e.refreshedUponExpiration=!1),r?{opacity:1,mix:1-p}:{opacity:p,mix:0}}return{opacity:1,mix:0}}var hn=new t.Color(1,0,0,1),pn=new t.Color(0,1,0,1),dn=new t.Color(0,0,1,1),gn=new t.Color(1,0,1,1),vn=new t.Color(0,1,1,1);function mn(t){var e=t.transform.padding;yn(t,t.transform.height-(e.top||0),3,hn),yn(t,e.bottom||0,3,pn),xn(t,e.left||0,3,dn),xn(t,t.transform.width-(e.right||0),3,gn);var r=t.transform.centerPoint;!function(t,e,r,n){var i=20,a=2;bn(t,e-a/2,r-i/2,a,i,n),bn(t,e-i/2,r-a/2,i,a,n)}(t,r.x,t.transform.height-r.y,vn)}function yn(t,e,r,n){bn(t,0,e+r/2,t.transform.width,r,n)}function xn(t,e,r,n){bn(t,e-r/2,0,r,t.transform.height,n)}function bn(e,r,n,i,a,o){var s=e.context,l=s.gl;l.enable(l.SCISSOR_TEST),l.scissor(r*t.browser.devicePixelRatio,n*t.browser.devicePixelRatio,i*t.browser.devicePixelRatio,a*t.browser.devicePixelRatio),s.clear({color:o}),l.disable(l.SCISSOR_TEST)}function _n(e,r,n){var i=e.context,a=i.gl,o=n.posMatrix,s=e.useProgram("debug"),l=Mt.disabled,c=Et.disabled,u=e.colorModeForRenderPass(),f="$debug";i.activeTexture.set(a.TEXTURE0),e.emptyTexture.bind(a.LINEAR,a.CLAMP_TO_EDGE),s.draw(i,a.LINE_STRIP,l,c,u,Ct.disabled,Dr(o,t.Color.red),f,e.debugBuffer,e.tileBorderIndexBuffer,e.debugSegments);var h=r.getTileByID(n.key).latestRawTileData,p=h&&h.byteLength||0,d=Math.floor(p/1024),g=r.getTile(n).tileSize,v=512/Math.min(g,512)*(n.overscaledZ/e.transform.zoom)*.5,m=n.canonical.toString();n.overscaledZ!==n.canonical.z&&(m+=" => "+n.overscaledZ),function(t,e){t.initDebugOverlayCanvas();var r=t.debugOverlayCanvas,n=t.context.gl,i=t.debugOverlayCanvas.getContext("2d");i.clearRect(0,0,r.width,r.height),i.shadowColor="white",i.shadowBlur=2,i.lineWidth=1.5,i.strokeStyle="white",i.textBaseline="top",i.font="bold 36px Open Sans, sans-serif",i.fillText(e,5,5),i.strokeText(e,5,5),t.debugOverlayTexture.update(r),t.debugOverlayTexture.bind(n.LINEAR,n.CLAMP_TO_EDGE)}(e,m+"
"+d+"kb"),s.draw(i,a.TRIANGLES,l,c,Lt.alphaBlended,Ct.disabled,Dr(o,t.Color.transparent,v),f,e.debugBuffer,e.quadTriangleIndexBuffer,e.debugSegments)}var wn={symbol:function(e,r,n,i,a){if("translucent"===e.renderPass){var o=Et.disabled,s=e.colorModeForRenderPass();n.layout.get("text-variable-anchor")&&function(e,r,n,i,a,o,s){for(var l=r.transform,c="map"===a,u="map"===o,f=0,h=e;f<h.length;f+=1){var p=h[f],d=i.getTile(p),g=d.getBucket(n);if(g&&g.text&&g.text.segments.get().length){var v=g.textSizeData,m=t.evaluateSizeForZoom(v,l.zoom),y=ve(d,1,r.transform.zoom),x=te(p.posMatrix,u,c,r.transform,y),b="none"!==n.layout.get("icon-text-fit")&&g.hasIconData();if(m){var _=Math.pow(2,l.zoom-d.tileID.overscaledZ);rn(g,c,u,s,t.symbolSize,l,x,p.posMatrix,_,m,b)}}}}(i,e,n,r,n.layout.get("text-rotation-alignment"),n.layout.get("text-pitch-alignment"),a),0!==n.paint.get("icon-opacity").constantOr(1)&&an(e,r,n,i,!1,n.paint.get("icon-translate"),n.paint.get("icon-translate-anchor"),n.layout.get("icon-rotation-alignment"),n.layout.get("icon-pitch-alignment"),n.layout.get("icon-keep-upright"),o,s),0!==n.paint.get("text-opacity").constantOr(1)&&an(e,r,n,i,!0,n.paint.get("text-translate"),n.paint.get("text-translate-anchor"),n.layout.get("text-rotation-alignment"),n.layout.get("text-pitch-alignment"),n.layout.get("text-keep-upright"),o,s),r.map.showCollisionBoxes&&($r(e,r,n,i,n.paint.get("text-translate"),n.paint.get("text-translate-anchor"),!0),$r(e,r,n,i,n.paint.get("icon-translate"),n.paint.get("icon-translate-anchor"),!1))}},circle:function(e,r,n,i){if("translucent"===e.renderPass){var a=n.paint.get("circle-opacity"),o=n.paint.get("circle-stroke-width"),s=n.paint.get("circle-stroke-opacity"),l=void 0!==n.layout.get("circle-sort-key").constantOr(1);if(0!==a.constantOr(1)||0!==o.constantOr(1)&&0!==s.constantOr(1)){for(var c=e.context,u=c.gl,f=e.depthModeForSublayer(0,Mt.ReadOnly),h=Et.disabled,p=e.colorModeForRenderPass(),d=[],

g=0;g<i.length;g++){var v=i[g],m=r.getTile(v),y=m.getBucket(n);if(y){var x=y.programConfigurations.get(n.id),b={programConfiguration:x,program:e.useProgram("circle",x),layoutVertexBuffer:y.layoutVertexBuffer,indexBuffer:y.indexBuffer,uniformValues:Ir(e,v,m,n)};if(l)for(var _=0,w=y.segments.get();_<w.length;_+=1){var T=w[_];d.push({segments:new t.SegmentVector([T]),sortKey:T.sortKey,state:b})}else d.push({segments:y.segments,sortKey:0,state:b})}}l&&d.sort((function(t,e){return t.sortKey-e.sortKey}));for(var k=0,A=d;k<A.length;k+=1){var M=A[k],S=M.state,E=S.programConfiguration,L=S.program,C=S.layoutVertexBuffer,P=S.indexBuffer,I=S.uniformValues,O=M.segments;L.draw(c,u.TRIANGLES,f,h,p,Ct.disabled,I,n.id,C,P,O,n.paint,e.transform.zoom,E)}}},heatmap:function(e,r,n,i){if(0!==n.paint.get("heatmap-opacity"))if("offscreen"===e.renderPass){var a=e.context,o=a.gl,s=Et.disabled,l=new Lt([o.ONE,o.ONE],t.Color.transparent,[!0,!0,!0,!0]);(function(t,e,r){var n=t.gl;t.activeTexture.set(n.TEXTURE1),t.viewport.set([0,0,e.width/4,e.height/4]);var i=r.heatmapFbo;if(i)n.bindTexture(n.TEXTURE_2D,i.colorAttachment.get()),t.bindFramebuffer.set(i.framebuffer);else{var a=n.createTexture();n.bindTexture(n.TEXTURE_2D,a),n.texParameteri(n.TEXTURE_2D,n.TEXTURE_WRAP_S,n.CLAMP_TO_EDGE),n.texParameteri(n.TEXTURE_2D,n.TEXTURE_WRAP_T,n.CLAMP_TO_EDGE),n.texParameteri(n.TEXTURE_2D,n.TEXTURE_MIN_FILTER,n.LINEAR),n.texParameteri(n.TEXTURE_2D,n.TEXTURE_MAG_FILTER,n.LINEAR),i=r.heatmapFbo=t.createFramebuffer(e.width/4,e.height/4,!1),function(t,e,r,n){var i=t.gl,a=t.extRenderToTextureHalfFloat?t.extTextureHalfFloat.HALF_FLOAT_OES:i.UNSIGNED_BYTE;i.texImage2D(i.TEXTURE_2D,0,i.RGBA,e.width/4,e.height/4,0,i.RGBA,a,null),n.colorAttachment.set(r)}(t,e,a,i)}})(a,e,n),a.clear({color:t.Color.transparent});for(var c=0;c<i.length;c++){var u=i[c];if(!r.hasRenderableParent(u)){var f=r.getTile(u),h=f.getBucket(n);if(h){var p=h.programConfigurations.get(n.id),d=e.useProgram("heatmap",p),g=e.transform.zoom;d.draw(a,o.TRIANGLES,Mt.disabled,s,l,Ct.disabled,Fr(u.posMatrix,f,g,n.paint.get("heatmap-intensity")),n.id,h.layoutVertexBuffer,h.indexBuffer,h.segments,n.paint,e.transform.zoom,p)}}}a.viewport.set([0,0,e.width,e.height])}else"translucent"===e.renderPass&&(e.context.setColorMode(e.colorModeForRenderPass()),function(e,r){var n=e.context,i=n.gl,a=r.heatmapFbo;if(a){n.activeTexture.set(i.TEXTURE0),i.bindTexture(i.TEXTURE_2D,a.colorAttachment.get()),n.activeTexture.set(i.TEXTURE1);var o=r.colorRampTexture;o||(o=r.colorRampTexture=new t.Texture(n,r.colorRamp,i.RGBA)),o.bind(i.LINEAR,i.CLAMP_TO_EDGE),e.useProgram("heatmapTexture").draw(n,i.TRIANGLES,Mt.disabled,Et.disabled,e.colorModeForRenderPass(),Ct.disabled,function(e,r,n,i){var a=t.create();t.ortho(a,0,e.width,e.height,0,0,1);var o=e.context.gl;return{u_matrix:a,u_world:[o.drawingBufferWidth,o.drawingBufferHeight],u_image:n,u_color_ramp:i,u_opacity:r.paint.get("heatmap-opacity")}}(e,r,0,1),r.id,e.viewportBuffer,e.quadTriangleIndexBuffer,e.viewportSegments,r.paint,e.transform.zoom)}}(e,n))},line:function(e,r,n,i){if("translucent"===e.renderPass){var a=n.paint.get("line-opacity"),o=n.paint.get("line-width");if(0!==a.constantOr(1)&&0!==o.constantOr(1)){var s=e.depthModeForSublayer(0,Mt.ReadOnly),l=e.colorModeForRenderPass(),c=n.paint.get("line-dasharray"),u=n.paint.get("line-pattern"),f=u.constantOr(1),h=n.paint.get("line-gradient"),p=n.getCrossfadeParameters(),d=f?"linePattern":c?"lineSDF":h?"lineGradient":"line",g=e.context,v=g.gl,m=!0;if(h){g.activeTexture.set(v.TEXTURE0);var y=n.gradientTexture;if(!n.gradient)return;y||(y=n.gradientTexture=new t.Texture(g,n.gradient,v.RGBA)),y.bind(v.LINEAR,v.CLAMP_TO_EDGE)}for(var x=0,b=i;x<b.length;x+=1){var _=b[x],w=r.getTile(_);if(!f||w.patternsLoaded()){var T=w.getBucket(n);if(T){var k=T.programConfigurations.get(n.id),A=e.context.program.get(),M=e.useProgram(d,k),S=m||M.program!==A,E=u.constantOr(null);if(E&&w.imageAtlas){var L=w.imageAtlas,C=L.patternPositions[E.to.toString()],P=L.patternPositions[E.from.toString()];C&&P&&k.setConstantPatternPositions(C,P)}var

I=f?jr(e,w,n,p):c?Ur(e,w,n,c,p):h?Nr(e,w,n):Br(e,w,n);f?(g.activeTexture.set(v.TEXTURE0),w.imageAtlasTexture.bind(v.LINEAR,v.CLAMP_TO_EDGE),k.updatePaintBuffers(p)):c&&(S||e.lineAtlas.dirty)&&(g.activeTexture.set(v.TEXTURE0),e.lineAtlas.bind(g)),M.draw(g,v.TRIANGLES,s,e.stencilModeForClipping(_),l,Ct.disabled,I,n.id,T.layoutVertexBuffer,T.indexBuffer,T.segments,n.paint,e.transform.zoom,k),m=!1}}}}}},fill:function(e,r,n,i){var a=n.paint.get("fill-color"),o=n.paint.get("fill-opacity");if(0!==o.constantOr(1)){var s=e.colorModeForRenderPass(),l=n.paint.get("fill-pattern"),c=e.opaquePassEnabledForLayer()&&!l.constantOr(1)&&1===a.constantOr(t.Color.transparent).a&&1===o.constantOr(0)?"opaque":"translucent";if(e.renderPass===c){var u=e.depthModeForSublayer(1,"opaque"===e.renderPass?Mt.ReadWrite:Mt.ReadOnly);sn(e,r,n,i,u,s,!1)}if("translucent"===e.renderPass&&n.paint.get("fill-antialias")){var f=e.depthModeForSublayer(n.getPaintProperty("fill-outline-color")?2:0,Mt.ReadOnly);sn(e,r,n,i,f,s,!0)}}},"fill-extrusion":function(t,e,r,n){var i=r.paint.get("fill-extrusion-opacity");if(0!==i&&"translucent"===t.renderPass){var a=new Mt(t.context.gl.LEQUAL,Mt.ReadWrite,t.depthRangeFor3D);if(1!==i||r.paint.get("fill-extrusion-pattern").constantOr(1))ln(t,e,r,n,a,Et.disabled,Lt.disabled),ln(t,e,r,n,a,t.stencilModeFor3D(),t.colorModeForRenderPass());else{var o=t.colorModeForRenderPass();ln(t,e,r,n,a,Et.disabled,o)}}},hillshade:function(t,e,r,n){if("offscreen"===t.renderPass||"translucent"===t.renderPass){for(var i=t.context,a=e.getSource().maxzoom,o=t.depthModeForSublayer(0,Mt.ReadOnly),s=t.colorModeForRenderPass(),l="translucent"===t.renderPass?t.stencilConfigForOverlap(n):[{},n],c=l[0],u=0,f=l[1];u<f.length;u+=1){var h=f[u],p=e.getTile(h);p.needsHillshadePrepare&&"offscreen"===t.renderPass?un(t,p,r,a,o,Et.disabled,s):"translucent"===t.renderPass&&cn(t,p,r,o,c[h.overscaledZ],s)}i.viewport.set([0,0,t.width,t.height])}},raster:function(t,e,r,n){if("translucent"===t.renderPass&&0!==r.paint.get("raster-opacity")&&n.length)for(var i=t.context,a=i.gl,o=e.getSource(),s=t.useProgram("raster"),l=t.colorModeForRenderPass(),c=o instanceof O?[{},n]:t.stencilConfigForOverlap(n),u=c[0],f=c[1],h=f[f.length-1].overscaledZ,p=!t.options.moving,d=0,g=f;d<g.length;d+=1){var v=g[d],m=t.depthModeForSublayer(v.overscaledZ-h,1===r.paint.get("raster-opacity")?Mt.ReadWrite:Mt.ReadOnly,a.LESS),y=e.getTile(v),x=t.transform.calculatePosMatrix(v.toUnwrapped(),p);y.registerFadeDuration(r.paint.get("raster-fade-duration"));var b=e.findLoadedParent(v,0),_=fn(y,b,e,r,t.transform),w=void 0,T=void 0,k="nearest"===r.paint.get("raster-resampling")?a.NEAREST:a.LINEAR;i.activeTexture.set(a.TEXTURE0),y.texture.bind(k,a.CLAMP_TO_EDGE,a.LINEAR_MIPMAP_NEAREST),i.activeTexture.set(a.TEXTURE1),b?(b.texture.bind(k,a.CLAMP_TO_EDGE,a.LINEAR_MIPMAP_NEAREST),w=Math.pow(2,b.tileID.overscaledZ-y.tileID.overscaledZ),T=[y.tileID.canonical.x*w%1,y.tileID.canonical.y*w%1]):y.texture.bind(k,a.CLAMP_TO_EDGE,a.LINEAR_MIPMAP_NEAREST);var A=Hr(x,T||[0,0],w||1,_,r);o instanceof O?s.draw(i,a.TRIANGLES,m,Et.disabled,l,Ct.disabled,A,r.id,o.boundsBuffer,t.quadTriangleIndexBuffer,o.boundsSegments):s.draw(i,a.TRIANGLES,m,u[v.overscaledZ],l,Ct.disabled,A,r.id,t.rasterBoundsBuffer,t.quadTriangleIndexBuffer,t.rasterBoundsSegments)}},background:function(t,e,r){var n=r.paint.get("background-color"),i=r.paint.get("background-opacity");if(0!==i){var a=t.context,o=a.gl,s=t.transform,l=s.tileSize,c=r.paint.get("background-pattern");if(!t.isPatternMissing(c)){var u=!c&&1===n.a&&1===i&&t.opaquePassEnabledForLayer()?"opaque":"translucent";if(t.renderPass===u){var f=Et.disabled,h=t.depthModeForSublayer(0,"opaque"===u?Mt.ReadWrite:Mt.ReadOnly),p=t.colorModeForRenderPass(),d=t.useProgram(c?"backgroundPattern":"background"),g=s.coveringTiles({tileSize:l});c&&(a.activeTexture.set(o.TEXTURE0),t.imageManager.bind(t.context));for(var v=r.getCrossfadeParameters(),m=0,y=g;m<y.length;m+=1){var x=y[m],b=t.transform.calculatePosMatrix(x.toUnwrapped()),_=c?Kr(b,i,t,c,{tileID:x,tileSize:l},v):Jr(b,i,n);d.draw(a,o.TRIANGLES,h,f,p,Ct.disabled,_,r.id,t.tileExtentBuffer,t.quadTriangleIndexBuffer,t.tileExtentSegments)}}}},debug:function(t,e,r){for(var n=0;n<r.length;n++)_n(t,e,r[n])},custom:function(t,e,r){var n=t.context,i=r.implementation;if("offscreen"===t.renderPass){var

a=i.prerender;a&&(t.setCustomLayerDefaults(),n.setColorMode(t.colorModeForRenderPass()),a.call(i,n.gl,t.transform.customLayerMatrix()),n.setDirty(),t.setBaseState())}else if("translucent"===t.renderPass){t.setCustomLayerDefaults(),n.setColorMode(t.colorModeForRenderPass()),n.setStencilMode(Et.disabled);var o="3d"===i.renderingMode?new Mt(t.context.gl.LEQUAL,Mt.ReadWrite,t.depthRangeFor3D):t.depthModeForSublayer(0,Mt.ReadOnly);n.setDepthMode(o),i.render(n.gl,t.transform.customLayerMatrix()),n.setDirty(),t.setBaseState(),n.bindFramebuffer.set(null)}}},Tn=function(t,e){this.context=new Pt(t),this.transform=e,this._tileTextures={},this.setup(),this.numSublayers=It.maxUnderzooming+It.maxOverzooming+1,this.depthEpsilon=1/Math.pow(2,16),this.crossTileSymbolIndex=new Ve,this.gpuTimers={}};Tn.prototype.resize=function(e,r){if(this.width=e*t.browser.devicePixelRatio,this.height=r*t.browser.devicePixelRatio,this.context.viewport.set([0,0,this.width,this.height]),this.style)for(var n=0,i=this.style._order;n<i.length;n+=1){var a=i[n];this.style._layers[a].resize()}},Tn.prototype.setup=function(){var e=this.context,r=new t.StructArrayLayout2i4;r.emplaceBack(0,0),r.emplaceBack(t.EXTENT,0),r.emplaceBack(0,t.EXTENT),r.emplaceBack(t.EXTENT,t.EXTENT),this.tileExtentBuffer=e.createVertexBuffer(r,Xe.members),this.tileExtentSegments=t.SegmentVector.simpleSegment(0,0,4,2);var n=new t.StructArrayLayout2i4;n.emplaceBack(0,0),n.emplaceBack(t.EXTENT,0),n.emplaceBack(0,t.EXTENT),n.emplaceBack(t.EXTENT,t.EXTENT),this.debugBuffer=e.createVertexBuffer(n,Xe.members),this.debugSegments=t.SegmentVector.simpleSegment(0,0,4,5);var i=new t.StructArrayLayout4i8;i.emplaceBack(0,0,0,0),i.emplaceBack(t.EXTENT,0,t.EXTENT,0),i.emplaceBack(0,t.EXTENT,0,t.EXTENT),i.emplaceBack(t.EXTENT,t.EXTENT,t.EXTENT,t.EXTENT),this.rasterBoundsBuffer=e.createVertexBuffer(i,I.members),this.rasterBoundsSegments=t.SegmentVector.simpleSegment(0,0,4,2);var a=new t.StructArrayLayout2i4;a.emplaceBack(0,0),a.emplaceBack(1,0),a.emplaceBack(0,1),a.emplaceBack(1,1),this.viewportBuffer=e.createVertexBuffer(a,Xe.members),this.viewportSegments=t.SegmentVector.simpleSegment(0,0,4,2);var o=new t.StructArrayLayout1ui2;o.emplaceBack(0),o.emplaceBack(1),o.emplaceBack(3),o.emplaceBack(2),o.emplaceBack(0),this.tileBorderIndexBuffer=e.createIndexBuffer(o);var s=new t.StructArrayLayout3ui6;s.emplaceBack(0,1,2),s.emplaceBack(2,1,3),this.quadTriangleIndexBuffer=e.createIndexBuffer(s),this.emptyTexture=new t.Texture(e,{width:1,height:1,data:new Uint8Array([0,0,0,0])},e.gl.RGBA);var l=this.context.gl;this.stencilClearMode=new Et({func:l.ALWAYS,mask:0},0,255,l.ZERO,l.ZERO,l.ZERO)},Tn.prototype.clearStencil=function(){var e=this.context,r=e.gl;this.nextStencilID=1,this.currentStencilSource=void 0;var n=t.create();t.ortho(n,0,this.width,this.height,0,0,1),t.scale(n,n,[r.drawingBufferWidth,r.drawingBufferHeight,0]),this.useProgram("clippingMask").draw(e,r.TRIANGLES,Mt.disabled,this.stencilClearMode,Lt.disabled,Ct.disabled,Rr(n),"$clipping",this.viewportBuffer,this.quadTriangleIndexBuffer,this.viewportSegments)},Tn.prototype._renderTileClippingMasks=function(t,e){if(this.currentStencilSource!==t.source&&t.isTileClipped()&&e&&e.length){this.currentStencilSource=t.source;var r=this.context,n=r.gl;this.nextStencilID+e.length>256&&this.clearStencil(),r.setColorMode(Lt.disabled),r.setDepthMode(Mt.disabled);var i=this.useProgram("clippingMask");this._tileClippingMaskIDs={};for(var a=0,o=e;a<o.length;a+=1){var s=o[a],l=this._tileClippingMaskIDs[s.key]=this.nextStencilID++;i.draw(r,n.TRIANGLES,Mt.disabled,new Et({func:n.ALWAYS,mask:0},l,255,n.KEEP,n.KEEP,n.REPLACE),Lt.disabled,Ct.disabled,Rr(s.posMatrix),"$clipping",this.tileExtentBuffer,this.quadTriangleIndexBuffer,this.tileExtentSegments)}}},Tn.prototype.stencilModeFor3D=function(){this.currentStencilSource=void 0,this.nextStencilID+1>256&&this.clearStencil();var t=this.nextStencilID++,e=this.context.gl;return new Et({func:e.NOTEQUAL,mask:255},t,255,e.KEEP,e.KEEP,e.REPLACE)},Tn.prototype.stencilModeForClipping=function(t){var e=this.context.gl;return new Et({func:e.EQUAL,mask:255},this._tileClippingMaskIDs[t.key],0,e.KEEP,e.KEEP,e.REPLACE)},Tn.prototype.ste

ncilConfigForOverlap=function(t){var e,r=this.context.gl,n=t.sort((function(t,e){return e.overscaledZ-t.overscaledZ})),i=n[n.length-1].overscaledZ,a=n[0].overscaledZ-i+1;if(a>1){this.currentStencilSource=void 0,this.nextStencilID+a>256&&this.clearStencil();for(var o={},s=0;s<a;s++)o[s+i]=new Et({func:r.GEQUAL,mask:255},s+this.nextStencilID,255,r.KEEP,r.KEEP,r.REPLACE);return this.nextStencilID+=a,[o,n]}return[(e={},e[i]=Et.disabled,e),n]},Tn.prototype.colorModeForRenderPass=function(){var e=this.context.gl;if(this._showOverdrawInspector){var r=1/8;return new Lt([e.CONSTANT_COLOR,e.ONE],new t.Color(r,r,r,0),[!0,!0,!0,!0])}return"opaque"===this.renderPass?Lt.unblended:Lt.alphaBlended},Tn.prototype.depthModeForSublayer=function(t,e,r){if(!this.opaquePassEnabledForLayer())return Mt.disabled;var n=1-((1+this.currentLayer)*this.numSublayers+t)*this.depthEpsilon;return new Mt(r||this.context.gl.LEQUAL,e,[n,n])},Tn.prototype.opaquePassEnabledForLayer=function(){return this.currentLayer<this.opaquePassCutoff},Tn.prototype.render=function(e,r){var n=this;this.style=e,this.options=r,this.lineAtlas=e.lineAtlas,this.imageManager=e.imageManager,this.glyphManager=e.glyphManager,this.symbolFadeChange=e.placement.symbolFadeChange(t.browser.now()),this.imageManager.beginFrame();var i=this.style._order,a=this.style.sourceCaches;for(var o in a){var s=a[o];s.used&&s.prepare(this.context)}var l,c,u={},f={},h={};for(var p in a){var d=a[p];u[p]=d.getVisibleCoordinates(),f[p]=u[p].slice().reverse(),h[p]=d.getVisibleCoordinates(!0).reverse()}this.opaquePassCutoff=1/0;for(var g=0;g<i.length;g++){var v=i[g];if(this.style._layers[v].is3D()){this.opaquePassCutoff=g;break}}this.renderPass="offscreen";for(var m=0,y=i;m<y.length;m+=1){var x=y[m],b=this.style._layers[x];if(b.hasOffscreenPass()&&!b.isHidden(this.transform.zoom)){var _=f[b.source];("custom"===b.type||_.length)&&this.renderLayer(this,a[b.source],b,_)}}for(this.context.bindFramebuffer.set(null),this.context.clear({color:r.showOverdrawInspector?t.Color.black:t.Color.transparent,depth:1}),this.clearStencil(),this._showOverdrawInspector=r.showOverdrawInspector,this.depthRangeFor3D=[0,1-(e._order.length+2)*this.numSublayers*this.depthEpsilon],this.renderPass="opaque",this.currentLayer=i.length-1;this.currentLayer>=0;this.currentLayer--){var w=this.style._layers[i[this.currentLayer]],T=a[w.source],k=u[w.source];this._renderTileClippingMasks(w,k),this.renderLayer(this,T,w,k)}for(this.renderPass="translucent",this.currentLayer=0;this.currentLayer<i.length;this.currentLayer++){var A=this.style._layers[i[this.currentLayer]],M=a[A.source],S=("symbol"===A.type?h:f)[A.source];this._renderTileClippingMasks(A,u[A.source]),this.renderLayer(this,M,A,S)}this.options.showTileBoundaries&&(t.values(this.style._layers).forEach((function(t){t.source&&!t.isHidden(n.transform.zoom)&&(t.source!==(c&&c.id)&&(c=n.style.sourceCaches[t.source]),(!l||l.getSource().maxzoom<c.getSource().maxzoom)&&(l=c))})),l&&wn.debug(this,l,l.getVisibleCoordinates())),this.options.showPadding&&mn(this),this.context.setDefault()},Tn.prototype.renderLayer=function(t,e,r,n){r.isHidden(this.transform.zoom)||("background"===r.type||"custom"===r.type||n.length)&&(this.id=r.id,this.gpuTimingStart(r),wn[r.type](t,e,r,n,this.style.placement.variableOffsets),this.gpuTimingEnd())},Tn.prototype.gpuTimingStart=function(t){if(this.options.gpuTiming){var e=this.context.extTimerQuery,r=this.gpuTimers[t.id];r||(r=this.gpuTimers[t.id]={calls:0,cpuTime:0,query:e.createQueryEXT()}),r.calls++,e.beginQueryEXT(e.TIME_ELAPSED_EXT,r.query)}},Tn.prototype.gpuTimingEnd=function(){if(this.options.gpuTiming){var t=this.context.extTimerQuery;t.endQueryEXT(t.TIME_ELAPSED_EXT)}},Tn.prototype.collectGpuTimers=function(){var t=this.gpuTimers;return this.gpuTimers={},t},Tn.prototype.queryGpuTimers=function(t){var e={};for(var r in t){var n=t[r],i=this.context.extTimerQuery,a=i.getQueryObjectEXT(n.query,i.QUERY_RESULT_EXT)/1e6;i.deleteQueryEXT(n.query),e[r]=a}return e},Tn.prototype.translatePosMatrix=function(e,r,n,i,a){if(!n[0]&&!n[1])return e;var o=a?"map"===i?this.transform.angle:0:"viewport"===i?-this.transform.angle:0;if(o){var s=Math.sin(o),l=Math.cos(o);n=[n[0]*l-n[1]*s,n[0]*s+n[1]*l]}var c=[a?n[0]:ve(r,n[0],this.transform.zoom),a?n[1]:ve(r,n[1],this.transform.zoom),0],u=new Float32Array(16);return

t.translate(u,e,c),u},Tn.prototype.saveTileTexture=function(t){var e=this._tileTextures[t.size[0]];e?e.push(t):this._tileTextures[t.size[0]]=[t]},Tn.prototype.getTileTexture=function(t){var e=this._tileTextures[t];return e&&e.length>0?e.pop():null},Tn.prototype.isPatternMissing=function(t){if(!t)return!1;if(!t.from||!t.to)return!0;var e=this.imageManager.getPattern(t.from.toString()),r=this.imageManager.getPattern(t.to.toString());return!e||!r},Tn.prototype.useProgram=function(t,e){this.cache=this.cache||{};var r=""+t+(e?e.cacheKey:"")+(this._showOverdrawInspector?"/overdraw":"");return this.cache[r]||(this.cache[r]=new kr(this.context,wr[t],e,Qr[t],this._showOverdrawInspector)),this.cache[r]},Tn.prototype.setCustomLayerDefaults=function(){this.context.unbindVAO(),this.context.cullFace.setDefault(),this.context.activeTexture.setDefault(),this.context.pixelStoreUnpack.setDefault(),this.context.pixelStoreUnpackPremultiplyAlpha.setDefault(),this.context.pixelStoreUnpackFlipY.setDefault()},Tn.prototype.setBaseState=function(){var t=this.context.gl;this.context.cullFace.set(!1),this.context.viewport.set([0,0,this.width,this.height]),this.context.blendEquation.set(t.FUNC_ADD)},Tn.prototype.initDebugOverlayCanvas=function(){if(null==this.debugOverlayCanvas){this.debugOverlayCanvas=t.window.document.createElement("canvas"),this.debugOverlayCanvas.width=512,this.debugOverlayCanvas.height=512;var e=this.context.gl;this.debugOverlayTexture=new t.Texture(this.context,this.debugOverlayCanvas,e.RGBA)}},Tn.prototype.destroy=function(){this.emptyTexture.destroy(),this.debugOverlayTexture&&this.debugOverlayTexture.destroy()};var kn=function(t,e){this.points=t,this.planes=e};kn.fromInvProjectionMatrix=function(e,r,n){var i=Math.pow(2,n),a=[[-1,1,-1,1],[1,1,-1,1],[1,-1,-1,1],[-1,-1,-1,1],[-1,1,1,1],[1,1,1,1],[1,-1,1,1],[-1,-1,1,1]].map((function(r){return t.transformMat4([],r,e)})).map((function(e){return t.scale$1([],e,1/e[3]/r*i)})),o=[[0,1,2],[6,5,4],[0,3,7],[2,1,5],[3,2,6],[0,4,5]].map((function(e){var r=t.sub([],a[e[0]],a[e[1]]),n=t.sub([],a[e[2]],a[e[1]]),i=t.normalize([],t.cross([],r,n)),o=-t.dot(i,a[e[1]]);return i.concat(o)}));return new kn(a,o)};var An=function(e,r){this.min=e,this.max=r,this.center=t.scale$2([],t.add([],this.min,this.max),.5)};An.prototype.quadrant=function(e){for(var r=[e%2==0,e<2],n=t.clone$2(this.min),i=t.clone$2(this.max),a=0;a<r.length;a++)n[a]=r[a]?this.min[a]:this.center[a],i[a]=r[a]?this.center[a]:this.max[a];return i[2]=this.max[2],new An(n,i)},An.prototype.distanceX=function(t){return Math.max(Math.min(this.max[0],t[0]),this.min[0])-t[0]},An.prototype.distanceY=function(t){return Math.max(Math.min(this.max[1],t[1]),this.min[1])-t[1]},An.prototype.intersects=function(e){for(var r=[[this.min[0],this.min[1],0,1],[this.max[0],this.min[1],0,1],[this.max[0],this.max[1],0,1],[this.min[0],this.max[1],0,1]],n=!0,i=0;i<e.planes.length;i++){for(var a=e.planes[i],o=0,s=0;s<r.length;s++)o+=t.dot$1(a,r[s])>=0;if(0===o)return 0;o!==r.length&&(n=!1)}if(n)return 2;for(var l=0;l<3;l++){for(var c=Number.MAX_VALUE,u=-Number.MAX_VALUE,f=0;f<e.points.length;f++){var h=e.points[f][l]-this.min[l];c=Math.min(c,h),u=Math.max(u,h)}if(u<0||c>this.max[l]-this.min[l])return 0}return 1};var Mn=function(t,e,r,n){if(void 0===t&&(t=0),void 0===e&&(e=0),void 0===r&&(r=0),void 0===n&&(n=0),isNaN(t)||t<0||isNaN(e)||e<0||isNaN(r)||r<0||isNaN(n)||n<0)throw new Error("Invalid value for edge-insets, top, bottom, left and right must all be numbers");this.top=t,this.bottom=e,this.left=r,this.right=n};Mn.prototype.interpolate=function(e,r,n){return null!=r.top&&null!=e.top&&(this.top=t.number(e.top,r.top,n)),null!=r.bottom&&null!=e.bottom&&(this.bottom=t.number(e.bottom,r.bottom,n)),null!=r.left&&null!=e.left&&(this.left=t.number(e.left,r.left,n)),null!=r.right&&null!=e.right&&(this.right=t.number(e.right,r.right,n)),this},Mn.prototype.getCenter=function(e,r){var n=t.clamp((this.left+e-this.right)/2,0,e),i=t.clamp((this.top+r-this.bottom)/2,0,r);return new t.Point(n,i)},Mn.prototype.equals=function(t){return this.top===t.top&&this.bottom===t.bottom&&this.left===t.left&&this.right===t.right},Mn.prototype.clone=function(){return new Mn(this.top,this.bottom,this.left,this.right)},Mn.prototype.toJSON=function(){return{top:this.top,bottom:this.bottom,left:this.left,right:this.right}};var

Sn=function(e,r,n,i,a){this.tileSize=512,this.maxValidLatitude=85.051129,this._renderWorldCopies=void 0===a||a,this._minZoom=e||0,this._maxZoom=r||22,this._minPitch=null==n?0:n,this._maxPitch=null==i?60:i,this.setMaxBounds(),this.width=0,this.height=0,this._center=new t.LngLat(0,0),this.zoom=0,this.angle=0,this._fov=.6435011087932844,this._pitch=0,this._unmodified=!0,this._edgeInsets=new Mn,this._posMatrixCache={},this._alignedPosMatrixCache={}},En={minZoom:{configurable:!0},maxZoom:{configurable:!0},minPitch:{configurable:!0},maxPitch:{configurable:!0},renderWorldCopies:{configurable:!0},worldSize:{configurable:!0},centerOffset:{configurable:!0},size:{configurable:!0},bearing:{configurable:!0},pitch:{configurable:!0},fov:{configurable:!0},zoom:{configurable:!0},center:{configurable:!0},padding:{configurable:!0},centerPoint:{configurable:!0},unmodified:{configurable:!0},point:{configurable:!0}};Sn.prototype.clone=function(){var t=new Sn(this._minZoom,this._maxZoom,this._minPitch,this.maxPitch,this._renderWorldCopies);return t.tileSize=this.tileSize,t.latRange=this.latRange,t.width=this.width,t.height=this.height,t._center=this._center,t.zoom=this.zoom,t.angle=this.angle,t._fov=this._fov,t._pitch=this._pitch,t._unmodified=this._unmodified,t._edgeInsets=this._edgeInsets.clone(),t._calcMatrices(),t},En.minZoom.get=function(){return this._minZoom},En.minZoom.set=function(t){this._minZoom!==t&&(this._minZoom=t,this.zoom=Math.max(this.zoom,t))},En.maxZoom.get=function(){return this._maxZoom},En.maxZoom.set=function(t){this._maxZoom!==t&&(this._maxZoom=t,this.zoom=Math.min(this.zoom,t))},En.minPitch.get=function(){return this._minPitch},En.minPitch.set=function(t){this._minPitch!==t&&(this._minPitch=t,this.pitch=Math.max(this.pitch,t))},En.maxPitch.get=function(){return this._maxPitch},En.maxPitch.set=function(t){this._maxPitch!==t&&(this._maxPitch=t,this.pitch=Math.min(this.pitch,t))},En.renderWorldCopies.get=function(){return this._renderWorldCopies},En.renderWorldCopies.set=function(t){void 0===t?t=!0:null===t&&(t=!1),this._renderWorldCopies=t},En.worldSize.get=function(){return this.tileSize*this.scale},En.centerOffset.get=function(){return this.centerPoint._sub(this.size._div(2))},En.size.get=function(){return new t.Point(this.width,this.height)},En.bearing.get=function(){return-this.angle/Math.PI*180},En.bearing.set=function(e){var r=-t.wrap(e,-180,180)*Math.PI/180;this.angle!==r&&(this._unmodified=!1,this.angle=r,this._calcMatrices(),this.rotationMatrix=t.create$2(),t.rotate(this.rotationMatrix,this.rotationMatrix,this.angle))},En.pitch.get=function(){return this._pitch/Math.PI*180},En.pitch.set=function(e){var r=t.clamp(e,this.minPitch,this.maxPitch)/180*Math.PI;this._pitch!==r&&(this._unmodified=!1,this._pitch=r,this._calcMatrices())},En.fov.get=function(){return this._fov/Math.PI*180},En.fov.set=function(t){t=Math.max(.01,Math.min(60,t)),this._fov!==t&&(this._unmodified=!1,this._fov=t/180*Math.PI,this._calcMatrices())},En.zoom.get=function(){return this._zoom},En.zoom.set=function(t){var e=Math.min(Math.max(t,this.minZoom),this.maxZoom);this._zoom!==e&&(this._unmodified=!1,this._zoom=e,this.scale=this.zoomScale(e),this.tileZoom=Math.floor(e),this.zoomFraction=e-this.tileZoom,this._constrain(),this._calcMatrices())},En.center.get=function(){return this._center},En.center.set=function(t){t.lat===this._center.lat&&t.lng===this._center.lng||(this._unmodified=!1,this._center=t,this._constrain(),this._calcMatrices())},En.padding.get=function(){return this._edgeInsets.toJSON()},En.padding.set=function(t){this._edgeInsets.equals(t)||(this._unmodified=!1,this._edgeInsets.interpolate(this._edgeInsets,t,1),this._calcMatrices())},En.centerPoint.get=function(){return this._edgeInsets.getCenter(this.width,this.height)},Sn.prototype.isPaddingEqual=function(t){return this._edgeInsets.equals(t)},Sn.prototype.interpolatePadding=function(t,e,r){this._unmodified=!1,this._edgeInsets.interpolate(t,e,r),this._constrain(),this._calcMatrices()},Sn.prototype.coveringZoomLevel=function(t){var e=(t.roundZoom?Math.round:Math.floor)(this.zoom+this.scaleZoom(this.tileSize/t.tileSize));return Math.max(0,e)},Sn.prototype.getVisibleUnwrappedCoordinates=function(e){var r=[new

t.UnwrappedTileID(0,e)];if(this._renderWorldCopies)for(var n=this.pointCoordinate(new t.Point(0,0)),i=this.pointCoordinate(new t.Point(this.width,0)),a=this.pointCoordinate(new t.Point(this.width,this.height)),o=this.pointCoordinate(new t.Point(0,this.height)),s=Math.floor(Math.min(n.x,i.x,a.x,o.x)),l=Math.floor(Math.max(n.x,i.x,a.x,o.x)),c=s-1;c<=l+1;c++)0!==c&&r.push(new t.UnwrappedTileID(c,e));return r},Sn.prototype.coveringTiles=function(e){var r=this.coveringZoomLevel(e),n=r;if(void 0!==e.minzoom&&r<e.minzoom)return[];void 0!==e.maxzoom&&r>e.maxzoom&&(r=e.maxzoom);var i=t.MercatorCoordinate.fromLngLat(this.center),a=Math.pow(2,r),o=[a*i.x,a*i.y,0],s=kn.fromInvProjectionMatrix(this.invProjMatrix,this.worldSize,r),l=e.minzoom||0;this.pitch<=60&&this._edgeInsets.top<.1&&(l=r);var c=function(t){return{aabb:new An([t*a,0,0],[(t+1)*a,a,0]),zoom:0,x:0,y:0,wrap:t,fullyVisible:!1}},u=[],f=[],h=r,p=e.reparseOverscaled?n:r;if(this._renderWorldCopies)for(var d=1;d<=3;d++)u.push(c(-d)),u.push(c(d));for(u.push(c(0));u.length>0;){var g=u.pop(),v=g.x,m=g.y,y=g.fullyVisible;if(!y){var x=g.aabb.intersects(s);if(0===x)continue;y=2===x}var b=g.aabb.distanceX(o),_=g.aabb.distanceY(o),w=Math.max(Math.abs(b),Math.abs(_)),T=3+(1<<h-g.zoom)-2;if(g.zoom===h||w>T&&g.zoom>=l)f.push({tileID:new t.OverscaledTileID(g.zoom===h?p:g.zoom,g.wrap,g.zoom,v,m),distanceSq:t.sqrLen([o[0]-.5-v,o[1]-.5-m])});else for(var k=0;k<4;k++){var A=(v<<1)+k%2,M=(m<<1)+(k>>1);u.push({aabb:g.aabb.quadrant(k),zoom:g.zoom+1,x:A,y:M,wrap:g.wrap,fullyVisible:y})}}return f.sort((function(t,e){return t.distanceSq-e.distanceSq})).map((function(t){return t.tileID}))},Sn.prototype.resize=function(t,e){this.width=t,this.height=e,this.pixelsToGLUnits=[2/t,-2/e],this._constrain(),this._calcMatrices()},En.unmodified.get=function(){return this._unmodified},Sn.prototype.zoomScale=function(t){return Math.pow(2,t)},Sn.prototype.scaleZoom=function(t){return Math.log(t)/Math.LN2},Sn.prototype.project=function(e){var r=t.clamp(e.lat,-this.maxValidLatitude,this.maxValidLatitude);return new t.Point(t.mercatorXfromLng(e.lng)*this.worldSize,t.mercatorYfromLat(r)*this.worldSize)},Sn.prototype.unproject=function(e){return new t.MercatorCoordinate(e.x/this.worldSize,e.y/this.worldSize).toLngLat()},En.point.get=function(){return this.project(this.center)},Sn.prototype.setLocationAtPoint=function(e,r){var n=this.pointCoordinate(r),i=this.pointCoordinate(this.centerPoint),a=this.locationCoordinate(e),o=new t.MercatorCoordinate(a.x-(n.x-i.x),a.y-(n.y-i.y));this.center=this.coordinateLocation(o),this._renderWorldCopies&&(this.center=this.center.wrap())},Sn.prototype.locationPoint=function(t){return this.coordinatePoint(this.locationCoordinate(t))},Sn.prototype.pointLocation=function(t){return this.coordinateLocation(this.pointCoordinate(t))},Sn.prototype.locationCoordinate=function(e){return t.MercatorCoordinate.fromLngLat(e)},Sn.prototype.coordinateLocation=function(t){return t.toLngLat()},Sn.prototype.pointCoordinate=function(e){var r=[e.x,e.y,0,1],n=[e.x,e.y,1,1];t.transformMat4(r,r,this.pixelMatrixInverse),t.transformMat4(n,n,this.pixelMatrixInverse);var i=r[3],a=n[3],o=r[0]/i,s=n[0]/a,l=r[1]/i,c=n[1]/a,u=r[2]/i,f=n[2]/a,h=u===f?0:(0-u)/(f-u);return new t.MercatorCoordinate(t.number(o,s,h)/this.worldSize,t.number(l,c,h)/this.worldSize)},Sn.prototype.coordinatePoint=function(e){var r=[e.x*this.worldSize,e.y*this.worldSize,0,1];return t.transformMat4(r,r,this.pixelMatrix),new t.Point(r[0]/r[3],r[1]/r[3])},Sn.prototype.getBounds=function(){return(new t.LngLatBounds).extend(this.pointLocation(new t.Point(0,0))).extend(this.pointLocation(new t.Point(this.width,0))).extend(this.pointLocation(new t.Point(this.width,this.height))).extend(this.pointLocation(new t.Point(0,this.height)))},Sn.prototype.getMaxBounds=function(){return this.latRange&&2===this.latRange.length&&this.lngRange&&2===this.lngRange.length?new t.LngLatBounds([this.lngRange[0],this.latRange[0]],[this.lngRange[1],this.latRange[1]]):null},Sn.prototype.setMaxBounds=function(t){t?(this.lngRange=[t.getWest(),t.getEast()],this.latRange=[t.getSouth(),t.getNorth()],this._constr

ain()):(this.lngRange=null,this.latRange=[-this.maxValidLatitude,this.maxValidLatitude])},Sn.prototype.calculatePosMatrix=function(e,r){void 0===r&&(r=!1);var n=e.key,i=r?this._alignedPosMatrixCache:this._posMatrixCache;if(i[n])return i[n];var a=e.canonical,o=this.worldSize/this.zoomScale(a.z),s=a.x+Math.pow(2,a.z)*e.wrap,l=t.identity(new Float64Array(16));return t.translate(l,l,[s*o,a.y*o,0]),t.scale(l,l,[o/t.EXTENT,o/t.EXTENT,1]),t.multiply(l,r?this.alignedProjMatrix:this.projMatrix,l),i[n]=new Float32Array(l),i[n]},Sn.prototype.customLayerMatrix=function(){return this.mercatorMatrix.slice()},Sn.prototype._constrain=function(){if(this.center&&this.width&&this.height&&!this._constraining){this._constraining=!0;var e,r,n,i,a=-90,o=90,s=-180,l=180,c=this.size,u=this._unmodified;if(this.latRange){var f=this.latRange;a=t.mercatorYfromLat(f[1])*this.worldSize,e=(o=t.mercatorYfromLat(f[0])*this.worldSize)-a<c.y?c.y/(o-a):0}if(this.lngRange){var h=this.lngRange;s=t.mercatorXfromLng(h[0])*this.worldSize,r=(l=t.mercatorXfromLng(h[1])*this.worldSize)-s<c.x?c.x/(l-s):0}var p=this.point,d=Math.max(r||0,e||0);if(d)return this.center=this.unproject(new t.Point(r?(l+s)/2:p.x,e?(o+a)/2:p.y)),this.zoom+=this.scaleZoom(d),this._unmodified=u,void(this._constraining=!1);if(this.latRange){var g=p.y,v=c.y/2;g-v<a&&(i=a+v),g+v>o&&(i=o-v)}if(this.lngRange){var m=p.x,y=c.x/2;m-y<s&&(n=s+y),m+y>l&&(n=l-y)}void 0===n&&void 0===i||(this.center=this.unproject(new t.Point(void 0!==n?n:p.x,void 0!==i?i:p.y))),this._unmodified=u,this._constraining=!1}},Sn.prototype._calcMatrices=function(){if(this.height){var e=this._fov/2,r=this.centerOffset;this.cameraToCenterDistance=.5/Math.tan(e)*this.height;var n=Math.PI/2+this._pitch,i=this._fov*(.5+r.y/this.height),a=Math.sin(i)*this.cameraToCenterDistance/Math.sin(t.clamp(Math.PI-n-i,.01,Math.PI-.01)),o=this.point,s=o.x,l=o.y,c=1.01*(Math.cos(Math.PI/2-this._pitch)*a+this.cameraToCenterDistance),u=this.height/50,f=new Float64Array(16);t.perspective(f,this._fov,this.width/this.height,u,c),f[8]=2*-r.x/this.width,f[9]=2*r.y/this.height,t.scale(f,f,[1,-1,1]),t.translate(f,f,[0,0,-this.cameraToCenterDistance]),t.rotateX(f,f,this._pitch),t.rotateZ(f,f,this.angle),t.translate(f,f,[-s,-l,0]),this.mercatorMatrix=t.scale([],f,[this.worldSize,this.worldSize,this.worldSize]),t.scale(f,f,[1,1,t.mercatorZfromAltitude(1,this.center.lat)*this.worldSize,1]),this.projMatrix=f,this.invProjMatrix=t.invert([],this.projMatrix);var h=this.width%2/2,p=this.height%2/2,d=Math.cos(this.angle),g=Math.sin(this.angle),v=s-Math.round(s)+d*h+g*p,m=l-Math.round(l)+d*p+g*h,y=new Float64Array(f);if(t.translate(y,y,[v>.5?v-1:v,m>.5?m-1:m,0]),this.alignedProjMatrix=y,f=t.create(),t.scale(f,f,[this.width/2,-this.height/2,1]),t.translate(f,f,[1,-1,0]),this.labelPlaneMatrix=f,f=t.create(),t.scale(f,f,[1,-1,1]),t.translate(f,f,[-1,-1,0]),t.scale(f,f,[2/this.width,2/this.height,1]),this.glCoordMatrix=f,this.pixelMatrix=t.multiply(new Float64Array(16),this.labelPlaneMatrix,this.projMatrix),!(f=t.invert(new Float64Array(16),this.pixelMatrix)))throw new Error("failed to invert matrix");this.pixelMatrixInverse=f,this._posMatrixCache={},this._alignedPosMatrixCache={}}},Sn.prototype.maxPitchScaleFactor=function(){if(!this.pixelMatrixInverse)return 1;var e=this.pointCoordinate(new t.Point(0,0)),r=[e.x*this.worldSize,e.y*this.worldSize,0,1];return t.transformMat4(r,r,this.pixelMatrix)[3]/this.cameraToCenterDistance},Sn.prototype.getCameraPoint=function(){var e=this._pitch,r=Math.tan(e)*(this.cameraToCenterDistance||1);return this.centerPoint.add(new t.Point(0,r))},Sn.prototype.getCameraQueryGeometry=function(e){var r=this.getCameraPoint();if(1===e.length)return[e[0],r];for(var n=r.x,i=r.y,a=r.x,o=r.y,s=0,l=e;s<l.length;s+=1){var c=l[s];n=Math.min(n,c.x),i=Math.min(i,c.y),a=Math.max(a,c.x),o=Math.max(o,c.y)}return[new t.Point(n,i),new t.Point(a,i),new t.Point(a,o),new t.Point(n,o),new t.Point(n,i)]},Object.defineProperties(Sn.prototype,En);var Ln=function(e){var r,n,i,a,o;this._hashName=e&&encodeURIComponent(e),t.bindAll(["_getCurrentHash","_onHashChange","_updateHash"],this),this._updateHash=(r=this._updateHashUnthrottled.bind(this),n=300,i=!1,a=null,o=function(){a=null,i&&(r(),a=setTimeout(o,n),i=!1)},function(){return i=!0,a||o(),a})};Ln.prototype.addTo=function(e){return

this._map=e,t.window.addEventListener("hashchange",this._onHashChange,!1),this._map.on("moveend",this._updateHash),this},Ln.prototype.remove=function(){return t.window.removeEventListener("hashchange",this._onHashChange,!1),this._map.off("moveend",this._updateHash),clearTimeout(this._updateHash()),delete this._map,this},Ln.prototype.getHashString=function(e){var r=this._map.getCenter(),n=Math.round(100*this._map.getZoom())/100,i=Math.ceil((n*Math.LN2+Math.log(512/360/.5))/Math.LN10),a=Math.pow(10,i),o=Math.round(r.lng*a)/a,s=Math.round(r.lat*a)/a,l=this._map.getBearing(),c=this._map.getPitch(),u="";if(u+=e?"/"+o+"/"+s+"/"+n:n+"/"+s+"/"+o,(l||c)&&(u+="/"+Math.round(10*l)/10),c&&(u+="/"+Math.round(c)),this._hashName){var f=this._hashName,h=!1,p=t.window.location.hash.slice(1).split("&").map((function(t){var e=t.split("=")[0];return e===f?(h=!0,e+"="+u):t})).filter((function(t){return t}));return h||p.push(f+"="+u),"#"+p.join("&")}return"#"+u},Ln.prototype._getCurrentHash=function(){var e,r=this,n=t.window.location.hash.replace("#","");return this._hashName?(n.split("&").map((function(t){return t.split("=")})).forEach((function(t){t[0]===r._hashName&&(e=t)})),(e&&e[1]||"").split("/")):n.split("/")},Ln.prototype._onHashChange=function(){var t=this._getCurrentHash();if(t.length>=3&&!t.some((function(t){return isNaN(t)}))){var e=this._map.dragRotate.isEnabled()&&this._map.touchZoomRotate.isEnabled()?+(t[3]||0):this._map.getBearing();return this._map.jumpTo({center:[+t[2],+t[1]],zoom:+t[0],bearing:e,pitch:+(t[4]||0)}),!0}return!1},Ln.prototype._updateHashUnthrottled=function(){var e=this.getHashString();try{t.window.history.replaceState(t.window.history.state,"",e)}catch(t){}};var Cn={linearity:.3,easing:t.bezier(0,0,.3,1)},Pn=t.extend({deceleration:2500,maxSpeed:1400},Cn),In=t.extend({deceleration:20,maxSpeed:1400},Cn),On=t.extend({deceleration:1e3,maxSpeed:360},Cn),zn=t.extend({deceleration:1e3,maxSpeed:90},Cn),Dn=function(t){this._map=t,this.clear()};function Rn(t,e){(!t.duration||t.duration<e.duration)&&(t.duration=e.duration,t.easing=e.easing)}function Fn(e,r,n){var i=n.maxSpeed,a=n.linearity,o=n.deceleration,s=t.clamp(e*a/(r/1e3),-i,i),l=Math.abs(s)/(o*a);return{easing:n.easing,duration:1e3*l,amount:s*(l/2)}}Dn.prototype.clear=function(){this._inertiaBuffer=[]},Dn.prototype.record=function(e){this._drainInertiaBuffer(),this._inertiaBuffer.push({time:t.browser.now(),settings:e})},Dn.prototype._drainInertiaBuffer=function(){for(var e=this._inertiaBuffer,r=t.browser.now();e.length>0&&r-e[0].time>160;)e.shift()},Dn.prototype._onMoveEnd=function(e){if(this._drainInertiaBuffer(),!(this._inertiaBuffer.length<2)){for(var r={zoom:0,bearing:0,pitch:0,pan:new t.Point(0,0),pinchAround:void 0,around:void 0},n=0,i=this._inertiaBuffer;n<i.length;n+=1){var a=i[n].settings;r.zoom+=a.zoomDelta||0,r.bearing+=a.bearingDelta||0,r.pitch+=a.pitchDelta||0,a.panDelta&&r.pan._add(a.panDelta),a.around&&(r.around=a.around),a.pinchAround&&(r.pinchAround=a.pinchAround)}var o=this._inertiaBuffer[this._inertiaBuffer.length-1].time-this._inertiaBuffer[0].time,s={};if(r.pan.mag()){var l=Fn(r.pan.mag(),o,t.extend({},Pn,e||{}));s.offset=r.pan.mult(l.amount/r.pan.mag()),s.center=this._map.transform.center,Rn(s,l)}if(r.zoom){var c=Fn(r.zoom,o,In);s.zoom=this._map.transform.zoom+c.amount,Rn(s,c)}if(r.bearing){var u=Fn(r.bearing,o,On);s.bearing=this._map.transform.bearing+t.clamp(u.amount,-179,179),Rn(s,u)}if(r.pitch){var f=Fn(r.pitch,o,zn);s.pitch=this._map.transform.pitch+f.amount,Rn(s,f)}if(s.zoom||s.bearing){var h=void 0===r.pinchAround?r.around:r.pinchAround;s.around=h?this._map.unproject(h):this._map.getCenter()}return this.clear(),t.extend(s,{noMoveStart:!0})}};var Bn=function(e){function n(n,i,a,o){void 0===o&&(o={});var s=r.mousePos(i.getCanvasContainer(),a),l=i.unproject(s);e.call(this,n,t.extend({point:s,lngLat:l,originalEvent:a},o)),this._defaultPrevented=!1,this.target=i}e&&(n.__proto__=e),n.prototype=Object.create(e&&e.prototype),n.prototype.constructor=n;var i={defaultPrevented:{configurable:!0}};return n.prototype.preventDefault=function(){this._defaultPrevented=!0},i.defaultPrevented.get=function(){return this._defaultPrevented},Object.defineProperties(n.prototype,i),n}(t.Event),Nn=function(e){function n(n,i,a){var o="touchend"===n?a.changedTouches:a.touches,s=r.touchPos(i.getCanvasContainer(),o),l=s.map((function(t){retur

n i.unproject(t)})),c=s.reduce((function(t,e,r,n){return t.add(e.div(n.length))}),new t.Point(0,0)),u=i.unproject(c);e.call(this,n,{points:s,point:c,lngLats:l,lngLat:u,originalEvent:a}),this._defaultPrevented=!1}e&&(n.__proto__=e),n.prototype=Object.create(e&&e.prototype),n.prototype.constructor=n;var i={defaultPrevented:{configurable:!0}};return n.prototype.preventDefault=function(){this._defaultPrevented=!0},i.defaultPrevented.get=function(){return this._defaultPrevented},Object.defineProperties(n.prototype,i),n}(t.Event),jn=function(t){function e(e,r,n){t.call(this,e,{originalEvent:n}),this._defaultPrevented=!1}t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e;var r={defaultPrevented:{configurable:!0}};return e.prototype.preventDefault=function(){this._defaultPrevented=!0},r.defaultPrevented.get=function(){return this._defaultPrevented},Object.defineProperties(e.prototype,r),e}(t.Event),Un=function(t,e){this._map=t,this._clickTolerance=e.clickTolerance};Un.prototype.reset=function(){delete this._mousedownPos},Un.prototype.wheel=function(t){return this._firePreventable(new jn(t.type,this._map,t))},Un.prototype.mousedown=function(t,e){return this._mousedownPos=e,this._firePreventable(new Bn(t.type,this._map,t))},Un.prototype.mouseup=function(t){this._map.fire(new Bn(t.type,this._map,t))},Un.prototype.click=function(t,e){this._mousedownPos&&this._mousedownPos.dist(e)>=this._clickTolerance||this._map.fire(new Bn(t.type,this._map,t))},Un.prototype.dblclick=function(t){return this._firePreventable(new Bn(t.type,this._map,t))},Un.prototype.mouseover=function(t){this._map.fire(new Bn(t.type,this._map,t))},Un.prototype.mouseout=function(t){this._map.fire(new Bn(t.type,this._map,t))},Un.prototype.touchstart=function(t){return this._firePreventable(new Nn(t.type,this._map,t))},Un.prototype.touchmove=function(t){this._map.fire(new Nn(t.type,this._map,t))},Un.prototype.touchend=function(t){this._map.fire(new Nn(t.type,this._map,t))},Un.prototype.touchcancel=function(t){this._map.fire(new Nn(t.type,this._map,t))},Un.prototype._firePreventable=function(t){if(this._map.fire(t),t.defaultPrevented)return{}},Un.prototype.isEnabled=function(){return!0},Un.prototype.isActive=function(){return!1},Un.prototype.enable=function(){},Un.prototype.disable=function(){};var Vn=function(t){this._map=t};Vn.prototype.reset=function(){this._delayContextMenu=!1,delete this._contextMenuEvent},Vn.prototype.mousemove=function(t){this._map.fire(new Bn(t.type,this._map,t))},Vn.prototype.mousedown=function(){this._delayContextMenu=!0},Vn.prototype.mouseup=function(){this._delayContextMenu=!1,this._contextMenuEvent&&(this._map.fire(new Bn("contextmenu",this._map,this._contextMenuEvent)),delete this._contextMenuEvent)},Vn.prototype.contextmenu=function(t){this._delayContextMenu?this._contextMenuEvent=t:this._map.fire(new Bn(t.type,this._map,t)),this._map.listens("contextmenu")&&t.preventDefault()},Vn.prototype.isEnabled=function(){return!0},Vn.prototype.isActive=function(){return!1},Vn.prototype.enable=function(){},Vn.prototype.disable=function(){};var qn=function(t,e){this._map=t,this._el=t.getCanvasContainer(),this._container=t.getContainer(),this._clickTolerance=e.clickTolerance||1};function Hn(t,e){for(var r={},n=0;n<t.length;n++)r[t[n].identifier]=e[n];return r}qn.prototype.isEnabled=function(){return!!this._enabled},qn.prototype.isActive=function(){return!!this._active},qn.prototype.enable=function(){this.isEnabled()||(this._enabled=!0)},qn.prototype.disable=function(){this.isEnabled()&&(this._enabled=!1)},qn.prototype.mousedown=function(t,e){this.isEnabled()&&t.shiftKey&&0===t.button&&(r.disableDrag(),this._startPos=this._lastPos=e,this._active=!0)},qn.prototype.mousemoveWindow=function(t,e){if(this._active){var n=e;if(!(this._lastPos.equals(n)||!this._box&&n.dist(this._startPos)<this._clickTolerance)){var i=this._startPos;this._lastPos=n,this._box||(this._box=r.create("div","mapboxgl-boxzoom",this._container),this._container.classList.add("mapboxgl-crosshair"),this._fireEvent("boxzoomstart",t));var a=Math.min(i.x,n.x),o=Math.max(i.x,n.x),s=Math.min(i.y,n.y),l=Math.max(i.y,n.y);r.setTransform(this._box,"translate("+a+"px,"+s+"px)"),this._box.style.width=o-a+"px",this._box.style.height=l-

s+"px"}}},qn.prototype.mouseupWindow=function(e,n){var i=this;if(this._active&&0===e.button){var a=this._startPos,o=n;if(this.reset(),r.suppressClick(),a.x!==o.x||a.y!==o.y)return this._map.fire(new t.Event("boxzoomend",{originalEvent:e})),{cameraAnimation:function(t){return t.fitScreenCoordinates(a,o,i._map.getBearing(),{linear:!0})}};this._fireEvent("boxzoomcancel",e)}},qn.prototype.keydown=function(t){this._active&&27===t.keyCode&&(this.reset(),this._fireEvent("boxzoomcancel",t))},qn.prototype.reset=function(){this._active=!1,this._container.classList.remove("mapboxgl-crosshair"),this._box&&(r.remove(this._box),this._box=null),r.enableDrag(),delete this._startPos,delete this._lastPos},qn.prototype._fireEvent=function(e,r){return this._map.fire(new t.Event(e,{originalEvent:r}))};var Gn=function(t){this.reset(),this.numTouches=t.numTouches};Gn.prototype.reset=function(){delete this.centroid,delete this.startTime,delete this.touches,this.aborted=!1},Gn.prototype.touchstart=function(e,r,n){(this.centroid||n.length>this.numTouches)&&(this.aborted=!0),this.aborted||(void 0===this.startTime&&(this.startTime=e.timeStamp),n.length===this.numTouches&&(this.centroid=function(e){for(var r=new t.Point(0,0),n=0,i=e;n<i.length;n+=1){var a=i[n];r._add(a)}return r.div(e.length)}(r),this.touches=Hn(n,r)))},Gn.prototype.touchmove=function(t,e,r){if(!this.aborted&&this.centroid){var n=Hn(r,e);for(var i in this.touches){var a=this.touches[i],o=n[i];(!o||o.dist(a)>30)&&(this.aborted=!0)}}},Gn.prototype.touchend=function(t,e,r){if((!this.centroid||t.timeStamp-this.startTime>500)&&(this.aborted=!0),0===r.length){var n=!this.aborted&&this.centroid;if(this.reset(),n)return n}};var Yn=function(t){this.singleTap=new Gn(t),this.numTaps=t.numTaps,this.reset()};Yn.prototype.reset=function(){this.lastTime=1/0,delete this.lastTap,this.count=0,this.singleTap.reset()},Yn.prototype.touchstart=function(t,e,r){this.singleTap.touchstart(t,e,r)},Yn.prototype.touchmove=function(t,e,r){this.singleTap.touchmove(t,e,r)},Yn.prototype.touchend=function(t,e,r){var n=this.singleTap.touchend(t,e,r);if(n){var i=t.timeStamp-this.lastTime<500,a=!this.lastTap||this.lastTap.dist(n)<30;if(i&&a||this.reset(),this.count++,this.lastTime=t.timeStamp,this.lastTap=n,this.count===this.numTaps)return this.reset(),n}};var Wn=function(){this._zoomIn=new Yn({numTouches:1,numTaps:2}),this._zoomOut=new Yn({numTouches:2,numTaps:1}),this.reset()};Wn.prototype.reset=function(){this._active=!1,this._zoomIn.reset(),this._zoomOut.reset()},Wn.prototype.touchstart=function(t,e,r){this._zoomIn.touchstart(t,e,r),this._zoomOut.touchstart(t,e,r)},Wn.prototype.touchmove=function(t,e,r){this._zoomIn.touchmove(t,e,r),this._zoomOut.touchmove(t,e,r)},Wn.prototype.touchend=function(t,e,r){var n=this,i=this._zoomIn.touchend(t,e,r),a=this._zoomOut.touchend(t,e,r);return i?(this._active=!0,t.preventDefault(),setTimeout((function(){return n.reset()}),0),{cameraAnimation:function(e){return e.easeTo({duration:300,zoom:e.getZoom()+1,around:e.unproject(i)},{originalEvent:t})}}):a?(this._active=!0,t.preventDefault(),setTimeout((function(){return n.reset()}),0),{cameraAnimation:function(e){return e.easeTo({duration:300,zoom:e.getZoom()-1,around:e.unproject(a)},{originalEvent:t})}}):void 0},Wn.prototype.touchcancel=function(){this.reset()},Wn.prototype.enable=function(){this._enabled=!0},Wn.prototype.disable=function(){this._enabled=!1,this.reset()},Wn.prototype.isEnabled=function(){return this._enabled},Wn.prototype.isActive=function(){return this._active};var Xn=function(t){this.reset(),this._clickTolerance=t.clickTolerance||1};Xn.prototype.reset=function(){this._active=!1,this._moved=!1,delete this._lastPoint,delete this._eventButton},Xn.prototype._correctButton=function(t,e){return!1},Xn.prototype._move=function(t,e){return{}},Xn.prototype.mousedown=function(t,e){if(!this._lastPoint){var n=r.mouseButton(t);this._correctButton(t,n)&&(this._lastPoint=e,this._eventButton=n)}},Xn.prototype.mousemoveWindow=function(t,e){var r=this._lastPoint;if(r&&(t.preventDefault(),this._moved||!(e.dist(r)<this._clickTolerance)))return this._moved=!0,this._lastPoint=e,this._move(r,e)},Xn.prototype.mouseupWindow=function(t){r.mouseButton(t)===this._eventButton&&(this._moved&&r.suppressClick(),this.reset())},Xn.prototype.enable=function(){this._enable

d=!0},Xn.prototype.disable=function(){this._enabled=!1,this.reset()},Xn.prototype.isEnabled=function(){return this._enabled},Xn.prototype.isActive=function(){return this._active};var Zn=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.mousedown=function(e,r){t.prototype.mousedown.call(this,e,r),this._lastPoint&&(this._active=!0)},e.prototype._correctButton=function(t,e){return 0===e&&!t.ctrlKey},e.prototype._move=function(t,e){return{around:e,panDelta:e.sub(t)}},e}(Xn),Jn=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._correctButton=function(t,e){return 0===e&&t.ctrlKey||2===e},e.prototype._move=function(t,e){var r=.8*(e.x-t.x);if(r)return this._active=!0,{bearingDelta:r}},e.prototype.contextmenu=function(t){t.preventDefault()},e}(Xn),Kn=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype._correctButton=function(t,e){return 0===e&&t.ctrlKey||2===e},e.prototype._move=function(t,e){var r=-.5*(e.y-t.y);if(r)return this._active=!0,{pitchDelta:r}},e.prototype.contextmenu=function(t){t.preventDefault()},e}(Xn),Qn=function(t){this._minTouches=1,this._clickTolerance=t.clickTolerance||1,this.reset()};Qn.prototype.reset=function(){this._active=!1,this._touches={},this._sum=new t.Point(0,0)},Qn.prototype.touchstart=function(t,e,r){return this._calculateTransform(t,e,r)},Qn.prototype.touchmove=function(t,e,r){if(this._active)return t.preventDefault(),this._calculateTransform(t,e,r)},Qn.prototype.touchend=function(t,e,r){this._calculateTransform(t,e,r),this._active&&r.length<this._minTouches&&this.reset()},Qn.prototype.touchcancel=function(){this.reset()},Qn.prototype._calculateTransform=function(e,r,n){n.length>0&&(this._active=!0);var i=Hn(n,r),a=new t.Point(0,0),o=new t.Point(0,0),s=0;for(var l in i){var c=i[l],u=this._touches[l];u&&(a._add(c),o._add(c.sub(u)),s++,i[l]=c)}if(this._touches=i,!(s<this._minTouches)&&o.mag()){var f=o.div(s);if(this._sum._add(f),!(this._sum.mag()<this._clickTolerance))return{around:a.div(s),panDelta:f}}},Qn.prototype.enable=function(){this._enabled=!0},Qn.prototype.disable=function(){this._enabled=!1,this.reset()},Qn.prototype.isEnabled=function(){return this._enabled},Qn.prototype.isActive=function(){return this._active};var $n=function(){this.reset()};function ti(t,e,r){for(var n=0;n<t.length;n++)if(t[n].identifier===r)return e[n]}function ei(t,e){return Math.log(t/e)/Math.LN2}$n.prototype.reset=function(){this._active=!1,delete this._firstTwoTouches},$n.prototype._start=function(t){},$n.prototype._move=function(t,e,r){return{}},$n.prototype.touchstart=function(t,e,r){this._firstTwoTouches||r.length<2||(this._firstTwoTouches=[r[0].identifier,r[1].identifier],this._start([e[0],e[1]]))},$n.prototype.touchmove=function(t,e,r){if(this._firstTwoTouches){t.preventDefault();var n=this._firstTwoTouches,i=n[0],a=n[1],o=ti(r,e,i),s=ti(r,e,a);if(o&&s){var l=this._aroundCenter?null:o.add(s).div(2);return this._move([o,s],l,t)}}},$n.prototype.touchend=function(t,e,n){if(this._firstTwoTouches){var i=this._firstTwoTouches,a=i[0],o=i[1],s=ti(n,e,a),l=ti(n,e,o);s&&l||(this._active&&r.suppressClick(),this.reset())}},$n.prototype.touchcancel=function(){this.reset()},$n.prototype.enable=function(t){this._enabled=!0,this._aroundCenter=!!t&&"center"===t.around},$n.prototype.disable=function(){this._enabled=!1,this.reset()},$n.prototype.isEnabled=function(){return this._enabled},$n.prototype.isActive=function(){return this._active};var ri=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.reset=function(){t.prototype.reset.call(this),delete this._distance,delete this._startDistance},e.prototype._start=function(t){this._startDistance=this._distance=t[0].dist(t[1])},e.prototype._move=function(t,e){var r=this._distance;if(this._distance=t[0].dist(t[1]),this._active||!(Math.abs(ei(this._distance,this._startDistance))<.1))return this._active=!0,{zoomDelta:ei(this._distance,r),pinchAround:e}},e}($n);function ni(t,e){return 180*t.angleWith(e)/Math.PI}var ii=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.reset=functio

n(){t.prototype.reset.call(this),delete this._minDiameter,delete this._startVector,delete this._vector},e.prototype._start=function(t){this._startVector=this._vector=t[0].sub(t[1]),this._minDiameter=t[0].dist(t[1])},e.prototype._move=function(t,e){var r=this._vector;if(this._vector=t[0].sub(t[1]),this._active||!this._isBelowThreshold(this._vector))return this._active=!0,{bearingDelta:ni(this._vector,r),pinchAround:e}},e.prototype._isBelowThreshold=function(t){this._minDiameter=Math.min(this._minDiameter,t.mag());var e=25/(Math.PI*this._minDiameter)*360,r=ni(t,this._startVector);return Math.abs(r)<e},e}($n);function ai(t){return Math.abs(t.y)>Math.abs(t.x)}var oi=function(t){function e(){t.apply(this,arguments)}return t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e.prototype.reset=function(){t.prototype.reset.call(this),this._valid=void 0,delete this._firstMove,delete this._lastPoints},e.prototype._start=function(t){this._lastPoints=t,ai(t[0].sub(t[1]))&&(this._valid=!1)},e.prototype._move=function(t,e,r){var n=t[0].sub(this._lastPoints[0]),i=t[1].sub(this._lastPoints[1]);if(this._valid=this.gestureBeginsVertically(n,i,r.timeStamp),this._valid)return this._lastPoints=t,this._active=!0,{pitchDelta:(n.y+i.y)/2*-.5}},e.prototype.gestureBeginsVertically=function(t,e,r){if(void 0!==this._valid)return this._valid;var n=t.mag()>=2,i=e.mag()>=2;if(n||i){if(!n||!i)return void 0===this._firstMove&&(this._firstMove=r),r-this._firstMove<100&&void 0;var a=t.y>0==e.y>0;return ai(t)&&ai(e)&&a}},e}($n),si={panStep:100,bearingStep:15,pitchStep:10},li=function(){var t=si;this._panStep=t.panStep,this._bearingStep=t.bearingStep,this._pitchStep=t.pitchStep};function ci(t){return t*(2-t)}li.prototype.reset=function(){this._active=!1},li.prototype.keydown=function(t){var e=this;if(!(t.altKey||t.ctrlKey||t.metaKey)){var r=0,n=0,i=0,a=0,o=0;switch(t.keyCode){case 61:case 107:case 171:case 187:r=1;break;case 189:case 109:case 173:r=-1;break;case 37:t.shiftKey?n=-1:(t.preventDefault(),a=-1);break;case 39:t.shiftKey?n=1:(t.preventDefault(),a=1);break;case 38:t.shiftKey?i=1:(t.preventDefault(),o=-1);break;case 40:t.shiftKey?i=-1:(t.preventDefault(),o=1);break;default:return}return{cameraAnimation:function(s){var l=s.getZoom();s.easeTo({duration:300,easeId:"keyboardHandler",easing:ci,zoom:r?Math.round(l)+r*(t.shiftKey?2:1):l,bearing:s.getBearing()+n*e._bearingStep,pitch:s.getPitch()+i*e._pitchStep,offset:[-a*e._panStep,-o*e._panStep],center:s.getCenter()},{originalEvent:t})}}}},li.prototype.enable=function(){this._enabled=!0},li.prototype.disable=function(){this._enabled=!1,this.reset()},li.prototype.isEnabled=function(){return this._enabled},li.prototype.isActive=function(){return this._active};var ui=4.000244140625,fi=function(e,r){this._map=e,this._el=e.getCanvasContainer(),this._handler=r,this._delta=0,this._defaultZoomRate=.01,this._wheelZoomRate=.002222222222222222,t.bindAll(["_onWheel","_onTimeout","_onScrollFrame","_onScrollFinished"],this)};fi.prototype.setZoomRate=function(t){this._defaultZoomRate=t},fi.prototype.setWheelZoomRate=function(t){this._wheelZoomRate=t},fi.prototype.isEnabled=function(){return!!this._enabled},fi.prototype.isActive=function(){return!!this._active||void 0!==this._finishTimeout},fi.prototype.isZooming=function(){return!!this._zooming},fi.prototype.enable=function(t){this.isEnabled()||(this._enabled=!0,this._aroundCenter=t&&"center"===t.around)},fi.prototype.disable=function(){this.isEnabled()&&(this._enabled=!1)},fi.prototype.wheel=function(e){if(this.isEnabled()){var r=e.deltaMode===t.window.WheelEvent.DOM_DELTA_LINE?40*e.deltaY:e.deltaY,n=t.browser.now(),i=n-(this._lastWheelEventTime||0);this._lastWheelEventTime=n,0!==r&&r%ui==0?this._type="wheel":0!==r&&Math.abs(r)<4?this._type="trackpad":i>400?(this._type=null,this._lastValue=r,this._timeout=setTimeout(this._onTimeout,40,e)):this._type||(this._type=Math.abs(i*r)<200?"trackpad":"wheel",this._timeout&&(clearTimeout(this._timeout),this._timeout=null,r+=this._lastValue)),e.shiftKey&&r&&(r/=4),this._type&&(this._lastWheelEvent=e,this._delta-=r,this._active||this._start(e)),e.preventDefault()}},fi.prototype._onTimeout=function(t){this._type="wheel",this._delta-=this._lastValue,this._active||this._start(t)},fi.prototype._start=function(e){if(this._delta){this._frameId&&(this._frameId=null),this._active=!0,this.isZooming()||(this._zooming=!0),this._finishTimeout&&(clearTimeout(this._finishTimeout),delete this._finishTimeout);var

n=r.mousePos(this._el,e);this._around=t.LngLat.convert(this._aroundCenter?this._map.getCenter():this._map.unproj
ect(n)),this._aroundPoint=this._map.transform.locationPoint(this._around),this._frameId||(this._frameId=!0,this._ha
ndler._triggerRenderFrame())}},fi.prototype.renderFrame=function(){return
this._onScrollFrame()},fi.prototype._onScrollFrame=function(){var
e=this;if(this._frameId&&(this._frameId=null,this.isActive())){var r=this._map.transform;if(0!==this._delta){var
n="wheel"===this._type&&Math.abs(this._delta)>ui?this._wheelZoomRate:this._defaultZoomRate,i=2/(1+Math.ex
p(-Math.abs(this._delta*n)));this._delta<0&&0!==i&&(i=1/i);var a="number"==typeof
this._targetZoom?r.zoomScale(this._targetZoom):r.scale;this._targetZoom=Math.min(r.maxZoom,Math.max(r.minZ
oom,r.scaleZoom(a*i))),"wheel"===this._type&&(this._startZoom=r.zoom,this._easing=this._smoothOutEasing(20
0)),this._delta=0}var o,s="number"==typeof
this._targetZoom?this._targetZoom:r.zoom,l=this._startZoom,c=this._easing,u=!1;if("wheel"===this._type&&l&&c
){var f=Math.min((t.browser.now()-
this._lastWheelEventTime)/200,1),h=c(f);o=t.number(l,s,h),f<1?this._frameId||(this._frameId=!0):u=!0}else
o=s,u=!0;return
this._active=!0,u&&(this._active=!1,this._finishTimeout=setTimeout((function(){e._zooming=!1,e._handler._trigge
rRenderFrame(),delete e._targetZoom,delete
e._finishTimeout}),200)),{noInertia:!0,needsRenderFrame:!u,zoomDelta:o-
r.zoom,around:this._aroundPoint,originalEvent:this._lastWheelEvent}}},fi.prototype._smoothOutEasing=function(e
){var r=t.ease;if(this._prevEase){var n=this._prevEase,i=(t.browser.now()-n.start)/n.duration,a=n.easing(i+.01)-
n.easing(i),o=.27/Math.sqrt(a*a+1e-4)*.01,s=Math.sqrt(.0729-o*o);r=t.bezier(o,s,.25,1)}return
this._prevEase={start:t.browser.now(),duration:e,easing:r},r},fi.prototype.reset=function(){this._active=!1};var
hi=function(t,e){this._clickZoom=t,this._tapZoom=e};hi.prototype.enable=function(){this._clickZoom.enable(),this.
_tapZoom.enable()},hi.prototype.disable=function(){this._clickZoom.disable(),this._tapZoom.disable()},hi.prototyp
e.isEnabled=function(){return
this._clickZoom.isEnabled()&&this._tapZoom.isEnabled()},hi.prototype.isActive=function(){return
this._clickZoom.isActive()||this._tapZoom.isActive()};var
pi=function(){this.reset()};pi.prototype.reset=function(){this._active=!1},pi.prototype.dblclick=function(t,e){return
t.preventDefault(),{cameraAnimation:function(r){r.easeTo({duration:300,zoom:r.getZoom()+(t.shiftKey?-
1:1),around:r.unproject(e)},{originalEvent:t})}}},pi.prototype.enable=function(){this._enabled=!0},pi.prototype.dis
able=function(){this._enabled=!1,this.reset()},pi.prototype.isEnabled=function(){return
this._enabled},pi.prototype.isActive=function(){return this._active};var di=function(){this._tap=new
Yn({numTouches:1,numTaps:1}),this.reset()};di.prototype.reset=function(){this._active=!1,delete
this._swipePoint,delete this._swipeTouch,delete
this._tapTime,this._tap.reset()},di.prototype.touchstart=function(t,e,r){this._swipePoint||(this._tapTime&&t.timeSta
mp-
this._tapTime>500&&this.reset(),this._tapTime?r.length>0&&(this._swipePoint=e[0],this._swipeTouch=r[0].identif
ier):this._tap.touchstart(t,e,r))},di.prototype.touchmove=function(t,e,r){if(this._tapTime){if(this._swipePoint){if(r[0
].identifier!==this._swipeTouch)return;var n=e[0],i=n.y-this._swipePoint.y;return
this._swipePoint=n,t.preventDefault(),this._active=!0,{zoomDelta:i/128}}}else
this._tap.touchmove(t,e,r)},di.prototype.touchend=function(t,e,r){this._tapTime?this._swipePoint&&0===r.length&
&this.reset():this._tap.touchend(t,e,r)&&(this._tapTime=t.timeStamp)},di.prototype.touchcancel=function(){this.res
et()},di.prototype.enable=function(){this._enabled=!0},di.prototype.disable=function(){this._enabled=!1,this.reset()
},di.prototype.isEnabled=function(){return this._enabled},di.prototype.isActive=function(){return this._active};var
gi=function(t,e,r){this._el=t,this._mousePan=e,this._touchPan=r};gi.prototype.enable=function(t){this._inertiaOptio
ns=t||{},this._mousePan.enable(),this._touchPan.enable(),this._el.classList.add("mapboxgl-touch-drag-
pan")},gi.prototype.disable=function(){this._mousePan.disable(),this._touchPan.disable(),this._el.classList.remove("
mapboxgl-touch-drag-pan")},gi.prototype.isEnabled=function(){return
this._mousePan.isEnabled()&&this._touchPan.isEnabled()},gi.prototype.isActive=function(){return

this._mousePan.isActive()||this._touchPan.isActive()};var
vi=function(t,e,r){this._pitchWithRotate=t.pitchWithRotate,this._mouseRotate=e,this._mousePitch=r};vi.prototype.
enable=function(){this._mouseRotate.enable(),this._pitchWithRotate&&this._mousePitch.enable()},vi.prototype.dis
able=function(){this._mouseRotate.disable(),this._mousePitch.disable()},vi.prototype.isEnabled=function(){return
this._mouseRotate.isEnabled()&&(!this._pitchWithRotate||this._mousePitch.isEnabled())},vi.prototype.isActive=fu
nction(){return this._mouseRotate.isActive()||this._mousePitch.isActive()};var
mi=function(t,e,r,n){this._el=t,this._touchZoom=e,this._touchRotate=r,this._tapDragZoom=n,this._rotationDisabled
=!1,this._enabled=!0};mi.prototype.enable=function(t){this._touchZoom.enable(t),this._rotationDisabled||this._touc
hRotate.enable(t),this._tapDragZoom.enable(),this._el.classList.add("mapboxgl-touch-zoom-
rotate")},mi.prototype.disable=function(){this._touchZoom.disable(),this._touchRotate.disable(),this._tapDragZoom
.disable(),this._el.classList.remove("mapboxgl-touch-zoom-rotate")},mi.prototype.isEnabled=function(){return
this._touchZoom.isEnabled()&&(this._rotationDisabled||this._touchRotate.isEnabled())&&this._tapDragZoom.isEn
abled()},mi.prototype.isActive=function(){return
this._touchZoom.isActive()||this._touchRotate.isActive()||this._tapDragZoom.isActive()},mi.prototype.disableRotati
on=function(){this._rotationDisabled=!0,this._touchRotate.disable()},mi.prototype.enableRotation=function(){this._
rotationDisabled=!1,this._touchZoom.isEnabled()&&this._touchRotate.enable()};var yi=function(t){return
t.zoom||t.drag||t.pitch||t.rotate},xi=function(t){function e(){t.apply(this,arguments)}return
t&&(e.__proto__=t),e.prototype=Object.create(t&&t.prototype),e.prototype.constructor=e,e}(t.Event);function
bi(t){return t.panDelta&&t.panDelta.mag()||t.zoomDelta||t.bearingDelta||t.pitchDelta}var
_i=function(e,n){this._map=e,this._el=this._map.getCanvasContainer(),this._handlers=[],this._handlersById={},this
._changes=[],this._inertia=new
Dn(e),this._bearingSnap=n.bearingSnap,this._previousActiveHandlers={},this._eventsInProgress={},this._addDefa
ultHandlers(n),t.bindAll(["handleEvent","handleWindowEvent"],this);var
i=this._el;this._listeners=[[i,"touchstart",{passive:!1}],[i,"touchmove",{passive:!1}],[i,"touchend",void
0],[i,"touchcancel",void 0],[i,"mousedown",void 0],[i,"mousemove",void 0],[i,"mouseup",void
0],[t.window.document,"mousemove",{capture:!0}],[t.window.document,"mouseup",void 0],[i,"mouseover",void
0],[i,"mouseout",void 0],[i,"dblclick",void 0],[i,"click",void 0],[i,"keydown",{capture:!1}],[i,"keyup",void
0],[i,"wheel",{passive:!1}],[i,"contextmenu",void 0],[t.window,"blur",void 0]];for(var
a=0,o=this._listeners;a<o.length;a+=1){var
s=o[a],l=s[0],c=s[1],u=s[2];r.addEventListener(l,c,l===t.window.document?this.handleWindowEvent:this.handleEv
ent,u)}};_i.prototype.destroy=function(){for(var e=0,n=this._listeners;e<n.length;e+=1){var
i=n[e],a=i[0],o=i[1],s=i[2];r.removeEventListener(a,o,a===t.window.document?this.handleWindowEvent:this.handl
eEvent,s)}},_i.prototype._addDefaultHandlers=function(t){var
e=this._map,r=e.getCanvasContainer();this._add("mapEvent",new Un(e,t));var n=e.boxZoom=new
qn(e,t);this._add("boxZoom",n);var i=new Wn,a=new pi;e.doubleClickZoom=new
hi(a,i),this._add("tapZoom",i),this._add("clickZoom",a);var o=new di;this._add("tapDragZoom",o);var
s=e.touchPitch=new oi;this._add("touchPitch",s);var l=new Jn(t),c=new Kn(t);e.dragRotate=new
vi(t,l,c),this._add("mouseRotate",l,["mousePitch"]),this._add("mousePitch",c,["mouseRotate"]);var u=new
Zn(t),f=new Qn(t);e.dragPan=new
gi(r,u,f),this._add("mousePan",u),this._add("touchPan",f,["touchZoom","touchRotate"]);var h=new ii,p=new
ri;e.touchZoomRotate=new
mi(r,p,h,o),this._add("touchRotate",h,["touchPan","touchZoom"]),this._add("touchZoom",p,["touchPan","touchRota
te"]);var d=e.scrollZoom=new fi(e,this);this._add("scrollZoom",d,["mousePan"]);var g=e.keyboard=new
li;this._add("keyboard",g),this._add("blockableMapEvent",new Vn(e));for(var
v=0,m=["boxZoom","doubleClickZoom","tapDragZoom","touchPitch","dragRotate","dragPan","touchZoomRotate"
,"scrollZoom","keyboard"];v<m.length;v+=1){var
y=m[v];t.interactive&&t[y]&&e[y].enable(t[y])}},_i.prototype._add=function(t,e,r){this._handlers.push({handlerNa
me:t,handler:e,allowed:r}),this._handlersById[t]=e},_i.prototype.stop=function(){if(!this._updatingCamera){for(var

t=0,e=this._handlers;t<e.length;t+=1)e[t].handler.reset();this._inertia.clear(),this._fireEvents({},{}),this._changes=[]}},_i.prototype.isActive=function(){for(var t=0,e=this._handlers;t<e.length;t+=1)if(e[t].handler.isActive())return!0;return!1},_i.prototype.isZooming=function(){return!!this._eventsInProgress.zoom||this._map.scrollZoom.isZooming()},_i.prototype.isRotating=function(){return!!this._eventsInProgress.rotate},_i.prototype.isMoving=function(){return Boolean(yi(this._eventsInProgress))||this.isZooming()},_i.prototype._blockedByActive=function(t,e,r){for(var n in t)if(n!==r&&(!e||e.indexOf(n)<0))return!0;return!1},_i.prototype.handleWindowEvent=function(t){this.handleEvent(t,t.type+"Window")},_i.prototype._getMapTouches=function(t){for(var e=[],r=0,n=t;r<n.length;r+=1){var i=n[r],a=i.target;this._el.contains(a)&&e.push(i)}return e},_i.prototype.handleEvent=function(t,e){if("blur"!==t.type){this._updatingCamera=!0;for(var n="renderFrame"===t.type?void 0:t,i={needsRenderFrame:!1},a={},o={},s=t.touches?this._getMapTouches(t.touches):void 0,l=s?r.touchPos(this._el,s):r.mousePos(this._el,t),c=0,u=this._handlers;c<u.length;c+=1){var f=u[c],h=f.handlerName,p=f.handler,d=f.allowed;if(p.isEnabled()){var g=void 0;this._blockedByActive(o,d,h)?p.reset():p[e||t.type]&&(g=p[e||t.type](t,l,s),this.mergeHandlerResult(i,a,g,h,n),g&&g.needsRenderFrame&&this._triggerRenderFrame()),(g||p.isActive())&&(o[h]=p)}}var v={};for(var m in this._previousActiveHandlers)o[m]||(v[m]=n);this._previousActiveHandlers=o,(Object.keys(v).length||bi(i))&&(this._changes.push([i,a,v]),this._triggerRenderFrame()),(Object.keys(o).length||bi(i))&&this._map._stop(!0),this._updatingCamera=!1;var y=i.cameraAnimation;y&&(this._inertia.clear(),this._fireEvents({},{}),this._changes=[],y(this._map))}else this.stop()},_i.prototype.mergeHandlerResult=function(e,r,n,i,a){if(n){t.extend(e,n);var o={handlerName:i,originalEvent:n.originalEvent||a};void 0!==n.zoomDelta&&(r.zoom=o),void 0!==n.panDelta&&(r.drag=o),void 0!==n.pitchDelta&&(r.pitch=o),void 0!==n.bearingDelta&&(r.rotate=o)}},_i.prototype._applyChanges=function(){for(var e={},r={},n={},i=0,a=this._changes;i<a.length;i+=1){var o=a[i],s=o[0],l=o[1],c=o[2];s.panDelta&&(e.panDelta=(e.panDelta||new t.Point(0,0))._add(s.panDelta)),s.zoomDelta&&(e.zoomDelta=(e.zoomDelta||0)+s.zoomDelta),s.bearingDelta&&(e.bearingDelta=(e.bearingDelta||0)+s.bearingDelta),s.pitchDelta&&(e.pitchDelta=(e.pitchDelta||0)+s.pitchDelta),void 0!==s.around&&(e.around=s.around),void 0!==s.pinchAround&&(e.pinchAround=s.pinchAround),s.noInertia&&(e.noInertia=s.noInertia),t.extend(r,l),t.extend(n,c)}this._updateMapTransform(e,r,n),this._changes=[]},_i.prototype._updateMapTransform=function(t,e,r){var n=this._map,i=n.transform;if(!bi(t))return this._fireEvents(e,r);var a=t.panDelta,o=t.zoomDelta,s=t.bearingDelta,l=t.pitchDelta,c=t.around,u=t.pinchAround;void 0!==u&&(c=u),n._stop(!0),c=c||n.transform.centerPoint;var f=i.pointLocation(a?c.sub(a):c);s&&(i.bearing+=s),l&&(i.pitch+=l),o&&(i.zoom+=o),i.setLocationAtPoint(f,c),this._map._update(),t.noInertia||this._inertia.record(t),this._fireEvents(e,r)},_i.prototype._fireEvents=function(e,r){var n=this,i=yi(this._eventsInProgress),a=yi(e),o={};for(var s in e){var l=e[s].originalEvent;this._eventsInProgress[s]||(o[s+"start"]=l),this._eventsInProgress[s]=e[s]}for(var c in!i&&a&&this._fireEvent("movestart",a.originalEvent),o)this._fireEvent(c,o[c]);for(var u in e.rotate&&(this._bearingChanged=!0),a&&this._fireEvent("move",a.originalEvent),e){var f=e[u].originalEvent;this._fireEvent(u,f)}var h,p={};for(var d in this._eventsInProgress){var g=this._eventsInProgress[d],v=g.handlerName,m=g.originalEvent;this._handlersById[v].isActive()||(delete this._eventsInProgress[d],h=r[v]||m,p[d+"end"]=h)}for(var y in p)this._fireEvent(y,p[y]);var x=yi(this._eventsInProgress);if((i||a)&&!x){this._updatingCamera=!0;var b=this._inertia._onMoveEnd(this._map.dragPan._inertiaOptions),_=function(t){return 0!==t&&-n._bearingSnap<t&&t<n._bearingSnap};b?(_(b.bearing||this._map.getBearing())&&(b.bearing=0),this._map.easeTo(b,{originalEvent:h})):(this._map.fire(new t.Event("moveend",{originalEvent:h})),_(this._map.getBearing())&&this._map.resetNorth()),this._bearingChanged

=!1,this._updatingCamera=!1}},_i.prototype._fireEvent=function(e,r){this._map.fire(new t.Event(e,r?{originalEvent:r}:{}))},_i.prototype._triggerRenderFrame=function(){var t=this;void 0===this._frameId&&(this._frameId=this._map._requestRenderFrame((function(e){delete t._frameId,t.handleEvent(new xi("renderFrame",{timeStamp:e})),t._applyChanges()})))};var wi=function(e){function r(r,n){e.call(this),this._moving=!1,this._zooming=!1,this.transform=r,this._bearingSnap=n.bearingSnap,t.bindAll(["_renderFrameCallback"],this)}return e&&(r.__proto__=e),r.prototype=Object.create(e&&e.prototype),r.prototype.constructor=r,r.prototype.getCenter=function(){return new t.LngLat(this.transform.center.lng,this.transform.center.lat)},r.prototype.setCenter=function(t,e){return this.jumpTo({center:t},e)},r.prototype.panBy=function(e,r,n){return e=t.Point.convert(e).mult(-1),this.panTo(this.transform.center,t.extend({offset:e},r),n)},r.prototype.panTo=function(e,r,n){return this.easeTo(t.extend({center:e},r),n)},r.prototype.getZoom=function(){return this.transform.zoom},r.prototype.setZoom=function(t,e){return this.jumpTo({zoom:t},e),this},r.prototype.zoomTo=function(e,r,n){return this.easeTo(t.extend({zoom:e},r),n)},r.prototype.zoomIn=function(t,e){return this.zoomTo(this.getZoom()+1,t,e),this},r.prototype.zoomOut=function(t,e){return this.zoomTo(this.getZoom()-1,t,e),this},r.prototype.getBearing=function(){return this.transform.bearing},r.prototype.setBearing=function(t,e){return this.jumpTo({bearing:t},e),this},r.prototype.getPadding=function(){return this.transform.padding},r.prototype.setPadding=function(t,e){return this.jumpTo({padding:t},e),this},r.prototype.rotateTo=function(e,r,n){return this.easeTo(t.extend({bearing:e},r),n)},r.prototype.resetNorth=function(e,r){return this.rotateTo(0,t.extend({duration:1e3},e),r),this},r.prototype.resetNorthPitch=function(e,r){return this.easeTo(t.extend({bearing:0,pitch:0,duration:1e3},e),r),this},r.prototype.snapToNorth=function(t,e){return Math.abs(this.getBearing())<this._bearingSnap?this.resetNorth(t,e):this},r.prototype.getPitch=function(){return this.transform.pitch},r.prototype.setPitch=function(t,e){return this.jumpTo({pitch:t},e),this},r.prototype.cameraForBounds=function(e,r){return e=t.LngLatBounds.convert(e),this._cameraForBoxAndBearing(e.getNorthWest(),e.getSouthEast(),0,r)},r.prototype._cameraForBoxAndBearing=function(e,r,n,i){var a={top:0,bottom:0,right:0,left:0};if("number"==typeof(i=t.extend({padding:a,offset:[0,0],maxZoom:this.transform.maxZoom},i)).padding){var o=i.padding;i.padding={top:o,bottom:o,right:o,left:o}}i.padding=t.extend(a,i.padding);var s=this.transform,l=s.padding,c=s.project(t.LngLat.convert(e)),u=s.project(t.LngLat.convert(r)),f=c.rotate(-n*Math.PI/180),h=u.rotate(-n*Math.PI/180),p=new t.Point(Math.max(f.x,h.x),Math.max(f.y,h.y)),d=new t.Point(Math.min(f.x,h.x),Math.min(f.y,h.y)),g=p.sub(d),v=(s.width-(l.left+l.right+i.padding.left+i.padding.right))/g.x,m=(s.height-(l.top+l.bottom+i.padding.top+i.padding.bottom))/g.y;if(!(m<0||v<0)){var y=Math.min(s.scaleZoom(s.scale*Math.min(v,m)),i.maxZoom),x=t.Point.convert(i.offset),b=(i.padding.left-i.padding.right)/2,_=(i.padding.top-i.padding.bottom)/2,w=new t.Point(x.x+b,x.y+_).mult(s.scale/s.zoomScale(y));return{center:s.unproject(c.add(u).div(2).sub(w)),zoom:y,bearing:n}}t.warnOnce("Map cannot fit within canvas with the given bounds, padding, and/or offset.")},r.prototype.fitBounds=function(t,e,r){return this._fitInternal(this.cameraForBounds(t,e),e,r)},r.prototype.fitScreenCoordinates=function(e,r,n,i,a){return this._fitInternal(this._cameraForBoxAndBearing(this.transform.pointLocation(t.Point.convert(e)),this.transform.pointLocation(t.Point.convert(r)),n,i),i,a)},r.prototype._fitInternal=function(e,r,n){return e?(delete(r=t.extend(e,r)).padding,r.linear?this.easeTo(r,n):this.flyTo(r,n)):this},r.prototype.jumpTo=function(e,r){this.stop();var n=this.transform,i=!1,a=!1,o=!1;return"zoom"in

e&&n.zoom!==+e.zoom&&(i=!0,n.zoom=+e.zoom),void
0!==e.center&&(n.center=t.LngLat.convert(e.center)),"bearing"in
e&&n.bearing!==+e.bearing&&(a=!0,n.bearing=+e.bearing),"pitch"in
e&&n.pitch!==+e.pitch&&(o=!0,n.pitch=+e.pitch),null==e.padding||n.isPaddingEqual(e.padding)||(n.padding=e.pad
ding),this.fire(new t.Event("movestart",r)).fire(new t.Event("move",r)),i&&this.fire(new
t.Event("zoomstart",r)).fire(new t.Event("zoom",r)).fire(new t.Event("zoomend",r)),a&&this.fire(new
t.Event("rotatestart",r)).fire(new t.Event("rotate",r)).fire(new t.Event("rotateend",r)),o&&this.fire(new
t.Event("pitchstart",r)).fire(new t.Event("pitch",r)).fire(new t.Event("pitchend",r)),this.fire(new
t.Event("moveend",r))},r.prototype.easeTo=function(e,r){var
n=this;this._stop(!1,e.easeId),(!1===(e=t.extend({offset:[0,0],duration:500,easing:t.ease},e)).animate||!e.essential&
&t.browser.prefersReducedMotion)&&(e.duration=0);var
i=this.transform,a=this.getZoom(),o=this.getBearing(),s=this.getPitch(),l=this.getPadding(),c="zoom"in
e?+e.zoom:a,u="bearing"in e?this._normalizeBearing(e.bearing,o):o,f="pitch"in e?+e.pitch:s,h="padding"in
e?e.padding:i.padding,p=t.Point.convert(e.offset),d=i.centerPoint.add(p),g=i.pointLocation(d),v=t.LngLat.convert(e.
center||g);this._normalizeCenter(v);var m,y,x=i.project(g),b=i.project(v).sub(x),_=i.zoomScale(c-
a);e.around&&(m=t.LngLat.convert(e.around),y=i.locationPoint(m));var
w={moving:this._moving,zooming:this._zooming,rotating:this._rotating,pitching:this._pitching};return
this._zooming=this._zooming||c!==a,this._rotating=this._rotating||o!==u,this._pitching=this._pitching||f!==s,this._pa
dding=!i.isPaddingEqual(h),this._easeId=e.easeId,this._prepareEase(r,e.noMoveStart,w),clearTimeout(this._easeEn
dTimeoutID),this._ease((function(e){if(n._zooming&&(i.zoom=t.number(a,c,e)),n._rotating&&(i.bearing=t.number
(o,u,e)),n._pitching&&(i.pitch=t.number(s,f,e)),n._padding&&(i.interpolatePadding(l,h,e),d=i.centerPoint.add(p)),m
)i.setLocationAtPoint(m,y);else{var g=i.zoomScale(i.zoom-
a),v=c>a?Math.min(2,_):Math.max(.5,_),w=Math.pow(v,1-
e),T=i.unproject(x.add(b.mult(e*w)).mult(g));i.setLocationAtPoint(i.renderWorldCopies?T.wrap():T,d)}n._fireMov
eEvents(r)}),(function(t){n._afterEase(r,t)}),e),this},r.prototype._prepareEase=function(e,r,n){void
0===n&&(n={}),this._moving=!0,r||n.moving||this.fire(new
t.Event("movestart",e)),this._zooming&&!n.zooming&&this.fire(new
t.Event("zoomstart",e)),this._rotating&&!n.rotating&&this.fire(new
t.Event("rotatestart",e)),this._pitching&&!n.pitching&&this.fire(new
t.Event("pitchstart",e))},r.prototype._fireMoveEvents=function(e){this.fire(new
t.Event("move",e)),this._zooming&&this.fire(new t.Event("zoom",e)),this._rotating&&this.fire(new
t.Event("rotate",e)),this._pitching&&this.fire(new
t.Event("pitch",e))},r.prototype._afterEase=function(e,r){if(!this._easeId||!r||this._easeId!==r){delete
this._easeId;var
n=this._zooming,i=this._rotating,a=this._pitching;this._moving=!1,this._zooming=!1,this._rotating=!1,this._pitchin
g=!1,this._padding=!1,n&&this.fire(new t.Event("zoomend",e)),i&&this.fire(new
t.Event("rotateend",e)),a&&this.fire(new t.Event("pitchend",e)),this.fire(new
t.Event("moveend",e))}},r.prototype.flyTo=function(e,r){var
n=this;if(!e.essential&&t.browser.prefersReducedMotion){var
i=t.pick(e,["center","zoom","bearing","pitch","around"]);return
this.jumpTo(i,r)}this.stop(),e=t.extend({offset:[0,0],speed:1.2,curve:1.42,easing:t.ease},e);var
a=this.transform,o=this.getZoom(),s=this.getBearing(),l=this.getPitch(),c=this.getPadding(),u="zoom"in
e?t.clamp(+e.zoom,a.minZoom,a.maxZoom):o,f="bearing"in e?this._normalizeBearing(e.bearing,s):s,h="pitch"in
e?+e.pitch:l,p="padding"in e?e.padding:a.padding,d=a.zoomScale(u-
o),g=t.Point.convert(e.offset),v=a.centerPoint.add(g),m=a.pointLocation(v),y=t.LngLat.convert(e.center||m);this._no
rmalizeCenter(y);var
x=a.project(m),b=a.project(y).sub(x),_=e.curve,w=Math.max(a.width,a.height),T=w/d,k=b.mag();if("minZoom"in
e){var A=t.clamp(Math.min(e.minZoom,o,u),a.minZoom,a.maxZoom),M=w/a.zoomScale(A-

o);_=Math.sqrt(M/k*2)}var S=_*_;function E(t){var e=(T*T-w*w+(t?-1:1)*S*S*k*k)/(2*(t?T:w)*S*k);return Math.log(Math.sqrt(e*e+1)-e)}function L(t){return(Math.exp(t)-Math.exp(-t))/2}function C(t){return(Math.exp(t)+Math.exp(-t))/2}var P=E(0),I=function(t){return C(P)/C(P+_*t)},O=function(t){return w*((C(P)*(L(e=P+_*t)/C(e))-L(P))/S)/k;var e},z=(E(1)-P)/_;if(Math.abs(k)<1e-6||!isFinite(z)){if(Math.abs(w-T)<1e-6)return this.easeTo(e,r);var D=T<w?-1:1;z=Math.abs(Math.log(T/w))/_,O=function(){return 0},I=function(t){return Math.exp(D*_*t)}}if("duration"in e)e.duration=+e.duration;else{var R="screenSpeed"in e?+e.screenSpeed/_:+e.speed;e.duration=1e3*z/R}return e.maxDuration&&e.duration>e.maxDuration&&(e.duration=0),this._zooming=!0,this._rotating=s!==f,this._pitching=h!==l,this._padding=!a.isPaddingEqual(p),this._prepareEase(r,!1),this._ease((function(e){var i=e*z,d=1/I(i);a.zoom=1===e?u:o+a.scaleZoom(d),n._rotating&&(a.bearing=t.number(s,f,e)),n._pitching&&(a.pitch=t.number(l,h,e)),n._padding&&(a.interpolatePadding(c,p,e),v=a.centerPoint.add(g));var m=1===e?y:a.unproject(x.add(b.mult(O(i))).mult(d));a.setLocationAtPoint(a.renderWorldCopies?m.wrap():m,v),n._fireMoveEvents(r)}),(function(){return n._afterEase(r)}),e),this},r.prototype.isEasing=function(){return!!this._easeFrameId},r.prototype.stop=function(){return this._stop()},r.prototype._stop=function(t,e){if(this._easeFrameId&&(this._cancelRenderFrame(this._easeFrameId),delete this._easeFrameId,delete this._onEaseFrame),this._onEaseEnd){var r=this._onEaseEnd;delete this._onEaseEnd,r.call(this,e)}if(!t){var n=this.handlers;n&&n.stop()}return this},r.prototype._ease=function(e,r,n){!1===n.animate||0===n.duration?(e(1),r()):(this._easeStart=t.browser.now(),this._easeOptions=n,this._onEaseFrame=e,this._onEaseEnd=r,this._easeFrameId=this._requestRenderFrame(this._renderFrameCallback))},r.prototype._renderFrameCallback=function(){var e=Math.min((t.browser.now()-this._easeStart)/this._easeOptions.duration,1);this._onEaseFrame(this._easeOptions.easing(e)),e<1?this._easeFrameId=this._requestRenderFrame(this._renderFrameCallback):this.stop()},r.prototype._normalizeBearing=function(e,r){e=t.wrap(e,-180,180);var n=Math.abs(e-r);return Math.abs(e-360-r)<n&&(e-=360),Math.abs(e+360-r)<n&&(e+=360),e},r.prototype._normalizeCenter=function(t){var e=this.transform;if(e.renderWorldCopies&&!e.lngRange){var r=t.lng-e.center.lng;t.lng+=r>180?-360:r<-180?360:0}},r}(t.Evented),Ti=function(e){void 0===e&&(e={}),this.options=e,t.bindAll(["_updateEditLink","_updateData","_updateCompact"],this)};Ti.prototype.getDefaultPosition=function(){return"bottom-right"},Ti.prototype.onAdd=function(t){var e=this.options&&this.options.compact;return this._map=t,this._container=r.create("div","mapboxgl-ctrl mapboxgl-ctrl-attrib"),this._innerContainer=r.create("div","mapboxgl-ctrl-attrib-inner",this._container),e&&this._container.classList.add("mapboxgl-compact"),this._updateAttributions(),this._updateEditLink(),this._map.on("styledata",this._updateData),this._map.on("sourcedata",this._updateData),this._map.on("moveend",this._updateEditLink),void 0===e&&(this._map.on("resize",this._updateCompact),this._updateCompact()),this._container},Ti.prototype.onRemove=function(){r.remove(this._container),this._map.off("styledata",this._updateData),this._map.off("sourcedata",this._updateData),this._map.off("moveend",this._updateEditLink),this._map.off("resize",this._updateCompact),this._map=void 0,this._attribHTML=void 0},Ti.prototype._updateEditLink=function(){var e=this._editLink;e||(e=this._editLink=this._container.querySelector(".mapbox-improve-map"));var r=[{key:"owner",value:this.styleOwner},{key:"id",value:this.styleId},{key:"access_token",value:this._map._requestManager._customAccessToken||t.config.ACCESS_TOKEN}];if(e){var n=r.reduce((function(t,e,n){return e.value&&(t+=e.key+"="+e.value+(n<r.length-1?"&":"")),t}),"?");e.href=t.config.FEEDBACK_URL+"/"+n+(this._map._hash?this._map._hash.getHashString(!0):""),e.rel="noopener nofollow"}},Ti.prototype._updateData=function(t){!t||"metadata"!==t.sourceDataType&&"style"!==t.dataType||(this._updateAttributions(),this._updateEditLink())},Ti.prototype._updateAttributions=function(){if(this._map.style){var t=[];if(this.options.customAttribution&&(Array.isArray(this.options.customAttribution)?t=t.concat(this.options.cust

omAttribution.map((function(t){return"string"!=typeof t?"":t}))):"string"==typeof this.options.customAttribution&&t.push(this.options.customAttribution)),this._map.style.stylesheet){var e=this._map.style.stylesheet;this.styleOwner=e.owner,this.styleId=e.id}var r=this._map.style.sourceCaches;for(var n in r){var i=r[n];if(i.used){var a=i.getSource();a.attribution&&t.indexOf(a.attribution)<0&&t.push(a.attribution)}}t.sort((function(t,e){return t.length-e.length}));var o=(t=t.filter((function(e,r){for(var n=r+1;n<t.length;n++)if(t[n].indexOf(e)>=0)return!1;return!0}))).join(" | ");o!==this._attribHTML&&(this._attribHTML=o,t.length?(this._innerContainer.innerHTML=o,this._container.classList.remove("mapboxgl-attrib-empty")):this._container.classList.add("mapboxgl-attrib-empty"),this._editLink=null)}},Ti.prototype._updateCompact=function(){this._map.getCanvasContainer().offsetWidth<=640?this._container.classList.add("mapboxgl-compact"):this._container.classList.remove("mapboxgl-compact")};var ki=function(){t.bindAll(["_updateLogo"],this),t.bindAll(["_updateCompact"],this)};ki.prototype.onAdd=function(t){this._map=t,this._container=r.create("div","mapboxgl-ctrl");var e=r.create("a","mapboxgl-ctrl-logo");return e.target="_blank",e.rel="noopener nofollow",e.href="https://www.mapbox.com/",e.setAttribute("aria-label",this._map._getUIString("LogoControl.Title")),e.setAttribute("rel","noopener nofollow"),this._container.appendChild(e),this._container.style.display="none",this._map.on("sourcedata",this._updateLogo),this._updateLogo(),this._map.on("resize",this._updateCompact),this._updateCompact(),this._container},ki.prototype.onRemove=function(){r.remove(this._container),this._map.off("sourcedata",this._updateLogo),this._map.off("resize",this._updateCompact)},ki.prototype.getDefaultPosition=function(){return"bottom-left"},ki.prototype._updateLogo=function(t){t&&"metadata"!==t.sourceDataType||(this._container.style.display=this._logoRequired()?"block":"none")},ki.prototype._logoRequired=function(){if(this._map.style){var t=this._map.style.sourceCaches;for(var e in t)if(t[e].getSource().mapbox_logo)return!0;return!1}},ki.prototype._updateCompact=function(){var t=this._container.children;if(t.length){var e=t[0];this._map.getCanvasContainer().offsetWidth<250?e.classList.add("mapboxgl-compact"):e.classList.remove("mapboxgl-compact")}};var Ai=function(){this._queue=[],this._id=0,this._cleared=!1,this._currentlyRunning=!1};Ai.prototype.add=function(t){var e=++this._id;return this._queue.push({callback:t,id:e,cancelled:!1}),e},Ai.prototype.remove=function(t){for(var e=this._currentlyRunning,r=0,n=e?this._queue.concat(e):this._queue;r<n.length;r+=1){var i=n[r];if(i.id===t)return void(i.cancelled=!0)}},Ai.prototype.run=function(t){void 0===t&&(t=0);var e=this._currentlyRunning=this._queue;this._queue=[];for(var r=0,n=e;r<n.length;r+=1){var i=n[r];if(!i.cancelled&&(i.callback(t),this._cleared))break}this._cleared=!1,this._currentlyRunning=!1},Ai.prototype.clear=function(){this._currentlyRunning&&(this._cleared=!0),this._queue=[]};var Mi={"FullscreenControl.Enter":"Enter fullscreen","FullscreenControl.Exit":"Exit fullscreen","GeolocateControl.FindMyLocation":"Find my location","GeolocateControl.LocationNotAvailable":"Location not available","LogoControl.Title":"Mapbox logo","NavigationControl.ResetBearing":"Reset bearing to north","NavigationControl.ZoomIn":"Zoom in","NavigationControl.ZoomOut":"Zoom out","ScaleControl.Feet":"ft","ScaleControl.Meters":"m","ScaleControl.Kilometers":"km","ScaleControl.Miles":"mi","ScaleControl.NauticalMiles":"nm"},Si=t.window.HTMLImageElement,Ei=t.window.HTMLElement,Li=t.window.ImageBitmap,Ci=60,Pi={center:[0,0],zoom:0,bearing:0,pitch:0,minZoom:-2,maxZoom:22,minPitch:0,maxPitch:Ci,interactive:!0,scrollZoom:!0,boxZoom:!0,dragRotate:!0,dragPan:!0,keyboard:!0,doubleClickZoom:!0,touchZoomRotate:!0,touchPitch:!0,bearingSnap:7,clickTolerance:3,pitchWithRotate:!0,hash:!1,attributionControl:!0,failIfMajorPerformanceCaveat:!1,preserveDrawingBuffer:!1,trackResize:!0,renderWorldCopies:!0,refreshExpiredTiles:!0,maxTileCacheSize:null,localIdeographFontFamily:"sans-serif",transformRequest:null,accessToken:null,fadeDuration:300,crossSourceCollisions:!0},Ii=function(n){function i(e){var r=this;if(null!=(e=t.extend({},Pi,e)).minZoom&&null!=e.maxZoom&&e.minZoom>e.maxZoom)throw

new Error("maxZoom must be greater than or equal to minZoom");if(null!=e.minPitch&&null!=e.maxPitch&&e.minPitch>e.maxPitch)throw new Error("maxPitch must be greater than or equal to minPitch");if(null!=e.minPitch&&e.minPitch<0)throw new Error("minPitch must be greater than or equal to 0");if(null!=e.maxPitch&&e.maxPitch>Ci)throw new Error("maxPitch must be less than or equal to 60");var i=new Sn(e.minZoom,e.maxZoom,e.minPitch,e.maxPitch,e.renderWorldCopies);if(n.call(this,i,e),this._interactive=e.interactive,this._maxTileCacheSize=e.maxTileCacheSize,this._failIfMajorPerformanceCaveat=e.failIfMajorPerformanceCaveat,this._preserveDrawingBuffer=e.preserveDrawingBuffer,this._antialias=e.antialias,this._trackResize=e.trackResize,this._bearingSnap=e.bearingSnap,this._refreshExpiredTiles=e.refreshExpiredTiles,this._fadeDuration=e.fadeDuration,this._crossSourceCollisions=e.crossSourceCollisions,this._crossFadingFactor=1,this._collectResourceTiming=e.collectResourceTiming,this._renderTaskQueue=new Ai,this._controls=[],this._mapId=t.uniqueId(),this._locale=t.extend({},Mi,e.locale),this._requestManager=new t.RequestManager(e.transformRequest,e.accessToken),"string"==typeof e.container){if(this._container=t.window.document.getElementById(e.container),!this._container)throw new Error("Container '"+e.container+"' not found.")}else{if(!(e.container instanceof Ei))throw new Error("Invalid type: 'container' must be a String or HTMLElement.");this._container=e.container}if(e.maxBounds&&this.setMaxBounds(e.maxBounds),t.bindAll(["_onWindowOnline","_onWindowResize","_contextLost","_contextRestored"],this),this._setupContainer(),this._setupPainter(),void 0===this.painter)throw new Error("Failed to initialize WebGL.");this.on("move",(function(){return r._update(!1)})),this.on("moveend",(function(){return r._update(!1)})),this.on("zoom",(function(){return r._update(!0)})),void 0!==t.window&&(t.window.addEventListener("online",this._onWindowOnline,!1),t.window.addEventListener("resize",this._onWindowResize,!1)),this.handlers=new _i(this,e);var a="string"==typeof e.hash&&e.hash||void 0;this._hash=e.hash&&new Ln(a).addTo(this),this._hash&&this._hash._onHashChange()||(this.jumpTo({center:e.center,zoom:e.zoom,bearing:e.bearing,pitch:e.pitch}),e.bounds&&(this.resize(),this.fitBounds(e.bounds,t.extend({},e.fitBoundsOptions,{duration:0})))),this.resize(),this._localIdeographFontFamily=e.localIdeographFontFamily,e.style&&this.setStyle(e.style,{localIdeographFontFamily:e.localIdeographFontFamily}),e.attributionControl&&this.addControl(new Ti({customAttribution:e.customAttribution})),this.addControl(new ki,e.logoPosition),this.on("style.load",(function(){r.transform.unmodified&&r.jumpTo(r.style.stylesheet)})),this.on("data",(function(e){r._update("style"===e.dataType),r.fire(new t.Event(e.dataType+"data",e))})),this.on("dataloading",(function(e){r.fire(new t.Event(e.dataType+"dataloading",e))}))}n&&(i.__proto__=n),i.prototype=Object.create(n&&n.prototype),i.prototype.constructor=i;var a={showTileBoundaries:{configurable:!0},showPadding:{configurable:!0},showCollisionBoxes:{configurable:!0},showOverdrawInspector:{configurable:!0},repaint:{configurable:!0},vertices:{configurable:!0},version:{configurable:!0}};return i.prototype._getMapId=function(){return this._mapId},i.prototype.addControl=function(e,r){if(void 0===r&&e.getDefaultPosition&&(r=e.getDefaultPosition()),void 0===r&&(r="top-right"),!e||!e.onAdd)return this.fire(new t.ErrorEvent(new Error("Invalid argument to map.addControl(). Argument must be a control with onAdd and onRemove methods.")));var n=e.onAdd(this);this._controls.push(e);var i=this._controlPositions[r];return-1!==r.indexOf("bottom")?i.insertBefore(n,i.firstChild):i.appendChild(n),this},i.prototype.removeControl=function(e){if(!e||!e.onRemove)return this.fire(new t.ErrorEvent(new Error("Invalid argument to map.removeControl(). Argument must be a control with onAdd and onRemove methods.")));var r=this._controls.indexOf(e);return r>-1&&this._controls.splice(r,1),e.onRemove(this),this},i.prototype.resize=function(e){var r=this._containerDimensions(),n=r[0],i=r[1];this._resizeCanvas(n,i),this.transform.resize(n,i),this.painter.resize(n,i);var a=!this._moving;return a&&(this.stop(),this.fire(new t.Event("movestart",e)).fire(new t.Event("move",e))),this.fire(new t.Event("resize",e)),a&&this.fire(new

t.Event("moveend",e)),this},i.prototype.getBounds=function(){return
this.transform.getBounds()},i.prototype.getMaxBounds=function(){return
this.transform.getMaxBounds()},i.prototype.setMaxBounds=function(e){return
this.transform.setMaxBounds(t.LngLatBounds.convert(e)),this._update()},i.prototype.setMinZoom=function(t){if((t
=null==t?-2:t)>=-2&&t<=this.transform.maxZoom)return
this.transform.minZoom=t,this._update(),this.getZoom()<t&&this.setZoom(t),this;throw new Error("minZoom must
be between -2 and the current maxZoom, inclusive")},i.prototype.getMinZoom=function(){return
this.transform.minZoom},i.prototype.setMaxZoom=function(t){if((t=null==t?22:t)>=this.transform.minZoom)retur
n this.transform.maxZoom=t,this._update(),this.getZoom()>t&&this.setZoom(t),this;throw new Error("maxZoom
must be greater than the current minZoom")},i.prototype.getMaxZoom=function(){return
this.transform.maxZoom},i.prototype.setMinPitch=function(t){if((t=null==t?0:t)<0)throw new Error("minPitch
must be greater than or equal to 0");if(t>=0&&t<=this.transform.maxPitch)return
this.transform.minPitch=t,this._update(),this.getPitch()<t&&this.setPitch(t),this;throw new Error("minPitch must be
between 0 and the current maxPitch, inclusive")},i.prototype.getMinPitch=function(){return
this.transform.minPitch},i.prototype.setMaxPitch=function(t){if((t=null==t?Ci:t)>Ci)throw new Error("maxPitch
must be less than or equal to 60");if(t>=this.transform.minPitch)return
this.transform.maxPitch=t,this._update(),this.getPitch()>t&&this.setPitch(t),this;throw new Error("maxPitch must
be greater than the current minPitch")},i.prototype.getMaxPitch=function(){return
this.transform.maxPitch},i.prototype.getRenderWorldCopies=function(){return
this.transform.renderWorldCopies},i.prototype.setRenderWorldCopies=function(t){return
this.transform.renderWorldCopies=t,this._update()},i.prototype.project=function(e){return
this.transform.locationPoint(t.LngLat.convert(e))},i.prototype.unproject=function(e){return
this.transform.pointLocation(t.Point.convert(e))},i.prototype.isMoving=function(){return
this._moving||this.handlers.isMoving()},i.prototype.isZooming=function(){return
this._zooming||this.handlers.isZooming()},i.prototype.isRotating=function(){return
this._rotating||this.handlers.isRotating()},i.prototype._createDelegatedListener=function(t,e,r){var
n,i=this;if("mouseenter"===t||"mouseover"===t){var
a=!1;return{layer:e,listener:r,delegates:{mousemove:function(n){var
o=i.getLayer(e)?i.queryRenderedFeatures(n.point,{layers:[e]}):[];o.length?a||(a=!0,r.call(i,new
Bn(t,i,n.originalEvent,{features:o}))):a=!1},mouseout:function(){a=!1}}}}if("mouseleave"===t||"mouseout"===t){
var
o=!1;return{layer:e,listener:r,delegates:{mousemove:function(n){(i.getLayer(e)?i.queryRenderedFeatures(n.point,{l
ayers:[e]}):[]).length?o=!0:o&&(o=!1,r.call(i,new
Bn(t,i,n.originalEvent)))},mouseout:function(e){o&&(o=!1,r.call(i,new
Bn(t,i,e.originalEvent)))}}}}return{layer:e,listener:r,delegates:(n={},n[t]=function(t){var
n=i.getLayer(e)?i.queryRenderedFeatures(t.point,{layers:[e]}):[];n.length&&(t.features=n,r.call(i,t),delete
t.features)},n)}},i.prototype.on=function(t,e,r){if(void 0===r)return n.prototype.on.call(this,t,e);var
i=this._createDelegatedListener(t,e,r);for(var a in
this._delegatedListeners=this._delegatedListeners||{},this._delegatedListeners[t]=this._delegatedListeners[t]||[],this.
_delegatedListeners[t].push(i),i.delegates)this.on(a,i.delegates[a]);return
this},i.prototype.once=function(t,e,r){if(void 0===r)return n.prototype.once.call(this,t,e);var
i=this._createDelegatedListener(t,e,r);for(var a in i.delegates)this.once(a,i.delegates[a]);return
this},i.prototype.off=function(t,e,r){var i=this;return void
0===r?n.prototype.off.call(this,t,e):(this._delegatedListeners&&this._delegatedListeners[t]&&function(n){for(var
a=n[t],o=0;o<a.length;o++){var s=a[o];if(s.layer===e&&s.listener===r){for(var l in
s.delegates)i.off(l,s.delegates[l]);return
a.splice(o,1),i}}}(this._delegatedListeners),this)},i.prototype.queryRenderedFeatures=function(e,r){if(!this.style)ret
urn[];var n;if(void 0!==r||void 0===e||e instanceof t.Point||Array.isArray(e)||(r=e,e=void

0),r=r||{},(e=e||[[0,0],[this.transform.width,this.transform.height]])instanceof t.Point||"number"==typeof e[0])n=[t.Point.convert(e)];else{var i=t.Point.convert(e[0]),a=t.Point.convert(e[1]);n=[i,new t.Point(a.x,i.y),a,new t.Point(i.x,a.y),i]}return this.style.queryRenderedFeatures(n,r,this.transform)},i.prototype.querySourceFeatures=function(t,e){return this.style.querySourceFeatures(t,e)},i.prototype.setStyle=function(e,r){return!1!==(r=t.extend({},{localIdeographFontFamily:this._localIdeographFontFamily},r)).diff&&r.localIdeographFontFamily===this._localIdeographFontFamily&&this.style&&e?(this._diffStyle(e,r),this):(this._localIdeographFontFamily=r.localIdeographFontFamily,this._updateStyle(e,r))},i.prototype._getUIString=function(t){var e=this._locale[t];if(null==e)throw new Error("Missing UI string '"+t+"'");return e},i.prototype._updateStyle=function(t,e){return this.style&&(this.style.setEventedParent(null),this.style._remove()),t?(this.style=new We(this,e||{}),this.style.setEventedParent(this,{style:this.style}),"string"==typeof t?this.style.loadURL(t):this.style.loadJSON(t),this):(delete this.style,this)},i.prototype._lazyInitEmptyStyle=function(){this.style||(this.style=new We(this,{}),this.style.setEventedParent(this,{style:this.style}),this.style.loadEmpty())},i.prototype._diffStyle=function(e,r){var n=this;if("string"==typeof e){var i=this._requestManager.normalizeStyleURL(e),a=this._requestManager.transformRequest(i,t.ResourceType.Style);t.getJSON(a,(function(e,i){e?n.fire(new t.ErrorEvent(e)):i&&n._updateDiff(i,r)}))}else"object"==typeof e&&this._updateDiff(e,r)},i.prototype._updateDiff=function(e,r){try{this.style.setState(e)&&this._update(!0)}catch(n){t.warnOnce("Unable to perform style diff: "+(n.message||n.error||n)+". Rebuilding the style from scratch."),this._updateStyle(e,r)}},i.prototype.getStyle=function(){if(this.style)return this.style.serialize()},i.prototype.isStyleLoaded=function(){return this.style?this.style.loaded():t.warnOnce("There is no style added to the map.")},i.prototype.addSource=function(t,e){return this._lazyInitEmptyStyle(),this.style.addSource(t,e),this._update(!0)},i.prototype.isSourceLoaded=function(e){var r=this.style&&this.style.sourceCaches[e];if(void 0!==r)return r.loaded();this.fire(new t.ErrorEvent(new Error("There is no source with ID '"+e+"'")))},i.prototype.areTilesLoaded=function(){var t=this.style&&this.style.sourceCaches;for(var e in t){var r=t[e]._tiles;for(var n in r){var i=r[n];if("loaded"!==i.state&&"errored"!==i.state)return!1}}return!0},i.prototype.addSourceType=function(t,e,r){return this._lazyInitEmptyStyle(),this.style.addSourceType(t,e,r)},i.prototype.removeSource=function(t){return this.style.removeSource(t),this._update(!0)},i.prototype.getSource=function(t){return this.style.getSource(t)},i.prototype.addImage=function(e,r,n){void 0===n&&(n={});var i=n.pixelRatio;void 0===i&&(i=1);var a=n.sdf;void 0===a&&(a=!1);var o=n.stretchX,s=n.stretchY,l=n.content;if(this._lazyInitEmptyStyle(),r instanceof Si||Li&&r instanceof Li){var c=t.browser.getImageData(r),u=c.width,f=c.height,h=c.data;this.style.addImage(e,{data:new t.RGBAImage({width:u,height:f},h),pixelRatio:i,stretchX:o,stretchY:s,content:l,sdf:a,version:0})}else{if(void 0===r.width||void 0===r.height)return this.fire(new t.ErrorEvent(new Error("Invalid arguments to map.addImage(). The second argument must be an `HTMLImageElement`, `ImageData`, `ImageBitmap`, or object with `width`, `height`, and `data` properties with the same format as `ImageData`")));var p=r.width,d=r.height,g=r.data,v=r;this.style.addImage(e,{data:new t.RGBAImage({width:p,height:d},new Uint8Array(g)),pixelRatio:i,stretchX:o,stretchY:s,content:l,sdf:a,version:0,userImage:v}),v.onAdd&&v.onAdd(this,e)}},i.prototype.updateImage=function(e,r){var n=this.style.getImage(e);if(!n)return this.fire(new t.ErrorEvent(new Error("The map has no image with that id. If you are adding a new image use `map.addImage(...)` instead.")));var i=r instanceof Si||Li&&r instanceof Li?t.browser.getImageData(r):r,a=i.width,o=i.height,s=i.data;if(void 0===a||void 0===o)return this.fire(new t.ErrorEvent(new Error("Invalid arguments to map.updateImage(). The second argument must be an `HTMLImageElement`, `ImageData`, `ImageBitmap`, or object with `width`, `height`, and `data` properties with the same format as `ImageData`")));if(a!==n.data.width||o!==n.data.height)return this.fire(new t.ErrorEvent(new Error("The width and height of the updated image must be that same as the previous version of the image")));var l=!(r instanceof Si||Li&&r instanceof Li);n.data.replace(s,l),this.style.updateImage(e,n)},i.prototype.hasImage=function(e){return

e?!!this.style.getImage(e):(this.fire(new t.ErrorEvent(new Error("Missing required image id"))),!1)},i.prototype.removeImage=function(t){this.style.removeImage(t)},i.prototype.loadImage=function(e,r){t.getImage(this._requestManager.transformRequest(e,t.ResourceType.Image),r)},i.prototype.listImages=function(){return this.style.listImages()},i.prototype.addLayer=function(t,e){return this._lazyInitEmptyStyle(),this.style.addLayer(t,e),this._update(!0)},i.prototype.moveLayer=function(t,e){return this.style.moveLayer(t,e),this._update(!0)},i.prototype.removeLayer=function(t){return this.style.removeLayer(t),this._update(!0)},i.prototype.getLayer=function(t){return this.style.getLayer(t)},i.prototype.setLayerZoomRange=function(t,e,r){return this.style.setLayerZoomRange(t,e,r),this._update(!0)},i.prototype.setFilter=function(t,e,r){return void 0===r&&(r={}),this.style.setFilter(t,e,r),this._update(!0)},i.prototype.getFilter=function(t){return this.style.getFilter(t)},i.prototype.setPaintProperty=function(t,e,r,n){return void 0===n&&(n={}),this.style.setPaintProperty(t,e,r,n),this._update(!0)},i.prototype.getPaintProperty=function(t,e){return this.style.getPaintProperty(t,e)},i.prototype.setLayoutProperty=function(t,e,r,n){return void 0===n&&(n={}),this.style.setLayoutProperty(t,e,r,n),this._update(!0)},i.prototype.getLayoutProperty=function(t,e){return this.style.getLayoutProperty(t,e)},i.prototype.setLight=function(t,e){return void 0===e&&(e={}),this._lazyInitEmptyStyle(),this.style.setLight(t,e),this._update(!0)},i.prototype.getLight=function(){return this.style.getLight()},i.prototype.setFeatureState=function(t,e){return this.style.setFeatureState(t,e),this._update()},i.prototype.removeFeatureState=function(t,e){return this.style.removeFeatureState(t,e),this._update()},i.prototype.getFeatureState=function(t){return this.style.getFeatureState(t)},i.prototype.getContainer=function(){return this._container},i.prototype.getCanvasContainer=function(){return this._canvasContainer},i.prototype.getCanvas=function(){return this._canvas},i.prototype._containerDimensions=function(){var t=0,e=0;return this._container&&(t=this._container.clientWidth||400,e=this._container.clientHeight||300),[t,e]},i.prototype._detectMissingCSS=function(){"rgb(250, 128, 114)"!==t.window.getComputedStyle(this._missingCSSCanary).getPropertyValue("background-color")&&t.warnOnce("This page appears to be missing CSS declarations for Mapbox GL JS, which may cause the map to display incorrectly. Please ensure your page includes mapbox-gl.css, as described in https://www.mapbox.com/mapbox-gl-js/api/.")},i.prototype._setupContainer=function(){var t=this._container;t.classList.add("mapboxgl-map"),(this._missingCSSCanary=r.create("div","mapboxgl-canary",t)).style.visibility="hidden",this._detectMissingCSS();var e=this._canvasContainer=r.create("div","mapboxgl-canvas-container",t);this._interactive&&e.classList.add("mapboxgl-interactive"),this._canvas=r.create("canvas","mapboxgl-canvas",e),this._canvas.addEventListener("webglcontextlost",this._contextLost,!1),this._canvas.addEventListener("webglcontextrestored",this._contextRestored,!1),this._canvas.setAttribute("tabindex","0"),this._canvas.setAttribute("aria-label","Map");var n=this._containerDimensions();this._resizeCanvas(n[0],n[1]);var i=this._controlContainer=r.create("div","mapboxgl-control-container",t),a=this._controlPositions={};["top-left","top-right","bottom-left","bottom-right"].forEach((function(t){a[t]=r.create("div","mapboxgl-ctrl-"+t,i)}))},i.prototype._resizeCanvas=function(e,r){var n=t.browser.devicePixelRatio||1;this._canvas.width=n*e,this._canvas.height=n*r,this._canvas.style.width=e+"px",this._canvas.style.height=r+"px"},i.prototype._setupPainter=function(){var r=t.extend({},e.webGLContextAttributes,{failIfMajorPerformanceCaveat:this._failIfMajorPerformanceCaveat,preserveDrawingBuffer:this._preserveDrawingBuffer,antialias:this._antialias||!1}),n=this._canvas.getContext("webgl",r)||this._canvas.getContext("experimental-webgl",r);n?(this.painter=new Tn(n,this.transform),t.webpSupported.testSupport(n)):this.fire(new t.ErrorEvent(new Error("Failed to initialize WebGL")))},i.prototype._contextLost=function(e){e.preventDefault(),this._frame&&(this._frame.cancel(),this._frame=null),this.fire(new t.Event("webglcontextlost",{originalEvent:e}))},i.prototype._contextRestored=function(e){this._setupPainter(),this.r

esize(),this._update(),this.fire(new
t.Event("webglcontextrestored",{originalEvent:e}))},i.prototype.loaded=function(){return!this._styleDirty&&!this._
sourcesDirty&&!!this.style&&this.style.loaded()},i.prototype._update=function(t){return
this.style?(this._styleDirty=this._styleDirty||t,this._sourcesDirty=!0,this.triggerRepaint(),this):this},i.prototype._requestRenderFrame=function(t){return
this._update(),this._renderTaskQueue.add(t)},i.prototype._cancelRenderFrame=function(t){this._renderTaskQueue.remove(t)},i.prototype._render=function(e){var
r,n=this,i=0,a=this.painter.context.extTimerQuery;if(this.listens("gpu-timing-frame")&&(r=a.createQueryEXT(),a.beginQueryEXT(a.TIME_ELAPSED_EXT,r),i=t.browser.now()),this.painter.context.setDirty(),this.painter.setBaseState(),this._renderTaskQueue.run(e),!this._removed){var
o=!1;if(this.style&&this._styleDirty){this._styleDirty=!1;var
s=this.transform.zoom,l=t.browser.now();this.style.zoomHistory.update(s,l);var c=new
t.EvaluationParameters(s,{now:l,fadeDuration:this._fadeDuration,zoomHistory:this.style.zoomHistory,transition:this.style.getTransition()}),u=c.crossFadingFactor();1===u&&u===this._crossFadingFactor||(o=!0,this._crossFadingFactor=u),this.style.update(c)}if(this.style&&this._sourcesDirty&&(this._sourcesDirty=!1,this.style._updateSources(this.transform)),this._placementDirty=this.style&&this.style._updatePlacement(this.painter.transform,this.showCollisionBoxes,this._fadeDuration,this._crossSourceCollisions),this.painter.render(this.style,{showTileBoundaries:this.showTileBoundaries,showOverdrawInspector:this._showOverdrawInspector,rotating:this.isRotating(),zooming:this.isZooming(),moving:this.isMoving(),fadeDuration:this._fadeDuration,showPadding:this.showPadding,gpuTiming:!!this.listens("gpu-timing-layer")}),this.fire(new
t.Event("render")),this.loaded()&&!this._loaded&&(this._loaded=!0,this.fire(new
t.Event("load"))),this.style&&(this.style.hasTransitions()||o)&&(this._styleDirty=!0),this.style&&!this._placementDirty&&this.style._releaseSymbolFadeTiles(),this.listens("gpu-timing-frame")){var f=t.browser.now()-i;a.endQueryEXT(a.TIME_ELAPSED_EXT,r),setTimeout((function(){var
e=a.getQueryObjectEXT(r,a.QUERY_RESULT_EXT)/1e6;a.deleteQueryEXT(r),n.fire(new t.Event("gpu-timing-frame",{cpuTime:f,gpuTime:e}))}),50)}if(this.listens("gpu-timing-layer")){var
h=this.painter.collectGpuTimers();setTimeout((function(){var e=n.painter.queryGpuTimers(h);n.fire(new
t.Event("gpu-timing-layer",{layerTimes:e}))}),50)}return
this._sourcesDirty||this._styleDirty||this._placementDirty||this._repaint?this.triggerRepaint():!this.isMoving()&&this.loaded()&&(this._fullyLoaded||(this._fullyLoaded=!0),this.fire(new
t.Event("idle"))),this}},i.prototype.remove=function(){this._hash&&this._hash.remove();for(var
e=0,r=this._controls;e<r.length;e+=1)r[e].onRemove(this);this._controls=[],this._frame&&(this._frame.cancel(),this._frame=null),this._renderTaskQueue.clear(),this.painter.destroy(),this.handlers.destroy(),delete
this.handlers,this.setStyle(null),void
0!==t.window&&(t.window.removeEventListener("resize",this._onWindowResize,!1),t.window.removeEventListener("online",this._onWindowOnline,!1));var
n=this.painter.context.gl.getExtension("WEBGL_lose_context");n&&n.loseContext(),Oi(this._canvasContainer),Oi(this._controlContainer),Oi(this._missingCSSCanary),this._container.classList.remove("mapboxgl-map"),this._removed=!0,this.fire(new t.Event("remove"))},i.prototype.triggerRepaint=function(){var
e=this;this.style&&!this._frame&&(this._frame=t.browser.frame((function(t){e._frame=null,e._render(t)})))},i.prototype._onWindowOnline=function(){this._update()},i.prototype._onWindowResize=function(t){this._trackResize&&this.resize({originalEvent:t})._update()},a.showTileBoundaries.get=function(){return!!this._showTileBoundaries},a.showTileBoundaries.set=function(t){this._showTileBoundaries!==t&&(this._showTileBoundaries=t,this._update())},a.showPadding.get=function(){return!!this._showPadding},a.showPadding.set=function(t){this._showPadding!==t&&(this._showPadding=t,this._update())},a.showCollisionBoxes.get=function(){return!!this._showCollisionBoxes},a.showCollisionBoxes.set=function(t){this._showCollisionBoxes!==t&&(this._showCollisionBoxes=t,t?this.style._generateCollisionBoxes():this._update())},a.showOverdrawInspector.get=function(){return!!this._showOverdrawInspector},a.showOverdrawInspector.set=function(t){this._showOverdrawInspector!==t&&(this._showOverdrawIns

pector=t,this._update())},a.repaint.get=function(){return!!this._repaint},a.repaint.set=function(t){this._repaint!==t&&(this._repaint=t,this.triggerRepaint())},a.vertices.get=function(){return!!this._vertices},a.vertices.set=function(t){this._vertices=t,this._update()},i.prototype._setCacheLimits=function(e,r){t.setCacheLimits(e,r)},a.version.get=function(){return t.version},Object.defineProperties(i.prototype,a),i}(wi);function Oi(t){t.parentNode&&t.parentNode.removeChild(t)}var zi={showCompass:!0,showZoom:!0,visualizePitch:!1},Di=function(e){var n=this;this.options=t.extend({},zi,e),this._container=r.create("div","mapboxgl-ctrl mapboxgl-ctrl-group"),this._container.addEventListener("contextmenu",(function(t){return t.preventDefault()})),this.options.showZoom&&(t.bindAll(["_setButtonTitle","_updateZoomButtons"],this),this._zoomInButton=this._createButton("mapboxgl-ctrl-zoom-in",(function(t){return n._map.zoomIn({},{originalEvent:t})})),r.create("span","mapboxgl-ctrl-icon",this._zoomInButton).setAttribute("aria-hidden",!0),this._zoomOutButton=this._createButton("mapboxgl-ctrl-zoom-out",(function(t){return n._map.zoomOut({},{originalEvent:t})})),r.create("span","mapboxgl-ctrl-icon",this._zoomOutButton).setAttribute("aria-hidden",!0)),this.options.showCompass&&(t.bindAll(["_rotateCompassArrow"],this),this._compass=this._createButton("mapboxgl-ctrl-compass",(function(t){n.options.visualizePitch?n._map.resetNorthPitch({},{originalEvent:t}):n._map.resetNorth({},{originalEvent:t})})),this._compassIcon=r.create("span","mapboxgl-ctrl-icon",this._compass),this._compassIcon.setAttribute("aria-hidden",!0))};Di.prototype._updateZoomButtons=function(){var t=this._map.getZoom();this._zoomInButton.disabled=t===this._map.getMaxZoom(),this._zoomOutButton.disabled=t===this._map.getMinZoom()},Di.prototype._rotateCompassArrow=function(){var t=this.options.visualizePitch?"scale("+1/Math.pow(Math.cos(this._map.transform.pitch*(Math.PI/180)),.5)+") rotateX("+this._map.transform.pitch+"deg) rotateZ("+this._map.transform.angle*(180/Math.PI)+"deg)":"rotate("+this._map.transform.angle*(180/Math.PI)+"deg)";this._compassIcon.style.transform=t},Di.prototype.onAdd=function(t){return this._map=t,this.options.showZoom&&(this._setButtonTitle(this._zoomInButton,"ZoomIn"),this._setButtonTitle(this._zoomOutButton,"ZoomOut"),this._map.on("zoom",this._updateZoomButtons),this._updateZoomButtons()),this.options.showCompass&&(this._setButtonTitle(this._compass,"ResetBearing"),this.options.visualizePitch&&this._map.on("pitch",this._rotateCompassArrow),this._map.on("rotate",this._rotateCompassArrow),this._rotateCompassArrow(),this._handler=new Ri(this._map,this._compass,this.options.visualizePitch)),this._container},Di.prototype.onRemove=function(){r.remove(this._container),this.options.showZoom&&this._map.off("zoom",this._updateZoomButtons),this.options.showCompass&&(this.options.visualizePitch&&this._map.off("pitch",this._rotateCompassArrow),this._map.off("rotate",this._rotateCompassArrow),this._handler.off(),delete this._handler),delete this._map},Di.prototype._createButton=function(t,e){var n=r.create("button",t,this._container);return n.type="button",n.addEventListener("click",e),n},Di.prototype._setButtonTitle=function(t,e){var r=this._map._getUIString("NavigationControl."+e);t.title=r,t.setAttribute("aria-label",r)};var Ri=function(e,n,i){void 0===i&&(i=!1),this._clickTolerance=10,this.element=n,this.mouseRotate=new Jn({clickTolerance:e.dragRotate._mouseRotate._clickTolerance}),this.map=e,i&&(this.mousePitch=new Kn({clickTolerance:e.dragRotate._mousePitch._clickTolerance})),t.bindAll(["mousedown","mousemove","mouseup","touchstart","touchmove","touchend","reset"],this),r.addEventListener(n,"mousedown",this.mousedown),r.addEventListener(n,"touchstart",this.touchstart,{passive:!1}),r.addEventListener(n,"touchmove",this.touchmove),r.addEventListener(n,"touchend",this.touchend),r.addEventListener(n,"touchcancel",this.reset)};function Fi(e,r,n){if(e=new t.LngLat(e.lng,e.lat),r){var i=new t.LngLat(e.lng-360,e.lat),a=new t.LngLat(e.lng+360,e.lat),o=n.locationPoint(e).distSqr(r);n.locationPoint(i).distSqr(r)<o?e=i:n.locationPoint(a).distSqr(r)<o&&(e=a)}for(;Math.abs(e.lng-n.center.lng)>180;){var s=n.locationPoint(e);if(s.x>=0&&s.y>=0&&s.x<=n.width&&s.y<=n.height)break;e.lng>n.center.lng?e.lng-

=360:e.lng+=360}return
e}Ri.prototype.down=function(t,e){this.mouseRotate.mousedown(t,e),this.mousePitch&&this.mousePitch.mousedown(t,e),r.disableDrag()},Ri.prototype.move=function(t,e){var
r=this.map,n=this.mouseRotate.mousemoveWindow(t,e);if(n&&n.bearingDelta&&r.setBearing(r.getBearing()+n.bearingDelta),this.mousePitch){var
i=this.mousePitch.mousemoveWindow(t,e);i&&i.pitchDelta&&r.setPitch(r.getPitch()+i.pitchDelta)}},Ri.prototype.off=function(){var
t=this.element;r.removeEventListener(t,"mousedown",this.mousedown),r.removeEventListener(t,"touchstart",this.touchstart,{passive:!1}),r.removeEventListener(t,"touchmove",this.touchmove),r.removeEventListener(t,"touchend",this.touchend),r.removeEventListener(t,"touchcancel",this.reset),this.offTemp()},Ri.prototype.offTemp=function(){r.enableDrag(),r.removeEventListener(t.window,"mousemove",this.mousemove),r.removeEventListener(t.window,"mouseup",this.mouseup)},Ri.prototype.mousedown=function(e){this.down(t.extend({},e,{ctrlKey:!0,preventDefault:function(){return
e.preventDefault()}}),r.mousePos(this.element,e)),r.addEventListener(t.window,"mousemove",this.mousemove),r.addEventListener(t.window,"mouseup",this.mouseup)},Ri.prototype.mousemove=function(t){this.move(t,r.mousePos(this.element,t))},Ri.prototype.mouseup=function(t){this.mouseRotate.mouseupWindow(t),this.mousePitch&&this.mousePitch.mouseupWindow(t),this.offTemp()},Ri.prototype.touchstart=function(t){1!==t.targetTouches.length?this.reset():(this._startPos=this._lastPos=r.touchPos(this.element,t.targetTouches)[0],this.down({type:"mousedown",button:0,ctrlKey:!0,preventDefault:function(){return
t.preventDefault()}},this._startPos))},Ri.prototype.touchmove=function(t){1!==t.targetTouches.length?this.reset():(this._lastPos=r.touchPos(this.element,t.targetTouches)[0],this.move({preventDefault:function(){return
t.preventDefault()}},this._lastPos))},Ri.prototype.touchend=function(t){0===t.targetTouches.length&&this._startPos&&this._lastPos&&this._startPos.dist(this._lastPos)<this._clickTolerance&&this.element.click(),this.reset()},Ri.prototype.reset=function(){this.mouseRotate.reset(),this.mousePitch&&this.mousePitch.reset(),delete
this._startPos,delete this._lastPos,this.offTemp()};var Bi={center:"translate(-50%,-50%)",top:"translate(-50%,0)","top-left":"translate(0,0)","top-right":"translate(-100%,0)",bottom:"translate(-50%,-100%)","bottom-left":"translate(0,-100%)","bottom-right":"translate(-100%,-100%)",left:"translate(0,-50%)",right:"translate(-100%,-50%)"};function Ni(t,e,r){var n=t.classList;for(var i in Bi)n.remove("mapboxgl-"+r+"-anchor-"+i);n.add("mapboxgl-"+r+"-anchor-"+e)}var ji,Ui=function(e){function n(n,i){var a=this;if(e.call(this),(n
instanceof
t.window.HTMLElement||i)&&(n=t.extend({element:n},i)),t.bindAll(["_update","_onMove","_onUp","_addDragHandler","_onMapClick","_onKeyPress"],this),this._anchor=n&&n.anchor||"center",this._color=n&&n.color||"#3FB1CE",this._draggable=n&&n.draggable||!1,this._state="inactive",this._rotation=n&&n.rotation||0,this._rotationAlignment=n&&n.rotationAlignment||"auto",this._pitchAlignment=n&&n.pitchAlignment&&"auto"!==n.pitchAlignment?n.pitchAlignment:this._rotationAlignment,n&&n.element)this._element=n.element,this._offset=t.Point.convert(n&&n.offset||[0,0]);else{this._defaultMarker=!0,this._element=r.create("div"),this._element.setAttribute("aria-label","Map marker");var
o=r.createNS("http://www.w3.org/2000/svg","svg");o.setAttributeNS(null,"display","block"),o.setAttributeNS(null,"height","41px"),o.setAttributeNS(null,"width","27px"),o.setAttributeNS(null,"viewBox","0 0 27 41");var
s=r.createNS("http://www.w3.org/2000/svg","g");s.setAttributeNS(null,"stroke","none"),s.setAttributeNS(null,"stroke-width","1"),s.setAttributeNS(null,"fill","none"),s.setAttributeNS(null,"fill-rule","evenodd");var
l=r.createNS("http://www.w3.org/2000/svg","g");l.setAttributeNS(null,"fill-rule","nonzero");var
c=r.createNS("http://www.w3.org/2000/svg","g");c.setAttributeNS(null,"transform","translate(3.0,
29.0)"),c.setAttributeNS(null,"fill","#000000");for(var
u=0,f=[{rx:"10.5",ry:"5.25002273"},{rx:"10.5",ry:"5.25002273"},{rx:"9.5",ry:"4.77275007"},{rx:"8.5",ry:"4.29549936"},{rx:"7.5",ry:"3.81822308"},{rx:"6.5",ry:"3.34094679"},{rx:"5.5",ry:"2.86367051"},{rx:"4.5",ry:"2.38636864"}];u<f.length;u+=1){var
h=f[u],p=r.createNS("http://www.w3.org/2000/svg","ellipse");p.setAttributeNS(null,"opacity","0.04"),p.setAttribute

NS(null,"cx","10.5"),p.setAttributeNS(null,"cy","5.80029008"),p.setAttributeNS(null,"rx",h.rx),p.setAttributeNS(null,"ry",h.ry),c.appendChild(p)}var
d=r.createNS("http://www.w3.org/2000/svg","g");d.setAttributeNS(null,"fill",this._color);var
g=r.createNS("http://www.w3.org/2000/svg","path");g.setAttributeNS(null,"d","M27,13.5 C27,19.074644
20.250001,27.000002 14.75,34.500002 C14.016665,35.500004 12.983335,35.500004 12.25,34.500002
C6.7499993,27.000002 0,19.222562 0,13.5 C0,6.0441559 6.0441559,0 13.5,0 C20.955844,0 27,6.0441559 27,13.5
Z"),d.appendChild(g);var
v=r.createNS("http://www.w3.org/2000/svg","g");v.setAttributeNS(null,"opacity","0.25"),v.setAttributeNS(null,"fill","#000000");var m=r.createNS("http://www.w3.org/2000/svg","path");m.setAttributeNS(null,"d","M13.5,0
C6.0441559,0 0,6.0441559 0,13.5 C0,19.222562 6.7499993,27 12.25,34.5 C13,35.522727 14.016664,35.500004
14.75,34.5 C20.250001,27 27,19.074644 27,13.5 C27,6.0441559 20.955844,0 13.5,0 Z M13.5,1 C20.415404,1
26,6.584596 26,13.5 C26,15.898657 24.495584,19.181431 22.220703,22.738281 C19.945823,26.295132
16.705119,30.142167 13.943359,33.908203 C13.743445,34.180814 13.612715,34.322738 13.5,34.441406
C13.387285,34.322738 13.256555,34.180814 13.056641,33.908203 C10.284481,30.127985 7.4148684,26.314159
5.015625,22.773438 C2.6163816,19.232715 1,15.953538 1,13.5 C1,6.584596 6.584596,1 13.5,1
Z"),v.appendChild(m);var
y=r.createNS("http://www.w3.org/2000/svg","g");y.setAttributeNS(null,"transform","translate(6.0,
7.0)"),y.setAttributeNS(null,"fill","#FFFFFF");var
x=r.createNS("http://www.w3.org/2000/svg","g");x.setAttributeNS(null,"transform","translate(8.0, 8.0)");var
b=r.createNS("http://www.w3.org/2000/svg","circle");b.setAttributeNS(null,"fill","#000000"),b.setAttributeNS(null,"opacity","0.25"),b.setAttributeNS(null,"cx","5.5"),b.setAttributeNS(null,"cy","5.5"),b.setAttributeNS(null,"r","5.4999962");var
=r.createNS("http://www.w3.org/2000/svg","circle");.setAttributeNS(null,"fill","#FFFFFF"),_.setAttributeNS(null,"cx","5.5"),_.setAttributeNS(null,"cy","5.5"),_.setAttributeNS(null,"r","5.4999962"),x.appendChild(b),x.appendChild(_),l.appendChild(c),l.appendChild(d),l.appendChild(v),l.appendChild(y),l.appendChild(x),o.appendChild(l),this._element.appendChild(o),this._offset=t.Point.convert(n&&n.offset||[0,-14])}this._element.classList.add("mapboxgl-marker"),this._element.addEventListener("dragstart",(function(t){t.preventDefault()})),this._element.addEventListener("mousedown",(function(t){t.preventDefault()})),this._element.addEventListener("focus",(function(){var
t=a._map.getContainer();t.scrollTop=0,t.scrollLeft=0})),Ni(this._element,this._anchor,"marker"),this._popup=null}return
e&&(n.__proto__=e),n.prototype=Object.create(e&&e.prototype),n.prototype.constructor=n,n.prototype.addTo=function(t){return
this.remove(),this._map=t,t.getCanvasContainer().appendChild(this._element),t.on("move",this._update),t.on("moveend",this._update),this.setDraggable(this._draggable),this._update(),this._map.on("click",this._onMapClick),this},n.prototype.remove=function(){return
this._map&&(this._map.off("click",this._onMapClick),this._map.off("move",this._update),this._map.off("moveend",this._update),this._map.off("mousedown",this._addDragHandler),this._map.off("touchstart",this._addDragHandler),this._map.off("mouseup",this._onUp),this._map.off("touchend",this._onUp),this._map.off("mousemove",this._onMove),this._map.off("touchmove",this._onMove),delete
this._map),r.remove(this._element),this._popup&&this._popup.remove(),this},n.prototype.getLngLat=function(){return this._lngLat},n.prototype.setLngLat=function(e){return
this._lngLat=t.LngLat.convert(e),this._pos=null,this._popup&&this._popup.setLngLat(this._lngLat),this._update(),this},n.prototype.getElement=function(){return
this._element},n.prototype.setPopup=function(t){if(this._popup&&(this._popup.remove(),this._popup=null,this._element.removeEventListener("keypress",this._onKeyPress),this._originalTabIndex||this._element.removeAttribute("tabindex")),t){if(!("offset"in t.options)){var
e=13.5,r=Math.sqrt(Math.pow(e,2)/2);t.options.offset=this._defaultMarker?{top:[0,0],"top-left":[0,0],"top-right":[0,0],bottom:[0,-38.1],"bottom-left":[r,-1*(24.6+r)],"bottom-right":[-r,-1*(24.6+r)],left:[e,-24.6],right:[-13.5,-

24.6]}:this._offset}this._popup=t,this._lngLat&&this._popup.setLngLat(this._lngLat),this._originalTabIndex=this._element.getAttribute("tabindex"),this._originalTabIndex||this._element.setAttribute("tabindex","0"),this._element.addEventListener("keypress",this._onKeyPress)}return this},n.prototype._onKeyPress=function(t){var e=t.code,r=t.charCode||t.keyCode;"Space"!==e&&"Enter"!==e&&32!==r&&13!==r||this.togglePopup()},n.prototype._onMapClick=function(t){var e=t.originalEvent.target,r=this._element;this._popup&&(e===r||r.contains(e))&&this.togglePopup()},n.prototype.getPopup=function(){return this._popup},n.prototype.togglePopup=function(){var t=this._popup;return t?(t.isOpen()?t.remove():t.addTo(this._map),this):this},n.prototype._update=function(t){if(this._map){this._map.transform.renderWorldCopies&&(this._lngLat=Fi(this._lngLat,this._pos,this._map.transform)),this._pos=this._map.project(this._lngLat)._add(this._offset);var e="";"viewport"===this._rotationAlignment||"auto"===this._rotationAlignment?e="rotateZ("+this._rotation+"deg)":"map"===this._rotationAlignment&&(e="rotateZ("+(this._rotation-this._map.getBearing())+"deg)");var n="";"viewport"===this._pitchAlignment||"auto"===this._pitchAlignment?n="rotateX(0deg)":"map"===this._pitchAlignment&&(n="rotateX("+this._map.getPitch()+"deg)"),t&&"moveend"!==t.type||(this._pos=this._pos.round()),r.setTransform(this._element,Bi[this._anchor]+" translate("+this._pos.x+"px, "+this._pos.y+"px) "+n+" "+e)}},n.prototype.getOffset=function(){return this._offset},n.prototype.setOffset=function(e){return this._offset=t.Point.convert(e),this._update(),this},n.prototype._onMove=function(e){this._pos=e.point.sub(this._positionDelta),this._lngLat=this._map.unproject(this._pos),this.setLngLat(this._lngLat),this._element.style.pointerEvents="none","pending"===this._state&&(this._state="active",this.fire(new t.Event("dragstart"))),this.fire(new t.Event("drag"))},n.prototype._onUp=function(){this._element.style.pointerEvents="auto",this._positionDelta=null,this._map.off("mousemove",this._onMove),this._map.off("touchmove",this._onMove),"active"===this._state&&this.fire(new t.Event("dragend")),this._state="inactive"},n.prototype._addDragHandler=function(t){this._element.contains(t.originalEvent.target)&&(t.preventDefault(),this._positionDelta=t.point.sub(this._pos).add(this._offset),this._state="pending",this._map.on("mousemove",this._onMove),this._map.on("touchmove",this._onMove),this._map.once("mouseup",this._onUp),this._map.once("touchend",this._onUp))},n.prototype.setDraggable=function(t){return this._draggable=!!t,this._map&&(t?(this._map.on("mousedown",this._addDragHandler),this._map.on("touchstart",this._addDragHandler)):(this._map.off("mousedown",this._addDragHandler),this._map.off("touchstart",this._addDragHandler))),this},n.prototype.isDraggable=function(){return this._draggable},n.prototype.setRotation=function(t){return this._rotation=t||0,this._update(),this},n.prototype.getRotation=function(){return this._rotation},n.prototype.setRotationAlignment=function(t){return this._rotationAlignment=t||"auto",this._update(),this},n.prototype.getRotationAlignment=function(){return this._rotationAlignment},n.prototype.setPitchAlignment=function(t){return this._pitchAlignment=t&&"auto"!==t?t:this._rotationAlignment,this._update(),this},n.prototype.getPitchAlignment=function(){return this._pitchAlignment},n}(t.Evented),Vi={positionOptions:{enableHighAccuracy:!1,maximumAge:0,timeout:6e3},fitBoundsOptions:{maxZoom:15},trackUserLocation:!1,showAccuracyCircle:!0,showUserLocation:!0},qi=0,Hi=!1,Gi=function(e){function n(r){e.call(this),this.options=t.extend({},Vi,r),t.bindAll(["_onSuccess","_onError","_onZoom","_finish","_setupUI","_updateCamera","_updateMarker"],this)}return e&&(n.__proto__=e),n.prototype=Object.create(e&&e.prototype),n.prototype.constructor=n,n.prototype.onAdd=function(e){return this._map=e,this._container=r.create("div","mapboxgl-ctrl mapboxgl-ctrl-group"),n=this._setupUI,void 0!==ji?n(ji):void 0!==t.window.navigator.permissions?t.window.navigator.permissions.query({name:"geolocation"}).then((function(t){ji="denied"!==t.state,n(ji)})):(ji=!!t.window.navigator.geolocation,n(ji)),this._container;var n},n.prototype.onRemove=function(){void 0!==this._geolocationWatchID&&(t.window.navigator.geolocation.clearWatch(this._geolocationWatchID),this._ge

olocationWatchID=void
0),this.options.showUserLocation&&this._userLocationDotMarker&&this._userLocationDotMarker.remove(),this.o
ptions.showAccuracyCircle&&this._accuracyCircleMarker&&this._accuracyCircleMarker.remove(),r.remove(this._
container),this._map.off("zoom",this._onZoom),this._map=void
0,qi=0,Hi=!1},n.prototype._isOutOfMapMaxBounds=function(t){var
e=this._map.getMaxBounds(),r=t.coords;return
e&&(r.longitude<e.getWest()||r.longitude>e.getEast()||r.latitude<e.getSouth()||r.latitude>e.getNorth())},n.prototype.
_setErrorState=function(){switch(this._watchState){case"WAITING_ACTIVE":this._watchState="ACTIVE_ERR
OR",this._geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-
active"),this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-active-
error");break;case"ACTIVE_LOCK":this._watchState="ACTIVE_ERROR",this._geolocateButton.classList.remove
("mapboxgl-ctrl-geolocate-active"),this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-active-
error"),this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-
waiting");break;case"BACKGROUND":this._watchState="BACKGROUND_ERROR",this._geolocateButton.class
List.remove("mapboxgl-ctrl-geolocate-background"),this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-
background-error"),this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-
waiting")}},n.prototype._onSuccess=function(e){if(this._map){if(this._isOutOfMapMaxBounds(e))return
this._setErrorState(),this.fire(new t.Event("outofmaxbounds",e)),this._updateMarker(),void
this._finish();if(this.options.trackUserLocation)switch(this._lastKnownPosition=e,this._watchState){case"WAITIN
G_ACTIVE":case"ACTIVE_LOCK":case"ACTIVE_ERROR":this._watchState="ACTIVE_LOCK",this._geolocate
Button.classList.remove("mapboxgl-ctrl-geolocate-waiting"),this._geolocateButton.classList.remove("mapboxgl-
ctrl-geolocate-active-error"),this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-
active");break;case"BACKGROUND":case"BACKGROUND_ERROR":this._watchState="BACKGROUND",this.
_geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-
waiting"),this._geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-background-
error"),this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-
background")}this.options.showUserLocation&&"OFF"!==this._watchState&&this._updateMarker(e),this.options.t
rackUserLocation&&"ACTIVE_LOCK"!==this._watchState||this._updateCamera(e),this.options.showUserLocation
&&this._dotElement.classList.remove("mapboxgl-user-location-dot-stale"),this.fire(new
t.Event("geolocate",e)),this._finish()}},n.prototype._updateCamera=function(e){var r=new
t.LngLat(e.coords.longitude,e.coords.latitude),n=e.coords.accuracy,i=this._map.getBearing(),a=t.extend({bearing:i},
this.options.fitBoundsOptions);this._map.fitBounds(r.toBounds(n),a,{geolocateSource:!0})},n.prototype._updateMa
rker=function(e){if(e){var r=new
t.LngLat(e.coords.longitude,e.coords.latitude);this._accuracyCircleMarker.setLngLat(r).addTo(this._map),this._user
LocationDotMarker.setLngLat(r).addTo(this._map),this._accuracy=e.coords.accuracy,this.options.showUserLocatio
n&&this.options.showAccuracyCircle&&this._updateCircleRadius()}else
this._userLocationDotMarker.remove(),this._accuracyCircleMarker.remove()},n.prototype._updateCircleRadius=fu
nction(){var
t=this._map._container.clientHeight/2,e=this._map.unproject([0,t]),r=this._map.unproject([1,t]),n=e.distanceTo(r),i=
Math.ceil(2*this._accuracy/n);this._circleElement.style.width=i+"px",this._circleElement.style.height=i+"px"},n.pr
ototype._onZoom=function(){this.options.showUserLocation&&this.options.showAccuracyCircle&&this._updateC
ircleRadius()},n.prototype._onError=function(e){if(this._map){if(this.options.trackUserLocation)if(1===e.code){thi
s._watchState="OFF",this._geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-
waiting"),this._geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-
active"),this._geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-active-
error"),this._geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-
background"),this._geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-background-
error"),this._geolocateButton.disabled=!0;var

r=this._map._getUIString("GeolocateControl.LocationNotAvailable");this._geolocateButton.title=r,this._geolocateButton.setAttribute("aria-label",r),void 0!==this._geolocationWatchID&&this._clearWatch()}else{if(3===e.code&&Hi)return;this._setErrorState()}"OFF"!==this._watchState&&this.options.showUserLocation&&this._dotElement.classList.add("mapboxgl-user-location-dot-stale"),this.fire(new t.Event("error",e)),this._finish()}},n.prototype._finish=function(){this._timeoutId&&clearTimeout(this._timeoutId),this._timeoutId=void 0},n.prototype._setupUI=function(e){var n=this;if(this._container.addEventListener("contextmenu",(function(t){return t.preventDefault()})),this._geolocateButton=r.create("button","mapboxgl-ctrl-geolocate",this._container),r.create("span","mapboxgl-ctrl-icon",this._geolocateButton).setAttribute("aria-hidden",!0),this._geolocateButton.type="button",!1===e){t.warnOnce("Geolocation support is not available so the GeolocateControl will be disabled.");var i=this._map._getUIString("GeolocateControl.LocationNotAvailable");this._geolocateButton.disabled=!0,this._geolocateButton.title=i,this._geolocateButton.setAttribute("aria-label",i)}else{var a=this._map._getUIString("GeolocateControl.FindMyLocation");this._geolocateButton.title=a,this._geolocateButton.setAttribute("aria-label",a)}this.options.trackUserLocation&&(this._geolocateButton.setAttribute("aria-pressed","false"),this._watchState="OFF"),this.options.showUserLocation&&(this._dotElement=r.create("div","mapboxgl-user-location-dot"),this._userLocationDotMarker=new Ui(this._dotElement),this._circleElement=r.create("div","mapboxgl-user-location-accuracy-circle"),this._accuracyCircleMarker=new Ui({element:this._circleElement,pitchAlignment:"map"}),this.options.trackUserLocation&&(this._watchState="OFF"),this._map.on("zoom",this._onZoom)),this._geolocateButton.addEventListener("click",this.trigger.bind(this)),this._setup=!0,this.options.trackUserLocation&&this._map.on("movestart",(function(e){var r=e.originalEvent&&"resize"===e.originalEvent.type;e.geolocateSource||"ACTIVE_LOCK"!==n._watchState||r||(n._watchState="BACKGROUND",n._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-background"),n._geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-active"),n.fire(new t.Event("trackuserlocationend")))}))},n.prototype.trigger=function(){if(!this._setup)return t.warnOnce("Geolocate control triggered before added to a map"),!1;if(this.options.trackUserLocation){switch(this._watchState){case"OFF":this._watchState="WAITING_ACTIVE",this.fire(new t.Event("trackuserlocationstart"));break;case"WAITING_ACTIVE":case"ACTIVE_LOCK":case"ACTIVE_ERROR":case"BACKGROUND_ERROR":qi--,Hi=!1,this._watchState="OFF",this._geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-waiting"),this._geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-active"),this._geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-active-error"),this._geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-background"),this._geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-background-error"),this.fire(new t.Event("trackuserlocationend"));break;case"BACKGROUND":this._watchState="ACTIVE_LOCK",this._geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-background"),this._lastKnownPosition&&this._updateCamera(this._lastKnownPosition),this.fire(new t.Event("trackuserlocationstart"))}switch(this._watchState){case"WAITING_ACTIVE":this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-waiting"),this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-active");break;case"ACTIVE_LOCK":this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-active");break;case"ACTIVE_ERROR":this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-waiting"),this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-active-error");break;case"BACKGROUND":this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-background");break;case"BACKGROUND_ERROR":this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-waiting"),this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-background-

error")}if("OFF"===this._watchState&&void 0!==this._geolocationWatchID)this._clearWatch();else if(void 0===this._geolocationWatchID){var e;this._geolocateButton.classList.add("mapboxgl-ctrl-geolocate-waiting"),this._geolocateButton.setAttribute("aria-pressed","true"),++qi>1?(e={maximumAge:6e5,timeout:0},Hi=!0):(e=this.options.positionOptions,Hi=!1),this._geolocationWatchID=t.window.navigator.geolocation.watchPosition(this._onSuccess,this._onError,e)}}else t.window.navigator.geolocation.getCurrentPosition(this._onSuccess,this._onError,this.options.positionOptions),this._timeoutId=setTimeout(this._finish,1e4);return!0},n.prototype._clearWatch=function(){t.window.navigator.geolocation.clearWatch(this._geolocationWatchID),this._geolocationWatchID=void 0,this._geolocateButton.classList.remove("mapboxgl-ctrl-geolocate-waiting"),this._geolocateButton.setAttribute("aria-pressed","false"),this.options.showUserLocation&&this._updateMarker(null)},n}(t.Evented),Yi={maxWidth:100,unit:"metric"},Wi=function(e){this.options=t.extend({},Yi,e),t.bindAll(["_onMove","setUnit"],this)};function Xi(t,e,r){var n=r&&r.maxWidth||100,i=t._container.clientHeight/2,a=t.unproject([0,i]),o=t.unproject([n,i]),s=a.distanceTo(o);if(r&&"imperial"===r.unit){var l=3.2808*s;l>5280?Zi(e,n,l/5280,t._getUIString("ScaleControl.Miles")):Zi(e,n,l,t._getUIString("ScaleControl.Feet"))}else r&&"nautical"===r.unit?Zi(e,n,s/1852,t._getUIString("ScaleControl.NauticalMiles")):s>=1e3?Zi(e,n,s/1e3,t._getUIString("ScaleControl.Kilometers")):Zi(e,n,s,t._getUIString("ScaleControl.Meters"))}function Zi(t,e,r,n){var i,a,o,s=(i=r,(a=Math.pow(10,(""+Math.floor(i)).length-1))*((o=i/a)>=10?10:o>=5?5:o>=3?3:o>=2?2:o>=1?1:function(t){var e=Math.pow(10,Math.ceil(-Math.log(t)/Math.LN10));return Math.round(t*e)/e}(o))),l=s/r;t.style.width=e*l+"px",t.innerHTML=s+" "+n}Wi.prototype.getDefaultPosition=function(){return"bottom-left"},Wi.prototype._onMove=function(){Xi(this._map,this._container,this.options)},Wi.prototype.onAdd=function(t){return this._map=t,this._container=r.create("div","mapboxgl-ctrl mapboxgl-ctrl-scale",t.getContainer()),this._map.on("move",this._onMove),this._onMove(),this._container},Wi.prototype.onRemove=function(){r.remove(this._container),this._map.off("move",this._onMove),this._map=void 0},Wi.prototype.setUnit=function(t){this.options.unit=t,Xi(this._map,this._container,this.options)};var Ji=function(e){this._fullscreen=!1,e&&e.container&&(e.container instanceof t.window.HTMLElement?this._container=e.container:t.warnOnce("Full screen control 'container' must be a DOM element.")),t.bindAll(["_onClickFullscreen","_changeIcon"],this),"onfullscreenchange"in t.window.document?this._fullscreenchange="fullscreenchange":"onmozfullscreenchange"in t.window.document?this._fullscreenchange="mozfullscreenchange":"onwebkitfullscreenchange"in t.window.document?this._fullscreenchange="webkitfullscreenchange":"onmsfullscreenchange"in t.window.document&&(this._fullscreenchange="MSFullscreenChange")};Ji.prototype.onAdd=function(e){return this._map=e,this._container||(this._container=this._map.getContainer()),this._controlContainer=r.create("div","mapboxgl-ctrl mapboxgl-ctrl-group"),this._checkFullscreenSupport()?this._setupUI():(this._controlContainer.style.display="none",t.warnOnce("This device does not support fullscreen mode.")),this._controlContainer},Ji.prototype.onRemove=function(){r.remove(this._controlContainer),this._map=null,t.window.document.removeEventListener(this._fullscreenchange,this._changeIcon)},Ji.prototype._checkFullscreenSupport=function(){return!!(t.window.document.fullscreenEnabled||t.window.document.mozFullScreenEnabled||t.window.document.msFullscreenEnabled||t.window.document.webkitFullscreenEnabled)},Ji.prototype._setupUI=function(){var e=this._fullscreenButton=r.create("button","mapboxgl-ctrl-fullscreen",this._controlContainer);r.create("span","mapboxgl-ctrl-icon",e).setAttribute("aria-hidden",!0),e.type="button",this._updateTitle(),this._fullscreenButton.addEventListener("click",this._onClickFullscreen),t.window.document.addEventListener(this._fullscreenchange,this._changeIcon)},Ji.prototype._updateTitle=fun

ction(){var t=this._getTitle();this._fullscreenButton.setAttribute("aria-
label",t),this._fullscreenButton.title=t},Ji.prototype._getTitle=function(){return
this._map._getUIString(this._isFullscreen()?"FullscreenControl.Exit":"FullscreenControl.Enter")},Ji.prototype._isF
ullscreen=function(){return
this._fullscreen},Ji.prototype._changeIcon=function(){(t.window.document.fullscreenElement||t.window.document.
mozFullScreenElement||t.window.document.webkitFullscreenElement||t.window.document.msFullscreenElement)=
==this._container!==this._fullscreen&&(this._fullscreen=!this._fullscreen,this._fullscreenButton.classList.toggle("
mapboxgl-ctrl-shrink"),this._fullscreenButton.classList.toggle("mapboxgl-ctrl-
fullscreen"),this._updateTitle())},Ji.prototype._onClickFullscreen=function(){this._isFullscreen()?t.window.docume
nt.exitFullscreen?t.window.document.exitFullscreen():t.window.document.mozCancelFullScreen?t.window.docume
nt.mozCancelFullScreen():t.window.document.msExitFullscreen?t.window.document.msExitFullscreen():t.window.
document.webkitCancelFullScreen&&t.window.document.webkitCancelFullScreen():this._container.requestFullscr
een?this._container.requestFullscreen():this._container.mozRequestFullScreen?this._container.mozRequestFullScre
en():this._container.msRequestFullscreen?this._container.msRequestFullscreen():this._container.webkitRequestFull
screen&&this._container.webkitRequestFullscreen()};var
Ki={closeButton:!0,closeOnClick:!0,className:"",maxWidth:"240px"},Qi=function(e){function
n(r){e.call(this),this.options=t.extend(Object.create(Ki),r),t.bindAll(["_update","_onClose","remove","_onMouseMo
ve","_onMouseUp","_onDrag"],this)}return
e&&(n.__proto__=e),n.prototype=Object.create(e&&e.prototype),n.prototype.constructor=n,n.prototype.addTo=fun
ction(e){return
this._map&&this.remove(),this._map=e,this.options.closeOnClick&&this._map.on("click",this._onClose),this.optio
ns.closeOnMove&&this._map.on("move",this._onClose),this._map.on("remove",this.remove),this._update(),this._tr
ackPointer?(this._map.on("mousemove",this._onMouseMove),this._map.on("mouseup",this._onMouseUp),this._co
ntainer&&this._container.classList.add("mapboxgl-popup-track-
pointer"),this._map._canvasContainer.classList.add("mapboxgl-track-
pointer")):this._map.on("move",this._update),this.fire(new
t.Event("open")),this},n.prototype.isOpen=function(){return!!this._map},n.prototype.remove=function(){return
this._content&&r.remove(this._content),this._container&&(r.remove(this._container),delete
this._container),this._map&&(this._map.off("move",this._update),this._map.off("move",this._onClose),this._map.of
f("click",this._onClose),this._map.off("remove",this.remove),this._map.off("mousemove",this._onMouseMove),this
._map.off("mouseup",this._onMouseUp),this._map.off("drag",this._onDrag),delete this._map),this.fire(new
t.Event("close")),this},n.prototype.getLngLat=function(){return
this._lngLat},n.prototype.setLngLat=function(e){return
this._lngLat=t.LngLat.convert(e),this._pos=null,this._trackPointer=!1,this._update(),this._map&&(this._map.on("m
ove",this._update),this._map.off("mousemove",this._onMouseMove),this._container&&this._container.classList.re
move("mapboxgl-popup-track-pointer"),this._map._canvasContainer.classList.remove("mapboxgl-track-
pointer")),this},n.prototype.trackPointer=function(){return
this._trackPointer=!0,this._pos=null,this._update(),this._map&&(this._map.off("move",this._update),this._map.on("
mousemove",this._onMouseMove),this._map.on("drag",this._onDrag),this._container&&this._container.classList.ad
d("mapboxgl-popup-track-pointer"),this._map._canvasContainer.classList.add("mapboxgl-track-
pointer")),this},n.prototype.getElement=function(){return this._container},n.prototype.setText=function(e){return
this.setDOMContent(t.window.document.createTextNode(e))},n.prototype.setHTML=function(e){var
r,n=t.window.document.createDocumentFragment(),i=t.window.document.createElement("body");for(i.innerHTML
=e;r=i.firstChild;)n.appendChild(r);return this.setDOMContent(n)},n.prototype.getMaxWidth=function(){return
this._container&&this._container.style.maxWidth},n.prototype.setMaxWidth=function(t){return
this.options.maxWidth=t,this._update(),this},n.prototype.setDOMContent=function(t){return
this._createContent(),this._content.appendChild(t),this._update(),this},n.prototype.addClassName=function(t){this._
container&&this._container.classList.add(t)},n.prototype.removeClassName=function(t){this._container&&this._co

ntainer.classList.remove(t)},n.prototype.toggleClassName=function(t){if(this._container)return this._container.classList.toggle(t)},n.prototype._createContent=function(){this._content&&r.remove(this._content),this._content=r.create("div","mapboxgl-popup-content",this._container),this.options.closeButton&&(this._closeButton=r.create("button","mapboxgl-popup-close-button",this._content),this._closeButton.type="button",this._closeButton.setAttribute("aria-label","Close popup"),this._closeButton.innerHTML="×",this._closeButton.addEventListener("click",this._onClose))},n.prototype._onMouseUp=function(t){this._update(t.point)},n.prototype._onMouseMove=function(t){this._update(t.point)},n.prototype._onDrag=function(t){this._update(t.point)},n.prototype._update=function(t){var e=this,n=this._lngLat||this._trackPointer;if(this._map&&n&&this._content&&(this._container||(this._container=r.create("div","mapboxgl-popup",this._map.getContainer()),this._tip=r.create("div","mapboxgl-popup-tip",this._container),this._container.appendChild(this._content),this.options.className&&this.options.className.split(" ").forEach((function(t){return e._container.classList.add(t)})),this._trackPointer&&this._container.classList.add("mapboxgl-popup-track-pointer")),this.options.maxWidth&&this._container.style.maxWidth!==this.options.maxWidth&&(this._container.style.maxWidth=this.options.maxWidth),this._map.transform.renderWorldCopies&&!this._trackPointer&&(this._lngLat=Fi(this._lngLat,this._pos,this._map.transform)),!this._trackPointer||t)){var i=this._pos=this._trackPointer&&t?t:this._map.project(this._lngLat),a=this.options.anchor,o=$i(this.options.offset);if(!a){var s,l=this._container.offsetWidth,c=this._container.offsetHeight;s=i.y+o.bottom.y<c?["top"]:i.y>this._map.transform.height-c?["bottom"]:[],i.x<l/2?s.push("left"):i.x>this._map.transform.width-l/2&&s.push("right"),a=0===s.length?"bottom":s.join("-")}var u=i.add(o[a]).round();r.setTransform(this._container,Bi[a]+" translate("+u.x+"px,"+u.y+"px")",Ni(this._container,a,"popup")}},n.prototype._onClose=function(){this.remove()},n}(t.Evented);function $i(e){if(e){if("number"==typeof e){var r=Math.round(Math.sqrt(.5*Math.pow(e,2)));return{center:new t.Point(0,0),top:new t.Point(0,e),"top-left":new t.Point(r,r),"top-right":new t.Point(-r,r),bottom:new t.Point(0,-e),"bottom-left":new t.Point(r,-r),"bottom-right":new t.Point(-r,-r),left:new t.Point(e,0),right:new t.Point(-e,0)}}if(e instanceof t.Point||Array.isArray(e)){var n=t.Point.convert(e);return{center:n,top:n,"top-left":n,"top-right":n,bottom:n,"bottom-left":n,"bottom-right":n,left:n,right:n}}return{center:t.Point.convert(e.center||[0,0]),top:t.Point.convert(e.top||[0,0]),"top-left":t.Point.convert(e["top-left"]||[0,0]),"top-right":t.Point.convert(e["top-right"]||[0,0]),bottom:t.Point.convert(e.bottom||[0,0]),"bottom-left":t.Point.convert(e["bottom-left"]||[0,0]),"bottom-right":t.Point.convert(e["bottom-right"]||[0,0]),left:t.Point.convert(e.left||[0,0]),right:t.Point.convert(e.right||[0,0])}}return $i(new t.Point(0,0))}var ta={version:t.version,supported:e,setRTLTextPlugin:t.setRTLTextPlugin,getRTLTextPluginStatus:t.getRTLTextPluginStatus,Map:Ii,NavigationControl:Di,GeolocateControl:Gi,AttributionControl:Ti,ScaleControl:Wi,FullscreenControl:Ji,Popup:Qi,Marker:Ui,Style:We,LngLat:t.LngLat,LngLatBounds:t.LngLatBounds,Point:t.Point,MercatorCoordinate:t.MercatorCoordinate,Evented:t.Evented,config:t.config,prewarm:function(){jt().acquire(Rt)},clearPrewarmedResources:function(){var t=Bt;t&&(t.isPreloaded()&&1===t.numActive()?(t.release(Rt),Bt=null):console.warn("Could not clear WebWorkers since there are active Map instances that still reference it. The pre-warmed WebWorker pool can only be cleared when all map instances have been removed with map.remove()"))},get accessToken(){return t.config.ACCESS_TOKEN},set accessToken(e){t.config.ACCESS_TOKEN=e},get baseApiUrl(){return t.config.API_URL},set baseApiUrl(e){t.config.API_URL=e},get workerCount(){return Ft.workerCount},set workerCount(t){Ft.workerCount=t},get maxParallelImageRequests(){return t.config.MAX_PARALLEL_IMAGE_REQUESTS},set maxParallelImageRequests(e){t.config.MAX_PARALLEL_IMAGE_REQUESTS=e},clearStorage:function(e){t.clearTileCache(e)},workerUrl:""};return ta})),r},"object"==typeof r&&void 0!==e?e.exports=i():(n=n||self).mapboxgl=i()},{}],240:[function(t,e,r){"use

strict";e.exports=Math.log2||function(t){return Math.log(t)*Math.LOG2E}},{}],241:[function(t,e,r){"use strict";e.exports=function(t,e){e||(e=t,t=window);var r=0,i=0,a=0,o={shift:!1,alt:!1,control:!1,meta:!1},s=!1;function l(t){var e=!1;return"altKey"in t&&(e=e||t.altKey!==o.alt,o.alt=!!t.altKey),"shiftKey"in t&&(e=e||t.shiftKey!==o.shift,o.shift=!!t.shiftKey),"ctrlKey"in t&&(e=e||t.ctrlKey!==o.control,o.control=!!t.ctrlKey),"metaKey"in t&&(e=e||t.metaKey!==o.meta,o.meta=!!t.metaKey),e}function c(t,s){var c=n.x(s),u=n.y(s);"buttons"in s&&(t=0|s.buttons),(t!==r||c!==i||u!==a||l(s))&&(r=0|t,i=c||0,a=u||0,e&&e(r,i,a,o))}function u(t){c(0,t)}function f(){(r||i||a||o.shift||o.alt||o.meta||o.control)&&(i=a=0,r=0,o.shift=o.alt=o.control=o.meta=!1,e&&e(0,0,0,o))}function h(t){l(t)&&e&&e(r,i,a,o)}function p(t){0===n.buttons(t)?c(0,t):c(r,t)}function d(t){c(r|n.buttons(t),t)}function g(t){c(r&~n.buttons(t),t)}function v(){s||(s=!0,t.addEventListener("mousemove",p),t.addEventListener("mousedown",d),t.addEventListener("mouseup",g),t.addEventListener("mouseleave",u),t.addEventListener("mouseenter",u),t.addEventListener("mouseout",u),t.addEventListener("mouseover",u),t.addEventListener("blur",f),t.addEventListener("keyup",h),t.addEventListener("keydown",h),t.addEventListener("keypress",h),t!==window&&(window.addEventListener("blur",f),window.addEventListener("keyup",h),window.addEventListener("keydown",h),window.addEventListener("keypress",h)))}v();var m={element:t};return Object.defineProperties(m,{enabled:{get:function(){return s},set:function(e){e?v():s&&(s=!1,t.removeEventListener("mousemove",p),t.removeEventListener("mousedown",d),t.removeEventListener("mouseup",g),t.removeEventListener("mouseleave",u),t.removeEventListener("mouseenter",u),t.removeEventListener("mouseout",u),t.removeEventListener("mouseover",u),t.removeEventListener("blur",f),t.removeEventListener("keyup",h),t.removeEventListener("keydown",h),t.removeEventListener("keypress",h),t!==window&&(window.removeEventListener("blur",f),window.removeEventListener("keyup",h),window.removeEventListener("keydown",h),window.removeEventListener("keypress",h)))},enumerable:!0},buttons:{get:function(){return r},enumerable:!0},x:{get:function(){return i},enumerable:!0},y:{get:function(){return a},enumerable:!0},mods:{get:function(){return o},enumerable:!0}}),m};var n=t("mouse-event")},{"mouse-event":243}],242:[function(t,e,r){var n={left:0,top:0};e.exports=function(t,e,r){e=e||t.currentTarget||t.srcElement,Array.isArray(r)||(r=[0,0]);var i,a=t.clientX||0,o=t.clientY||0,s=(i=e)===window||i===document||i===document.body?n:i.getBoundingClientRect();return r[0]=a-s.left,r[1]=o-s.top,r}},{}],243:[function(t,e,r){"use strict";function n(t){return t.target||t.srcElement||window}r.buttons=function(t){if("object"==typeof t){if("buttons"in t)return t.buttons;if("which"in t){if(2===(e=t.which))return 4;if(3===e)return 2;if(e>0)return 1<<e-1}else if("button"in t){var e;if(1===(e=t.button))return 4;if(2===e)return 2;if(e>=0)return 1<<e}}return 0},r.element=n,r.x=function(t){if("object"==typeof t){if("offsetX"in t)return t.offsetX;var e=n(t).getBoundingClientRect();return t.clientX-e.left}return 0},r.y=function(t){if("object"==typeof t){if("offsetY"in t)return t.offsetY;var e=n(t).getBoundingClientRect();return t.clientY-e.top}return 0}},{}],244:[function(t,e,r){"use strict";var n=t("to-px");e.exports=function(t,e,r){"function"==typeof t&&(r=!!e,e=t,t=window);var i=n("ex",t),a=function(t){r&&t.preventDefault();var n=t.deltaX||0,a=t.deltaY||0,o=t.deltaZ||0,s=1;switch(t.deltaMode){case 1:s=i;break;case 2:s=window.innerHeight}if(a*=s,o*=s,(n*=s)||a||o)return e(n,a,o,t)};return t.addEventListener("wheel",a),a}},{"to-px":314}],245:[function(t,e,n){(function(t,r){(function(){!function(t,n,i){n[t]=n[t]||function(){"use strict";var t,e,n,i=Object.prototype.toString,a=void 0!==r?function(t){return r(t)}:setTimeout;try{Object.defineProperty({},"x",{}),t=function(t,e,r,n){return Object.defineProperty(t,e,{value:r,writable:!0,configurable:!1!==n})}}catch(e){t=function(t,e,r){return t[e]=r,t}}function o(t,r){n.add(t,r),e||(e=a(n.drain))}function s(t){var e,r=typeof t;return null==t||"object"!=r&&"function"!=r||(e=t.then),"function"==typeof e&&e}function l(){for(var t=0;t<this.chain.length;t++)c(this,1===this.state?this.chain[t].success:this.chain[t].failure,this.chain[t]);this.chain.length=0}function c(t,e,r){var n,i;try{!1===e?r.reject(t.msg):(n=!0===e?t.msg:e.call(void 0,t.msg))===r.promise?r.reject(TypeError("Promise-chain cycle")):(i=s(n))?i.call(n,r.resolve,r.reject):r.resolve(n)}catch(t){r.reject(t)}}function u(t){var

e,r=this;if(!r.triggered){r.triggered=!0,r.def&&(r=r.def);try{(e=s(t))?o((function(){var n=new p(r);try{e.call(t,(function(){u.apply(n,arguments)}),(function(){f.apply(n,arguments)}))}catch(t){f.call(n,t)}})):(r.msg=t,r.state=1,r.chain.length>0&&o(l,r))}catch(t){f.call(new p(r),t)}}}function f(t){var e=this;e.triggered||(e.triggered=!0,e.def&&(e=e.def),e.msg=t,e.state=2,e.chain.length>0&&o(l,e))}function h(t,e,r,n){for(var i=0;i<e.length;i++)!function(i){t.resolve(e[i]).then((function(t){r(i,t)}),n)}(i)}function p(t){this.def=t,this.triggered=!1}function d(t){this.promise=t,this.state=0,this.triggered=!1,this.chain=[],this.msg=void 0}function g(t){if("function"!=typeof t)throw TypeError("Not a function");if(0!==this.__NPO__)throw TypeError("Not a promise");this.__NPO__=1;var e=new d(this);this.then=function(t,r){var n={success:"function"!=typeof t||t,failure:"function"==typeof r&&r};return n.promise=new this.constructor((function(t,e){if("function"!=typeof t||"function"!=typeof e)throw TypeError("Not a function");n.resolve=t,n.reject=e})),e.chain.push(n),0!==e.state&&o(l,e),n.promise},this.catch=function(t){return this.then(void 0,t)};try{t.call(void 0,(function(t){u.call(e,t)}),(function(t){f.call(e,t)}))}catch(t){f.call(e,t)}}n=function(){var t,r,n;function i(t,e){this.fn=t,this.self=e,this.next=void 0}return{add:function(e,a){n=new i(e,a),r?r.next=n:t=n,r=n,n=void 0},drain:function(){var n=t;for(t=r=e=void 0;n;)n.fn.call(n.self),n=n.next}}}();var v=t({},"constructor",g,!1);return g.prototype=v,t(v,"__NPO__",0,!1),t(g,"resolve",(function(t){var e=this;return t&&"object"==typeof t&&1===t.__NPO__?t:new e((function(e,r){if("function"!=typeof e||"function"!=typeof r)throw TypeError("Not a function");e(t)}))})),t(g,"reject",(function(t){return new this((function(e,r){if("function"!=typeof e||"function"!=typeof r)throw TypeError("Not a function");r(t)}))})),t(g,"all",(function(t){var e=this;return"[object Array]"!=i.call(t)?e.reject(TypeError("Not an array")):0===t.length?e.resolve([]):new e((function(r,n){if("function"!=typeof r||"function"!=typeof n)throw TypeError("Not a function");var i=t.length,a=Array(i),o=0;h(e,t,(function(t,e){a[t]=e,++o===i&&r(a)}),n)}))})),t(g,"race",(function(t){var e=this;return"[object Array]"!=i.call(t)?e.reject(TypeError("Not an array")):new e((function(r,n){if("function"!=typeof r||"function"!=typeof n)throw TypeError("Not a function");h(e,t,(function(t,e){r(e)}),n)}))})),g}(),void 0!==e&&e.exports&&(e.exports=n[t])}("Promise",void 0!==t?t:this)}).call(this)}).call(this,void 0!==r.g?r.g:"undefined"!=typeof self?self:"undefined"!=typeof window?window:{},t("timers").setImmediate)},{timers:311}],246:[function(t,e,r){var n=Math.PI,i=c(120);function a(t,e,r,n){return["C",t,e,r,n,r,n]}function o(t,e,r,n,i,a){return["C",t/3+2/3*r,e/3+2/3*n,i/3+2/3*r,a/3+2/3*n,i,a]}function s(t,e,r,a,o,c,u,f,h,p){if(p)T=p[0],k=p[1],_=p[2],w=p[3];else{var d=l(t,e,-o);t=d.x,e=d.y;var g=(t-(f=(d=l(f,h,-o)).x))/2,v=(e-(h=d.y))/2,m=g*g/(r*r)+v*v/(a*a);m>1&&(r*=m=Math.sqrt(m),a*=m);var y=r*r,x=a*a,b=(c==u?-1:1)*Math.sqrt(Math.abs((y*x-y*v*v-x*g*g)/(y*v*v+x*g*g)));b==1/0&&(b=1);var _=b*r*v/a+(t+f)/2,w=b*-a*g/r+(e+h)/2,T=Math.asin(((e-w)/a).toFixed(9)),k=Math.asin(((h-w)/a).toFixed(9));(T=t<_?n-T:T)<0&&(T=2*n+T),(k=f<_?n-k:k)<0&&(k=2*n+k),u&&T>k&&(T-=2*n),!u&&k>T&&(k-=2*n)}if(Math.abs(k-T)>i){var A=k,M=f,S=h;k=T+i*(u&&k>T?1:-1);var E=s(f=_+r*Math.cos(k),h=w+a*Math.sin(k),r,a,o,0,u,M,S,[k,A,_,w])}var L=Math.tan((k-T)/4),C=4/3*r*L,P=4/3*a*L,I=[2*t-(t+C*Math.sin(T)),2*e-(e-P*Math.cos(T)),f+C*Math.sin(k),h-P*Math.cos(k),f,h];if(p)return I;E&&(I=I.concat(E));for(var O=0;O<I.length;){var z=l(I[O],I[O+1],o);I[O++]=z.x,I[O++]=z.y}return I}function l(t,e,r){return{x:t*Math.cos(r)-e*Math.sin(r),y:t*Math.sin(r)+e*Math.cos(r)}}function c(t){return t*(n/180)}e.exports=function(t){for(var e,r=[],n=0,i=0,l=0,u=0,f=null,h=null,p=0,d=0,g=0,v=t.length;g<v;g++){var m=t[g],y=m[0];switch(y){case"M":l=m[1],u=m[2];break;case"A":(m=s(p,d,m[1],m[2],c(m[3]),m[4],m[5],m[6],m[7])).unshift("C"),m.length>7&&(r.push(m.splice(0,7)),m.unshift("C"));break;case"S":var x=p,b=d;"C"!=e&&"S"!=e||(x+=x-n,b+=b-i),m=["C",x,b,m[1],m[2],m[3],m[4]];break;case"T":"Q"==e||"T"==e?(f=2*p-f,h=2*d-h):(f=p,h=d),m=o(p,d,f,h,m[1],m[2]);break;case"Q":f=m[1],h=m[2],m=o(p,d,m[1],m[2],m[3],m[4]);break;case"L":m=a(p,d,m[1],m[2]);break;case"H":m=a(p,d,m[1],d);break;case"V":m=a(p,d,p,m[1]);break;case"Z":m=a(p,d,l,u)}e=

y,p=m[m.length-2],d=m[m.length-1],m.length>4?(n=m[m.length-4],i=m[m.length-3]):(n=p,i=d),r.push(m)}return r}},{}],247:[function(t,e,r){"use strict";var n=Object.getOwnPropertySymbols,i=Object.prototype.hasOwnProperty,a=Object.prototype.propertyIsEnumerable;function o(t){if(null==t)throw new TypeError("Object.assign cannot be called with null or undefined");return Object(t)}e.exports=function(){try{if(!Object.assign)return!1;var t=new String("abc");if(t[5]="de","5"===Object.getOwnPropertyNames(t)[0])return!1;for(var e={},r=0;r<10;r++)e["_"+String.fromCharCode(r)]=r;if("0123456789"!==Object.getOwnPropertyNames(e).map((function(t){return e[t]})).join(""))return!1;var n={};return"abcdefghijklmnopqrst".split("").forEach((function(t){n[t]=t})),"abcdefghijklmnopqrst"===Object.keys(Object.assign({},n)).join("")}catch(t){return!1}}()?Object.assign:function(t,e){for(var r,s,l=o(t),c=1;c<arguments.length;c++){for(var u in r=Object(arguments[c]))i.call(r,u)&&(l[u]=r[u]);if(n){s=n(r);for(var f=0;f<s.length;f++)a.call(r,s[f])&&(l[s[f]]=r[s[f]])}}return l}},{}],248:[function(t,e,r){"use strict";function n(t,e){if("string"!=typeof t)return[t];var r=[t];"string"==typeof e||Array.isArray(e)?e={brackets:e}:e||(e={});var n=e.brackets?Array.isArray(e.brackets)?e.brackets:[e.brackets]:["{}","[]","()"],i=e.escape||"___",a=!!e.flat;n.forEach((function(t){var e=new RegExp(["\\",t[0],"[^\\",t[0],"\\",t[1],"]*\\",t[1]].join("")),n=[];function a(e,a,o){var s=r.push(e.slice(t[0].length,-t[1].length))-1;return n.push(s),i+s+i}r.forEach((function(t,n){for(var i,o=0;t!=i;)if(i=t,t=t.replace(e,a),o++>1e4)throw Error("References have circular dependency. Please, check them.");r[n]=t})),n=n.reverse(),r=r.map((function(e){return n.forEach((function(r){e=e.replace(new RegExp("(\\"+i+r+"\\"+i+")","g"),t[0]+"$1"+t[1])})),e}))}));var o=new RegExp("\\"+i+"([0-9]+)\\"+i);return a?r:function t(e,r,n){for(var i,a=[],s=0;i=o.exec(e);){if(s++>1e4)throw Error("Circular references in parenthesis");a.push(e.slice(0,i.index)),a.push(t(r[i[1]],r)),e=e.slice(i.index+i[0].length)}return a.push(e),a}(r[0],r)}function i(t,e){if(e&&e.flat){var r,n=e&&e.escape||"___",i=t[0];if(!i)return"";for(var a=new RegExp("\\"+n+"([0-9]+)\\"+n),o=0;i!=r;){if(o++>1e4)throw Error("Circular references in "+t);r=i,i=i.replace(a,s)}return i}return t.reduce((function t(e,r){return Array.isArray(r)&&(r=r.reduce(t,"")),e+r}),"");function s(e,r){if(null==t[r])throw Error("Reference "+r+"is undefined");return t[r]}}function a(t,e){return Array.isArray(t)?i(t,e):n(t,e)}a.parse=n,a.stringify=i,e.exports=a},{}],249:[function(t,e,r){"use strict";var n=t("pick-by-alias");e.exports=function(t){var e;return arguments.length>1&&(t=arguments),"string"==typeof t?t=t.split(/\s/).map(parseFloat):"number"==typeof t&&(t=[t]),t.length&&"number"==typeof t[0]?e=1===t.length?{width:t[0],height:t[0],x:0,y:0}:2===t.length?{width:t[0],height:t[1],x:0,y:0}:{x:t[0],y:t[1],width:t[2]-t[0]||0,height:t[3]-t[1]||0}:t&&(e={x:(t=n(t,{left:"x l left Left",top:"y t top Top",width:"w width W Width",height:"h height W Width",bottom:"b bottom Bottom",right:"r right Right"})).left||0,y:t.top||0},null==t.width?t.right?e.width=t.right-e.x:e.width=0:e.width=t.width,null==t.height?t.bottom?e.height=t.bottom-e.y:e.height=0:e.height=t.height),e}},{"pick-by-alias":253}],250:[function(t,e,r){e.exports=function(t){var e=[];return t.replace(i,(function(t,r,i){var o=r.toLowerCase();for(i=function(t){var e=t.match(a);return e?e.map(Number):[]}(i),"m"==o&&i.length>2&&(e.push([r].concat(i.splice(0,2))),o="l",r="m"==r?"l":"L");;){if(i.length==n[o])return i.unshift(r),e.push(i);if(i.length<n[o])throw new Error("malformed path data");e.push([r].concat(i.splice(0,n[o])))}})),e};var n={a:7,c:6,h:1,l:2,m:2,q:4,s:4,t:2,v:1,z:0},i=/([astvzqmhlc])([^astvzqmhlc]*)/gi,a=/-?[0-9]*\.?[0-9]+(?:e[-+]?\d+)?/gi},{}],251:[function(t,e,r){e.exports=function(t,e){e||(e=[0,""]),t=String(t);var r=parseFloat(t,10);return e[0]=r,e[1]=t.match(/[\d.\-\+]*\s*(.*)/)[1]||"",e}},{}],252:[function(t,e,r){(function(t){(function(){(function(){var r,n,i,a,o,s;"undefined"!=typeof performance&&null!==performance&&performance.now?e.exports=function(){return performance.now()}:null!=t&&t.hrtime?(e.exports=function(){return(r()-o)/1e6},n=t.hrtime,a=(r=function(){var t;return 1e9*(t=n())[0]+t[1]})(),s=1e9*t.uptime(),o=a-s):Date.now?(e.exports=function(){return Date.now()-i},i=Date.now()):(e.exports=function(){return(new Date).getTime()-i},i=(new

Date).getTime())}).call(this)}).call(this)}).call(this,t("_process"))},{_process:277}],253:[function(t,e,r){"use strict";e.exports=function(t,e,r){var n,a,o={};if("string"==typeof e&&(e=i(e)),Array.isArray(e)){var s={};for(a=0;a<e.length;a++)s[e[a]]=!0;e=s}for(n in e)e[n]=i(e[n]);var l={};for(n in e){var c=e[n];if(Array.isArray(c))for(a=0;a<c.length;a++){var u=c[a];if(r&&(l[u]=!0),u in t){if(o[n]=t[u],r)for(var f=a;f<c.length;f++)l[c[f]]=!0;break}}else n in t&&(e[n]&&(o[n]=t[n]),r&&(l[n]=!0))}if(r)for(n in t)l[n]||(o[n]=t[n]);return o};var n={};function i(t){return n[t]?n[t]:("string"==typeof t&&(t=n[t]=t.split(/\s*,\s*|\s+/)),t)}},{}],254:[function(t,e,r){var n,i=t("./lib/build-log"),a=t("./lib/epsilon"),o=t("./lib/intersecter"),s=t("./lib/segment-chainer"),l=t("./lib/segment-selector"),c=t("./lib/geojson"),u=!1,f=a();function h(t,e,r){var i=n.segments(t),a=n.segments(e),o=r(n.combine(i,a));return n.polygon(o)}n={buildLog:function(t){return!0===t?u=i():!1===t&&(u=!1),!1!==u&&u.list},epsilon:function(t){return f.epsilon(t)},segments:function(t){var e=o(!0,f,u);return t.regions.forEach(e.addRegion),{segments:e.calculate(t.inverted),inverted:t.inverted}},combine:function(t,e){return{combined:o(!1,f,u).calculate(t.segments,t.inverted,e.segments,e.inverted),inverted1:t.inverted,inverted2:e.inverted}},selectUnion:function(t){return{segments:l.union(t.combined,u),inverted:t.inverted1||t.inverted2}},selectIntersect:function(t){return{segments:l.intersect(t.combined,u),inverted:t.inverted1&&t.inverted2}},selectDifference:function(t){return{segments:l.difference(t.combined,u),inverted:t.inverted1&&!t.inverted2}},selectDifferenceRev:function(t){return{segments:l.differenceRev(t.combined,u),inverted:!t.inverted1&&t.inverted2}},selectXor:function(t){return{segments:l.xor(t.combined,u),inverted:t.inverted1!==t.inverted2}},polygon:function(t){return{regions:s(t.segments,f,u),inverted:t.inverted}},polygonFromGeoJSON:function(t){return c.toPolygon(n,t)},polygonToGeoJSON:function(t){return c.fromPolygon(n,f,t)},union:function(t,e){return h(t,e,n.selectUnion)},intersect:function(t,e){return h(t,e,n.selectIntersect)},difference:function(t,e){return h(t,e,n.selectDifference)},differenceRev:function(t,e){return h(t,e,n.selectDifferenceRev)},xor:function(t,e){return h(t,e,n.selectXor)}},"object"==typeof window&&(window.PolyBool=n),e.exports=n},{"./lib/build-log":255,"./lib/epsilon":256,"./lib/geojson":257,"./lib/intersecter":258,"./lib/segment-chainer":260,"./lib/segment-selector":261}],255:[function(t,e,r){e.exports=function(){var t,e=0,r=!1;function n(e,r){return t.list.push({type:e,data:r?JSON.parse(JSON.stringify(r)):void 0}),t}return t={list:[],segmentId:function(){return e++},checkIntersection:function(t,e){return n("check",{seg1:t,seg2:e})},segmentChop:function(t,e){return n("div_seg",{seg:t,pt:e}),n("chop",{seg:t,pt:e})},statusRemove:function(t){return n("pop_seg",{seg:t})},segmentUpdate:function(t){return n("seg_update",{seg:t})},segmentNew:function(t,e){return n("new_seg",{seg:t,primary:e})},segmentRemove:function(t){return n("rem_seg",{seg:t})},tempStatus:function(t,e,r){return n("temp_status",{seg:t,above:e,below:r})},rewind:function(t){return n("rewind",{seg:t})},status:function(t,e,r){return n("status",{seg:t,above:e,below:r})},vert:function(e){return e===r?t:(r=e,n("vert",{x:e}))},log:function(t){return"string"!=typeof t&&(t=JSON.stringify(t,!1,"")),n("log",{txt:t})},reset:function(){return n("reset")},selected:function(t){return n("selected",{segs:t})},chainStart:function(t){return n("chain_start",{seg:t})},chainRemoveHead:function(t,e){return n("chain_rem_head",{index:t,pt:e})},chainRemoveTail:function(t,e){return n("chain_rem_tail",{index:t,pt:e})},chainNew:function(t,e){return n("chain_new",{pt1:t,pt2:e})},chainMatch:function(t){return n("chain_match",{index:t})},chainClose:function(t){return n("chain_close",{index:t})},chainAddHead:function(t,e){return n("chain_add_head",{index:t,pt:e})},chainAddTail:function(t,e){return n("chain_add_tail",{index:t,pt:e})},chainConnect:function(t,e){return n("chain_con",{index1:t,index2:e})},chainReverse:function(t){return n("chain_rev",{index:t})},chainJoin:function(t,e){return n("chain_join",{index1:t,index2:e})},done:function(){return

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n("done")}}}},{}],256:[function(t,e,r){e.exports=function(t){"number"!=typeof t&&(t=1e-10);var
e={epsilon:function(e){return"number"==typeof e&&(t=e),t},pointAboveOrOnLine:function(e,r,n){var
i=r[0],a=r[1],o=n[0],s=n[1],l=e[0];return(o-i)*(e[1]-a)-(s-a)*(l-i)>=-t},pointBetween:function(e,r,n){var i=e[1]-
r[1],a=n[0]-r[0],o=e[0]-r[0],s=n[1]-r[1],l=o*a+i*s;return!(l<t||l-(a*a+s*s)>-t)},pointsSameX:function(e,r){return
Math.abs(e[0]-r[0])<t},pointsSameY:function(e,r){return Math.abs(e[1]-r[1])<t},pointsSame:function(t,r){return
e.pointsSameX(t,r)&&e.pointsSameY(t,r)},pointsCompare:function(t,r){return
e.pointsSameX(t,r)?e.pointsSameY(t,r)?0:t[1]<r[1]?-1:1:t[0]<r[0]?-1:1},pointsCollinear:function(e,r,n){var i=e[0]-
r[0],a=e[1]-r[1],o=r[0]-n[0],s=r[1]-n[1];return Math.abs(i*s-o*a)<t},linesIntersect:function(e,r,n,i){var a=r[0]-
e[0],o=r[1]-e[1],s=i[0]-n[0],l=i[1]-n[1],c=a*l-o*s;if(Math.abs(c)<t)return!1;var u=e[0]-n[0],f=e[1]-n[1],h=(s*f-
l*u)/c,p=(a*f-o*u)/c,d={alongA:0,alongB:0,pt:[e[0]+h*a,e[1]+h*o]};return d.alongA=h<=-t?-2:h<t?-1:h-1<=-t?0:h-
1<t?1:2,d.alongB=p<=-t?-2:p<t?-1:p-1<=-t?0:p-1<t?1:2,d},pointInsideRegion:function(e,r){for(var
n=e[0],i=e[1],a=r[r.length-1][0],o=r[r.length-1][1],s=!1,l=0;l<r.length;l++){var c=r[l][0],u=r[l][1];u-i>t!=o-
i>t&&(a-c)*(i-u)/(o-u)+c-n>t&&(s=!s),a=c,o=u}return s}};return e}},{}],257:[function(t,e,r){var
n={toPolygon:function(t,e){function r(e){if(e.length<=0)return t.segments({inverted:!1,regions:[]});function
r(e){var r=e.slice(0,e.length-1);return t.segments({inverted:!1,regions:[r]})}for(var
n=r(e[0]),i=1;i<e.length;i++)n=t.selectDifference(t.combine(n,r(e[i])));return n}if("Polygon"===e.type)return
t.polygon(r(e.coordinates));if("MultiPolygon"===e.type){for(var
n=t.segments({inverted:!1,regions:[]}),i=0;i<e.coordinates.length;i++)n=t.selectUnion(t.combine(n,r(e.coordinates[i
]})));return t.polygon(n)}throw new Error("PolyBool: Cannot convert GeoJSON object to PolyBool
polygon")},fromPolygon:function(t,e,r){function n(t,r){return
e.pointInsideRegion([.5*(t[0][0]+t[1][0]),.5*(t[0][1]+t[1][1])],r)}function
i(t){return{region:t,children:[]}}r=t.polygon(t.segments(r));var a=i(null);function o(t,e){for(var
r=0;r<t.children.length;r++)if(n(e,(s=t.children[r]).region))return void o(s,e);var
a=i(e);for(r=0;r<t.children.length;r++){var
s;n((s=t.children[r]).region,e)&&(a.children.push(s),t.children.splice(r,1),r--)}t.children.push(a)}for(var
s=0;s<r.regions.length;s++){var l=r.regions[s];l.length<3||o(a,l)}function c(t,e){for(var r=0,n=t[t.length-
1][0],i=t[t.length-1][1],a=[],o=0;o<t.length;o++){var s=t[o][0],l=t[o][1];a.push([s,l]),r+=l*n-s*i,n=s,i=l}return
r<0!==e&&a.reverse(),a.push([a[0][0],a[0][1]]),a}var u=[];function f(t){var e=[c(t.region,!1)];u.push(e);for(var
r=0;r<t.children.length;r++)e.push(h(t.children[r]))}function h(t){for(var
e=0;e<t.children.length;e++)f(t.children[e]);return
c(t.region,!0)}for(s=0;s<a.children.length;s++)f(a.children[s]);return
u.length<=0?{type:"Polygon",coordinates:[]}:1==u.length?{type:"Polygon",coordinates:u[0]}:{type:"MultiPolygon
",coordinates:u}}};e.exports=n},{}],258:[function(t,e,r){var n=t("./linked-list");e.exports=function(t,e,r){function
i(t,e,n){return{id:r?r.segmentId():-
1,start:t,end:e,myFill:{above:n.myFill.above,below:n.myFill.below},otherFill:null}}var a=n.create();function
o(t,r){a.insertBefore(t,(function(n){return
i=t.isStart,a=t.pt,o=r,s=n.isStart,l=n.pt,c=n.other.pt,(0!==(u=e.pointsCompare(a,l))?u:e.pointsSame(o,c)?0:i!==s?i?1
:-1:e.pointAboveOrOnLine(o,s?l:c,s?c:l)?1:-1)<0;var i,a,o,s,l,c,u}))}function s(t,e){var r=function(t,e){var
r=n.node({isStart:!0,pt:t.start,seg:t,primary:e,other:null,status:null});return o(r,t.end),r}(t,e);return function(t,e,r){var
i=n.node({isStart:!1,pt:e.end,seg:e,primary:r,other:t,status:null});t.other=i,o(i,t.pt)}(r,t,e),r}function l(t,e){var
n=i(e,t.seg.end,t.seg);return
function(t,e){r&&r.segmentChop(t.seg,e),t.other.remove(),t.seg.end=e,t.other.pt=e,o(t.other,t.pt)}(t,e),s(n,t.primary)
}function c(i,o){var s=n.create();function c(t){return s.findTransition((function(r){return
n=t,i=r.ev,a=n.seg.start,o=n.seg.end,s=i.seg.start,l=i.seg.end,(e.pointsCollinear(a,s,l)?e.pointsCollinear(o,s,l)||e.point
AboveOrOnLine(o,s,l)?1:-1:e.pointAboveOrOnLine(a,s,l)?1:-1)>0;var n,i,a,o,s,l}))}function u(t,n){var
i=t.seg,a=n.seg,o=i.start,s=i.end,c=a.start,u=a.end;r&&r.checkIntersection(i,a);var
f=e.linesIntersect(o,s,c,u);if(!1===f){if(!e.pointsCollinear(o,s,c))return!1;if(e.pointsSame(o,u)||e.pointsSame(s,c))ret
urn!1;var h=e.pointsSame(o,c),p=e.pointsSame(s,u);if(h&&p)return n;var
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d=!h&&e.pointBetween(o,c,u),g=!p&&e.pointBetween(s,c,u);if(h)return
g?l(n,s):l(t,u),n;d&&(p||(g?l(n,s):l(t,u)),l(n,o))}else 0===f.alongA&&(-
1===f.alongB?l(t,c):0===f.alongB?l(t,f.pt):1===f.alongB&&l(t,u)),0===f.alongB&&(-
1===f.alongA?l(n,o):0===f.alongA?l(n,f.pt):1===f.alongA&&l(n,s));return!1}for(var f=[];!a.isEmpty();){var
h=a.getHead();if(r&&r.vert(h.pt[0]),h.isStart){r&&r.segmentNew(h.seg,h.primary);var
p=c(h),d=p.before?p.before.ev:null,g=p.after?p.after.ev:null;function v(){if(d){var t=u(h,d);if(t)return
t}return!!g&&u(h,g)}r&&r.tempStatus(h.seg,!!d&&d.seg,!!g&&g.seg);var
m,y,x=v();if(x&&(t?(y=null===h.seg.myFill.below||h.seg.myFill.above!==h.seg.myFill.below)&&(x.seg.myFill.abo
ve=!x.seg.myFill.above):x.seg.otherFill=h.seg.myFill,r&&r.segmentUpdate(x.seg),h.other.remove(),h.remove()),a.g
etHead()!==h){r&&r.rewind(h.seg);continue}t?(y=null===h.seg.myFill.below||h.seg.myFill.above!==h.seg.myFill.b
elow,h.seg.myFill.below=g?g.seg.myFill.above:i,h.seg.myFill.above=y?!h.seg.myFill.below:h.seg.myFill.below):nu
ll===h.seg.otherFill&&(m=g?h.primary===g.primary?g.seg.otherFill.above:g.seg.myFill.above:h.primary?o:i,h.seg.
otherFill={above:m,below:m}),r&&r.status(h.seg,!!d&&d.seg,!!g&&g.seg),h.other.status=p.insert(n.node({ev:h}))}
else{var b=h.status;if(null===b)throw new Error("PolyBool: Zero-length segment detected; your epsilon is probably
too small or too
large");if(s.exists(b.prev)&&s.exists(b.next)&&u(b.prev.ev,b.next.ev),r&&r.statusRemove(b.ev.seg),b.remove(),!h.
primary){var
=h.seg.myFill;h.seg.myFill=h.seg.otherFill,h.seg.otherFill=}f.push(h.seg)}a.getHead().remove()}return
r&&r.done(),f}return t?{addRegion:function(t){for(var n,i=t[t.length-1],a=0;a<t.length;a++){n=i,i=t[a];var
o=e.pointsCompare(n,i);0!==o&&s((l=o<0?n:i,c=o<0?i:n,{id:r?r.segmentId():-
1,start:l,end:c,myFill:{above:null,below:null},otherFill:null}),!0)}var l,c},calculate:function(t){return
c(t,!1)}}:{calculate:function(t,e,r,n){return
t.forEach((function(t){s(i(t.start,t.end,t),!0)})),r.forEach((function(t){s(i(t.start,t.end,t),!1)})),c(e,n)}}}},{"./linked-
list":259}],259:[function(t,e,r){e.exports={create:function(){var t={root:{root:!0,next:null},exists:function(e){return
null!==e&&e!==t.root},isEmpty:function(){return null===t.root.next},getHead:function(){return
t.root.next},insertBefore:function(e,r){for(var n=t.root,i=t.root.next;null!==i;){if(r(i))return
e.prev=i.prev,e.next=i,i.prev.next=e,void(i.prev=e);n=i,i=i.next}n.next=e,e.prev=n,e.next=null},findTransition:funct
ion(e){for(var
r=t.root,n=t.root.next;null!==n&&!e(n);)r=n,n=n.next;return{before:r===t.root?null:r,after:n,insert:function(t){retur
n t.prev=r,t.next=n,r.next=t,null!==n&&(n.prev=t),t}}}};return t},node:function(t){return
t.prev=null,t.next=null,t.remove=function(){t.prev.next=t.next,t.next&&(t.next.prev=t.prev),t.prev=null,t.next=null}
,t}}},{}],260:[function(t,e,r){e.exports=function(t,e,r){var n=[],i=[];return t.forEach((function(t){var
a=t.start,o=t.end;if(e.pointsSame(a,o))console.warn("PolyBool: Warning: Zero-length segment detected; your
epsilon is probably too small or too large");else{r&&r.chainStart(t);for(var
s={index:0,matches_head:!1,matches_pt1:!1},l={index:0,matches_head:!1,matches_pt1:!1},c=s,u=0;u<n.length;u+
+){var f=(v=n[u])[0],h=(v[1],v[v.length-1]);if(v[v.length-2],e.pointsSame(f,a)){if(k(u,!0,!0))break}else
if(e.pointsSame(f,o)){if(k(u,!0,!1))break}else if(e.pointsSame(h,a)){if(k(u,!1,!0))break}else
if(e.pointsSame(h,o)&&k(u,!1,!1))break}if(c===s)return
n.push([a,o]),void(r&&r.chainNew(a,o));if(c===l){r&&r.chainMatch(s.index);var
p=s.index,d=s.matches_pt1?o:a,g=s.matches_head,v=n[p],m=g?v[0]:v[v.length-1],y=g?v[1]:v[v.length-
2],x=g?v[v.length-1]:v[0],b=g?v[v.length-2]:v[1];return
e.pointsCollinear(y,m,d)&&(g?(r&&r.chainRemoveHead(s.index,d),v.shift()):(r&&r.chainRemoveTail(s.index,d),v.
pop()),m=y),e.pointsSame(x,d)?(n.splice(p,1),e.pointsCollinear(b,x,m)&&(g?(r&&r.chainRemoveTail(s.index,m),v.
pop()):(r&&r.chainRemoveHead(s.index,m),v.shift())),r&&r.chainClose(s.index),void
i.push(v)):void(g?(r&&r.chainAddHead(s.index,d),v.unshift(d)):(r&&r.chainAddTail(s.index,d),v.push(d)))}var
=s.index,w=l.index;r&&r.chainConnect(,w);var
T=n[_].length<n[w].length;s.matches_head?l.matches_head?T?(A(_),M(_,w)):(A(w),M(w,_)):M(w,_):l.matches_he
ad?M(_,w):T?(A(_),M(w,_)):(A(w),M(_,w))}function k(t,e,r){return

c.index=t,c.matches_head=e,c.matches_pt1=r,c===s?(c=l,!1):(c=null,!0)}function A(t){r&&r.chainReverse(t),n[t].reverse()}function M(t,i){var a=n[t],o=n[i],s=a[a.length-1],l=a[a.length-2],c=o[0],u=o[1];e.pointsCollinear(l,s,c)&&(r&&r.chainRemoveTail(t,s),a.pop(),s=l),e.pointsCollinear(s,c,u)&&(r&&r.chainRemoveHead(i,c),o.shift()),r&&r.chainJoin(t,i),n[t]=a.concat(o),n.splice(i,1)}})),i}},{}],261:[function(t,e,r){function n(t,e,r){var n=[];return t.forEach((function(t){var i=(t.myFill.above?8:0)+(t.myFill.below?4:0)+(t.otherFill&&t.otherFill.above?2:0)+(t.otherFill&&t.otherFill.below?1:0);0!==e[i]&&n.push({id:r?r.segmentId():-1,start:t.start,end:t.end,myFill:{above:1===e[i],below:2===e[i]},otherFill:null})})),r&&r.selected(n),n}var i={union:function(t,e){return n(t,[0,2,1,0,2,2,0,0,1,0,1,0,0,0,0,0],e)},intersect:function(t,e){return n(t,[0,0,0,0,0,2,0,2,0,0,1,1,0,2,1,0],e)},difference:function(t,e){return n(t,[0,0,0,0,2,0,2,0,1,1,0,0,0,1,2,0],e)},differenceRev:function(t,e){return n(t,[0,2,1,0,0,0,1,1,0,2,0,2,0,0,0,0],e)},xor:function(t,e){return n(t,[0,2,1,0,2,0,0,1,1,0,0,2,0,1,2,0],e)}};e.exports=i},{}],262:[function(t,e,r){"use strict";var n=t("stream").Transform,i=t("stream-parser");function a(){n.call(this,{readableObjectMode:!0})}function o(t,e,r){Error.call(this),Error.captureStackTrace?Error.captureStackTrace(this,this.constructor):this.stack=(new Error).stack||"",this.name=this.constructor.name,this.message=t,e&&(this.code=e),r&&(this.statusCode=r)}a.prototype=Object.create(n.prototype),a.prototype.constructor=a,i(a.prototype),r.ParserStream=a,r.sliceEq=function(t,e,r){for(var n=e,i=0;i<r.length;)if(t[n++]!==r[i++])return!1;return!0},r.str2arr=function(t,e){var r=[],n=0;if(e&&"hex"===e)for(;n<t.length;)r.push(parseInt(t.slice(n,n+2),16)),n+=2;else for(;n<t.length;n++)r.push(255&t.charCodeAt(n));return r},r.readUInt16LE=function(t,e){return t[e]|t[e+1]<<8},r.readUInt16BE=function(t,e){return t[e+1]|t[e]<<8},r.readUInt32LE=function(t,e){return t[e]|t[e+1]<<8|t[e+2]<<16|16777216*t[e+3]},r.readUInt32BE=function(t,e){return t[e+3]|t[e+2]<<8|t[e+1]<<16|16777216*t[e]},o.prototype=Object.create(Error.prototype),o.prototype.constructor=o,r.ProbeError=o},{stream:285,"stream-parser":301}],263:[function(t,e,r){"use strict";function n(t,e){var r=new Error(t);return r.code=e,r}function i(t){try{return decodeURIComponent(escape(t))}catch(e){return t}}function a(t,e,r){this.input=t.subarray(e,r),this.start=e;var i=String.fromCharCode.apply(null,this.input.subarray(0,4));if("II*\0"!==i&&"MM\0*"!==i)throw n("invalid TIFF signature","EBADDATA");this.big_endian="M"===i[0]}a.prototype.each=function(t){this.aborted=!1;var e=this.read_uint32(4);for(this.ifds_to_read=[{id:0,offset:e}];this.ifds_to_read.length>0&&!this.aborted;){var r=this.ifds_to_read.shift();r.offset&&this.scan_ifd(r.id,r.offset,t)}},a.prototype.read_uint16=function(t){var e=this.input;if(t+2>e.length)throw n("unexpected EOF","EBADDATA");return this.big_endian?256*e[t]+e[t+1]:e[t]+256*e[t+1]},a.prototype.read_uint32=function(t){var e=this.input;if(t+4>e.length)throw n("unexpected EOF","EBADDATA");return this.big_endian?16777216*e[t]+65536*e[t+1]+256*e[t+2]+e[t+3]:e[t]+256*e[t+1]+65536*e[t+2]+16777216*e[t+3]},a.prototype.is_subifd_link=function(t,e){return 0===t&&34665===e||0===t&&34853===e||34665===t&&40965===e},a.prototype.exif_format_length=function(t){switch(t){case 1:case 2:case 6:case 7:return 1;case 3:case 8:return 2;case 4:case 9:case 11:return 4;case 5:case 10:case 12:return 8;default:return 0}},a.prototype.exif_format_read=function(t,e){var r;switch(t){case 1:case 2:return this.input[e];case 6:return(r=this.input[e])|33554430*(128&r);case 3:return this.read_uint16(e);case 8:return(r=this.read_uint16(e))|131070*(32768&r);case 4:return this.read_uint32(e);case 9:return 0|this.read_uint32(e);case 5:case 10:case 11:case 12:case 7:default:return null}},a.prototype.scan_ifd=function(t,e,r){var a=this.read_uint16(e);e+=2;for(var o=0;o<a;o++){var s=this.read_uint16(e),l=this.read_uint16(e+2),c=this.read_uint32(e+4),u=this.exif_format_length(l),f=c*u,h=f<=4?e+8:this.read_uint32(e+8),p=!1;if(h+f>this.input.length)throw n("unexpected EOF","EBADDATA");for(var d=[],g=h,v=0;v<c;v++,g+=u){var m=this.exif_format_read(l,g);if(null===m){d=null;break}d.push(m)}if(Array.isArray(d)&&2===l&&(d=i(String.fromCharCode.apply(null,d)))&&"\0"===d[d.length-1]&&(d=d.slice(0,-1)),this.is_subifd_link(t,s)&&Array.isArray(d)&&Number.isInteger(d[0])&&d[0]>0&&(this.ifds_to_read.push({id:

s,offset:d[0]}),p=!0),!1===r({is_big_endian:this.big_endian,ifd:t,tag:s,format:l,count:c,entry_offset:e+this.start,data_length:f,data_offset:h+this.start,value:d,is_subifd_link:p}))return void(this.aborted=!0);e+=12}0===t&&this.ifds_to_read.push({id:1,offset:this.read_uint32(e)})},e.exports.ExifParser=a,e.exports.get_orientation=function(t){var e=0;try{return new a(t,0,t.length).each((function(t){if(0===t.ifd&&274===t.tag&&Array.isArray(t.value))return e=t.value[0],!1})),e}catch(t){return-1}}},{}],264:[function(t,e,r){"use strict";var n=t("./common").readUInt16BE,i=t("./common").readUInt32BE;function a(t,e){if(t.length<4+e)return null;var r=i(t,e);return t.length<r+e||r<8?null:{boxtype:String.fromCharCode.apply(null,t.slice(e+4,e+8)),data:t.slice(e+8,e+r),end:e+r}}function o(t,e){for(var r=0;;){var n=a(t,r);if(!n)break;switch(n.boxtype){case"ispe":e.sizes.push({width:i(n.data,4),height:i(n.data,8)});break;case"irot":e.transforms.push({type:"irot",value:3&n.data[0]});break;case"imir":e.transforms.push({type:"imir",value:1&n.data[0]})}r=n.end}}function s(t,e,r){for(var n=0,i=0;i<r;i++)n=256*n+(t[e+i]||0);return n}function l(t,e){for(var r=t[4]>>4&15,i=15&t[4],a=t[5]>>4&15,o=n(t,6),l=8,c=0;c<o;c++){var u=n(t,l),f=n(t,l+=2),h=s(t,l+=2,a),p=n(t,l+=a);if(l+=2,0===f&&1===p){var d=s(t,l,r),g=s(t,l+r,i);e.item_loc[u]={length:g,offset:d+h}}l+=p*(r+i)}}function c(t,e){for(var r=n(t,4),i=6,o=0;o<r;o++){var s=a(t,i);if(!s)break;if("infe"===s.boxtype){for(var l=n(s.data,4),c="",u=8;u<s.data.length&&s.data[u];u++)c+=String.fromCharCode(s.data[u]);e.item_inf[c]=l}i=s.end}}function u(t,e){for(var r=0;;){var n=a(t,r);if(!n)break;"ipco"===n.boxtype&&o(n.data,e),r=n.end}}e.exports.unbox=a,e.exports.readSizeFromMeta=function(t){var e,r,n,i={sizes:[],transforms:[],item_inf:{},item_loc:{}};if(function(t,e){for(var r=4;;){var n=a(t,r);if(!n)break;"iprp"===n.boxtype&&u(n.data,e),"iloc"===n.boxtype&&l(n.data,e),"iinf"===n.boxtype&&c(n.data,e),r=n.end}}(t,i),i.sizes.length){var o=(e=i.sizes,r=e.reduce((function(t,e){return t.width>e.width||t.width===e.width&&t.height>e.height?t:e})),n=e.reduce((function(t,e){return t.height>e.height||t.height===e.height&&t.width>e.width?t:e})),r.width>n.height||r.width===n.height&&r.height>n.width?r:n),s=1;i.transforms.forEach((function(t){var e={1:6,2:5,3:8,4:7,5:4,6:3,7:2,8:1},r={1:4,2:3,3:2,4:1,5:6,6:5,7:8,8:7};if("imir"===t.type&&(s=0===t.value?r[s]:e[s=e[s=r[s]]]),"irot"===t.type)for(var n=0;n<t.value;n++)s=e[s]}));var f=null;return i.item_inf.Exif&&(f=i.item_loc[i.item_inf.Exif]),{width:o.width,height:o.height,orientation:i.transforms.length?s:null,variants:i.sizes,exif_location:f}}},e.exports.getMimeType=function(t){var e=String.fromCharCode.apply(null,t.slice(0,4)),r={};r[e]=!0;for(var n=8;n<t.length;n+=4)r[String.fromCharCode.apply(null,t.slice(n,n+4))]=!0;if(r.mif1||r.msf1||r.miaf)return"avif"===e||"avis"===e||"avio"===e?{type:"avif",mime:"image/avif"}:"heic"===e||"heix"===e?{type:"heic",mime:"image/heic"}:"hevc"===e||"hevx"===e?{type:"heic",mime:"image/heic-sequence"}:r.avif||r.avis?{type:"avif",mime:"image/avif"}:r.heic||r.heix||r.hevc||r.hevx||r.heis?r.msf1?{type:"heif",mime:"image/heif-sequence"}:{type:"heif",mime:"image/heif"}:{type:"avif",mime:"image/avif"}}},{"./common":262}],265:[function(t,e,r){"use strict";var n=t("../common").str2arr,i=t("../common").sliceEq,a=t("../common").readUInt32BE,o=t("../miaf_utils"),s=t("../exif_utils"),l=n("ftyp");e.exports=function(t){if(i(t,4,l)){var e=o.unbox(t,0);if(e){var r=o.getMimeType(e.data);if(r){for(var n,c=e.end;;){var u=o.unbox(t,c);if(!u)break;if(c=u.end,"mdat"===u.boxtype)return;if("meta"===u.boxtype){n=u.data;break}}if(n){var f=o.readSizeFromMeta(n);if(f){var h={width:f.width,height:f.height,type:r.type,mime:r.mime,wUnits:"px",hUnits:"px"};if(f.variants.length>1&&(h.variants=f.variants),f.orientation&&(h.orientation=f.orientation),f.exif_location&&f.exif_location.offset+f.exif_location.length<=t.length){var p=a(t,f.exif_location.offset),d=t.slice(f.exif_location.offset+p+4,f.exif_location.offset+f.exif_location.length),g=s.get_orientation(d);g>0&&(h.orientation=g)}return

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h}}}}}}},{"../common":262,"../exif_utils":263,"../miaf_utils":264}],266:[function(t,e,r){"use strict";var
n=t("../common").str2arr,i=t("../common").sliceEq,a=t("../common").readUInt16LE,o=n("BM");e.exports=function(
t){if(!(t.length<26)&&i(t,0,o))return{width:a(t,18),height:a(t,22),type:"bmp",mime:"image/bmp",wUnits:"px",hUnit
s:"px"}}},{"../common":262}],267:[function(t,e,r){"use strict";var
n=t("../common").str2arr,i=t("../common").sliceEq,a=t("../common").readUInt16LE,o=n("GIF87a"),s=n("GIF89a");
e.exports=function(t){if(!(t.length<10)&&(i(t,0,o)||i(t,0,s)))return{width:a(t,6),height:a(t,8),type:"gif",mime:"image/
gif",wUnits:"px",hUnits:"px"}}},{"../common":262}],268:[function(t,e,r){"use strict";var
n=t("../common").readUInt16LE;e.exports=function(t){var
e=n(t,0),r=n(t,2),i=n(t,4);if(0===e&&1===r&&i){for(var a=[],o={width:0,height:0},s=0;s<i;s++){var
l=t[6+16*s]||256,c=t[6+16*s+1]||256,u={width:l,height:c};a.push(u),(l>o.width||c>o.height)&&(o=u)}return{width:
o.width,height:o.height,variants:a,type:"ico",mime:"image/x-
icon",wUnits:"px",hUnits:"px"}}}},{"../common":262}],269:[function(t,e,r){"use strict";var
n=t("../common").readUInt16BE,i=t("../common").str2arr,a=t("../common").sliceEq,o=t("../exif_utils"),s=i("Exif\0\0
");e.exports=function(t){if(!(t.length<2)&&255===t[0]&&216===t[1]&&255===t[2])for(var
e=2;;){for(;;){if(t.length-e<2)return;if(255===t[e++])break}for(var
r,i,l=t[e++];255===l;)l=t[e++];if(208<=l&&l<=217||1===l)r=0;else{if(!(192<=l&&l<=254))return;if(t.length-
e<2)return;r=n(t,e)-
2,e+=2}if(217===l||218===l)return;if(225===l&&r>=10&&a(t,e,s)&&(i=o.get_orientation(t.slice(e+6,e+r))),r>=5
&&192<=l&&l<=207&&196!==l&&200!==l&&204!==l){if(t.length-e<r)return;var
c={width:n(t,e+3),height:n(t,e+1),type:"jpg",mime:"image/jpeg",wUnits:"px",hUnits:"px"};return
i>0&&(c.orientation=i),c}e+=r}},{"../common":262,"../exif_utils":263}],270:[function(t,e,r){"use strict";var
n=t("../common").str2arr,i=t("../common").sliceEq,a=t("../common").readUInt32BE,o=n("PNG\r\n
\n"),s=n("IHDR");e.exports=function(t){if(!(t.length<24)&&i(t,0,o)&&i(t,12,s))return{width:a(t,16),height:a(t,20),t
ype:"png",mime:"image/png",wUnits:"px",hUnits:"px"}}},{"../common":262}],271:[function(t,e,r){"use strict";var
n=t("../common").str2arr,i=t("../common").sliceEq,a=t("../common").readUInt32BE,o=n("8BPS\0
");e.exports=function(t){if(!(t.length<22)&&i(t,0,o))return{width:a(t,18),height:a(t,14),type:"psd",mime:"image/vnd
.adobe.photoshop",wUnits:"px",hUnits:"px"}}},{"../common":262}],272:[function(t,e,r){"use strict";function
n(t){return"number"==typeof t&&isFinite(t)&&t>0}var i=/<[-_.:a-zA-Z0-9][^>]*>/,a=/^<([-_.:a-zA-Z0-
9]+:)?svg\s/,o=/[^-]\bwidth="([^%]+?)"|[^-
]\bwidth='([^%]+?)'/,s=/\bheight="([^%]+?)"|\bheight='([^%]+?)'/,l=/\bview[bB]ox="(.+?)"|\bview[bB]ox='(.+?)'/,c=
/in$|mm$|cm$|pt$|pc$|px$|em$|ex$/;function u(t){return
c.test(t)?t.match(c)[0]:"px"}e.exports=function(t){if(function(t){var
e,r=0,n=t.length;for(239===t[0]&&187===t[1]&&191===t[2]&&(r=3);r<n&&(32===(e=t[r])||9===e||13===e||10=
==e);)r++;return r!==n&&60===t[r]}(t)){for(var e="",r=0;r<t.length;r++)e+=String.fromCharCode(t[r]);var
c=(e.match(i)||[""])[0];if(a.test(c)){var f=function(t){var
e=t.match(o),r=t.match(s),n=t.match(l);return{width:e&&(e[1]||e[2]),height:r&&(r[1]||r[2]),viewbox:n&&(n[1]||n[2]
)}}(c),h=parseFloat(f.width),p=parseFloat(f.height);if(f.width&&f.height){if(!n(h)||!n(p))return;return{width:h,heig
ht:p,type:"svg",mime:"image/svg+xml",wUnits:u(f.width),hUnits:u(f.height)}}var d=(f.viewbox||"").split("
"),g={width:d[2],height:d[3]},v=parseFloat(g.width),m=parseFloat(g.height);if(n(v)&&n(m)&&u(g.width)===u(g.h
eight)){var
y=v/m;if(f.width){if(!n(h))return;return{width:h,height:h/y,type:"svg",mime:"image/svg+xml",wUnits:u(f.width),h
Units:u(f.width)}}if(f.height){if(!n(p))return;return{width:p*y,height:p,type:"svg",mime:"image/svg+xml",wUnits:
u(f.height),hUnits:u(f.height)}}return{width:v,height:m,type:"svg",mime:"image/svg+xml",wUnits:u(g.width),hUni
ts:u(g.height)}}}}}},{}],273:[function(t,e,r){"use strict";var
n=t("../common").str2arr,i=t("../common").sliceEq,a=t("../common").readUInt16LE,o=t("../common").readUInt16B
E,s=t("../common").readUInt32LE,l=t("../common").readUInt32BE,c=n("II*\0"),u=n("MM\0*");function
f(t,e,r){return r?o(t,e):a(t,e)}function h(t,e,r){return r?l(t,e):s(t,e)}function p(t,e,r){var n=f(t,e+2,r);return
1!==h(t,e+4,r)||3!==n&&4!==n?null:3===n?f(t,e+8,r):h(t,e+8,r)}e.exports=function(t){if(!(t.length<8)&&(i(t,0,c)||i(
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t,0,u))){var e=77===t[0],r=h(t,4,e)-8;if(!(r<0)){var n=r+8;if(!(t.length-n<2)){var a=12*f(t,n+0,e);if(!(a<=0||(n+=2,t.length-n<a))){var o,s,l,d;for(o=0;o<a;o+=12)256===(d=f(t,n+o,e))?s=p(t,n+o,e):257===d&&(l=p(t,n+o,e));return s&&l?{width:s,height:l,type:"tiff",mime:"image/tiff",wUnits:"px",hUnits:"px"}:void 0}}}}},{"../common":262}],274:[function(t,e,r){"use strict";var n=t("../common").str2arr,i=t("../common").sliceEq,a=t("../common").readUInt16LE,o=t("../common").readUInt32LE,s=t("../exif_utils"),l=n("RIFF"),c=n("WEBP");function u(t,e){if(157===t[e+3]&&1===t[e+4]&&42===t[e+5])return{width:16383&a(t,e+6),height:16383&a(t,e+8),type:"webp",mime:"image/webp",wUnits:"px",hUnits:"px"}}function f(t,e){if(47===t[e]){var r=o(t,e+1);return{width:1+(16383&r),height:1+(r>>14&16383),type:"webp",mime:"image/webp",wUnits:"px",hUnits:"px"}}}function h(t,e){return{width:1+(t[e+6]<<16|t[e+5]<<8|t[e+4]),height:1+(t[e+9]<<e|t[e+8]<<8|t[e+7]),type:"webp",mime:"image/webp",wUnits:"px",hUnits:"px"}}e.exports=function(t){if(!(t.length<16)&&(i(t,0,l)||i(t,8,c))){var e=12,r=null,n=0,a=o(t,4)+8;if(!(a>t.length)){for(;e+8<a;)if(0!==t[e]){var p=String.fromCharCode.apply(null,t.slice(e,e+4)),d=o(t,e+4);"VP8 "===p&&d>=10?r=r||u(t,e+8):"VP8L"===p&&d>=9?r=r||f(t,e+8):"VP8X"===p&&d>=10?r=r||h(t,e+8):"EXIF"===p&&(n=s.get_orientation(t.slice(e+8,e+8+d)),e=1/0),e+=8+d}else e++;if(r)return n>0&&(r.orientation=n),r}}},{"../common":262,"../exif_utils":263}],275:[function(t,e,r){"use strict";e.exports={avif:t("./parse_sync/avif"),bmp:t("./parse_sync/bmp"),gif:t("./parse_sync/gif"),ico:t("./parse_sync/ico"),jpeg:t("./parse_sync/jpeg"),png:t("./parse_sync/png"),psd:t("./parse_sync/psd"),svg:t("./parse_sync/svg"),tiff:t("./parse_sync/tiff"),webp:t("./parse_sync/webp")}},{"./parse_sync/avif":265,"./parse_sync/bmp":266,"./parse_sync/gif":267,"./parse_sync/ico":268,"./parse_sync/jpeg":269,"./parse_sync/png":270,"./parse_sync/psd":271,"./parse_sync/svg":272,"./parse_sync/tiff":273,"./parse_sync/webp":274}],276:[function(t,e,r){"use strict";var n=t("./lib/parsers_sync");e.exports=function(t){return function(t){for(var e=Object.keys(n),r=0;r<e.length;r++){var i=n[e[r]](t);if(i)return i}return null}(t)},e.exports.parsers=n},{"./lib/parsers_sync":275}],277:[function(t,e,r){var n,i,a=e.exports={};function o(){throw new Error("setTimeout has not been defined")}function s(){throw new Error("clearTimeout has not been defined")}function l(t){if(n===setTimeout)return setTimeout(t,0);if((n===o||!n)&&setTimeout)return n=setTimeout,setTimeout(t,0);try{return n(t,0)}catch(e){try{return n.call(null,t,0)}catch(e){return n.call(this,t,0)}}}!function(){try{n="function"==typeof setTimeout?setTimeout:o}catch(t){n=o}try{i="function"==typeof clearTimeout?clearTimeout:s}catch(t){i=s}}();var c,u=[],f=!1,h=-1;function p(){f&&c&&(f=!1,c.length?u=c.concat(u):h=-1,u.length&&d())}function d(){if(!f){var t=l(p);f=!0;for(var e=u.length;e;){for(c=u,u=[];++h<e;)c&&c[h].run();h=-1,e=u.length}c=null,f=!1,function(t){if(i===clearTimeout)return clearTimeout(t);if((i===s||!i)&&clearTimeout)return i=clearTimeout,clearTimeout(t);try{i(t)}catch(e){try{return i.call(null,t)}catch(e){return i.call(this,t)}}}(t)}}function g(t,e){this.fun=t,this.array=e}function v(){}a.nextTick=function(t){var e=new Array(arguments.length-1);if(arguments.length>1)for(var r=1;r<arguments.length;r++)e[r-1]=arguments[r];u.push(new g(t,e)),1!==u.length||f||l(d)},g.prototype.run=function(){this.fun.apply(null,this.array)},a.title="browser",a.browser=!0,a.env={},a.argv=[],a.version="",a.versions={},a.on=v,a.addListener=v,a.once=v,a.off=v,a.removeListener=v,a.removeAllListeners=v,a.emit=v,a.prependListener=v,a.prependOnceListener=v,a.listeners=function(t){return[]},a.binding=function(t){throw new Error("process.binding is not supported")},a.cwd=function(){return"/"},a.chdir=function(t){throw new Error("process.chdir is not supported")},a.umask=function(){return 0}},{}],278:[function(t,e,n){(function(r){(function(){for(var n=t("performance-now"),i="undefined"==typeof window?r:window,a=["moz","webkit"],o="AnimationFrame",s=i["request"+o],l=i["cancel"+o]||i["cancelRequest"+o],c=0;!s&&c<a.length;c++)s=i[a[c]+"Request"+o],l=i[a[c]+"Cancel"+o]||i[a[c]+"CancelRequest"+o];if(!s||!l){var u=0,f=0,h=[];s=function(t){if(0===h.length){var e=n(),r=Math.max(0,16.666666666666668-(e-

u));u=r+e,setTimeout((function(){var t=h.slice(0);h.length=0;for(var e=0;e<t.length;e++)if(!t[e].cancelled)try{t[e].callback(u)}catch(t){setTimeout((function(){throw t}),0)}}),Math.round(r))}return h.push({handle:++f,callback:t,cancelled:!1}),f},l=function(t){for(var e=0;e<h.length;e++)h[e].handle===t&&(h[e].cancelled=!0)}e.exports=function(t){return s.call(i,t)},e.exports.cancel=function(){l.apply(i,arguments)},e.exports.polyfill=function(t){t||(t=i),t.requestAnimationFrame=s,t.cancelAnimationFrame=l}}).call(this)}).call(this,void 0!==r.g?r.g:"undefined"!=typeof self?self:"undefined"!=typeof window?window:{})},{"performance-now":252}],279:[function(t,e,r){"use strict";var n=t("array-bounds"),i=t("color-normalize"),a=t("update-diff"),o=t("pick-by-alias"),s=t("object-assign"),l=t("flatten-vertex-data"),c=t("to-float32"),u=c.float32,f=c.fract32;e.exports=function(t,e){if("function"==typeof t?(e||(e={}),e.regl=t):e=t,e.length&&(e.positions=e),!(t=e.regl).hasExtension("ANGLE_instanced_arrays"))throw Error("regl-error2d: `ANGLE_instanced_arrays` extension should be enabled");var r,c,p,d,g,v,m=t._gl,y={color:"black",capSize:5,lineWidth:1,opacity:1,viewport:null,range:null,offset:0,count:0,bounds:null,positions:[],errors:[]},x=[];return d=t.buffer({usage:"dynamic",type:"uint8",data:new Uint8Array(0)}),c=t.buffer({usage:"dynamic",type:"float",data:new Uint8Array(0)}),p=t.buffer({usage:"dynamic",type:"float",data:new Uint8Array(0)}),g=t.buffer({usage:"dynamic",type:"float",data:new Uint8Array(0)}),v=t.buffer({usage:"static",type:"float",data:h}),T(e),r=t({vert:"\n\t\tprecision highp float;\n\n\t\tattribute vec2 position, positionFract;\n\t\tattribute vec4 error;\n\t\tattribute vec4 color;\n\n\t\tattribute vec2 direction, lineOffset, capOffset;\n\n\t\tuniform vec4 viewport;\n\t\tuniform float lineWidth, capSize;\n\t\tuniform vec2 scale, scaleFract, translate, translateFract;\n\n\t\tvarying vec4 fragColor;\n\n\t\tvoid main() {\n\t\t\tfragColor = color / 255.;\n\n\t\t\tvec2 pixelOffset = lineWidth * lineOffset + (capSize + lineWidth) * capOffset;\n\n\t\t\tvec2 dxy = -step(.5, direction.xy) * error.xz + step(direction.xy, vec2(-.5)) * error.yw;\n\n\t\t\tvec2 position = position + dxy;\n\n\t\t\tvec2 pos = (position + translate) * scale\n\t\t\t+ (positionFract + translateFract) * scale\n\t\t\t+ (position + translate) * scaleFract\n\t\t\t+ (positionFract + translateFract) * scaleFract;\n\n\t\tpos += pixelOffset / viewport.zw;\n\n\t\tgl_Position = vec4(pos * 2. - 1., 0, 1);\n\t}\n\t",frag:"\n\tprecision highp float;\n\n\tvarying vec4 fragColor;\n\n\tuniform float opacity;\n\n\tvoid main() {\n\t\tgl_FragColor = fragColor;\n\t\tgl_FragColor.a *= opacity;\n\t}\n\t",uniforms:{range:t.prop("range"),lineWidth:t.prop("lineWidth"),capSize:t.prop("capSize"),opacity:t.prop("opacity"),scale:t.prop("scale"),translate:t.prop("translate"),scaleFract:t.prop("scaleFract"),translateFract:t.prop("translateFract"),viewport:function(t,e){return[e.viewport.x,e.viewport.y,t.viewportWidth,t.viewportHeight]}},attributes:{color:{buffer:d,offset:function(t,e){return 4*e.offset},divisor:1},position:{buffer:c,offset:function(t,e){return 8*e.offset},divisor:1},positionFract:{buffer:p,offset:function(t,e){return 8*e.offset},divisor:1},error:{buffer:g,offset:function(t,e){return 16*e.offset},divisor:1},direction:{buffer:v,stride:24,offset:0},lineOffset:{buffer:v,stride:24,offset:8},capOffset:{buffer:v,stride:24,offset:16}},primitive:"triangles",blend:{enable:!0,color:[0,0,0,0],equation:{rgb:"add",alpha:"add"},func:{srcRGB:"src alpha",dstRGB:"one minus src alpha",srcAlpha:"one minus dst alpha",dstAlpha:"one"}},depth:{enable:!1},scissor:{enable:!0,box:t.prop("viewport")},viewport:t.prop("viewport"),stencil:!1,instances:t.prop("count"),count:h.length}),s(b,{update:T,draw:_,destroy:k,regl:t,gl:m,canvas:m.canvas,groups:x}),b;function b(t){t?T(t):null===t&&k(),_()}function _(e){if("number"==typeof e)return w(e);e&&!Array.isArray(e)&&(e=[e]),t._refresh(),x.forEach((function(t,r){t&&(e&&(e[r]?t.draw=!0:t.draw=!1),t.draw?w(r):t.draw=!0)}))}function w(t){"number"==typeof t&&(t=x[t]),null!=t&&t&&t.count&&t.color&&t.opacity&&t.positions&&t.positions.length>1&&(t.scaleRatio=[t.scale[0]*t.viewport.width,t.scale[1]*t.viewport.height],r(t),t.after&&t.after(t))}function T(t){if(t){null!=t.length?"number"==typeof t[0]&&(t=[{positions:t}]):Array.isArray(t)||(t=[t]);var e=0,r=0;if(b.groups=x=t.map((function(t,c){var u=x[c];return t?("function"==typeof t?t={after:t}:"number"==typeof t[0]&&(t={positions:t}),t=o(t,{color:"color colors fill",capSize:"capSize cap capsize cap-size",lineWidth:"lineWidth line-width width line thickness",opacity:"opacity alpha",range:"range

dataBox",viewport:"viewport viewBox",errors:"errors error",positions:"positions position data points"}),u||(x[c]=u={id:c,scale:null,translate:null,scaleFract:null,translateFract:null,draw:!0},t=s({},y,t)),a(u,t,[{lineWidth:function(t){return.5*+t},capSize:function(t){return.5*+t},opacity:parseFloat,errors:function(t){return t=l(t),r+=t.length,t},positions:function(t,r){return t=l(t,"float64"),r.count=Math.floor(t.length/2),r.bounds=n(t,2),r.offset=e,e+=r.count,t}},{color:function(t,e){var r=e.count;if(t||(t="transparent"),!Array.isArray(t)||"number"==typeof t[0]){var n=t;t=Array(r);for(var a=0;a<r;a++)t[a]=n}if(t.length<r)throw Error("Not enough colors");for(var o=new Uint8Array(4*r),s=0;s<r;s++){var l=i(t[s],"uint8");o.set(l,4*s)}return o},range:function(t,e,r){var n=e.bounds;return t||(t=n),e.scale=[1/(t[2]-t[0]),1/(t[3]-t[1])],e.translate=[-t[0],-t[1]],e.scaleFract=f(e.scale),e.translateFract=f(e.translate),t},viewport:function(t){var e;return Array.isArray(t)?e={x:t[0],y:t[1],width:t[2]-t[0],height:t[3]-t[1]}:t?(e={x:t.x||t.left||0,y:t.y||t.top||0},t.right?e.width=t.right-e.x:e.width=t.w||t.width||0,t.bottom?e.height=t.bottom-e.y:e.height=t.h||t.height||0):e={x:0,y:0,width:m.drawingBufferWidth,height:m.drawingBufferHeight},e}}]),u):u})),e||r){var h=x.reduce((function(t,e,r){return t+(e?e.count:0)}),0),v=new Float64Array(2*h),_=new Uint8Array(4*h),w=new Float32Array(4*h);x.forEach((function(t,e){if(t){var r=t.positions,n=t.count,i=t.offset,a=t.color,o=t.errors;n&&(_.set(a,4*i),w.set(o,4*i),v.set(r,2*i))}}));var T=u(v);c(T);var k=f(v,T);p(k),d(_),g(w)}}}function k(){c.destroy(),p.destroy(),d.destroy(),g.destroy(),v.destroy()};var h=[[1,0,0,1,0,0],[1,0,0,-1,0,0],[-1,0,0,-1,0,0],[-1,0,0,-1,0,0],[-1,0,0,1,0,0],[1,0,0,1,0,0],[1,0,-1,0,0,1],[1,0,-1,0,0,-1],[1,0,1,0,0,-1],[1,0,1,0,0,-1],[1,0,1,0,0,1],[1,0,-1,0,0,1],[-1,0,-1,0,0,1],[-1,0,-1,0,0,-1],[-1,0,1,0,0,-1],[-1,0,1,0,0,-1],[-1,0,1,0,0,1],[-1,0,-1,0,0,1],[0,1,1,0,0,0],[0,1,-1,0,0,0],[0,-1,-1,0,0,0],[0,-1,-1,0,0,0],[0,1,1,0,0,0],[0,-1,1,0,0,0],[0,1,0,-1,1,0],[0,1,0,-1,-1,0],[0,1,0,1,-1,0],[0,1,0,1,1,0],[0,1,0,-1,1,0],[0,1,0,1,-1,0],[0,-1,0,-1,1,0],[0,-1,0,-1,-1,0],[0,-1,0,1,-1,0],[0,-1,0,1,1,0],[0,-1,0,-1,1,0],[0,-1,0,1,-1,0]]},{"array-bounds":71,"color-normalize":89,"flatten-vertex-data":191,"object-assign":247,"pick-by-alias":253,"to-float32":313,"update-diff":329}],280:[function(t,e,r){"use strict";var n=t("color-normalize"),i=t("array-bounds"),a=t("object-assign"),o=t("glslify"),s=t("pick-by-alias"),l=t("flatten-vertex-data"),c=t("earcut"),u=t("array-normalize"),f=t("to-float32"),h=f.float32,p=f.fract32,d=t("es6-weak-map"),g=t("parse-rect"),v=t("array-find-index");function m(t,e){if(!(this instanceof m))return new m(t,e);if("function"==typeof t?(e||(e={}),e.regl=t):e=t,e.length&&(e.positions=e),!(t=e.regl).hasExtension("ANGLE_instanced_arrays"))throw Error("regl-error2d: `ANGLE_instanced_arrays` extension should be enabled");this.gl=t._gl,this.regl=t,this.passes=[],this.shaders=m.shaders.has(t)?m.shaders.get(t):m.shaders.set(t,m.createShaders(t)).get(t),this.update(e)}e.exports=m,m.dashMult=2,m.maxPatternLength=256,m.precisionThreshold=3e6,m.maxPoints=1e4,m.maxLines=2048,m.shaders=new d,m.createShaders=function(t){var e,r=t.buffer({usage:"static",type:"float",data:[0,1,0,0,1,1,1,0]}),n={primitive:"triangle strip",instances:t.prop("count"),count:4,offset:0,uniforms:{miterMode:function(t,e){return"round"===e.join?2:1},miterLimit:t.prop("miterLimit"),scale:t.prop("scale"),scaleFract:t.prop("scaleFract"),translateFract:t.prop("translateFract"),translate:t.prop("translate"),thickness:t.prop("thickness"),dashTexture:t.prop("dashTexture"),opacity:t.prop("opacity"),pixelRatio:t.context("pixelRatio"),id:t.prop("id"),dashLength:t.prop("dashLength"),viewport:function(t,e){return[e.viewport.x,e.viewport.y,t.viewportWidth,t.viewportHeight]},depth:t.prop("depth")},blend:{enable:!0,color:[0,0,0,0],equation:{rgb:"add",alpha:"add"},func:{srcRGB:"src alpha",dstRGB:"one minus src alpha",srcAlpha:"one minus dst alpha",dstAlpha:"one"}},depth:{enable:function(t,e){return!e.overlay}},stencil:{enable:!1},scissor:{enable:!0,box:t.prop("viewport")},viewport:t.prop("viewport")},i=t(a({vert:o(["precision highp float;\n#define GLSLIFY 1\n\nattribute vec2 aCoord, bCoord, aCoordFract, bCoordFract;\nattribute vec4 color;\nattribute float lineEnd, lineTop;\n\nuniform vec2 scale, scaleFract, translate, translateFract;\nuniform float thickness, pixelRatio, id, depth;\nuniform vec4 viewport;\n\nvarying vec4 fragColor;\nvarying vec2 tangent;\n\nvec2 project(vec2 position, vec2 positionFract, vec2 scale, vec2 scaleFract, vec2 translate, vec2 translateFract) {\n\t// the order is important\n\treturn position * scale + translate\n   + positionFract * scale + translateFract\n   + position *

scaleFract\n + positionFract * scaleFract;\n}\n\nvoid main() {\n\tfloat lineStart = 1. - lineEnd;\n\tfloat lineOffset = lineTop * 2. - 1.;\n\n\tvec2 diff = (bCoord + bCoordFract - aCoord - aCoordFract);\n\ttangent = normalize(diff * scale * viewport.zw);\n\tvec2 normal = vec2(-tangent.y, tangent.x);\n\n\tvec2 position = project(aCoord, aCoordFract, scale, scaleFract, translate, translateFract) * lineStart\n\t\t+ project(bCoord, bCoordFract, scale, scaleFract, translate, translateFract) * lineEnd\n\n\t\t+ thickness * normal * .5 * lineOffset / viewport.zw;\n\n\tgl_Position = vec4(position * 2.0 - 1.0, depth, 1);\n\n\tfragColor = color / 255.;\n}\n"]),frag:o(["precision highp float;\n#define GLSLIFY 1\n\nuniform float dashLength, pixelRatio, thickness, opacity, id;\nuniform sampler2D dashTexture;\n\nvarying vec4 fragColor;\nvarying vec2 tangent;\n\nvoid main() {\n\tfloat alpha = 1.;\n\n\tfloat t = fract(dot(tangent, gl_FragCoord.xy) / dashLength) * .5 + .25;\n\tfloat dash = texture2D(dashTexture, vec2(t, .5)).r;\n\n\tgl_FragColor = fragColor;\n\tgl_FragColor.a *= alpha * opacity * dash;\n}\n"]),attributes:{lineEnd:{buffer:r,divisor:0,stride:8,offset:0},lineTop:{buffer:r,divisor:0,stride:8,offset:4},aCoord:{buffer:t.prop("positionBuffer"),stride:8,offset:8,divisor:1},bCoord:{buffer:t.prop("positionBuffer"),stride:8,offset:16,divisor:1},aCoordFract:{buffer:t.prop("positionFractBuffer"),stride:8,offset:8,divisor:1},bCoordFract:{buffer:t.prop("positionFractBuffer"),stride:8,offset:16,divisor:1},color:{buffer:t.prop("colorBuffer"),stride:4,offset:0,divisor:1}}},n));try{e=t(a({cull:{enable:!0,face:"back"},vert:o(["precision highp float;\n#define GLSLIFY 1\n\nattribute vec2 aCoord, bCoord, nextCoord, prevCoord;\nattribute vec4 aColor, bColor;\nattribute float lineEnd, lineTop;\n\nuniform vec2 scale, translate;\nuniform float thickness, pixelRatio, id, depth;\nuniform vec4 viewport;\nuniform float miterLimit, miterMode;\n\nvarying vec4 fragColor;\nvarying vec4 startCutoff, endCutoff;\nvarying vec2 tangent;\nvarying vec2 startCoord, endCoord;\nvarying float enableStartMiter, enableEndMiter;\n\nconst float REVERSE_THRESHOLD = -.875;\nconst float MIN_DIFF = 1e-6;\n\n// TODO: possible optimizations: avoid overcalculating all for vertices and calc just one instead\n// TODO: precalculate dot products, normalize things beforehead etc.\n// TODO: refactor to rectangular algorithm\n\nfloat distToLine(vec2 p, vec2 a, vec2 b) {\n\tvec2 diff = b - a;\n\tvec2 perp = normalize(vec2(-diff.y, diff.x));\n\treturn dot(p - a, perp);\n}\n\nbool isNaN(float val){\n return (val < 0.0 || 0.0 < val || val == 0.0) ? false : true;\n}\n\nvoid main() {\n\tvec2 aCoord = aCoord, bCoord = bCoord, prevCoord = prevCoord, nextCoord = nextCoord;\n\n vec2 adjustedScale;\n adjustedScale.x = (abs(scale.x) < MIN_DIFF) ? MIN_DIFF : scale.x;\n adjustedScale.y = (abs(scale.y) < MIN_DIFF) ? MIN_DIFF : scale.y;\n\n vec2 scaleRatio = adjustedScale * viewport.zw;\n\tvec2 normalWidth = thickness / scaleRatio;\n\n\tfloat lineStart = 1. - lineEnd;\n\tfloat lineBot = 1. - lineTop;\n\n\tfragColor = (lineStart * aColor + lineEnd * bColor) / 255.;\n\n\tif (isNaN(aCoord.x) || isNaN(aCoord.y) || isNaN(bCoord.x) || isNaN(bCoord.y)) return;\n\n\tif (aCoord == prevCoord) prevCoord = aCoord + normalize(bCoord - aCoord);\n\tif (bCoord == nextCoord) nextCoord = bCoord - normalize(bCoord - aCoord);\n\n\tvec2 prevDiff = aCoord - prevCoord;\n\tvec2 currDiff = bCoord - aCoord;\n\tvec2 nextDiff = nextCoord - bCoord;\n\n\tvec2 prevTangent = normalize(prevDiff * scaleRatio);\n\tvec2 currTangent = normalize(currDiff * scaleRatio);\n\tvec2 nextTangent = normalize(nextDiff * scaleRatio);\n\n\tvec2 prevNormal = vec2(-prevTangent.y, prevTangent.x);\n\tvec2 currNormal = vec2(-currTangent.y, currTangent.x);\n\tvec2 nextNormal = vec2(-nextTangent.y, nextTangent.x);\n\n\tvec2 startJoinDirection = normalize(prevTangent - currTangent);\n\tvec2 endJoinDirection = normalize(currTangent - nextTangent);\n\n\t// collapsed/unidirectional segment cases\n\t// FIXME: there should be more elegant solution\n\tvec2 prevTanDiff = abs(prevTangent - currTangent);\n\tvec2 nextTanDiff = abs(nextTangent - currTangent);\n\tif (max(prevTanDiff.x, prevTanDiff.y) < MIN_DIFF) {\n\t\tstartJoinDirection = currNormal;\n\t}\n\tif (max(nextTanDiff.x, nextTanDiff.y) < MIN_DIFF) {\n\t\tendJoinDirection = currNormal;\n\t}\n\tif (aCoord == bCoord) {\n\t\tendJoinDirection = startJoinDirection;\n\t\tcurrNormal = prevNormal;\n\t\tcurrTangent = prevTangent;\n\t}\n\n\ttangent = currTangent;\n\n\t//calculate join shifts relative to normals\n\tfloat startJoinShift = dot(currNormal, startJoinDirection);\n\tfloat endJoinShift = dot(currNormal, endJoinDirection);\n\n\tfloat startMiterRatio = abs(1. / startJoinShift);\n\tfloat endMiterRatio = abs(1. / endJoinShift);\n\n\tvec2 startJoin = startJoinDirection * startMiterRatio;\n\tvec2 endJoin = endJoinDirection * endMiterRatio;\n\n\tvec2 startTopJoin, startBotJoin, endTopJoin, endBotJoin;\n\tstartTopJoin = sign(startJoinShift) * startJoin * .5;\n\tstartBotJoin = -startTopJoin;\n\n\tendTopJoin = sign(endJoinShift) * endJoin * .5;\n\tendBotJoin = -endTopJoin;\n\n\tvec2

aTopCoord = aCoord + normalWidth * startTopJoin;\n\tvec2 bTopCoord = bCoord + normalWidth * endTopJoin;\n\tvec2 aBotCoord = aCoord + normalWidth * startBotJoin;\n\tvec2 bBotCoord = bCoord + normalWidth * endBotJoin;\n\n\t//miter anti-clipping\n\tfloat baClipping = distToLine(bCoord, aCoord, aBotCoord) / dot(normalize(normalWidth * endBotJoin), normalize(normalWidth.yx * vec2(-startBotJoin.y, startBotJoin.x)));\n\tfloat abClipping = distToLine(aCoord, bCoord, bTopCoord) / dot(normalize(normalWidth * startBotJoin), normalize(normalWidth.yx * vec2(-endBotJoin.y, endBotJoin.x)));\n\n\t//prevent close to reverse direction switch\n\tbool prevReverse = dot(currTangent, prevTangent) <= REVERSE_THRESHOLD && abs(dot(currTangent, prevNormal)) * min(length(prevDiff), length(currDiff)) < length(normalWidth * currNormal);\n\tbool nextReverse = dot(currTangent, nextTangent) <= REVERSE_THRESHOLD && abs(dot(currTangent, nextNormal)) * min(length(nextDiff), length(currDiff)) < length(normalWidth * currNormal);\n\n\tif (prevReverse) {\n\t\t//make join rectangular\n\t\tvec2 miterShift = normalWidth * startJoinDirection * miterLimit * .5;\n\t\tfloat normalAdjust = 1. - min(miterLimit / startMiterRatio, 1.);\n\t\taBotCoord = aCoord + miterShift - normalAdjust * normalWidth * currNormal * .5;\n\t\taTopCoord = aCoord + miterShift + normalAdjust * normalWidth * currNormal * .5;\n\t}\n\telse if (!nextReverse && baClipping > 0. && baClipping < length(normalWidth * endBotJoin)) {\n\t\t//handle miter clipping\n\t\tbTopCoord -= normalWidth * endTopJoin;\n\t\tbTopCoord += normalize(endTopJoin * normalWidth) * baClipping;\n\t}\n\n\tif (nextReverse) {\n\t\t//make join rectangular\n\t\tvec2 miterShift = normalWidth * endJoinDirection * miterLimit * .5;\n\t\tfloat normalAdjust = 1. - min(miterLimit / endMiterRatio, 1.);\n\t\tbBotCoord = bCoord + miterShift - normalAdjust * normalWidth * currNormal * .5;\n\t\tbTopCoord = bCoord + miterShift + normalAdjust * normalWidth * currNormal * .5;\n\t}\n\telse if (!prevReverse && abClipping > 0. && abClipping < length(normalWidth * startBotJoin)) {\n\t\t//handle miter clipping\n\t\taBotCoord -= normalWidth * startBotJoin;\n\t\taBotCoord += normalize(startBotJoin * normalWidth) * abClipping;\n\t}\n\n\tvec2 aTopPosition = (aTopCoord) * adjustedScale + translate;\n\tvec2 aBotPosition = (aBotCoord) * adjustedScale + translate;\n\n\tvec2 bTopPosition = (bTopCoord) * adjustedScale + translate;\n\tvec2 bBotPosition = (bBotCoord) * adjustedScale + translate;\n\n\t//position is normalized 0..1 coord on the screen\n\tvec2 position = (aTopPosition * lineTop + aBotPosition * lineBot) * lineStart + (bTopPosition * lineTop + bBotPosition * lineBot) * lineEnd;\n\n\tstartCoord = aCoord * scaleRatio + translate * viewport.zw + viewport.xy;\n\tendCoord = bCoord * scaleRatio + translate * viewport.zw + viewport.xy;\n\n\tgl_Position = vec4(position * 2.0 - 1.0, depth, 1);\n\n\tenableStartMiter = step(dot(currTangent, prevTangent), .5);\n\tenableEndMiter = step(dot(currTangent, nextTangent), .5);\n\n\t//bevel miter cutoffs\n\tif (miterMode == 1.) {\n\t\tif (enableStartMiter == 1.) {\n\t\t\tvec2 startMiterWidth = vec2(startJoinDirection) * thickness * miterLimit * .5;\n\t\t\tstartCutoff = vec4(aCoord, aCoord);\n\t\t\tstartCutoff.zw += vec2(-startJoinDirection.y, startJoinDirection.x) / scaleRatio;\n\t\t\tstartCutoff = startCutoff * scaleRatio.xyxy + translate.xyxy * viewport.zwzw;\n\t\t\tstartCutoff += viewport.xyxy;\n\t\t\tstartCutoff += startMiterWidth.xyxy;\n\t\t}\n\n\tif (enableEndMiter == 1.) {\n\t\tvec2 endMiterWidth = vec2(endJoinDirection) * thickness * miterLimit * .5;\n\t\tendCutoff = vec4(bCoord, bCoord);\n\t\tendCutoff.zw += vec2(-endJoinDirection.y, endJoinDirection.x) / scaleRatio;\n\t\tendCutoff = endCutoff * scaleRatio.xyxy + translate.xyxy * viewport.zwzw;\n\t\tendCutoff += viewport.xyxy;\n\t\tendCutoff += endMiterWidth.xyxy;\n\t}\n\t}\n\n\t//round miter cutoffs\n\telse if (miterMode == 2.) {\n\tif (enableStartMiter == 1.) {\n\t\tvec2 startMiterWidth = vec2(startJoinDirection) * thickness * abs(dot(startJoinDirection, currNormal)) * .5;\n\t\tstartCutoff = vec4(aCoord, aCoord);\n\t\tstartCutoff.zw += vec2(-startJoinDirection.y, startJoinDirection.x) / scaleRatio;\n\t\tstartCutoff = startCutoff * scaleRatio.xyxy + translate.xyxy * viewport.zwzw;\n\t\tstartCutoff += viewport.xyxy;\n\t\tstartCutoff += startMiterWidth.xyxy;\n\t}\n\n\tif (enableEndMiter == 1.) {\n\t\tvec2 endMiterWidth = vec2(endJoinDirection) * thickness * abs(dot(endJoinDirection, currNormal)) * .5;\n\t\tendCutoff = vec4(bCoord, bCoord);\n\t\tendCutoff.zw += vec2(-endJoinDirection.y, endJoinDirection.x) / scaleRatio;\n\t\tendCutoff = endCutoff * scaleRatio.xyxy + translate.xyxy * viewport.zwzw;\n\t\tendCutoff += viewport.xyxy;\n\t\tendCutoff += endMiterWidth.xyxy;\n\t}\n}\n"]),frag:o(["precision highp float;\n#define GLSLIFY 1\n\nuniform float dashLength, pixelRatio, thickness, opacity, id, miterMode;\nuniform sampler2D dashTexture;\n\nvarying vec4

fragColor;\nvarying vec2 tangent;\nvarying vec4 startCutoff, endCutoff;\nvarying vec2 startCoord, endCoord;\nvarying float enableStartMiter, enableEndMiter;\n\nfloat distToLine(vec2 p, vec2 a, vec2 b) {\n\tvec2 diff = b - a;\n\tvec2 perp = normalize(vec2(-diff.y, diff.x));\n\treturn dot(p - a, perp);\n}\n\nvoid main() {\n\tfloat alpha = 1., distToStart, distToEnd;\n\tfloat cutoff = thickness * .5;\n\n\t//bevel miter\n\tif (miterMode == 1.) {\n\t\tif (enableStartMiter == 1.) {\n\t\t\tdistToStart = distToLine(gl_FragCoord.xy, startCutoff.xy, startCutoff.zw);\n\t\t\tif (distToStart < -1.) {\n\t\t\t\tdiscard;\n\t\t\t\treturn;\n\t\t}\n\t\talpha *= min(max(distToStart + 1., 0.), 1.);\n\t}\n\n\tif (enableEndMiter == 1.) {\n\t\tdistToEnd = distToLine(gl_FragCoord.xy, endCutoff.xy, endCutoff.zw);\n\t\tif (distToEnd < -1.) {\n\t\t\tdiscard;\n\t\t\treturn;\n\t}\n\talpha *= min(max(distToEnd + 1., 0.), 1.);\n\t}\n}\n\n// round miter\nelse if (miterMode == 2.) {\n\tif (enableStartMiter == 1.) {\n\t\tdistToStart = distToLine(gl_FragCoord.xy, startCutoff.xy, startCutoff.zw);\n\t\tif (distToStart < 0.) {\n\t\t\tfloat radius = length(gl_FragCoord.xy - startCoord);\n\n\t\t\tif(radius > cutoff + .5) {\n\t\t\t\tdiscard;\n\t\t\t\treturn;\n\t\t\t}\n\n\t\t\talpha -= smoothstep(cutoff - .5, cutoff + .5, radius);\n\t\t}\n\t}\n\n\tif (enableEndMiter == 1.) {\n\t\tdistToEnd = distToLine(gl_FragCoord.xy, endCutoff.xy, endCutoff.zw);\n\t\tif (distToEnd < 0.) {\n\t\t\tfloat radius = length(gl_FragCoord.xy - endCoord);\n\n\t\t\tif(radius > cutoff + .5) {\n\t\t\t\tdiscard;\n\t\t\t\treturn;\n\t\t\t}\n\n\t\t\talpha -= smoothstep(cutoff - .5, cutoff + .5, radius);\n\t\t}\n\t}\n}\n\nfloat t = fract(dot(tangent, gl_FragCoord.xy) / dashLength) * .5 + .25;\nfloat dash = texture2D(dashTexture, vec2(t, .5)).r;\n\ngl_FragColor = fragColor;\ngl_FragColor.a *= alpha * opacity * dash;\n}\n"]),attributes:{lineEnd:{buffer:r,divisor:0,stride:8,offset:0},lineTop:{buffer:r,divisor:0,stride:8,offset:4},aColor:{buffer:t.prop("colorBuffer"),stride:4,offset:0,divisor:1},bColor:{buffer:t.prop("colorBuffer"),stride:4,offset:4,divisor:1},prevCoord:{buffer:t.prop("positionBuffer"),stride:8,offset:0,divisor:1},aCoord:{buffer:t.prop("positionBuffer"),stride:8,offset:8,divisor:1},bCoord:{buffer:t.prop("positionBuffer"),stride:8,offset:16,divisor:1},nextCoord:{buffer:t.prop("positionBuffer"),stride:8,offset:24,divisor:1}}},n))}catch(t){e=i}return{fill:t({primitive:"triangle",elements:function(t,e){return e.triangles},offset:0,vert:o(["precision highp float;\n#define GLSLIFY 1\n\nattribute vec2 position, positionFract;\n\nuniform vec4 color;\nuniform vec2 scale, scaleFract, translate, translateFract;\nuniform float pixelRatio, id;\nuniform vec4 viewport;\nuniform float opacity;\n\nvarying vec4 fragColor;\n\nconst float MAX_LINES = 256.;\n\nvoid main() {\n\tfloat depth = (MAX_LINES - 4. - id) / (MAX_LINES);\n\n\tvec2 position = position * scale + translate\n   + positionFract * scale + translateFract\n   + position * scaleFract\n   + positionFract * scaleFract;\n\n\tgl_Position = vec4(position * 2.0 - 1.0, depth, 1);\n\n\tfragColor = color / 255.;\n\tfragColor.a *= opacity;\n}\n"]),frag:o(["precision highp float;\n#define GLSLIFY 1\n\nvarying vec4 fragColor;\n\nvoid main() {\n\tgl_FragColor = fragColor;\n}\n"]),uniforms:{scale:t.prop("scale"),color:t.prop("fill"),scaleFract:t.prop("scaleFract"),translateFract:t.prop("translateFract"),translate:t.prop("translate"),opacity:t.prop("opacity"),pixelRatio:t.context("pixelRatio"),id:t.prop("id"),viewport:function(t,e){return[e.viewport.x,e.viewport.y,t.viewportWidth,t.viewportHeight]}},attributes:{position:{buffer:t.prop("positionBuffer"),stride:8,offset:8},positionFract:{buffer:t.prop("positionFractBuffer"),stride:8,offset:8}},blend:n.blend,depth:{enable:!1},scissor:n.scissor,stencil:n.stencil,viewport:n.viewport}),rect:i,miter:e}},m.defaults={dashes:null,join:"miter",miterLimit:1,thickness:10,cap:"square",color:"black",opacity:1,overlay:!1,viewport:null,range:null,close:!1,fill:null},m.prototype.render=function(){for(var t,e=[],r=arguments.length;r--;)e[r]=arguments[r];e.length&&(t=this).update.apply(t,e),this.draw()},m.prototype.draw=function(){for(var t=this,e=[],r=arguments.length;r--;)e[r]=arguments[r];return(e.length?e:this.passes).forEach((function(e,r){var n;if(e&&Array.isArray(e))return(n=t).draw.apply(n,e);"number"==typeof e&&(e=t.passes[e]),e&&e.count>1&&e.opacity&&(t.regl._refresh(),e.fill&&e.triangles&&e.triangles.length>2&&t.shaders.fill(e),e.thickness&&(e.scale[0]*e.viewport.width>m.precisionThreshold||e.scale[1]*e.viewport.height>m.precisionThreshold||"rect"===e.join||!e.join&&(e.thickness<=2||e.count>=m.maxPoints)?t.shaders.rect(e):t.shaders.miter(e)))})),this},m.prototype.update=function(t){var e=this;if(t){null!=t.length?"number"==typeof t[0]&&(t=[{positions:t}]):Array.isArray(t)||(t=[t]);var r=this.regl,o=this.gl;if(t.forEach((function(t,f){var d=e.passes[f];if(void 0!==t)if(null!==t){if("number"==typeof t[0]&&(t={positions:t}),t=s(t,{positions:"positions points data coords",thickness:"thickness lineWidth lineWidths line-width linewidth width stroke-width strokewidth

strokeWidth",join:"lineJoin linejoin join type mode",miterLimit:"miterlimit miterLimit",dashes:"dash dashes dasharray dash-array dashArray",color:"color colour stroke colors colours stroke-color strokeColor",fill:"fill fill-color fillColor",opacity:"alpha opacity",overlay:"overlay crease overlap intersect",close:"closed close closed-path closePath",range:"range dataBox",viewport:"viewport viewBox",hole:"holes hole hollow",splitNull:"splitNull"}),d||(e.passes[f]=d={id:f,scale:null,scaleFract:null,translate:null,translateFract:null,count:0,hole:[],depth:0,dashLength:1,dashTexture:r.texture({channels:1,data:new Uint8Array([255]),width:1,height:1,mag:"linear",min:"linear"}),colorBuffer:r.buffer({usage:"dynamic",type:"uint8",data:new Uint8Array}),positionBuffer:r.buffer({usage:"dynamic",type:"float",data:new Uint8Array}),positionFractBuffer:r.buffer({usage:"dynamic",type:"float",data:new Uint8Array})},t=a({},m.defaults,t)),null!=t.thickness&&(d.thickness=parseFloat(t.thickness)),null!=t.opacity&&(d.opacity=parseFloat(t.opacity)),null!=t.miterLimit&&(d.miterLimit=parseFloat(t.miterLimit)),null!=t.overlay&&(d.overlay=!!t.overlay,f<m.maxLines&&(d.depth=2*(m.maxLines-1-f%m.maxLines)/m.maxLines-1)),null!=t.join&&(d.join=t.join),null!=t.hole&&(d.hole=t.hole),null!=t.fill&&(d.fill=t.fill?n(t.fill,"uint8"):null),null!=t.viewport&&(d.viewport=g(t.viewport)),d.viewport||(d.viewport=g([o.drawingBufferWidth,o.drawingBufferHeight])),null!=t.close&&(d.close=t.close),null===t.positions&&(t.positions=[]),t.positions){var y,x;if(t.positions.x&&t.positions.y){var b=t.positions.x,_=t.positions.y;x=d.count=Math.max(b.length,_.length),y=new Float64Array(2*x);for(var w=0;w<x;w++)y[2*w]=b[w],y[2*w+1]=_[w]}else y=l(t.positions,"float64"),x=d.count=Math.floor(y.length/2);var T=d.bounds=i(y,2);if(d.fill){for(var k=[],A={},M=0,S=0,E=0,L=d.count;S<L;S++){var C=y[2*S],P=y[2*S+1];isNaN(C)||isNaN(P)||null==C||null==P?(C=y[2*M],P=y[2*M+1],A[S]=M):M=S,k[E++]=C,k[E++]=P}if(t.splitNull){d.count-1 in A||(A[d.count]=d.count-1);var I=Object.keys(A).map(Number).sort((function(t,e){return t-e})),O=[],z=0,D=null!=d.hole?d.hole[0]:null;if(null!=D){var R=v(I,(function(t){return t>=D}));(I=I.slice(0,R)).push(D)}for(var F=function(t){var e=k.slice(2*z,2*I[t]).concat(D?k.slice(2*D):[]),r=(d.hole||[]).map((function(e){return e-D+(I[t]-z)})),n=c(e,r);n=n.map((function(e){return e+z+(e+z<I[t]?0:D-I[t])})),O.push.apply(O,n),z=I[t]+1},B=0;B<I.length;B++)F(B);for(var N=0,j=O.length;N<j;N++)null!=A[O[N]]&&(O[N]=A[O[N]]);d.triangles=O}else{for(var U=c(k,d.hole||[]),V=0,q=U.length;V<q;V++)null!=A[U[V]]&&(U[V]=A[U[V]]);d.triangles=U}}var H=new Float64Array(y);u(H,2,T);var G=new Float64Array(2*x+6);d.close?y[0]===y[2*x-2]&&y[1]===y[2*x-1]?(G[0]=H[2*x-4],G[1]=H[2*x-3]):(G[0]=H[2*x-2],G[1]=H[2*x-1]):(G[0]=H[0],G[1]=H[1]),G.set(H,2),d.close?y[0]===y[2*x-2]&&y[1]===y[2*x-1]?(G[2*x+2]=H[2],G[2*x+3]=H[3],d.count-=1):(G[2*x+2]=H[0],G[2*x+3]=H[1],G[2*x+4]=H[2],G[2*x+5]=H[3]):(G[2*x+2]=H[2*x-2],G[2*x+3]=H[2*x-1],G[2*x+4]=H[2*x-2],G[2*x+5]=H[2*x-1]);var Y=h(G);d.positionBuffer(Y);var W=p(G,Y);d.positionFractBuffer(W)}if(t.range?d.range=t.range:d.range||(d.range=d.bounds),(t.range||t.positions)&&d.count){var X=d.bounds,Z=X[2]-X[0],J=X[3]-X[1],K=d.range[2]-d.range[0],Q=d.range[3]-d.range[1];d.scale=[Z/K,J/Q],d.translate=[-d.range[0]/K+X[0]/K||0,-d.range[1]/Q+X[1]/Q||0],d.scaleFract=p(d.scale),d.translateFract=p(d.translate)}if(t.dashes){var $,tt=0;if(!t.dashes||t.dashes.length<2)tt=1,$=new Uint8Array([255,255,255,255,255,255,255,255]);else{tt=0;for(var et=0;et<t.dashes.length;++et)tt+=t.dashes[et];$=new Uint8Array(tt*m.dashMult);for(var rt=0,nt=255,it=0;it<2;it++)for(var at=0;at<t.dashes.length;++at){for(var ot=0,st=t.dashes[at]*m.dashMult*.5;ot<st;++ot)$[rt++]=nt;nt^=255}}d.dashLength=tt,d.dashTexture({channels:1,data:$,width:$.length,height:1,mag:"linear",min:"linear"},0,0)}if(t.color){var lt=d.count,ct=t.color;ct||(ct="transparent");var ut=new Uint8Array(4*lt+4);if(Array.isArray(ct)&&"number"!=typeof ct[0]){for(var ft=0;ft<lt;ft++){var ht=n(ct[ft],"uint8");ut.set(ht,4*ft)}ut.set(n(ct[0],"uint8"),4*lt)}else for(var pt=n(ct,"uint8"),dt=0;dt<lt+1;dt++)ut.set(pt,4*dt);d.colorBuffer({usage:"dynamic",type:"uint8",data:ut})}}else

e.passes[f]=null})),t.length<this.passes.length){for(var f=t.length;f<this.passes.length;f++){var d=this.passes[f];d&&(d.colorBuffer.destroy(),d.positionBuffer.destroy(),d.dashTexture.destroy())}this.passes.length=t.length}for(var y=[],x=0;x<this.passes.length;x++)null!==this.passes[x]&&y.push(this.passes[x]);return this.passes=y,this}},m.prototype.destroy=function(){return this.passes.forEach((function(t){t.colorBuffer.destroy(),t.positionBuffer.destroy(),t.dashTexture.destroy()})),this.passes.length=0,this}},{"array-bounds":71,"array-find-index":72,"array-normalize":73,"color-normalize":89,earcut:129,"es6-weak-map":183,"flatten-vertex-data":191,glslify:227,"object-assign":247,"parse-rect":249,"pick-by-alias":253,"to-float32":313}],281:[function(t,e,r){"use strict";function n(t,e){return function(t){if(Array.isArray(t))return t}(t)||function(t,e){var r=null==t?null:"undefined"!=typeof Symbol&&t[Symbol.iterator]||t["@@iterator"];if(null!=r){var n,i,a=[],o=!0,s=!1;try{for(r=r.call(t);!(o=(n=r.next()).done)&&(a.push(n.value),!e||a.length!==e);o=!0);}catch(t){s=!0,i=t}finally{try{o||null==r.return||r.return()}finally{if(s)throw i}}return a}}(t,e)||a(t,e)||function(){throw new TypeError("Invalid attempt to destructure non-iterable instance.\nIn order to be iterable, non-array objects must have a [Symbol.iterator]() method.")}()}function i(t){return function(t){if(Array.isArray(t))return o(t)}(t)||function(t){if("undefined"!=typeof Symbol&&null!=t[Symbol.iterator]||null!=t["@@iterator"])return Array.from(t)}(t)||a(t)||function(){throw new TypeError("Invalid attempt to spread non-iterable instance.\nIn order to be iterable, non-array objects must have a [Symbol.iterator]() method.")}()}function a(t,e){if(t){if("string"==typeof t)return o(t,e);var r=Object.prototype.toString.call(t).slice(8,-1);return"Object"===r&&t.constructor&&(r=t.constructor.name),"Map"===r||"Set"===r?Array.from(t):"Arguments"===r||/^(?:Ui|I)nt(?:8|16|32)(?:Clamped)?Array$/.test(r)?o(t,e):void 0}}function o(t,e){(null==e||e>t.length)&&(e=t.length);for(var r=0,n=new Array(e);r<e;r++)n[r]=t[r];return n}var s=t("color-normalize"),l=t("array-bounds"),c=t("color-id"),u=t("@plotly/point-cluster"),f=t("object-assign"),h=t("glslify"),p=t("pick-by-alias"),d=t("update-diff"),g=t("flatten-vertex-data"),v=t("is-iexplorer"),m=t("to-float32"),y=t("parse-rect"),x=b;function b(t,e){var r=this;if(!(this instanceof b))return new b(t,e);"function"==typeof t?(e||(e={}),e.regl=t):(e=t,t=null),e&&e.length&&(e.positions=e);var n,i=(t=e.regl)._gl,a=[],o=255;this.tooManyColors=v,n=t.texture({data:new Uint8Array(1020),width:o,height:1,type:"uint8",format:"rgba",wrapS:"clamp",wrapT:"clamp",mag:"nearest",min:"nearest"}),f(this,{regl:t,gl:i,groups:[],markerCache:[null],markerTextures:[null],palette:a,paletteIds:{},paletteTexture:n,maxColors:o,maxSize:100,canvas:i.canvas}),this.update(e);var s={uniforms:{constPointSize:!!e.constPointSize,opacity:t.prop("opacity"),paletteSize:function(t,e){return[r.tooManyColors?0:o,n.height]},pixelRatio:t.context("pixelRatio"),scale:t.prop("scale"),scaleFract:t.prop("scaleFract"),translate:t.prop("translate"),translateFract:t.prop("translateFract"),markerTexture:t.prop("markerTexture"),paletteTexture:n},attributes:{x:function(t,e){return e.xAttr||{buffer:e.positionBuffer,stride:8,offset:0}},y:function(t,e){return e.yAttr||{buffer:e.positionBuffer,stride:8,offset:4}},xFract:function(t,e){return e.xAttr?{constant:[0,0]}:{buffer:e.positionFractBuffer,stride:8,offset:0}},yFract:function(t,e){return e.yAttr?{constant:[0,0]}:{buffer:e.positionFractBuffer,stride:8,offset:4}},size:function(t,e){return e.size.length?{buffer:e.sizeBuffer,stride:2,offset:0}:{constant:[Math.round(255*e.size/r.maxSize)]}},borderSize:function(t,e){return e.borderSize.length?{buffer:e.sizeBuffer,stride:2,offset:1}:{constant:[Math.round(255*e.borderSize/r.maxSize)]}},colorId:function(t,e){return e.color.length?{buffer:e.colorBuffer,stride:r.tooManyColors?8:4,offset:0}:{constant:r.tooManyColors?a.slice(4*e.color,4*e.color+4):[e.color]}},borderColorId:function(t,e){return e.borderColor.length?{buffer:e.colorBuffer,stride:r.tooManyColors?8:4,offset:r.tooManyColors?4:2}:{constant:r.tooManyColors?a.slice(4*e.borderColor,4*e.borderColor+4):[e.borderColor]}},isActive:function(t,e){return!0===e.activation?{constant:[1]}:e.activation?e.activation:{constant:[0]}}},blend:{enable:!0,color:[0,0,0,1],func:{srcRGB:"src alpha",dstRGB:"one minus src alpha",srcAlpha:"one minus dst alpha",dstAlpha:"one"}},scissor:{enable:!0,box:t.prop("viewport")},viewport:t.prop("viewport"),stencil:{enable:!1},depth:{enable:!1},elements:t.prop("elements"),count:t.prop("count"),offset:t.prop("offset"),primitive:"points"},l=f(

{},s);l.frag=h(["precision highp float;\n#define GLSLIFY 1\n\nuniform float opacity;\nuniform sampler2D markerTexture;\n\nvarying vec4 fragColor, fragBorderColor;\nvarying float fragWidth, fragBorderColorLevel, fragColorLevel;\n\nfloat smoothStep(float x, float y) {\n return 1.0 / (1.0 + exp(50.0*(x - y)));\n}\n\nvoid main() {\n float dist = texture2D(markerTexture, gl_PointCoord).r, delta = fragWidth;\n\n // max-distance alpha\n if (dist < 0.003) discard;\n\n // null-border case\n if (fragBorderColorLevel == fragColorLevel || fragBorderColor.a == 0.) {\n   float colorAmt = smoothstep(.5 - delta, .5 + delta, dist);\n   gl_FragColor = vec4(fragColor.rgb, colorAmt * fragColor.a * opacity);\n }\n else {\n   float borderColorAmt = smoothstep(fragBorderColorLevel - delta, fragBorderColorLevel + delta, dist);\n   float colorAmt = smoothstep(fragColorLevel - delta, fragColorLevel + delta, dist);\n\n   vec4 color = fragBorderColor;\n   color.a *= borderColorAmt;\n   color = mix(color, fragColor, colorAmt);\n   color.a *= opacity;\n\n   gl_FragColor = color;\n }\n\n}\n"]),l.vert=h(["precision highp float;\n#define GLSLIFY 1\n\nattribute float x, y, xFract, yFract;\nattribute float size, borderSize;\nattribute vec4 colorId, borderColorId;\nattribute float isActive;\n\nuniform bool constPointSize;\nuniform float pixelRatio;\nuniform vec2 scale, scaleFract, translate, translateFract, paletteSize;\nuniform sampler2D paletteTexture;\n\nconst float maxSize = 100.;\nconst float borderLevel = .5;\n\nvarying vec4 fragColor, fragBorderColor;\nvarying float fragPointSize, fragBorderRadius, fragWidth, fragBorderColorLevel, fragColorLevel;\n\nfloat pointSizeScale = (constPointSize) ? 2. : pixelRatio;\n\nbool isDirect = (paletteSize.x < 1.);\n\nvec4 getColor(vec4 id) {\n return isDirect ? id / 255. : texture2D(paletteTexture,\n   vec2(\n   (id.x + .5) / paletteSize.x,\n   (id.y + .5) / paletteSize.y\n   )\n);\n}\n\nvoid main() {\n // ignore inactive points\n if (isActive == 0.) return;\n\n vec2 position = vec2(x, y);\n vec2 positionFract = vec2(xFract, yFract);\n\n vec4 color = getColor(colorId);\n vec4 borderColor = getColor(borderColorId);\n\n float size = size * maxSize / 255.;\n float borderSize = borderSize * maxSize / 255.;\n\n gl_PointSize = 2. * size * pointSizeScale;\n fragPointSize = size * pixelRatio;\n\n vec2 pos = (position + translate) * scale\n   + (positionFract + translateFract) * scale\n   + (position + translate) * scaleFract\n   + (positionFract + translateFract) * scaleFract;\n\n gl_Position = vec4(pos * 2. - 1., 0., 1.);\n\n fragColor = color;\n fragBorderColor = borderColor;\n fragWidth = 1. / gl_PointSize;\n\n fragBorderColorLevel = clamp(borderLevel - borderLevel * borderSize / size, 0., 1.);\n fragColorLevel = clamp(borderLevel + (1. - borderLevel) * borderSize / size, 0., 1.);\n}\n"]),this.drawMarker=t(l);var c=f({},s);c.frag=h(["precision highp float;\n#define GLSLIFY 1\n\nvarying vec4 fragColor, fragBorderColor;\nvarying float fragBorderRadius, fragWidth;\n\nuniform float opacity;\n\nfloat smoothStep(float edge0, float edge1, float x) {\n\tfloat t;\n\tt = clamp((x - edge0) / (edge1 - edge0), 0.0, 1.0);\n\treturn t * t * (3.0 - 2.0 * t);\n}\n\nvoid main() {\n\tfloat radius, alpha = 1.0, delta = fragWidth;\n\n\tradius = length(2.0 * gl_PointCoord.xy - 1.0);\n\n\tif (radius > 1.0 + delta) {\n\t\tdiscard;\n\t}\n\n\talpha -= smoothstep(1.0 - delta, 1.0 + delta, radius);\n\n\tfloat borderRadius = fragBorderRadius;\n\tfloat ratio = smoothstep(borderRadius - delta, borderRadius + delta, radius);\n\tvec4 color = mix(fragColor, fragBorderColor, ratio);\n\tcolor.a *= alpha * opacity;\n\tgl_FragColor = color;\n}\n"]),c.vert=h(["precision highp float;\n#define GLSLIFY 1\n\nattribute float x, y, xFract, yFract;\nattribute float size, borderSize;\nattribute vec4 colorId, borderColorId;\nattribute float isActive;\n\nuniform bool constPointSize;\nuniform float pixelRatio;\nuniform vec2 paletteSize, scale, scaleFract, translate, translateFract;\nuniform sampler2D paletteTexture;\n\nconst float maxSize = 100.;\n\nvarying vec4 fragColor, fragBorderColor;\nvarying float fragBorderRadius, fragWidth;\n\nfloat pointSizeScale = (constPointSize) ? 2. : pixelRatio;\n\nbool isDirect = (paletteSize.x < 1.);\n\nvec4 getColor(vec4 id) {\n return isDirect ? id / 255. : texture2D(paletteTexture,\n   vec2(\n   (id.x + .5) / paletteSize.x,\n   (id.y + .5) / paletteSize.y\n   )\n);\n}\n\nvoid main() {\n // ignore inactive points\n if (isActive == 0.) return;\n\n vec2 position = vec2(x, y);\n vec2 positionFract = vec2(xFract, yFract);\n\n vec4 color = getColor(colorId);\n vec4 borderColor = getColor(borderColorId);\n\n float size = size * maxSize / 255.;\n float borderSize = borderSize * maxSize / 255.;\n\n gl_PointSize = (size + borderSize) * pointSizeScale;\n\n vec2 pos = (position + translate) * scale\n   + (positionFract + translateFract) * scale\n   + (position + translate) * scaleFract\n   + (positionFract + translateFract) * scaleFract;\n\n gl_Position = vec4(pos * 2. - 1., 0., 1.);\n\n fragBorderRadius = 1. - 2. * borderSize / (size + borderSize);\n fragColor = color;\n fragBorderColor = borderColor.a == 0. || borderSize == 0. ? vec4(color.rgb, 0.) : borderColor;\n fragWidth = 1. /

gl_PointSize;\n}\n"]),v&&(c.frag=c.frag.replace("smoothstep","smoothStep"),l.frag=l.frag.replace("smoothstep","smoothStep")),this.drawCircle=t(c)}b.defaults={color:"black",borderColor:"transparent",borderSize:0,size:12,opacity:1,marker:void 0,viewport:null,range:null,pixelSize:null,count:0,offset:0,bounds:null,positions:[],snap:1e4},b.prototype.render=function(){return arguments.length&&this.update.apply(this,arguments),this.draw(),this},b.prototype.draw=function(){for(var t=this,e=arguments.length,r=new Array(e),n=0;n<e;n++)r[n]=arguments[n];var i=this.groups;if(1===r.length&&Array.isArray(r[0])&&(null===r[0][0]||Array.isArray(r[0][0]))&&(r=r[0]),this.regl._refresh(),r.length)for(var a=0;a<r.length;a++)this.drawItem(a,r[a]);else i.forEach((function(e,r){t.drawItem(r)}));return this},b.prototype.drawItem=function(t,e){var r=this.groups,n=r[t];if("number"==typeof e&&(t=e,n=r[e],e=null),n&&n.count&&n.opacity){n.activation[0]&&this.drawCircle(this.getMarkerDrawOptions(0,n,e));for(var a=[],o=1;o<n.activation.length;o++)n.activation[o]&&(!0===n.activation[o]||n.activation[o].data.length)&&a.push.apply(a,i(this.getMarkerDrawOptions(o,n,e)));a.length&&this.drawMarker(a)}},b.prototype.getMarkerDrawOptions=function(t,e,r){var i=e.range,a=e.tree,o=e.viewport,s=e.activation,l=e.selectionBuffer,c=e.count;if(this.regl,!a)return r?[f({},e,{markerTexture:this.markerTextures[t],activation:s[t],count:r.length,elements:r,offset:0})]:[f({},e,{markerTexture:this.markerTextures[t],activation:s[t],offset:0})];var u=[],h=a.range(i,{lod:!0,px:[(i[2]-i[0])/o.width,(i[3]-i[1])/o.height]});if(r){for(var p=s[t].data,d=new Uint8Array(c),g=0;g<r.length;g++){var v=r[g];d[v]=p?p[v]:1}l.subdata(d)}for(var m=h.length;m--;){var y=n(h[m],2),x=y[0],b=y[1];u.push(f({},e,{markerTexture:this.markerTextures[t],activation:r?l:s[t],offset:x,count:b-x}))}return u},b.prototype.update=function(){for(var t=this,e=arguments.length,r=new Array(e),n=0;n<e;n++)r[n]=arguments[n];if(r.length){1===r.length&&Array.isArray(r[0])&&(r=r[0]);var i=this.groups,a=this.gl,o=this.regl,s=this.maxSize,c=this.maxColors,h=this.palette;this.groups=i=r.map((function(e,r){var n=i[r];if(void 0===e)return n;null===e?e={positions:null}:"function"==typeof e?e={ondraw:e}:"number"==typeof e[0]&&(e={positions:e}),null===(e=p(e,{positions:"positions data points",snap:"snap cluster lod tree",size:"sizes size radius",borderSize:"borderSizes borderSize border-size bordersize borderWidth borderWidths border-width borderwidth stroke-width strokeWidth strokewidth outline",color:"colors color fill fill-color fillColor",borderColor:"borderColors borderColor stroke stroke-color strokeColor",marker:"markers marker shape",range:"range dataBox databox",viewport:"viewport viewPort viewBox viewbox",opacity:"opacity alpha transparency",bounds:"bound bounds boundaries limits",tooManyColors:"tooManyColors palette paletteMode optimizePalette enablePalette"})).positions&&(e.positions=[]),null!=e.tooManyColors&&(t.tooManyColors=e.tooManyColors),n||(i[r]=n={id:r,scale:null,translate:null,scaleFract:null,translateFract:null,activation:[],selectionBuffer:o.buffer({data:new Uint8Array(0),usage:"stream",type:"uint8"}),sizeBuffer:o.buffer({data:new Uint8Array(0),usage:"dynamic",type:"uint8"}),colorBuffer:o.buffer({data:new Uint8Array(0),usage:"dynamic",type:"uint8"}),positionBuffer:o.buffer({data:new Uint8Array(0),usage:"dynamic",type:"float"}),positionFractBuffer:o.buffer({data:new Uint8Array(0),usage:"dynamic",type:"float"})},e=f({},b.defaults,e)),e.positions&&!("marker"in e)&&(e.marker=n.marker,delete n.marker),e.marker&&!("positions"in e)&&(e.positions=n.positions,delete n.positions);var v=0,x=0;if(d(n,e,[{snap:!0,size:function(t,e){return null==t&&(t=b.defaults.size),v+=t&&t.length?1:0,t},borderSize:function(t,e){return null==t&&(t=b.defaults.borderSize),v+=t&&t.length?1:0,t},opacity:parseFloat,color:function(e,r){return null==e&&(e=b.defaults.color),e=t.updateColor(e),x++,e},borderColor:function(e,r){return null==e&&(e=b.defaults.borderColor),e=t.updateColor(e),x++,e},bounds:function(t,e,r){return"range"in r||(r.range=null),t},positions:function(t,e,r){var n=e.snap,i=e.positionBuffer,a=e.positionFractBuffer,s=e.selectionBuffer;if(t.x||t.y)return

t.x.length?e.xAttr={buffer:o.buffer(t.x),offset:0,stride:4,count:t.x.length}:e.xAttr={buffer:t.x.buffer,offset:4*t.x.offset||0,stride:4*(t.x.stride||1),count:t.x.count},t.y.length?e.yAttr={buffer:o.buffer(t.y),offset:0,stride:4,count:t.y.length}:e.yAttr={buffer:t.y.buffer,offset:4*t.y.offset||0,stride:4*(t.y.stride||1),count:t.y.count},e.count=Math.max(e.xAttr.count,e.yAttr.count),t;t=g(t,"float64");var c=e.count=Math.floor(t.length/2),f=e.bounds=c?l(t,2):null;if(r.range||e.range||(delete e.range,r.range=f),r.marker||e.marker||(delete e.marker,r.marker=null),n&&(!0===n||c>n)?e.tree=u(t,{bounds:f}):n&&n.length&&(e.tree=n),e.tree){var h={primitive:"points",usage:"static",data:e.tree,type:"uint32"};e.elements?e.elements(h):e.elements=o.elements(h)}var p=m.float32(t);return i({data:p,usage:"dynamic"}),a({data:m.fract32(t,p),usage:"dynamic"}),s({data:new Uint8Array(c),type:"uint8",usage:"stream"}),t}},{marker:function(e,r,n){var i=r.activation;if(i.forEach((function(t){return t&&t.destroy&&t.destroy()})),i.length=0,e&&"number"!=typeof e[0]){for(var a=[],s=0,l=Math.min(e.length,r.count);s<l;s++){var c=t.addMarker(e[s]);a[c]||(a[c]=new Uint8Array(r.count)),a[c][s]=1}for(var u=0;u<a.length;u++)if(a[u]){var f={data:a[u],type:"uint8",usage:"static"};i[u]?i[u](f):i[u]=o.buffer(f),i[u].data=a[u]}}else i[t.addMarker(e)]=!0;return e},range:function(t,e,r){var n=e.bounds;if(n)return t||(t=n),e.scale=[1/(t[2]-t[0]),1/(t[3]-t[1])],e.translate=[-t[0],-t[1]],e.scaleFract=m.fract(e.scale),e.translateFract=m.fract(e.translate),t},viewport:function(t){return y(t||[a.drawingBufferWidth,a.drawingBufferHeight])}}]),v){var _=n,w=_.count,T=_.size,k=_.borderSize,A=_.sizeBuffer,M=new Uint8Array(2*w);if(T.length||k.length)for(var S=0;S<w;S++)M[2*S]=Math.round(255*(null==T[S]?T:T[S])/s),M[2*S+1]=Math.round(255*(null==k[S]?k:k[S])/s);A({data:M,usage:"dynamic"})}if(x){var E,L=n,C=L.count,P=L.color,I=L.borderColor,O=L.colorBuffer;if(t.tooManyColors){if(P.length||I.length){E=new Uint8Array(8*C);for(var z=0;z<C;z++){var D=P[z];E[8*z]=h[4*D],E[8*z+1]=h[4*D+1],E[8*z+2]=h[4*D+2],E[8*z+3]=h[4*D+3];var R=I[z];E[8*z+4]=h[4*R],E[8*z+5]=h[4*R+1],E[8*z+6]=h[4*R+2],E[8*z+7]=h[4*R+3]}}}else if(P.length||I.length){E=new Uint8Array(4*C+2);for(var F=0;F<C;F++)null!=P[F]&&(E[4*F]=P[F]%c,E[4*F+1]=Math.floor(P[F]/c)),null!=I[F]&&(E[4*F+2]=I[F]%c,E[4*F+3]=Math.floor(I[F]/c))}O({data:E||new Uint8Array(0),type:"uint8",usage:"dynamic"})}return n}))}},b.prototype.addMarker=function(t){var e,r=this.markerTextures,n=this.regl,i=this.markerCache,a=null==t?0:i.indexOf(t);if(a>=0)return a;if(t instanceof Uint8Array||t instanceof Uint8ClampedArray)e=t;else{e=new Uint8Array(t.length);for(var o=0,s=t.length;o<s;o++)e[o]=255*t[o]}var l=Math.floor(Math.sqrt(e.length));return a=r.length,i.push(t),r.push(n.texture({channels:1,data:e,radius:l,mag:"linear",min:"linear"})),a},b.prototype.updateColor=function(t){var e=this.paletteIds,r=this.palette,n=this.maxColors;Array.isArray(t)||(t=[t]);var i=[];if("number"==typeof t[0]){var a=[];if(Array.isArray(t))for(var o=0;o<t.length;o+=4)a.push(t.slice(o,o+4));else for(var l=0;l<t.length;l+=4)a.push(t.subarray(l,l+4));t=a}for(var u=0;u<t.length;u++){var f=t[u];f=s(f,"uint8");var h=c(f,!1);if(null==e[h]){var p=r.length;e[h]=Math.floor(p/4),r[p]=f[0],r[p+1]=f[1],r[p+2]=f[2],r[p+3]=f[3]}i[u]=e[h]}return!this.tooManyColors&&r.length>4*n&&(this.tooManyColors=!0),this.updatePalette(r),1===i.length?i[0]:i},b.prototype.updatePalette=function(t){if(!this.tooManyColors){var e=this.maxColors,r=this.paletteTexture,n=Math.ceil(.25*t.length/e);if(n>1)for(var i=.25*(t=t.slice()).length%e;i<n*e;i++)t.push(0,0,0,0);r.height<n&&r.resize(e,n),r.subimage({width:Math.min(.25*t.length,e),height:n,data:t},0,0)}},b.prototype.destroy=function(){return this.groups.forEach((function(t){t.sizeBuffer.destroy(),t.positionBuffer.destroy(),t.positionFractBuffer.destroy(),t.colorBuffer.destroy(),t.activation.forEach((function(t){return t&&t.destroy&&t.destroy()})),t.selectionBuffer.destroy(),t.elements&&t.elements.destroy()})),this.groups.length=0,this.paletteTexture.destroy(),this.markerTextures.forEach((function(t){return t&&t.destroy&&t.destroy()})),this};var _=t("object-assign");e.exports=function(t,e){var r=new

x(t,e),n=r.render.bind(r);return
_(n,{render:n,update:r.update.bind(r),draw:r.draw.bind(r),destroy:r.destroy.bind(r),regl:r.regl,gl:r.gl,canvas:r.gl.canvas,groups:r.groups,markers:r.markerCache,palette:r.palette}),n}},{"@plotly/point-cluster":59,"array-bounds":71,"color-id":87,"color-normalize":89,"flatten-vertex-data":191,glslify:227,"is-iexplorer":233,"object-assign":247,"parse-rect":249,"pick-by-alias":253,"to-float32":313,"update-diff":329}],282:[function(t,e,r){"use strict";var n=t("regl-scatter2d"),i=t("pick-by-alias"),a=t("array-bounds"),o=t("raf"),s=t("array-range"),l=t("parse-rect"),c=t("flatten-vertex-data");function u(t,e){if(!(this instanceof u))return new u(t,e);this.traces=[],this.passes={},this.regl=t,this.scatter=n(t),this.canvas=this.scatter.canvas}function f(t,e,r){return(null!=t.id?t.id:t)<<16|(255&e)<<8|255&r}function h(t,e,r){var n,i,a,o,s=t[e],l=t[r];return s.length>2?(s[0],s[2],n=s[1],i=s[3]):s.length?(n=s[0],i=s[1]):(s.x,n=s.y,s.x,s.width,i=s.y+s.height),l.length>2?(a=l[0],o=l[2],l[1],l[3]):l.length?(a=l[0],o=l[1]):(a=l.x,l.y,o=l.x+l.width,l.y,l.height),[a,n,o,i]}function p(t){if("number"==typeof t)return[t,t,t,t];if(2===t.length)return[t[0],t[1],t[0],t[1]];var e=l(t);return[e.x,e.y,e.x+e.width,e.y+e.height]}e.exports=u,u.prototype.render=function(){for(var t,e=this,r=[],n=arguments.length;n--;)r[n]=arguments[n];return r.length&&(t=this).update.apply(t,r),this.regl.attributes.preserveDrawingBuffer?this.draw():(this.dirty?null==this.planned&&(this.planned=o((function(){e.draw(),e.dirty=!0,e.planned=null}))):(this.draw(),this.dirty=!0,o((function(){e.dirty=!1}))),this)},u.prototype.update=function(){for(var t,e=[],r=arguments.length;r--;)e[r]=arguments[r];if(e.length){for(var n=0;n<e.length;n++)this.updateItem(n,e[n]);this.traces=this.traces.filter(Boolean);for(var i=[],a=0,o=0;o<this.traces.length;o++){for(var s=this.traces[o],l=this.traces[o].passes,c=0;c<l.length;c++)i.push(this.passes[l[c]]);s.passOffset=a,a+=s.passes.length}return(t=this.scatter).update.apply(t,i),this}},u.prototype.updateItem=function(t,e){var r=this.regl;if(null===e)return this.traces[t]=null,this;if(!e)return this;var n,o=i(e,{data:"data items columns rows values dimensions samples x",snap:"snap cluster",size:"sizes size radius",color:"colors color fill fill-color fillColor",opacity:"opacity alpha transparency opaque",borderSize:"borderSizes borderSize border-size bordersize borderWidth borderWidths border-width borderwidth stroke-width strokeWidth strokewidth outline",borderColor:"borderColors borderColor bordercolor stroke stroke-color strokeColor",marker:"markers marker shape",range:"range ranges databox dataBox",viewport:"viewport viewBox viewbox",domain:"domain domains area areas",padding:"pad padding paddings pads margin margins",transpose:"transpose transposed",diagonal:"diagonal diag showDiagonal",upper:"upper up top upperhalf upperHalf showupperhalf showUpper showUpperHalf",lower:"lower low bottom lowerhalf lowerHalf showlowerhalf showLowerHalf showLower"}),s=this.traces[t]||(this.traces[t]={id:t,buffer:r.buffer({usage:"dynamic",type:"float",data:new Uint8Array}),color:"black",marker:null,size:12,borderColor:"transparent",borderSize:1,viewport:l([r._gl.drawingBufferWidth,r._gl.drawingBufferHeight]),padding:[0,0,0,0],opacity:1,diagonal:!0,upper:!0,lower:!0});if(null!=o.color&&(s.color=o.color),null!=o.size&&(s.size=o.size),null!=o.marker&&(s.marker=o.marker),null!=o.borderColor&&(s.borderColor=o.borderColor),null!=o.borderSize&&(s.borderSize=o.borderSize),null!=o.opacity&&(s.opacity=o.opacity),o.viewport&&(s.viewport=l(o.viewport)),null!=o.diagonal&&(s.diagonal=o.diagonal),null!=o.upper&&(s.upper=o.upper),null!=o.lower&&(s.lower=o.lower),o.data){s.buffer(c(o.data)),s.columns=o.data.length,s.count=o.data[0].length,s.bounds=[];for(var u=0;u<s.columns;u++)s.bounds[u]=a(o.data[u],1)}o.range&&(s.range=o.range,n=s.range&&"number"!=typeof s.range[0]),o.domain&&(s.domain=o.domain);var d=!1;null!=o.padding&&(Array.isArray(o.padding)&&o.padding.length===s.columns&&"number"==typeof o.padding[o.padding.length-1]?(s.padding=o.padding.map(p),d=!0):s.padding=p(o.padding));var g=s.columns,v=s.count,m=s.viewport.width,y=s.viewport.height,x=s.viewport.x,b=s.viewport.y,_=m/g,w=y/g;s.passes=[];for(var T=0;T<g;T++)for(var k=0;k<g;k++)if((s.diagonal||k!==T)&&(s.upper||!(T>k))&&(s.lower||!(T<k))){var A=f(s.id,T,k),M=this.passes[A]||(this.passes[A]={});if(o.data&&(o.transpose?M.positions={x:{buffer:s.buffer,offset:k,count:v,stride:g},y:{buffer:s.buffer,offset:T,count:v,stride:g}}:M.positions={x:{buffer:s.buffer,offset:k*v,count:v

},y:{buffer:s.buffer,offset:T*v,count:v}},M.bounds=h(s.bounds,T,k)),o.domain||o.viewport||o.data){var S=d?h(s.padding,T,k):s.padding;if(s.domain){var E=h(s.domain,T,k),L=E[0],C=E[1],P=E[2],I=E[3];M.viewport=[x+L*m+S[0],b+C*y+S[1],x+P*m-S[2],b+I*y-S[3]]}else M.viewport=[x+k*_+_*S[0],b+T*w+w*S[1],x+(k+1)*_-_*S[2],b+(T+1)*w-w*S[3]]}o.color&&(M.color=s.color),o.size&&(M.size=s.size),o.marker&&(M.marker=s.marker),o.borderSize&&(M.borderSize=s.borderSize),o.borderColor&&(M.borderColor=s.borderColor),o.opacity&&(M.opacity=s.opacity),o.range&&(M.range=n?h(s.range,T,k):s.range||M.bounds),s.passes.push(A)}return this},u.prototype.draw=function(){for(var t,e=[],r=arguments.length;r--;)e[r]=arguments[r];if(e.length){for(var n=[],i=0;i<e.length;i++)if("number"==typeof e[i]){var a=this.traces[e[i]],o=a.passes,l=a.passOffset;n.push.apply(n,s(l,l+o.length))}else if(e[i].length){var c=e[i],u=this.traces[i],f=u.passes,h=u.passOffset;f=f.map((function(t,e){n[h+e]=c}))}(t=this.scatter).draw.apply(t,n)}else this.scatter.draw();return this},u.prototype.destroy=function(){return this.traces.forEach((function(t){t.buffer&&t.buffer.destroy&&t.buffer.destroy()})),this.traces=null,this.passes=null,this.scatter.destroy(),this}},{"array-bounds":71,"array-range":74,"flatten-vertex-data":191,"parse-rect":249,"pick-by-alias":253,raf:278,"regl-scatter2d":281}],283:[function(t,e,r){var n;n=function(){function t(t,e){this.id=Y++,this.type=t,this.data=e}function e(t){if(0===t.length)return[];var r=t.charAt(0),n=t.charAt(t.length-1);if(1<t.length&&r===n&&(""===r||"'"===r))return['"'+t.substr(1,t.length-2).replace(/\\/g,"\\\\").replace(/"/g,'\\"')+'"'];if(r=/\[(false|true|null|\d+|'[^']*'|"[^"]*")\]/.exec(t))return e(t.substr(0,r.index)).concat(e(r[1])).concat(e(t.substr(r.index+r[0].length)));if(1===(r=t.split(".")).length)return['"'+t.replace(/\\/g,"\\\\").replace(/"/g,'\\"')+'"'];for(t=[],n=0;n<r.length;++n)t=t.concat(e(r[n]));return t}function r(t){return"["+e(t).join("][")+"]"}function n(t){return"string"==typeof t?t.split():t}function i(t){return"string"==typeof t?document.querySelector(t):t}function a(t){var e,r,a,o,s=t||{};t={};var l=[],c=[],u="undefined"==typeof window?1:window.devicePixelRatio,f=!1,h={},p=function(t){},d=function(){};if("string"==typeof s?e=document.querySelector(s):"object"==typeof s&&("string"==typeof s.nodeName&&"function"==typeof s.appendChild&&"function"==typeof s.getBoundingClientRect?e=s:"function"==typeof s.drawArrays||"function"==typeof s.drawElements?a=(o=s).canvas:("gl"in s?o=s.gl:"canvas"in s?a=i(s.canvas):"container"in s&&(r=i(s.container)),"attributes"in s&&(t=s.attributes),"extensions"in s&&(l=n(s.extensions)),"optionalExtensions"in s&&(c=n(s.optionalExtensions)),"onDone"in s&&(p=s.onDone),"profile"in s&&(f=!!s.profile),"pixelRatio"in s&&(u=+s.pixelRatio),"cachedCode"in s&&(h=s.cachedCode))),e&&("canvas"===e.nodeName.toLowerCase()?a=e:r=e),!o){if(!a){if(!(e=function(t,e,r){function n(){var e=window.innerWidth,n=window.innerHeight;t!==document.body&&(e=(n=a.getBoundingClientRect()).right-n.left,n=n.bottom-n.top),a.width=r*e,a.height=r*n}var i,a=document.createElement("canvas");return G(a.style,{border:0,margin:0,padding:0,top:0,left:0,width:"100%",height:"100%"}),t.appendChild(a),t===document.body&&(a.style.position="absolute",G(t.style,{margin:0,padding:0})),t!==document.body&&"function"==typeof ResizeObserver?(i=new ResizeObserver((function(){setTimeout(n)}))).observe(t):window.addEventListener("resize",n,!1),n(),{canvas:a,onDestroy:function(){i?i.disconnect():window.removeEventListener("resize",n),t.removeChild(a)}}}(r||document.body,0,u)))return null;a=e.canvas,d=e.onDestroy}void 0===t.premultipliedAlpha&&(t.premultipliedAlpha=!0),o=function(t,e){function r(r){try{return t.getContext(r,e)}catch(t){return null}}return r("webgl")||r("experimental-webgl")||r("webgl-experimental")}(a,t)}return o?{gl:o,canvas:a,container:r,extensions:l,optionalExtensions:c,pixelRatio:u,profile:f,cachedCode:h,onDone:p,onDestroy:d}:(d(),p("webgl not supported, try upgrading your browser or graphics drivers http://get.webgl.org"),null)}function o(t,e){for(var r=Array(t),n=0;n<t;++n)r[n]=e(n);return r}function s(t){var e,r;return e=(65535<t)<<4,e|=r=(255<(t>>>=e))<<3,(e|=r=(15<(t>>>=r))<<2)|(r=(3<(t>>>=r))<<1)|t>>>r>>1}function

l(){function t(t){t:{for(var e=16;268435456>=e;e*=16)if(t<=e){t=e;break t}t=0}return 0<(e=r[s(t)>>2]).length?e.pop():new ArrayBuffer(t)}function e(t){r[s(t.byteLength)>>2].push(t)}var r=o(8,(function(){return[]}));return{alloc:t,free:e,allocType:function(e,r){var n=null;switch(e){case 5120:n=new Int8Array(t(r),0,r);break;case 5121:n=new Uint8Array(t(r),0,r);break;case 5122:n=new Int16Array(t(2*r),0,r);break;case 5123:n=new Uint16Array(t(2*r),0,r);break;case 5124:n=new Int32Array(t(4*r),0,r);break;case 5125:n=new Uint32Array(t(4*r),0,r);break;case 5126:n=new Float32Array(t(4*r),0,r);break;default:return null}return n.length!==r?n.subarray(0,r):n},freeType:function(t){e(t.buffer)}}}function c(t){return!!t&&"object"==typeof t&&Array.isArray(t.shape)&&Array.isArray(t.stride)&&"number"==typeof t.offset&&t.shape.length===t.stride.length&&(Array.isArray(t.data)||Q(t.data))}function u(t,e,r,n,i,a){for(var o=0;o<e;++o)for(var s=t[o],l=0;l<r;++l)for(var c=s[l],u=0;u<n;++u)i[a++]=c[u]}function f(t,e,r,n,i){for(var a=1,o=r+1;o<e.length;++o)a*=e[o];var s=e[r];if(4==e.length-r){var l=e[r+1],c=e[r+2];for(e=e[r+3],o=0;o<s;++o)u(t[o],l,c,e,n,i),i+=a}else for(o=0;o<s;++o)f(t[o],e,r+1,n,i),i+=a}function h(t){return 0|et[Object.prototype.toString.call(t)]}function p(t,e){for(var r=0;r<e.length;++r)t[r]=e[r]}function d(t,e,r,n,i,a,o){for(var s=0,l=0;l<r;++l)for(var c=0;c<n;++c)t[s++]=e[i*l+a*c+o]}function g(t,e,r,n){function i(e){this.id=l++,this.buffer=t.createBuffer(),this.type=e,this.usage=35044,this.byteLength=0,this.dimension=1,this.dtype=5121,this.persistentData=null,r.profile&&(this.stats={size:0})}function a(e,r,n){e.byteLength=r.byteLength,t.bufferData(e.type,r,n)}function o(t,e,r,n,i,o){if(t.usage=r,Array.isArray(e)){if(t.dtype=n||5126,0<e.length)if(Array.isArray(e[0])){i=at(e);for(var s=n=1;s<i.length;++s)n*=i[s];t.dimension=n,a(t,e=it(e,i,t.dtype),r),o?t.persistentData=e:J.freeType(e)}else"number"==typeof e[0]?(t.dimension=i,p(i=J.allocType(t.dtype,e.length),e),a(t,i,r),o?t.persistentData=i:J.freeType(i)):Q(e[0])&&(t.dimension=e[0].length,t.dtype=n||h(e[0])||5126,a(t,e=it(e,[e.length,e[0].length],t.dtype),r),o?t.persistentData=e:J.freeType(e))}else if(Q(e))t.dtype=n||h(e),t.dimension=i,a(t,e,r),o&&(t.persistentData=new Uint8Array(new Uint8Array(e.buffer)));else if(c(e)){i=e.shape;var l=e.stride,u=(s=e.offset,0),f=0,g=0,v=0;1===i.length?(u=i[0],f=1,g=l[0],v=0):2===i.length&&(u=i[0],f=i[1],g=l[0],v=l[1]),t.dtype=n||h(e.data)||5126,t.dimension=f,d(i=J.allocType(t.dtype,u*f),e.data,u,f,g,v,s),a(t,i,r),o?t.persistentData=i:J.freeType(i)}else e instanceof ArrayBuffer&&(t.dtype=5121,t.dimension=i,a(t,e,r),o&&(t.persistentData=new Uint8Array(new Uint8Array(e))))}function s(r){e.bufferCount--,n(r),t.deleteBuffer(r.buffer),r.buffer=null,delete u[r.id]}var l=0,u={};i.prototype.bind=function(){t.bindBuffer(this.type,this.buffer)},i.prototype.destroy=function(){s(this)};var f=[];return r.profile&&(e.getTotalBufferSize=function(){var t=0;return Object.keys(u).forEach((function(e){t+=u[e].stats.size})),t}),{create:function(n,a,l,f){function g(e){var n=35044,i=null,a=0,s=0,l=1;return Array.isArray(e)||Q(e)||c(e)||e instanceof ArrayBuffer?i=e:"number"==typeof e?a=0|e:e&&("data"in e&&(i=e.data),"usage"in e&&(n=nt[e.usage]),"type"in e&&(s=rt[e.type]),"dimension"in e&&(l=0|e.dimension),"length"in e&&(a=0|e.length)),v.bind(),i?o(v,i,n,s,l,f):(a&&t.bufferData(v.type,a,n),v.dtype=s||5121,v.usage=n,v.dimension=l,v.byteLength=a),r.profile&&(v.stats.size=v.byteLength*ot[v.dtype]),g}e.bufferCount++;var v=new i(a);return u[v.id]=v,l||g(n),g._reglType="buffer",g._buffer=v,g.subdata=function(e,r){var n,i=0|(r||0);if(v.bind(),Q(e)||e instanceof ArrayBuffer)t.bufferSubData(v.type,i,e);else if(Array.isArray(e)){if(0<e.length)if("number"==typeof e[0]){var a=J.allocType(v.dtype,e.length);p(a,e),t.bufferSubData(v.type,i,a),J.freeType(a)}else(Array.isArray(e[0])||Q(e[0]))&&(n=at(e),a=it(e,n,v.dtype),t.bufferSubData(v.type,i,a),J.freeType(a))}else if(c(e)){n=e.shape;var o=e.stride,s=a=0,l=0,u=0;1===n.length?(a=n[0],s=1,l=o[0],u=0):2===n.length&&(a=n[0],s=n[1],l=o[0],u=o[1]),n=Array.isArray(e.data)?v.dtype:h(e.data),d(n=J.allocType(n,a*s),e.data,a,s,l,u,e.offset),t.bufferSubData(v.type,i,n),J.freeType(n)}return g},r.profile&&(g.stats=v.stats),g.destroy=function(){s(v)},g},createStream:function(t,e){var r=f.pop();return r||(r=new

i(t)),r.bind(),o(r,e,35040,0,1,!1),r},destroyStream:function(t){f.push(t)},clear:function(){$(u).forEach(s),f.forEach(s)},getBuffer:function(t){return t&&t._buffer instanceof i?t._buffer:null},restore:function(){$(u).forEach((function(e){e.buffer=t.createBuffer(),t.bindBuffer(e.type,e.buffer),t.bufferData(e.type,e.persistentData||e.byteLength,e.usage)}))},_initBuffer:o}}function v(t,e,r,n){function i(t){this.id=l++,s[this.id]=this,this.buffer=t,this.primType=4,this.type=this.vertCount=0}function a(n,i,a,o,s,l,u){var f;if(n.buffer.bind(),i?((f=u)||Q(i)&&(!c(i)||Q(i.data))||(f=e.oes_element_index_uint?5125:5123),r._initBuffer(n.buffer,i,a,f,3)):(t.bufferData(34963,l,a),n.buffer.dtype=f||5121,n.buffer.usage=a,n.buffer.dimension=3,n.buffer.byteLength=l),f=u,!u){switch(n.buffer.dtype){case 5121:case 5120:f=5121;break;case 5123:case 5122:f=5123;break;case 5125:case 5124:f=5125}n.buffer.dtype=f}n.type=f,0>(i=s)&&(i=n.buffer.byteLength,5123===f?i>>=1:5125===f&&(i>>=2)),n.vertCount=i,i=o,0>o&&(i=4,1===(o=n.buffer.dimension)&&(i=0),2===o&&(i=1),3===o&&(i=4)),n.primType=i}function o(t){n.elementsCount--,delete s[t.id],t.buffer.destroy(),t.buffer=null}var s={},l=0,u={uint8:5121,uint16:5123};e.oes_element_index_uint&&(u.uint32=5125),i.prototype.bind=function(){this.buffer.bind()};var f=[];return{create:function(t,e){function s(t){if(t)if("number"==typeof t)l(t),f.primType=4,f.vertCount=0|t,f.type=5121;else{var e=null,r=35044,n=-1,i=-1,o=0,h=0;Array.isArray(t)||Q(t)||c(t)?e=t:("data"in t&&(e=t.data),"usage"in t&&(r=nt[t.usage]),"primitive"in t&&(n=st[t.primitive]),"count"in t&&(i=0|t.count),"type"in t&&(h=u[t.type]),"length"in t?o=0|t.length:(o=i,5123===h||5122===h?o*=2:5125!==h&&5124!==h||(o*=4))),a(f,e,r,n,i,o,h)}else l(),f.primType=4,f.vertCount=0,f.type=5121;return s}var l=r.create(null,34963,!0),f=new i(l._buffer);return n.elementsCount++,s(t),s._reglType="elements",s._elements=f,s.subdata=function(t,e){return l.subdata(t,e),s},s.destroy=function(){o(f)},s},createStream:function(t){var e=f.pop();return e||(e=new i(r.create(null,34963,!0,!1)._buffer)),a(e,t,35040,-1,-1,0,0),e},destroyStream:function(t){f.push(t)},getElements:function(t){return"function"==typeof t&&t._elements instanceof i?t._elements:null},clear:function(){$(s).forEach(o)}}}function m(t){for(var e=J.allocType(5123,t.length),r=0;r<t.length;++r)if(isNaN(t[r]))e[r]=65535;else if(1/0===t[r])e[r]=31744;else if(-1/0===t[r])e[r]=64512;else{lt[0]=t[r];var n=(a=ct[0])>>>31<<15,i=(a<<1>>>24)-127,a=a>>13&1023;e[r]=-24>i?n:-14>i?n+(a+1024>>-14-i):15<i?n+31744:n+(i+15<<10)+a}return e}function y(t){return Array.isArray(t)||Q(t)}function x(t){return"[object "+t+"]"}function b(t){return Array.isArray(t)&&(0===t.length||"number"==typeof t[0])}function _(t){return!(!Array.isArray(t)||0===t.length||!y(t[0]))}function w(t){return Object.prototype.toString.call(t)}function T(t){if(!t)return!1;var e=w(t);return 0<=xt.indexOf(e)||b(t)||_(t)||c(t)}function k(t,e){36193===t.type?(t.data=m(e),J.freeType(e)):t.data=e}function A(t,e,r,n,i,a){if(t=void 0!==_t[t]?_t[t]:ht[t]*bt[e],a&&(t*=6),i){for(n=0;1<=r;)n+=t*r*r,r/=2;return n}return t*r*n}function M(t,e,r,n,i,a,o){function s(){this.format=this.internalformat=6408,this.type=5121,this.flipY=this.premultiplyAlpha=this.compressed=!1,this.unpackAlignment=1,this.colorSpace=37444,this.channels=this.height=this.width=0}function l(t,e){t.internalformat=e.internalformat,t.format=e.format,t.type=e.type,t.compressed=e.compressed,t.premultiplyAlpha=e.premultiplyAlpha,t.flipY=e.flipY,t.unpackAlignment=e.unpackAlignment,t.colorSpace=e.colorSpace,t.width=e.width,t.height=e.height,t.channels=e.channels}function u(t,e){if("object"==typeof e&&e){"premultiplyAlpha"in e&&(t.premultiplyAlpha=e.premultiplyAlpha),"flipY"in e&&(t.flipY=e.flipY),"alignment"in e&&(t.unpackAlignment=e.alignment),"colorSpace"in e&&(t.colorSpace=V[e.colorSpace]),"type"in e&&(t.type=q[e.type]);var r=t.width,n=t.height,i=t.channels,a=!1;"shape"in e?(r=e.shape[0],n=e.shape[1],3===e.shape.length&&(i=e.shape[2],a=!0)):("radius"in e&&(r=n=e.radius),"width"in e&&(r=e.width),"height"in e&&(n=e.height),"channels"in e&&(i=e.channels,a=!0)),t.width=0|r,t.height=0|n,t.channels=0|i,r=!1,"format"in e&&(r=e.format,n=t.internalformat=H[r],t.format=at[n],r in q&&!("type"in e)&&(t.type=q[r]),r in Y&&(t.compressed=!0),r=!0),!a&&r?t.channels=ht[t.format]:a&&!r&&t.channels!==ft[t.format]&&(t.format=t.internalformat=ft[t.channels])}}function

f(e){t.pixelStorei(37440,e.flipY),t.pixelStorei(37441,e.premultiplyAlpha),t.pixelStorei(37443,e.colorSpace),t.pixelStorei(3317,e.unpackAlignment)}function h(){s.call(this),this.yOffset=this.xOffset=0,this.data=null,this.needsFree=!1,this.element=null,this.needsCopy=!1}function p(t,e){var r=null;if(T(e)?r=e:e&&(u(t,e),"x"in e&&(t.xOffset=0|e.x),"y"in e&&(t.yOffset=0|e.y),T(e.data)&&(r=e.data)),e.copy){var n=i.viewportWidth,a=i.viewportHeight;t.width=t.width||n-t.xOffset,t.height=t.height||a-t.yOffset,t.needsCopy=!0}else if(r){if(Q(r))t.channels=t.channels||4,t.data=r,"type"in e||5121!==t.type||(t.type=0|et[Object.prototype.toString.call(r)]);else if(b(r)){switch(t.channels=t.channels||4,a=(n=r).length,t.type){case 5121:case 5123:case 5125:case 5126:(a=J.allocType(t.type,a)).set(n),t.data=a;break;case 36193:t.data=m(n)}t.alignment=1,t.needsFree=!0}else if(c(r)){n=r.data,Array.isArray(n)||5121!==t.type||(t.type=0|et[Object.prototype.toString.call(n)]),a=r.shape;var o,s,l,f,h=r.stride;3===a.length?(l=a[2],f=h[2]):f=l=1,o=a[0],s=a[1],a=h[0],h=h[1],t.alignment=1,t.width=o,t.height=s,t.channels=l,t.format=t.internalformat=ft[l],t.needsFree=!0,o=f,r=r.offset,l=t.width,f=t.height,s=t.channels;for(var p=J.allocType(36193===t.type?5126:t.type,l*f*s),d=0,g=0;g<f;++g)for(var v=0;v<l;++v)for(var x=0;x<s;++x)p[d++]=n[a*v+h*g+o*x+r];k(t,p)}else if(w(r)===pt||w(r)===dt||w(r)===gt)w(r)===pt||w(r)===dt?t.element=r:t.element=r.canvas,t.width=t.element.width,t.height=t.element.height,t.channels=4;else if(w(r)===vt)t.element=r,t.width=r.width,t.height=r.height,t.channels=4;else if(w(r)===mt)t.element=r,t.width=r.naturalWidth,t.height=r.naturalHeight,t.channels=4;else if(w(r)===yt)t.element=r,t.width=r.videoWidth,t.height=r.videoHeight,t.channels=4;else if(_(r)){for(n=t.width||r[0].length,a=t.height||r.length,h=t.channels,h=y(r[0][0])?h||r[0][0].length:h||1,o=tt.shape(r),l=1,f=0;f<o.length;++f)l*=o[f];l=J.allocType(36193===t.type?5126:t.type,l),tt.flatten(r,o,"",l),k(t,l),t.alignment=1,t.width=n,t.height=a,t.channels=h,t.format=t.internalformat=ft[h],t.needsFree=!0}}else t.width=t.width||1,t.height=t.height||1,t.channels=t.channels||4}function d(e,r,i,a,o){var s=e.element,l=e.data,c=e.internalformat,u=e.format,h=e.type,p=e.width,d=e.height;f(e),s?t.texSubImage2D(r,o,i,a,u,h,s):e.compressed?t.compressedTexSubImage2D(r,o,i,a,c,p,d,l):e.needsCopy?(n(),t.copyTexSubImage2D(r,o,i,a,e.xOffset,e.yOffset,p,d)):t.texSubImage2D(r,o,i,a,p,d,u,h,l)}function g(){return ot.pop()||new h}function v(t){t.needsFree&&J.freeType(t.data),h.call(t),ot.push(t)}function x(){s.call(this),this.genMipmaps=!1,this.mipmapHint=4352,this.mipmask=0,this.images=Array(16)}function M(t,e,r){var n=t.images[0]=g();t.mipmask=1,n.width=t.width=e,n.height=t.height=r,n.channels=t.channels=4}function S(t,e){var r=null;if(T(e))l(r=t.images[0]=g(),t),p(r,e),t.mipmask=1;else if(u(t,e),Array.isArray(e.mipmap))for(var n=e.mipmap,i=0;i<n.length;++i)l(r=t.images[i]=g(),t),r.width>>=i,r.height>>=i,p(r,n[i]),t.mipmask|=1<<i;else l(r=t.images[0]=g(),t),p(r,e),t.mipmask=1;l(t,t.images[0])}function E(e,r){for(var i=e.images,a=0;a<i.length&&i[a];++a){var o=i[a],s=r,l=a,c=o.element,u=o.data,h=o.internalformat,p=o.format,d=o.type,g=o.width,v=o.height;f(o),c?t.texImage2D(s,l,p,p,d,c):o.compressed?t.compressedTexImage2D(s,l,h,g,v,0,u):o.needsCopy?(n(),t.copyTexImage2D(s,l,p,o.xOffset,o.yOffset,g,v,0)):t.texImage2D(s,l,p,g,v,0,p,d,u||null)}}function L(){var t=st.pop()||new x;s.call(t);for(var e=t.mipmask=0;16>e;++e)t.images[e]=null;return t}function C(t){for(var e=t.images,r=0;r<e.length;++r)e[r]&&v(e[r]),e[r]=null;st.push(t)}function P(){this.magFilter=this.minFilter=9728,this.wrapT=this.wrapS=33071,this.anisotropic=1,this.genMipmaps=!1,this.mipmapHint=4352}function I(t,e){"min"in e&&(t.minFilter=U[e.min],0<=ut.indexOf(t.minFilter)&&!("faces"in e)&&(t.genMipmaps=!0)),"mag"in e&&(t.magFilter=j[e.mag]);var r=t.wrapS,n=t.wrapT;if("wrap"in e){var i=e.wrap;"string"==typeof i?r=n=N[i]:Array.isArray(i)&&(r=N[i[0]],n=N[i[1]])}else"wrapS"in e&&(r=N[e.wrapS]),"wrapT"in e&&(n=N[e.wrapT]);if(t.wrapS=r,t.wrapT=n,"anisotropic"in e&&(t.anisotropic=e.anisotropic),"mipmap"in e){switch(r=!1,typeof e.mipmap){case"string":t.mipmapHint=B[e.mipmap],r=t.genMipmaps=!0;break;case"boolean":r=t.genMipmaps=e.mipmap;break;case"object":t.genMipmaps=!1,r=!0}!r||"min"in e||(t.minFilter=9984)}}function

O(r,n){t.texParameteri(n,10241,r.minFilter),t.texParameteri(n,10240,r.magFilter),t.texParameteri(n,10242,r.wrapS),t.texParameteri(n,10243,r.wrapT),e.ext_texture_filter_anisotropic&&t.texParameteri(n,34046,r.anisotropic),r.genMipmaps&&(t.hint(33170,r.mipmapHint),t.generateMipmap(n))}function z(e){s.call(this),this.mipmask=0,this.internalformat=6408,this.id=lt++,this.refCount=1,this.target=e,this.texture=t.createTexture(),this.unit=-1,this.bindCount=0,this.texInfo=new P,o.profile&&(this.stats={size:0})}function D(e){t.activeTexture(33984),t.bindTexture(e.target,e.texture)}function R(){var e=bt[0];e?t.bindTexture(e.target,e.texture):t.bindTexture(3553,null)}function F(e){var r=e.texture,n=e.unit,i=e.target;0<=n&&(t.activeTexture(33984+n),t.bindTexture(i,null),bt[n]=null),t.deleteTexture(r),e.texture=null,e.params=null,e.pixels=null,e.refCount=0,delete ct[e.id],a.textureCount--}var B={"don't care":4352,"dont care":4352,nice:4354,fast:4353},N={repeat:10497,clamp:33071,mirror:33648},j={nearest:9728,linear:9729},U=G({mipmap:9987,"nearest mipmap nearest":9984,"linear mipmap nearest":9985,"nearest mipmap linear":9986,"linear mipmap linear":9987},j),V={none:0,browser:37444},q={uint8:5121,rgba4:32819,rgb565:33635,"rgb5 a1":32820},H={alpha:6406,luminance:6409,"luminance alpha":6410,rgb:6407,rgba:6408,rgba4:32854,"rgb5 a1":32855,rgb565:36194},Y={};e.ext_srgb&&(H.srgb=35904,H.srgba=35906),e.oes_texture_float&&(q.float32=q.float=5126),e.oes_texture_half_float&&(q.float16=q["half float"]=36193),e.webgl_depth_texture&&(G(H,{depth:6402,"depth stencil":34041}),G(q,{uint16:5123,uint32:5125,"depth stencil":34042})),e.webgl_compressed_texture_s3tc&&G(Y,{"rgb s3tc dxt1":33776,"rgba s3tc dxt1":33777,"rgba s3tc dxt3":33778,"rgba s3tc dxt5":33779}),e.webgl_compressed_texture_atc&&G(Y,{"rgb atc":35986,"rgba atc explicit alpha":35987,"rgba atc interpolated alpha":34798}),e.webgl_compressed_texture_pvrtc&&G(Y,{"rgb pvrtc 4bppv1":35840,"rgb pvrtc 2bppv1":35841,"rgba pvrtc 4bppv1":35842,"rgba pvrtc 2bppv1":35843}),e.webgl_compressed_texture_etc1&&(Y["rgb etc1"]=36196);var W=Array.prototype.slice.call(t.getParameter(34467));Object.keys(Y).forEach((function(t){var e=Y[t];0<=W.indexOf(e)&&(H[t]=e)}));var X=Object.keys(H);r.textureFormats=X;var Z=[];Object.keys(H).forEach((function(t){Z[H[t]]=t}));var K=[];Object.keys(q).forEach((function(t){K[q[t]]=t}));var rt=[];Object.keys(j).forEach((function(t){rt[j[t]]=t}));var nt=[];Object.keys(U).forEach((function(t){nt[U[t]]=t}));var it=[];Object.keys(N).forEach((function(t){it[N[t]]=t}));var at=X.reduce((function(t,r){var n=H[r];return 6409===n||6406===n||6409===n||6410===n||6402===n||34041===n||e.ext_srgb&&(35904===n||35906===n)?t[n]=n:32855===n||0<=r.indexOf("rgba")?t[n]=6408:t[n]=6407,t}),{}),ot=[],st=[],lt=0,ct={},xt=r.maxTextureUnits,bt=Array(xt).map((function(){return null}));return G(z.prototype,{bind:function(){this.bindCount+=1;var e=this.unit;if(0>e){for(var r=0;r<xt;++r){var n=bt[r];if(n){if(0<n.bindCount)continue;n.unit=-1}bt[r]=this,e=r;break}o.profile&&a.maxTextureUnits<e+1&&(a.maxTextureUnits=e+1),this.unit=e,t.activeTexture(33984+e),t.bindTexture(this.target,this.texture)}return e},unbind:function(){--this.bindCount},decRef:function(){0>=--this.refCount&&F(this)}}),o.profile&&(a.getTotalTextureSize=function(){var t=0;return Object.keys(ct).forEach((function(e){t+=ct[e].stats.size})),t}),{create2D:function(e,r){function n(t,e){var r=i.texInfo;P.call(r);var a=L();return"number"==typeof t?M(a,0|t,"number"==typeof e?0|e:0|t):t?(I(r,t),S(a,t)):M(a,1,1),r.genMipmaps&&(a.mipmask=(a.width<<1)-1),i.mipmask=a.mipmask,l(i,a),i.internalformat=a.internalformat,n.width=a.width,n.height=a.height,D(i),E(a,3553),O(r,3553),R(),C(a),o.profile&&(i.stats.size=A(i.internalformat,i.type,a.width,a.height,r.genMipmaps,!1)),n.format=Z[i.internalformat],n.type=K[i.type],n.mag=rt[r.magFilter],n.min=nt[r.minFilter],n.wrapS=it[r.wrapS],n.wrapT=it[r.wrapT],n}var i=new z(3553);return ct[i.id]=i,a.textureCount++,n(e,r),n.subimage=function(t,e,r,a){e|=0,r|=0,a|=0;var o=g();return l(o,i),o.width=0,o.height=0,p(o,t),o.width=o.width||(i.width>>a)-e,o.height=o.height||(i.height>>a)-r,D(i),d(o,3553,e,r,a),R(),v(o),n},n.resize=function(e,r){var a=0|e,s=0|r||a;if(a===i.width&&s===i.height)return n;n.width=i.width=a,n.height=i.height=s,D(i);for(var l=0;i.mipmask>>l;++l){var

c=a>>l,u=s>>l;if(!c||!u)break;t.texImage2D(3553,l,i.format,c,u,0,i.format,i.type,null)}return R(),o.profile&&(i.stats.size=A(i.internalformat,i.type,a,s,!1,!1)),n},n._reglType="texture2d",n._texture=i,o.profile&&(n.stats=i.stats),n.destroy=function(){i.decRef()},n},createCube:function(e,r,n,i,s,c){function f(t,e,r,n,i,a){var s,c=h.texInfo;for(P.call(c),s=0;6>s;++s)m[s]=L();if("number"!=typeof t&&t){if("object"==typeof t)if(e)S(m[0],t),S(m[1],e),S(m[2],r),S(m[3],n),S(m[4],i),S(m[5],a);else if(I(c,t),u(h,t),"faces"in t)for(t=t.faces,s=0;6>s;++s)l(m[s],h),S(m[s],t[s]);else for(s=0;6>s;++s)S(m[s],t)}else for(t=0|t||1,s=0;6>s;++s)M(m[s],t,t);for(l(h,m[0]),h.mipmask=c.genMipmaps?(m[0].width<<1)-1:m[0].mipmask,h.internalformat=m[0].internalformat,f.width=m[0].width,f.height=m[0].height,D(h),s=0;6>s;++s)E(m[s],34069+s);for(O(c,34067),R(),o.profile&&(h.stats.size=A(h.internalformat,h.type,f.width,f.height,c.genMipmaps,!0)),f.format=Z[h.internalformat],f.type=K[h.type],f.mag=rt[c.magFilter],f.min=nt[c.minFilter],f.wrapS=it[c.wrapS],f.wrapT=it[c.wrapT],s=0;6>s;++s)C(m[s]);return f}var h=new z(34067);ct[h.id]=h,a.cubeCount++;var m=Array(6);return f(e,r,n,i,s,c),f.subimage=function(t,e,r,n,i){r|=0,n|=0,i|=0;var a=g();return l(a,h),a.width=0,a.height=0,p(a,e),a.width=a.width||(h.width>>i)-r,a.height=a.height||(h.height>>i)-n,D(h),d(a,34069+t,r,n,i),R(),v(a),f},f.resize=function(e){if((e|=0)!==h.width){f.width=h.width=e,f.height=h.height=e,D(h);for(var r=0;6>r;++r)for(var n=0;h.mipmask>>n;++n)t.texImage2D(34069+r,n,h.format,e>>n,e>>n,0,h.format,h.type,null);return R(),o.profile&&(h.stats.size=A(h.internalformat,h.type,f.width,f.height,!1,!0)),f}},f._reglType="textureCube",f._texture=h,o.profile&&(f.stats=h.stats),f.destroy=function(){h.decRef()},f},clear:function(){for(var e=0;e<xt;++e)t.activeTexture(33984+e),t.bindTexture(3553,null),bt[e]=null;$(ct).forEach(F),a.cubeCount=0,a.textureCount=0},getTexture:function(t){return null},restore:function(){for(var e=0;e<xt;++e){var r=bt[e];r&&(r.bindCount=0,r.unit=-1,bt[e]=null)}$(ct).forEach((function(e){e.texture=t.createTexture(),t.bindTexture(e.target,e.texture);for(var r=0;32>r;++r)if(0!=(e.mipmask&1<<r))if(3553===e.target)t.texImage2D(3553,r,e.internalformat,e.width>>r,e.height>>r,0,e.internalformat,e.type,null);else for(var n=0;6>n;++n)t.texImage2D(34069+n,r,e.internalformat,e.width>>r,e.height>>r,0,e.internalformat,e.type,null);O(e.texInfo,e.target)}))},refresh:function(){for(var e=0;e<xt;++e){var r=bt[e];r&&(r.bindCount=0,r.unit=-1,bt[e]=null),t.activeTexture(33984+e),t.bindTexture(3553,null),t.bindTexture(34067,null)}}}}function S(t,e,r,n,i,a){function o(t,e,r){this.target=t,this.texture=e,this.renderbuffer=r;var n=t=0;e?(t=e.width,n=e.height):r&&(t=r.width,n=r.height),this.width=t,this.height=n}function s(t){t&&(t.texture&&t.texture._texture.decRef(),t.renderbuffer&&t.renderbuffer._renderbuffer.decRef())}function l(t,e,r){t&&(t.texture?t.texture._texture.refCount+=1:t.renderbuffer._renderbuffer.refCount+=1)}function c(e,r){r&&(r.texture?t.framebufferTexture2D(36160,e,r.target,r.texture._texture.texture,0):t.framebufferRenderbuffer(36160,e,36161,r.renderbuffer._renderbuffer.renderbuffer))}function u(t){var e=3553,r=null,n=null,i=t;return"object"==typeof t&&(i=t.data,"target"in t&&(e=0|t.target)),"texture2d"===(t=i._reglType)||"textureCube"===t?r=i:"renderbuffer"===t&&(n=i,e=36161),new o(e,r,n)}function f(t,e,r,a,s){return r?((t=n.create2D({width:t,height:e,format:a,type:s}))._texture.refCount=0,new o(3553,t,null)):((t=i.create({width:t,height:e,format:a}))._renderbuffer.refCount=0,new o(36161,null,t))}function h(t){return t&&(t.texture||t.renderbuffer)}function p(t,e,r){t&&(t.texture?t.texture.resize(e,r):t.renderbuffer&&t.renderbuffer.resize(e,r),t.width=e,t.height=r)}function d(){this.id=T++,k[this.id]=this,this.framebuffer=t.createFramebuffer(),this.height=this.width=0,this.colorAttachments=[],this.depthStencilAttachment=this.stencilAttachment=this.depthAttachment=null}function g(t){t.colorAttachments.forEach(s),s(t.depthAttachment),s(t.stencilAttachment),s(t.depthStencilAttachment)}function v(e){t.deleteFramebuffer(e.framebuffer),e.framebuffer=null,a.framebufferCount--,delete k[e.id]}function m(e){var n;t.bindFramebuffer(36160,e.framebuffer);var i=e.colorAttachments;for(n=0;n<i.length;++n)c(36064+n,i[n]);for(n=i.length;n<r.maxColorAttachments;++n)t.framebufferTexture2D(36160,36064+n,3553,null,0);t.framebufferTexture2D(36160,33306,3553,null,0),t.framebufferTexture2D(36160,36096,3553,null,0),t.framebufferTexture2D(36160,36128,3553,null,0),c(36096,e.depthAttachment),c(36128,e.stencilAttachment),c(33306,e.depthStencilAttachment),t.checkFramebufferStatus(36160),t.isContextLost()

,t.bindFramebuffer(36160,x.next?x.next.framebuffer:null),x.cur=x.next,t.getError()}function y(t,e){function r(t,e){var i,a=0,o=0,s=!0,c=!0;i=null;var p=!0,d="rgba",v="uint8",y=1,x=null,w=null,T=null,k=!1;"number"==typeof t?(a=0|t,o=0|e||a):t?("shape"in t?(a=(o=t.shape)[0],o=o[1]):("radius"in t&&(a=o=t.radius),"width"in t&&(a=t.width),"height"in t&&(o=t.height)),("color"in t||"colors"in t)&&(i=t.color||t.colors,Array.isArray(i)),i||("colorCount"in t&&(y=0|t.colorCount),"colorTexture"in t&&(p=!!t.colorTexture,d="rgba4"),"colorType"in t&&(v=t.colorType,!p)&&("half float"===v||"float16"===v?d="rgba16f":"float"!==v&&"float32"!==v||(d="rgba32f")),"colorFormat"in t&&(d=t.colorFormat,0<=b.indexOf(d)?p=!0:0<=_.indexOf(d)&&(p=!1))),("depthTexture"in t||"depthStencilTexture"in t)&&(k=!(!t.depthTexture&&!t.depthStencilTexture)),"depth"in t&&("boolean"==typeof t.depth?s=t.depth:(x=t.depth,c=!1)),"stencil"in t&&("boolean"==typeof t.stencil?c=t.stencil:(w=t.stencil,s=!1)),"depthStencil"in t&&("boolean"==typeof t.depthStencil?s=c=t.depthStencil:(T=t.depthStencil,c=s=!1))):a=o=1;var A=null,M=null,S=null,E=null;if(Array.isArray(i))A=i.map(u);else if(i)A=[u(i)];else for(A=Array(y),i=0;i<y;++i)A[i]=f(a,o,p,d,v);for(a=a||A[0].width,o=o||A[0].height,x?M=u(x):s&&!c&&(M=f(a,o,k,"depth","uint32")),w?S=u(w):c&&!s&&(S=f(a,o,!1,"stencil","uint8")),T?E=u(T):!x&&!w&&c&&s&&(E=f(a,o,k,"depth stencil","depth stencil")),s=null,i=0;i<A.length;++i)l(A[i]),A[i]&&A[i].texture&&(c=kt[A[i].texture._texture.format]*At[A[i].texture._texture.type],null===s&&(s=c));return l(M),l(S),l(E),g(n),n.width=a,n.height=o,n.colorAttachments=A,n.depthAttachment=M,n.stencilAttachment=S,n.depthStencilAttachment=E,r.color=A.map(h),r.depth=h(M),r.stencil=h(S),r.depthStencil=h(E),r.width=n.width,r.height=n.height,m(n),r}var n=new d;return a.framebufferCount++,r(t,e),G(r,{resize:function(t,e){var i=Math.max(0|t,1),a=Math.max(0|e||i,1);if(i===n.width&&a===n.height)return r;for(var o=n.colorAttachments,s=0;s<o.length;++s)p(o[s],i,a);return p(n.depthAttachment,i,a),p(n.stencilAttachment,i,a),p(n.depthStencilAttachment,i,a),n.width=r.width=i,n.height=r.height=a,m(n),r},_reglType:"framebuffer",_framebuffer:n,destroy:function(){v(n),g(n)},use:function(t){x.setFBO({framebuffer:r},t)}})}var x={cur:null,next:null,dirty:!1,setFBO:null},b=["rgba"],_=["rgba4","rgb565","rgb5a1"];e.ext_srgb&&_.push("srgba"),e.ext_color_buffer_half_float&&_.push("rgba16f","rgb16f"),e.webgl_color_buffer_float&&_.push("rgba32f");var w=["uint8"];e.oes_texture_half_float&&w.push("half float","float16"),e.oes_texture_float&&w.push("float","float32");var T=0,k={};return G(x,{getFramebuffer:function(t){return"function"==typeof t&&"framebuffer"===t._reglType&&(t=t._framebuffer)instanceof d?t:null},create:y,createCube:function(t){function e(t){var i,a={color:null},o=0,s=null;i="rgba";var l="uint8",c=1;if("number"==typeof t?o=0|t:t?("shape"in t?o=t.shape[0]:("radius"in t&&(o=0|t.radius),"width"in t?o=0|t.width:"height"in t&&(o=0|t.height)),("color"in t||"colors"in t)&&(s=t.color||t.colors,Array.isArray(s)),s||("colorCount"in t&&(c=0|t.colorCount),"colorType"in t&&(l=t.colorType),"colorFormat"in t&&(i=t.colorFormat)),"depth"in t&&(a.depth=t.depth),"stencil"in t&&(a.stencil=t.stencil),"depthStencil"in t&&(a.depthStencil=t.depthStencil)):o=1,s)if(Array.isArray(s))for(t=[],i=0;i<s.length;++i)t[i]=s[i];else t=[s];else for(t=Array(c),s={radius:o,format:i,type:l},i=0;i<c;++i)t[i]=n.createCube(s);for(a.color=Array(t.length),i=0;i<t.length;++i)c=t[i],o=o||c.width,a.color[i]={target:34069,data:t[i]};for(i=0;6>i;++i){for(c=0;c<t.length;++c)a.color[c].target=34069+i;0<i&&(a.depth=r[0].depth,a.stencil=r[0].stencil,a.depthStencil=r[0].depthStencil),r[i]?r[i](a):r[i]=y(a)}return G(e,{width:o,height:o,color:t})}var r=Array(6);return e(t),G(e,{faces:r,resize:function(t){var n=0|t;if(n===e.width)return e;var i=e.color;for(t=0;t<i.length;++t)i[t].resize(n);for(t=0;6>t;++t)r[t].resize(n);return e.width=e.height=n,e},_reglType:"framebufferCube",destroy:function(){r.forEach((function(t){t.destroy()}))}})},clear:function(){$(k).forEach(v)},restore:function(){x.cur=null,x.next=null,x.dirty=!0,$(k).forEach((function(e){e.framebuffer=t.createFramebuffer(),m(e)}))}})}function E(){this.w=this.z=this.y=this.x=this.state=0,this.buffer=null,this.size=0,this.normalized=!1,this.type=5126,this.divis

or=this.stride=this.offset=0}function L(t,e,r,n,i,a,o){function
s(){this.id=++f,this.attributes=[],this.elements=null,this.ownsElements=!1,this.offset=this.count=0,this.instances=-
1,this.primitive=4;var
t=e.oes_vertex_array_object;this.vao=t?t.createVertexArrayOES():null,h[this.id]=this,this.buffers=[]}var
l=r.maxAttributes,u=Array(l);for(r=0;r<l;++r)u[r]=new E;var
f=0,h={},p={Record:E,scope:{},state:u,currentVAO:null,targetVAO:null,restore:e.oes_vertex_array_object?functio
n(){e.oes_vertex_array_object&&$(h).forEach((function(t){t.refresh()}))}:function(){},createVAO:function(t){func
tion e(t){var
n;Array.isArray(t)?(n=t,r.elements&&r.ownsElements&&r.elements.destroy(),r.elements=null,r.ownsElements=!1,r.
offset=0,r.count=0,r.instances=-1,r.primitive=4):(t.elements?(n=t.elements,r.ownsElements?("function"==typeof
n&&"elements"===n._reglType?r.elements.destroy():r.elements(n),r.ownsElements=!1):a.getElements(t.elements)?
(r.elements=t.elements,r.ownsElements=!1):(r.elements=a.create(t.elements),r.ownsElements=!0)):(r.elements=null,
r.ownsElements=!1),n=t.attributes,r.offset=0,r.count=-1,r.instances=-
1,r.primitive=4,r.elements&&(r.count=r.elements._elements.vertCount,r.primitive=r.elements._elements.primType),
"offset"in t&&(r.offset=0|t.offset),"count"in t&&(r.count=0|t.count),"instances"in
t&&(r.instances=0|t.instances),"primitive"in t&&(r.primitive=st[t.primitive])),t={};var
o=r.attributes;o.length=n.length;for(var s=0;s<n.length;++s){var l,u=n[s],f=o[s]=new
E,h=u.data||u;Array.isArray(h)||Q(h)||c(h)?(r.buffers[s]&&(l=r.buffers[s],Q(h)&&l._buffer.byteLength>=h.byteLeng
th?l.subdata(h):(l.destroy(),r.buffers[s]=null)),r.buffers[s]||(l=r.buffers[s]=i.create(u,34962,!1,!0)),f.buffer=i.getBuffe
r(l),f.size=0|f.buffer.dimension,f.normalized=!1,f.type=f.buffer.dtype,f.offset=0,f.stride=0,f.divisor=0,f.state=1,t[s]=
1):i.getBuffer(u)?(f.buffer=i.getBuffer(u),f.size=0|f.buffer.dimension,f.normalized=!1,f.type=f.buffer.dtype,f.offset=
0,f.stride=0,f.divisor=0,f.state=1):i.getBuffer(u.buffer)?(f.buffer=i.getBuffer(u.buffer),f.size=0|(+u.size||f.buffer.dim
ension),f.normalized=!!u.normalized||!1,f.type="type"in
u?rt[u.type]:f.buffer.dtype,f.offset=0|(u.offset||0),f.stride=0|(u.stride||0),f.divisor=0|(u.divisor||0),f.state=1):"x"in
u&&(f.x=+u.x||0,f.y=+u.y||0,f.z=+u.z||0,f.w=+u.w||0,f.state=2)}for(l=0;l<r.buffers.length;++l)!t[l]&&r.buffers[l]&&
(r.buffers[l].destroy(),r.buffers[l]=null);return r.refresh(),e}var r=new s;return
n.vaoCount+=1,e.destroy=function(){for(var
t=0;t<r.buffers.length;++t)r.buffers[t]&&r.buffers[t].destroy();r.buffers.length=0,r.ownsElements&&(r.elements.des
troy(),r.elements=null,r.ownsElements=!1),r.destroy()},e._vao=r,e._reglType="vao",e(t)},getVAO:function(t){retur
n"function"==typeof t&&t._vao?t._vao:null},destroyBuffer:function(e){for(var r=0;r<u.length;++r){var
n=u[r];n.buffer===e&&(t.disableVertexAttribArray(r),n.buffer=null)}},setVAO:e.oes_vertex_array_object?functio
n(t){if(t!==p.currentVAO){var
r=e.oes_vertex_array_object;t?r.bindVertexArrayOES(t.vao):r.bindVertexArrayOES(null),p.currentVAO=t}}:functi
on(r){if(r!==p.currentVAO){if(r)r.bindAttrs();else{for(var n=e.angle_instanced_arrays,i=0;i<u.length;++i){var
a=u[i];a.buffer?(t.enableVertexAttribArray(i),a.buffer.bind(),t.vertexAttribPointer(i,a.size,a.type,a.normalized,a.strid
e,a.offfset),n&&a.divisor&&n.vertexAttribDivisorANGLE(i,a.divisor)):(t.disableVertexAttribArray(i),t.vertexAttrib
4f(i,a.x,a.y,a.z,a.w))}o.elements?t.bindBuffer(34963,o.elements.buffer.buffer):t.bindBuffer(34963,null)}p.currentV
AO=r}},clear:e.oes_vertex_array_object?function(){$(h).forEach((function(t){t.destroy()}))}:function(){}};return
s.prototype.bindAttrs=function(){for(var r=e.angle_instanced_arrays,n=this.attributes,i=0;i<n.length;++i){var
o=n[i];o.buffer?(t.enableVertexAttribArray(i),t.bindBuffer(34962,o.buffer.buffer),t.vertexAttribPointer(i,o.size,o.typ
e,o.normalized,o.stride,o.offset),r&&o.divisor&&r.vertexAttribDivisorANGLE(i,o.divisor)):(t.disableVertexAttribA
rray(i),t.vertexAttrib4f(i,o.x,o.y,o.z,o.w))}for(r=n.length;r<l;++r)t.disableVertexAttribArray(r);(r=a.getElements(thi
s.elements))?t.bindBuffer(34963,r.buffer.buffer):t.bindBuffer(34963,null)},s.prototype.refresh=function(){var
t=e.oes_vertex_array_object;t&&(t.bindVertexArrayOES(this.vao),this.bindAttrs(),p.currentVAO=null,t.bindVertex
ArrayOES(null))},s.prototype.destroy=function(){if(this.vao){var
t=e.oes_vertex_array_object;this===p.currentVAO&&(p.currentVAO=null,t.bindVertexArrayOES(null)),t.deleteVe
rtexArrayOES(this.vao),this.vao=null}this.ownsElements&&(this.elements.destroy(),this.elements=null,this.ownsEl
ements=!1),h[this.id]&&(delete h[this.id],--n.vaoCount)},p}function C(t,e,r,n){function

i(t,e,r,n){this.name=t,this.id=e,this.location=r,this.info=n}function a(t,e){for(var r=0;r<t.length;++r)if(t[r].id===e.id)return void(t[r].location=e.location);t.push(e)}function o(r,n,i){if(!(o=(i=35632===r?c:u)[n])){var a=e.str(n),o=t.createShader(r);t.shaderSource(o,a),t.compileShader(o),i[n]=o}return o}function s(t,e){this.id=p++,this.fragId=t,this.vertId=e,this.program=null,this.uniforms=[],this.attributes=[],this.refCount=1,n.profile&&(this.stats={uniformsCount:0,attributesCount:0})}function l(r,s,l){var c;c=o(35632,r.fragId);var u=o(35633,r.vertId);if(s=r.program=t.createProgram(),t.attachShader(s,c),t.attachShader(s,u),l)for(c=0;c<l.length;++c)u=l[c],t.bindAttribLocation(s,u[0],u[1]);t.linkProgram(s),u=t.getProgramParameter(s,35718),n.profile&&(r.stats.uniformsCount=u);var f=r.uniforms;for(c=0;c<u;++c)if(l=t.getActiveUniform(s,c))if(1<l.size)for(var h=0;h<l.size;++h){var p=l.name.replace("[0]","["+h+"]");a(f,new i(p,e.id(p),t.getUniformLocation(s,p),l))}else a(f,new i(l.name,e.id(l.name),t.getUniformLocation(s,l.name),l));for(u=t.getProgramParameter(s,35721),n.profile&&(r.stats.attributesCount=u),r=r.attributes,c=0;c<u;++c)(l=t.getActiveAttrib(s,c))&&a(r,new i(l.name,e.id(l.name),t.getAttribLocation(s,l.name),l))}var c={},u={},f={},h=[],p=0;return n.profile&&(r.getMaxUniformsCount=function(){var t=0;return h.forEach((function(e){e.stats.uniformsCount>t&&(t=e.stats.uniformsCount)})),t},r.getMaxAttributesCount=function(){var t=0;return h.forEach((function(e){e.stats.attributesCount>t&&(t=e.stats.attributesCount)})),t}),{clear:function(){var e=t.deleteShader.bind(t);$(c).forEach(e),c={},$(u).forEach(e),u={},h.forEach((function(e){t.deleteProgram(e.program)})),h.length=0,f={},r.shaderCount=0},program:function(e,n,i,a){var o=f[n];o||(o=f[n]={});var p=o[e];if(p&&(p.refCount++,!a))return p;var d=new s(n,e);return r.shaderCount++,l(d,i,a),p||(o[e]=d),h.push(d),G(d,{destroy:function(){if(d.refCount--,0>=d.refCount){t.deleteProgram(d.program);var e=h.indexOf(d);h.splice(e,1),r.shaderCount--}0>=o[d.vertId].refCount&&(t.deleteShader(u[d.vertId]),delete u[d.vertId],delete f[d.fragId][d.vertId]),Object.keys(f[d.fragId]).length||(t.deleteShader(c[d.fragId]),delete c[d.fragId],delete f[d.fragId])}})},restore:function(){c={},u={};for(var t=0;t<h.length;++t)l(h[t],null,h[t].attributes.map((function(t){return[t.location,t.name]})))},shader:o,frag:-1,vert:-1}}function P(t,e,r,n,i,a,o){function s(i){var a;a=null===e.next?5121:e.next.colorAttachments[0].texture._texture.type;var o=0,s=0,l=n.framebufferWidth,c=n.framebufferHeight,u=null;return Q(i)?u=i:i&&(o=0|i.x,s=0|i.y,l=0|(i.width||n.framebufferWidth-o),c=0|(i.height||n.framebufferHeight-s),u=i.data||null),r(),i=l*c*4,u||(5121===a?u=new Uint8Array(i):5126===a&&(u=u||new Float32Array(i))),t.pixelStorei(3333,4),t.readPixels(o,s,l,c,6408,a,u),u}return function(t){return t&&"framebuffer"in t?function(t){var r;return e.setFBO({framebuffer:t.framebuffer},(function(){r=s(t)})),r}(t):s(t)}}function I(t,e){return t>>>e|t<<32-e}function O(t,e){var r=(65535&t)+(65535&e);return(t>>16)+(e>>16)+(r>>16)<<16|65535&r}function z(t){return Array.prototype.slice.call(t)}function D(t){return z(t).join("")}function R(t){function e(){var t=[],e=[];return G((function(){t.push.apply(t,z(arguments))}),{def:function(){var r="v"+i++;return e.push(r),0<arguments.length&&(t.push(r,"="),t.push.apply(t,z(arguments)),t.push(";")),r},toString:function(){return D([0<e.length?"var "+e.join(",")+";":"",D(t)])}})}function r(){function t(t,e){n(t,e,"=",r.def(t,e),";")}var r=e(),n=e(),i=r.toString,a=n.toString;return G((function(){r.apply(r,z(arguments))}),{def:r.def,entry:r,exit:n,save:t,set:function(e,n,i){t(e,n),r(e,n,"=",i,";")},toString:function(){return i()+a()}})}var n=t&&t.cache,i=0,a=[],o=[],s=[],l=e(),c={};return{global:l,link:function(t,e){var r=e&&e.stable;if(!r)for(var n=0;n<o.length;++n)if(o[n]===t&&!s[n])return a[n];return n="g"+i++,a.push(n),o.push(t),s.push(r),n},block:e,proc:function(t,e){function n(){var t="a"+i.length;return i.push(t),t}var i=[];e=e||0;for(var a=0;a<e;++a)n();var o=(a=r()).toString;return c[t]=G(a,{arg:n,toString:function(){return D(["function(",i.join(),"){",o(),"}"])}})},scope:r,cond:function(){var

t=D(arguments),e=r(),n=r(),i=e.toString,a=n.toString;return G(e,{then:function(){return e.apply(e,z(arguments)),this},else:function(){return n.apply(n,z(arguments)),this},toString:function(){var e=a();return e&&(e="else{"+e+"}"),D(["if(",t,"){",i(),"}",e])}})},compile:function(){var t=['"use strict";',l,"return {"];Object.keys(c).forEach((function(e){t.push("",e,'":',c[e].toString(),",")})),t.push("}");var e,r=D(t).replace(/;/g,";\n").replace(/}/g,"}\n").replace(/{/g,"{\n");return n&&(e=function(t){for(var e,r="",n=0;n<t.length;n++)e=t.charCodeAt(n),r+="0123456789abcdef".charAt(e>>>4&15)+"0123456789abcdef".charAt(15&e);return r}(function(t){for(var e=Array(t.length>>2),r=0;r<e.length;r++)e[r]=0;for(r=0;r<8*t.length;r+=8)e[r>>5]|=(255&t.charCodeAt(r/8))<<24-r%32;var n,i,a,o,s,l,c,u,f,h,p,d=8*t.length;for(t=[1779033703,-1150833019,1013904242,-1521486534,1359893119,-1694144372,528734635,1541459225],r=Array(64),e[d>>5]|=128<<24-d%32,e[15+(d+64>>9<<4)]=d,u=0;u<e.length;u+=16){for(d=t[0],n=t[1],i=t[2],a=t[3],o=t[4],s=t[5],l=t[6],c=t[7],f=0;64>f;f++){var g;16>f?r[f]=e[f+u]:(h=f,p=O(p=I(p=r[f-2],17)^I(p,19)^p>>>10,r[f-7]),g=I(g=r[f-15],7)^I(g,18)^g>>>3,r[h]=O(O(p,g),r[f-16])),h=O(O(O(O(c,h=I(h=o,6)^I(h,11)^I(h,25)),o&s^~o&l),Mt[f]),r[f]),p=O(c=I(c=d,2)^I(c,13)^I(c,22),d&n^d&i^n&i),c=l,l=s,s=o,o=O(a,h),a=i,i=n,n=d,d=O(h,p)}t[0]=O(d,t[0]),t[1]=O(n,t[1]),t[2]=O(i,t[2]),t[3]=O(a,t[3]),t[4]=O(o,t[4]),t[5]=O(s,t[5]),t[6]=O(l,t[6]),t[7]=O(c,t[7])}for(e="",r=0;r<32*t.length;r+=8)e+=String.fromCharCode(t[r>>5]>>>24-r%32&255);return e}(function(t){for(var e,r,n="",i=-1;++i<t.length;)e=t.charCodeAt(i),r=i+1<t.length?t.charCodeAt(i+1):0,55296<=e&&56319>=e&&56320<=r&&57343>=r&&(e=65536+((1023&e)<<10)+(1023&r),i++),127>=e?n+=String.fromCharCode(e):2047>=e?n+=String.fromCharCode(192|e>>>6&31,128|63&e):65535>=e?n+=String.fromCharCode(224|e>>>12&15,128|e>>>6&63,128|63&e):2097151>=e&&(n+=String.fromCharCode(240|e>>>18&7,128|e>>>12&63,128|e>>>6&63,128|63&e));return n}(r))),n[e])?n[e].apply(null,o):(r=Function.apply(null,a.concat(r)),n&&(n[e]=r),r.apply(null,o))}}}function F(t){return Array.isArray(t)||Q(t)||c(t)}function B(t){return t.sort((function(t,e){return"viewport"===t?-1:"viewport"===e?1:t<e?-1:1}))}function N(t,e,r,n){this.thisDep=t,this.contextDep=e,this.propDep=r,this.append=n}function j(t){return t&&!(t.thisDep||t.contextDep||t.propDep)}function U(t){return new N(!1,!1,!1,t)}function V(t,e){var r=t.type;if(0===r)return new N(!0,1<=(r=t.data.length),2<=r,e);if(4===r)return new N((r=t.data).thisDep,r.contextDep,r.propDep,e);if(5===r)return new N(!1,!1,!1,e);if(6===r){for(var n=r=!1,i=!1,a=0;a<t.data.length;++a){var o=t.data[a];1===o.type?i=!0:2===o.type?n=!0:3===o.type?r=!0:0===o.type?(r=!0,1<=(o=o.data)&&(n=!0),2<=o&&(i=!0)):4===o.type&&(r=r||o.data.thisDep,n=n||o.data.contextDep,i=i||o.data.propDep)}return new N(r,n,i,e)}return new N(3===r,2===r,1===r,e)}function q(t,e,r,n,i,a,s,l,c,u,f,h,p,d,g,v){function m(t){return t.replace(".","_")}function x(t,e,r){var n=m(t);at.push(t),it[n]=nt[n]=!!r,ot[n]=e}function b(t,e,r){var n=m(t);at.push(t),Array.isArray(r)?(nt[n]=r.slice(),it[n]=r.slice()):nt[n]=it[n]=r,lt[n]=e}function _(){var t=R({cache:g}),r=t.link,n=t.global;t.id=ft++,t.batchId="0";var i=r(ct),a=t.shared={props:"a0"};Object.keys(ct).forEach((function(t){a[t]=n.def(i,".",t)}));var o=t.next={},s=t.current={};Object.keys(lt).forEach((function(t){Array.isArray(nt[t])&&(o[t]=n.def(a.next,".",t),s[t]=n.def(a.current,".",t))}));var l=t.constants={};Object.keys(ut).forEach((function(t){l[t]=n.def(JSON.stringify(ut[t]))})),t.invoke=function(e,n){switch(n.type){case 0:var i=["this",a.context,a.props,t.batchId];return e.def(r(n.data),".call(",i.slice(0,Math.max(n.data.length+1,4)),")");case 1:return e.def(a.props,n.data);case 2:return e.def(a.context,n.data);case 3:return e.def("this",n.data);case 4:return n.data.append(t,e),n.data.ref;case 5:return n.data.toString();case 6:return n.data.map((function(r){return t.invoke(e,r)}))}},t.attribCache={};var c={};return t.scopeAttrib=function(t){if((t=e.id(t))in c)return c[t];var n=u.scope[t];return n||(n=u.scope[t]=new K),c[t]=r(n)},t}function w(t,e){var r=t.static,n=t.dynamic;if("framebuffer"in r){var i=r.framebuffer;return i?(i=l.getFramebuffer(i),U((function(t,e){var r=t.link(i),n=t.shared;return e.set(n.framebuffer,".next",r),n=n.context,e.set(n,".framebufferWidth",r+".width"),e.set(n,".framebufferHeight",r+".height"),r}))):U((function(t,e){var r=t.shared;return

e.set(r.framebuffer,".next","null"),r=r.context,e.set(r,".framebufferWidth",r+".drawingBufferWidth"),e.set(r,".frame
bufferHeight",r+".drawingBufferHeight"),"null"}))}if("framebuffer"in n){var a=n.framebuffer;return
V(a,(function(t,e){var r=t.invoke(e,a),n=t.shared,i=n.framebuffer;return
r=e.def(i,".getFramebuffer(",r,")"),e.set(i,".next",r),n=n.context,e.set(n,".framebufferWidth",r+"?"+r+".width:"+n+".
drawingBufferWidth"),e.set(n,".framebufferHeight",r+"?"+r+".height:"+n+".drawingBufferHeight"),r}))}return
null}function T(t,r,n){function i(t){if(t in a){var r=e.id(a[t]);return(t=U((function(){return r}))).id=r,t}if(t in o){var
n=o[t];return V(n,(function(t,e){var r=t.invoke(e,n);return e.def(t.shared.strings,".id(",r,")")}))}return null}var
a=t.static,o=t.dynamic,s=i("frag"),l=i("vert"),c=null;return
j(s)&&j(l)?(c=f.program(l.id,s.id,null,n),t=U((function(t,e){return t.link(c)}))):t=new
N(s&&s.thisDep||l&&l.thisDep,s&&s.contextDep||l&&l.contextDep,s&&s.propDep||l&&l.propDep,(function(t,e){v
ar r,n,i=t.shared.shader;return
r=s?s.append(t,e):e.def(i,".","frag"),n=l?l.append(t,e):e.def(i,".","vert"),e.def(i+".program("+n+","+r+")")})),{frag:s,
vert:l,progVar:t,program:c}}function k(t,e){function r(t,e){if(t in n){var r=0|n[t];return
e?o.offset=r:o.instances=r,U((function(t,n){return e&&(t.OFFSET=r),r}))}if(t in i){var a=i[t];return
V(a,(function(t,r){var n=t.invoke(r,a);return e&&(t.OFFSET=n),n}))}if(e){if(c)return U((function(t,e){return
t.OFFSET=0}));if(s)return new N(l.thisDep,l.contextDep,l.propDep,(function(t,e){return
e.def(t.shared.vao+".currentVAO?"+t.shared.vao+".currentVAO.offset:0")}))}else if(s)return new
N(l.thisDep,l.contextDep,l.propDep,(function(t,e){return
e.def(t.shared.vao+".currentVAO?"+t.shared.vao+".currentVAO.instances:-1")}));return null}var
n=t.static,i=t.dynamic,o={},s=!1,l=function(){if("vao"in n){var t=n.vao;return
null!==t&&null===u.getVAO(t)&&(t=u.createVAO(t)),s=!0,o.vao=t,U((function(e){var r=u.getVAO(t);return
r?e.link(r):"null"}))}if("vao"in i){s=!0;var e=i.vao;return V(e,(function(t,r){var n=t.invoke(r,e);return
r.def(t.shared.vao+".getVAO("+n+")")}))}return null}(),c=!1,f=function(){if("elements"in n){var
t=n.elements;if(o.elements=t,F(t)){var e=o.elements=a.create(t,!0);t=a.getElements(e),c=!0}else
t&&(t=a.getElements(t),c=!0);return(e=U((function(e,r){if(t){var n=e.link(t);return e.ELEMENTS=n}return
e.ELEMENTS=null}))).value=t,e}if("elements"in i){c=!0;var r=i.elements;return V(r,(function(t,e){var
n=(i=t.shared).isBufferArgs,i=i.elements,a=t.invoke(e,r),o=e.def("null");return
n=e.def(n,"(",a,")"),a=t.cond(n).then(o,"=",i,".createStream(",a,");").else(o,"=",i,".getElements(",a,");"),e.entry(a),e.e
xit(t.cond(n).then(i,".destroyStream(",o,");")),t.ELEMENTS=o}))}return s?new
N(l.thisDep,l.contextDep,l.propDep,(function(t,e){return
e.def(t.shared.vao+".currentVAO?"+t.shared.elements+".getElements("+t.shared.vao+".currentVAO.elements):null"
)})):null}(),h=r("offset",!0),p=function(){if("primitive"in n){var t=n.primitive;return
o.primitive=t,U((function(e,r){return st[t]}))}if("primitive"in i){var e=i.primitive;return V(e,(function(t,r){var
n=t.constants.primTypes,i=t.invoke(r,e);return r.def(n,"[",i,"]")}))}return c?j(f)?f.value?U((function(t,e){return
e.def(t.ELEMENTS,".primType")})):U((function(){return 4})):new
N(f.thisDep,f.contextDep,f.propDep,(function(t,e){var r=t.ELEMENTS;return
e.def(r,"?",r,".primType:",4)})):s?new N(l.thisDep,l.contextDep,l.propDep,(function(t,e){return
e.def(t.shared.vao+".currentVAO?"+t.shared.vao+".currentVAO.primitive:4")})):null}(),d=function(){if("count"in
n){var t=0|n.count;return o.count=t,U((function(){return t}))}if("count"in i){var e=i.count;return
V(e,(function(t,r){return t.invoke(r,e)}))}return c?j(f)?f?h?new
N(h.thisDep,h.contextDep,h.propDep,(function(t,e){return e.def(t.ELEMENTS,".vertCount-
",t.OFFSET)})):U((function(t,e){return e.def(t.ELEMENTS,".vertCount")})):U((function(){return-1})):new
N(f.thisDep||h.thisDep,f.contextDep||h.contextDep,f.propDep||h.propDep,(function(t,e){var r=t.ELEMENTS;return
t.OFFSET?e.def(r,"?",r,".vertCount-",t.OFFSET,":-1"):e.def(r,"?",r,".vertCount:-1")})):s?new
N(l.thisDep,l.contextDep,l.propDep,(function(t,e){return
e.def(t.shared.vao,".currentVAO?",t.shared.vao,".currentVAO.count:-
1")})):null}(),g=r("instances",!1);return{elements:f,primitive:p,count:d,instances:g,offset:h,vao:l,vaoActive:s,eleme
ntsActive:c,static:o}}function A(t,r){var n=t.static,a=t.dynamic,o={};return Object.keys(n).forEach((function(t){var

r=n[t],a=e.id(t),s=new K;if(F(r))s.state=1,s.buffer=i.getBuffer(i.create(r,34962,!1,!0)),s.type=0;else if(c=i.getBuffer(r))s.state=1,s.buffer=c,s.type=0;else if("constant"in r){var l=r.constant;s.buffer="null",s.state=2,"number"==typeof l?s.x=l:St.forEach((function(t,e){e<l.length&&(s[t]=l[e])}))}else{var c=F(r.buffer)?i.getBuffer(i.create(r.buffer,34962,!1,!0)):i.getBuffer(r.buffer),u=0|r.offset,f=0|r.stride,h=0|r.size,p=!!r.normalized,d=0;"type"in r&&(d=rt[r.type]),r=0|r.divisor,s.buffer=c,s.state=1,s.size=h,s.normalized=p,s.type=d||c.dtype,s.offset=u,s.stride=f,s.divisor=r}o[t]=U((function(t,e){var r=t.attribCache;if(a in r)return r[a];var n={isStream:!1};return Object.keys(s).forEach((function(t){n[t]=s[t]})),s.buffer&&(n.buffer=t.link(s.buffer),n.type=n.type||n.buffer+".dtype"),r[a]=n})))})),Object.keys(a).forEach((function(t){var e=a[t];o[t]=V(e,(function(t,r){function n(t){r(l[t],"=",i,".",t,"|0;")}var i=t.invoke(r,e),a=t.shared,o=t.constants,s=a.isBufferArgs,l=(a=a.buffer,{isStream:r.def(!1)}),c=new K;c.state=1,Object.keys(c).forEach((function(t){l[t]=r.def(""+c[t])}));var u=l.buffer,f=l.type;return r("if(",s,"(",i,")){",l.isStream,"=true;",u,"=",a,".createStream(",34962,",",i,");",f,"=",u,".dtype;","}else{",u,"=",a,".getBuffer(",i,");","if(",u,"){",f,"=",u,".dtype;","}else if("constant" in ',i,"){",l.state,"=",2,";","if(typeof "+i+'.constant === "number"){',l[St[0]],"=",i,".constant;",St.slice(1).map((function(t){return l[t]})).join("="),"=0;","}else{",St.map((function(t,e){return l[t]+"="+i+".constant.length>"+e+"?"+i+".constant["+e+"]:0;"})).join(""),"}}else{","if(",s,"(",i,".buffer)){",u,"=",a,".createStream(",34962,",",i,".buffer);","}else{",u,"=",a,".getBuffer(",i,".buffer);","}",f,'="type" in ',i,"?",o.glTypes,"[",i,".type]:",u,".dtype;",l.normalized,"=!!",i,".normalized;"),n("size"),n("offset"),n("stride"),n("divisor"),r("}}"),r.exit("if(",l.isStream,"){",a,".destroyStream(",u,");","}"),l})))})),o}function M(t,e,n,i,a){function s(t){var e=c[t];e&&(h[t]=e)}var l=function(t,e){if("string"==typeof(r=t.static).frag&&"string"==typeof r.vert){if(0<Object.keys(e.dynamic).length)return null;var r=e.static,n=Object.keys(r);if(0<n.length&&"number"==typeof r[n[0]]){for(var i=[],a=0;a<n.length;++a)i.push([0|r[n[a]],n[a]]);return i}}return null}(t,e),c=function(t,e,r){function n(t){if(t in i){var r=i[t];t=!0;var n,o,s=0|r.x,l=0|r.y;return"width"in r?n=0|r.width:t=!1,"height"in r?o=0|r.height:t=!1,new N(!t&&e&&e.thisDep,!t&&e&&e.contextDep,!t&&e&&e.propDep,(function(t,e){var i=t.shared.context,a=n;"width"in r||(a=e.def(i,".","framebufferWidth","-",s));var c=o;return"height"in r||(c=e.def(i,".","framebufferHeight","-",l)),[s,l,a,c]}))}if(t in a){var c=a[t];return t=V(c,(function(t,e){var r=t.invoke(e,c),n=t.shared.context,i=e.def(r,".x|0"),a=e.def(r,".y|0");return[i,a,e.def('"width" in ',r,"?",r,".width|0:","(",n,".","framebufferWidth","-",i,")"),r=e.def('"height" in ',r,"?",r,".height|0:","(",n,".","framebufferHeight","-",a,")")]})),e&&(t.thisDep=t.thisDep||e.thisDep,t.contextDep=t.contextDep||e.contextDep,t.propDep=t.propDep||e.propDep),t}return e?new N(e.thisDep,e.contextDep,e.propDep,(function(t,e){var r=t.shared.context;return[0,0,e.def(r,".","framebufferWidth"),e.def(r,".","framebufferHeight")]})):null}var i=t.static,a=t.dynamic;if(t=n("viewport")){var o=t;t=new N(t.thisDep,t.contextDep,t.propDep,(function(t,e){var r=o.append(t,e),n=t.shared.context;return e.set(n,".viewportWidth",r[2]),e.set(n,".viewportHeight",r[3]),r}))}return{viewport:t,scissor_box:n("scissor.box")}}(t,d=w(t)),f=k(t),h=function(t,e){var r=t.static,n=t.dynamic,i={};return at.forEach((function(t){function e(e,o){if(t in r){var s=e(r[t]);i[a]=U((function(){return s}))}else if(t in n){var l=n[t];i[a]=V(l,(function(t,e){return o(t,e,t.invoke(e,l))}))}}var a=m(t);switch(t){case"cull.enable":case"blend.enable":case"dither":case"stencil.enable":case"depth.enable":case"scissor.enable":case"polygonOffset.enable":case"sample.alpha":case"sample.enable":case"depth.mask":return e((function(t){return t}),(function(t,e,r){return r}));case"depth.func":return e((function(t){return Ct[t]}),(function(t,e,r){return e.def(t.constants.compareFuncs,"[",r,"]")}));case"depth.range":return e((function(t){return t}),(function(t,e,r){return[e.def("+",r,"[0]"),e=e.def("+",r,"[1]")]}));case"blend.func":return e((function(t){return[Lt["srcRGB"in t?t.srcRGB:t.src],Lt["dstRGB"in t?t.dstRGB:t.dst],Lt["srcAlpha"in t?t.srcAlpha:t.src],Lt["dstAlpha"in t?t.dstAlpha:t.dst]]}),(function(t,e,r){function n(t,n){return e.def('"',t,n,'" in

',r,"?",r,".",t,n,":",r,".",t)}t=t.constants.blendFuncs;var
i=n("src","RGB"),a=n("dst","RGB"),o=(i=e.def(t,"[",i,"]"),e.def(t,"[",n("src","Alpha"),"]"));return[i,a=e.def(t,"[",a,"]
"),o,t=e.def(t,"[",n("dst","Alpha"),"]")]}));case"blend.equation":return e((function(t){return"string"==typeof
t?[Q[t],Q[t]]:"object"==typeof t?[Q[t.rgb],Q[t.alpha]]:void 0}),(function(t,e,r){var
n=t.constants.blendEquations,i=e.def(),a=e.def();return(t=t.cond("typeof
",r,'==="string"')).then(i,"=",a,"=",n,"[",r,"];"),t.else(i,"=",n,"[",r,".rgb];",a,"=",n,"[",r,".alpha];"),e(t),[i,a]}));case"ble
nd.color":return e((function(t){return o(4,(function(e){return+t[e]}))}),(function(t,e,r){return o(4,(function(t){return
e.def("+",r,"[",t,"]")}))}));case"stencil.mask":return e((function(t){return 0|t}),(function(t,e,r){return
e.def(r,"|0")}));case"stencil.func":return e((function(t){return[Ct[t.cmp||"keep"],t.ref||0,"mask"in t?t.mask:-
1]}),(function(t,e,r){return[t=e.def('"cmp" in
',r,"?",t.constants.compareFuncs,"[",r,".cmp]",":",7680),e.def(r,".ref|0"),e=e.def('"mask" in ',r,"?",r,".mask|0:-
1")]}));case"stencil.opFront":case"stencil.opBack":return
e((function(e){return["stencil.opBack"===t?1029:1028,Pt[e.fail||"keep"],Pt[e.zfail||"keep"],Pt[e.zpass||"keep"]]}),(fu
nction(e,r,n){function i(t){return r.def('"',t,'" in ',n,"?",a,"[",n,".",t,"]:",7680)}var
a=e.constants.stencilOps;return["stencil.opBack"===t?1029:1028,i("fail"),i("zfail"),i("zpass")]}));case"polygonOffs
et.offset":return
e((function(t){return[0|t.factor,0|t.units]}),(function(t,e,r){return[e.def(r,".factor|0"),e=e.def(r,".units|0")]}));case"cul
l.face":return e((function(t){var e=0;return"front"===t?e=1028:"back"===t&&(e=1029),e}),(function(t,e,r){return
e.def(r,'==="front"?',1028,":",1029)}));case"lineWidth":return e((function(t){return t}),(function(t,e,r){return
r}));case"frontFace":return e((function(t){return It[t]}),(function(t,e,r){return
e.def(r+'==="cw"?2304:2305')}));case"colorMask":return e((function(t){return
t.map((function(t){return!!t}))}),(function(t,e,r){return
o(4,(function(t){return"!!"+r+"["+t+"]"}))}));case"sample.coverage":return e((function(t){return["value"in
t?t.value:1,!!t.invert]}),(function(t,e,r){return[e.def('"value" in
',r,"?+",r,".value:1"),e=e.def("!!",r,".invert")]}))}})),i}(t),p=T(t,0,l);s("viewport"),s(m("scissor.box"));var
d,g=0<Object.keys(h).length;if((d={framebuffer:d,draw:f,shader:p,state:h,dirty:g,scopeVAO:null,drawVAO:null,us
eVAO:!1,attributes:{}}).profile=function(t){var e,r=t.static;if(t=t.dynamic,"profile"in r){var
n=!!r.profile;(e=U((function(t,e){return n}))).enable=n}else if("profile"in t){var
i=t.profile;e=V(i,(function(t,e){return t.invoke(e,i)}))}return e}(t),d.uniforms=function(t,e){var
r=t.static,n=t.dynamic,i={};return Object.keys(r).forEach((function(t){var e,n=r[t];if("number"==typeof
n||"boolean"==typeof n)e=U((function(){return n}));else if("function"==typeof n){var
a=n._reglType;"texture2d"===a||"textureCube"===a?e=U((function(t){return
t.link(n)})):"framebuffer"!==a&&"framebufferCube"!==a||(e=U((function(t){return t.link(n.color[0])})))}else
y(n)&&(e=U((function(t){return t.global.def("[",o(n.length,(function(t){return
n[t]})),"]")})));e.value=n,i[t]=e})),Object.keys(n).forEach((function(t){var e=n[t];i[t]=V(e,(function(t,r){return
t.invoke(r,e)}))})),i}(n),d.drawVAO=d.scopeVAO=f.vao,!d.drawVAO&&p.program&&!l&&r.angle_instanced_arr
ays&&f.static.elements){var v=!0;if(t=p.program.attributes.map((function(t){return
t=e.static[t],v=v&&!!t,t})),v&&0<t.length){var
x=u.getVAO(u.createVAO({attributes:t,elements:f.static.elements}));d.drawVAO=new
N(null,null,null,(function(t,e){return t.link(x)})),d.useVAO=!0}}return
l?d.useVAO=!0:d.attributes=A(e),d.context=function(t){var e=t.static,r=t.dynamic,n={};return
Object.keys(e).forEach((function(t){var r=e[t];n[t]=U((function(t,e){return"number"==typeof r||"boolean"==typeof
r?""+r:t.link(r)}))})),Object.keys(r).forEach((function(t){var e=r[t];n[t]=V(e,(function(t,r){return
t.invoke(r,e)}))})),n}(i),d}function S(t,e,r){var
n=t.shared.context,i=t.scope();Object.keys(r).forEach((function(a){e.save(n,"."+a);var
o=r[a].append(t,e);Array.isArray(o)?i(n,".",a,"=[",o.join(),"];"):i(n,".",a,"=",o,";")})),e(i)}function E(t,e,r,n){var
i,a=(s=t.shared).gl,o=s.framebuffer;tt&&(i=e.def(s.extensions,".webgl_draw_buffers"));var
s=(l=t.constants).drawBuffer,l=l.backBuffer;t=r?r.append(t,e):e.def(o,".next"),n||e("if(",t,"!==",o,".cur){"),e("if(",t,")

{",a,".bindFramebuffer(",36160,",",t,".framebuffer);"),tt&&e(i,".drawBuffersWEBGL(",s,"[",t,".colorAttachments.length]);"),e("}else{",a,".bindFramebuffer(",36160,",null);"),tt&&e(i,".drawBuffersWEBGL(",l,");"),e("}",o,".cur=",t,";"),n||e("}")}function L(t,e,r){var
n=t.shared,i=n.gl,a=t.current,s=t.next,l=n.current,c=n.next,u=t.cond(l,".dirty");at.forEach((function(e){var
n,f;if(!((e=m(e))in r.state))if(e in s){n=s[e],f=a[e];var h=o(nt[e].length,(function(t){return
u.def(n,"[",t,"]")}));u(t.cond(h.map((function(t,e){return
t+"!=="+f+"["+e+"]"})).join("||")).then(i,".",lt[e],"(",h,");",h.map((function(t,e){return
f+"["+e+"]="+t})).join(";"),";"))}else n=u.def(c,".",e),h=t.cond(n,"!==",l,".",e),u(h),e in
ot?h(t.cond(n).then(i,".enable(",ot[e],");").else(i,".disable(",ot[e],");"),l,".",e,"=",n,";"):h(i,".",lt[e],"(",n,");",l,".",e,"=",n,";")})),0===Object.keys(r.state).length&&u(l,".dirty=false;"),e(u)}function C(t,e,r,n){var
i,a=t.shared,o=t.current,s=a.current,l=a.gl;B(Object.keys(r)).forEach((function(a){var c=r[a];if(!n||n(c)){var
u=c.append(t,e);if(ot[a]){var
f=ot[a];j(c)?(i=t.link(u,{stable:!0}),e(t.cond(i).then(l,".enable(",f,");").else(l,".disable(",f,");")),e(s,".",a,"=",i,";")):(e(t.cond(u).then(l,".enable(",f,");").else(l,".disable(",f,");")),e(s,".",a,"=",u,";"))}else if(y(u)){var
h=o[a];e(l,".",lt[a],"(",u,");",u.map((function(t,e){return h+"["+e+"]="+t})).join(";"),";")}else
j(c)?(i=t.link(u,{stable:!0}),e(l,".",lt[a],"(",i,");",s,".",a,"=",i,";")):e(l,".",lt[a],"(",u,");",s,".",a,"=",u,";")}}))}function
P(t,e){$&&(t.instancing=e.def(t.shared.extensions,".angle_instanced_arrays"))}function I(t,e,r,n,i){function
a(){return"undefined"==typeof performance?"Date.now()":"performance.now()"}function
o(t){t(c=e.def(),"=",a(),";"),"string"==typeof
i?t(h,".count+=",i,";"):t(h,".count++;"),d&&(n?t(u=e.def(),"=",g,".getNumPendingQueries();"):t(g,".beginQuery(",h,");"))}function s(t){t(h,".cpuTime+=",a(),"-
",c,";"),d&&(n?t(g,".pushScopeStats(",u,",",g,".getNumPendingQueries(),",h,");"):t(g,".endQuery();"))}function
l(t){var r=e.def(p,".profile");e(p,".profile=",t,";"),e.exit(p,".profile=",r,";")}var
c,u,f=t.shared,h=t.stats,p=f.current,g=f.timer;if(r=r.profile){if(j(r))return
void(r.enable?(o(e),s(e.exit),l("true")):l("false"));l(r=r.append(t,e))}else
r=e.def(p,".profile");o(f=t.block()),e("if(",r,"){",f,"}"),s(t=t.block()),e.exit("if(",r,"){",t,"}")}function
O(t,e,r,n,i){function a(r,n,i){function a(){e("if(!",u,".buffer){",l,".enableVertexAttribArray(",c,");}");var
r,a=i.type;r=i.size?e.def(i.size,"||",n):n,e("if(",u,".type!==",a,"||",u,".size!==",r,"||",p.map((function(t){return
u+"."+t+"!=="+i[t]})).join("||"),"){",l,".bindBuffer(",34962,",",f,".buffer);",l,".vertexAttribPointer(",[c,r,a,i.normalized,i.stride,i.offset],");",u,".type=",a,";",u,".size=",r,";",p.map((function(t){return
u+"."+t+"="+i[t]+";"})).join(""),"}"),$&&(a=i.divisor,e("if(",u,".divisor!==",a,"){",t.instancing,".vertexAttribDivisorANGLE(",[c,a],");",u,".divisor=",a,";}"))}function
s(){e("if(",u,".buffer){",l,".disableVertexAttribArray(",c,");",u,".buffer=null;","}if(",St.map((function(t,e){return
u+"."+t+"!=="+h[e]})).join("||"),"){",l,".vertexAttrib4f(",c,",",h,");",St.map((function(t,e){return
u+"."+t+"="+h[e]+";"})).join(""),"}")}var l=o.gl,c=e.def(r,".location"),u=e.def(o.attributes,"[",c,"]");r=i.state;var
f=i.buffer,h=[i.x,i.y,i.z,i.w],p=["buffer","normalized","offset","stride"];1===r?a():2===r?s():(e("if(",r,"===",1,"){"),a(),e("}else{"),s(),e("}"))}var o=t.shared;n.forEach((function(n){var
o,s=n.name,l=r.attributes[s];if(l){if(!i(l))return;o=l.append(t,e)}else{if(!i(Ot))return;var
c=t.scopeAttrib(s);o={},Object.keys(new
K).forEach((function(t){o[t]=e.def(c,".",t)}))}a(t.link(n),function(t){switch(t){case 35664:case 35667:case
35671:return 2;case 35665:case 35668:case 35672:return 3;case 35666:case 35669:case 35673:return
4;default:return 1}}(n.info.type),o)}))}function z(t,r,n,i,a,s){for(var l,c=t.shared,u=c.gl,f=0;f<i.length;++f){var
h,p=(v=i[f]).name,d=v.info.type,g=n.uniforms[p],v=t.link(v)+".location";if(g){if(!a(g))continue;if(j(g)){if(p=g.value
,35678===d||35680===d)r(u,".uniform1i(",v,",",(d=t.link(p._texture||p.color[0]._texture))+".bind());"),r.exit(d,".unbind();");else
if(35674===d||35675===d||35676===d)g=2,35675===d?g=3:35676===d&&(g=4),r(u,".uniformMatrix",g,"fv(",v,",
false,",p=t.global.def("new Float32Array(["+Array.prototype.slice.call(p)+"])"),");");else{switch(d){case
5126:l="1f";break;case 35664:l="2f";break;case 35665:l="3f";break;case 35666:l="4f";break;case 35670:case

5124:l="1i";break;case 35671:case 35667:l="2i";break;case 35672:case 35668:l="3i";break;case
35673:l="4i";break;case
35669:l="4i"}r(u,".uniform",l,"(",v,",",y(p)?Array.prototype.slice.call(p):p,");")}continue}h=g.append(t,r)}else{if(!a(Ot))continue;h=r.def(c.uniforms,"[",e.id(p),"]")}switch(35678===d?r("if(",h,"&&",h,'._reglType==="framebuffer"){',h,"=",h,".color[0];","}"):35680===d&&r("if(",h,"&&",h,'._reglType==="framebufferCube"){',h,"=",h,".color[0];","}"),p=1,d){case 35678:case
35680:d=r.def(h,"._texture"),r(u,".uniform1i(",v,",",d,".bind());"),r.exit(d,".unbind();");continue;case 5124:case
35670:l="1i";break;case 35667:case 35671:l="2i",p=2;break;case 35668:case 35672:l="3i",p=3;break;case
35669:case 35673:l="4i",p=4;break;case 5126:l="1f";break;case 35664:l="2f",p=2;break;case
35665:l="3f",p=3;break;case 35666:l="4f",p=4;break;case 35674:l="Matrix2fv";break;case
35675:l="Matrix3fv";break;case
35676:l="Matrix4fv"}if("M"===l.charAt(0)){r(u,".uniform",l,"(",v,","),v=Math.pow(d-35674+2,2);var
m=t.global.def("new Float32Array(",v,")");Array.isArray(h)?r("false,(",o(v,(function(t){return
m+"["+t+"]="+h[t]})),",",m,")"):r("false,(Array.isArray(",h,")||",h," instanceof
Float32Array)?",h,":(",o(v,(function(t){return m+"["+t+"]="+h+"["+t+"]"})),",",m,")"),r(");")}else{if(1<p){d=[];var
x=[];for(g=0;g<p;++g)Array.isArray(h)?x.push(h[g]):x.push(r.def(h+"["+g+"]")),s&&d.push(r.def());s&&r("if(!",t.batchId,"||",d.map((function(t,e){return t+"!=="+x[e]})).join("||"),"){",d.map((function(t,e){return
t+"="+x[e]+";"})).join("")),r(u,".uniform",l,"(",v,",",x.join(","),");")}else
s&&(d=r.def(),r("if(!",t.batchId,"||",d,"!==",h,"){",d,"=",h,";")),r(u,".uniform",l,"(",v,",",h,");");s&&r("}")}}}functio
n D(t,e,r,n){function i(i){var a=h[i];return
a?a.contextDep&&n.contextDynamic||a.propDep?a.append(t,r):a.append(t,e):e.def(f,".",i)}function a(){function
t(){r(l,".drawElementsInstancedANGLE(",[d,v,m,g+"<<(("+m+"-5121)>>1)",s],");")}function
e(){r(l,".drawArraysInstancedANGLE(",[d,g,v,s],");")}p&&"null"!==p?y?t():(r("if(",p,"){"),t(),r("}else{"),e(),r("}")
):e()}function o(){function t(){r(u+".drawElements("+[d,v,m,g+"<<(("+m+"-5121)>>1)"]+");")}function
e(){r(u+".drawArrays("+[d,g,v]+");")}p&&"null"!==p?y?t():(r("if(",p,"){"),t(),r("}else{"),e(),r("}")):e()}var
s,l,c=t.shared,u=c.gl,f=c.draw,h=n.draw,p=function(){var i=h.elements,a=e;return
i?((i.contextDep&&n.contextDynamic||i.propDep)&&(a=r),i=i.append(t,a),h.elementsActive&&a("if("+i+")"+u+".b
indBuffer(34963,"+i+".buffer.buffer);")):(i=a.def(),a(i,"=",f,".","elements",";","if(",i,"){",u,".bindBuffer(",34963,",",
i,".buffer.buffer);}","else
if(",c.vao,".currentVAO){",i,"=",t.shared.elements+".getElements("+c.vao,".currentVAO.elements);",et?"":"if("+i+"
)"+u+".bindBuffer(34963,"+i+".buffer.buffer);","}")),i}(),d=i("primitive"),g=i("offset"),v=function(){var
i=h.count,a=e;return
i?((i.contextDep&&n.contextDynamic||i.propDep)&&(a=r),i=i.append(t,a)):i=a.def(f,".","count"),i}();if("number"
==typeof v){if(0===v)return}else r("if(",v,"){"),r.exit("}");$&&(s=i("instances"),l=t.instancing);var
m=p+".type",y=h.elements&&j(h.elements)&&!h.vaoActive;$&&("number"!=typeof s||0<=s)?"string"==typeof
s?(r("if(",s,">0){"),a(),r("}else if(",s,"<0){"),o(),r("}")):a():o()}function q(t,e,r,n,i){return
i=(e=_()).proc("body",i),$&&(e.instancing=i.def(e.shared.extensions,".angle_instanced_arrays")),t(e,i,r,n),e.compile
().body}function
H(t,e,r,n){P(t,e),r.useVAO?r.drawVAO?e(t.shared.vao,".setVAO(",r.drawVAO.append(t,e),");"):e(t.shared.vao,".set
VAO(",t.shared.vao,".targetVAO);"):(e(t.shared.vao,".setVAO(null);"),O(t,e,r,n.attributes,(function(){return!0}))),z(
t,e,r,n.uniforms,(function(){return!0}),!1),D(t,e,e,r)}function Y(t,e,r,n){function
i(){return!0}t.batchId="a1",P(t,e),O(t,e,r,n.attributes,i),z(t,e,r,n.uniforms,i,!1),D(t,e,e,r)}function X(t,e,r,n){function
i(t){return t.contextDep&&o||t.propDep}function a(t){return!i(t)}P(t,e);var
o=r.contextDep,s=e.def(),l=e.def();t.shared.props=l,t.batchId=s;var
c=t.scope(),u=t.scope();e(c.entry,"for(",s,"=0;",s,"<","a1",";++",s,"){",l,"=","a0","[",s,"];",u,"}",c.exit),r.needsConte
xt&&S(t,u,r.context),r.needsFramebuffer&&E(t,u,r.framebuffer),C(t,u,r.state,i),r.profile&&i(r.profile)&&I(t,u,r,!1,!
0),n?(r.useVAO?r.drawVAO?i(r.drawVAO)?u(t.shared.vao,".setVAO(",r.drawVAO.append(t,u),");"):c(t.shared.vao,
".setVAO(",r.drawVAO.append(t,c),");"):c(t.shared.vao,".setVAO(",t.shared.vao,".targetVAO);"):(c(t.shared.vao,".s

etVAO(null);"),O(t,c,r,n.attributes,a),O(t,u,r,n.attributes,i)),z(t,c,r,n.uniforms,a,!1),z(t,u,r,n.uniforms,i,!0),D(t,c,u,r)):(e=t.global.def("{}"),n=r.shader.progVar.append(t,u),l=u.def(n,".id"),c=u.def(e,"[",l,"]"),u(t.shared.gl,".useProgram(",n,".program);","if(!",c,"){",c,"=",e,"[",l,"]=",t.link((function(e){return q(Y,t,r,e,2)})),"(",n,");}",c,".call(this,a0[",s,"],",s,");"))}function Z(t,r){function n(e){var n=r.shader[e];n&&(n=n.append(t,i),isNaN(n)?i.set(a.shader,"."+e,n):i.set(a.shader,"."+e,t.link(n,{stable:!0})))}var i=t.proc("scope",3);t.batchId="a2";var a=t.shared,o=a.current;if(S(t,i,r.context),r.framebuffer&&r.framebuffer.append(t,i),B(Object.keys(r.state)).forEach((function(e){var n=r.state[e],o=n.append(t,i);y(o)?o.forEach((function(r,n){isNaN(r)?i.set(t.next[e],"["+n+"]",r):i.set(t.next[e],"["+n+"]",t.link(r,{stable:!0}))})):j(n)?i.set(a.next,"."+e,t.link(o,{stable:!0})):i.set(a.next,"."+e,o)})),I(t,i,r,!0,!0),["elements","offset","count","instances","primitive"].forEach((function(e){var n=r.draw[e];n&&(n=n.append(t,i),isNaN(n)?i.set(a.draw,"."+e,n):i.set(a.draw,"."+e,t.link(n),{stable:!0}))})),Object.keys(r.uniforms).forEach((function(n){var o=r.uniforms[n].append(t,i);Array.isArray(o)&&(o="["+o.map((function(e){return isNaN(e)?e:t.link(e,{stable:!0})}))+"]"),i.set(a.uniforms,"["+t.link(e.id(n),{stable:!0})+"]",o)})),Object.keys(r.attributes).forEach((function(e){var n=r.attributes[e].append(t,i),a=t.scopeAttrib(e);Object.keys(new K).forEach((function(t){i.set(a,"."+t,n[t])}))})),r.scopeVAO){var s=r.scopeVAO.append(t,i);isNaN(s)?i.set(a.vao,".targetVAO",s):i.set(a.vao,".targetVAO",t.link(s,{stable:!0}))}n("vert"),n("frag"),0<Object.keys(r.state).length&&(i(o,".dirty=true;"),i.exit(o,".dirty=true;")),i("a1(",t.shared.context,",a0,",t.batchId,");")}function J(t,e,r){var n=e.static[r];if(n&&function(t){if("object"==typeof t&&!y(t)){for(var e=Object.keys(t),r=0;r<e.length;++r)if(W.isDynamic(t[e[r]]))return!0;return!1}}(n)){var i=t.global,a=Object.keys(n),o=!1,s=!1,l=!1,c=t.global.def("{}");a.forEach((function(e){var r=n[e];if(W.isDynamic(r))"function"==typeof r&&(r=n[e]=W.unbox(r)),e=V(r,null),o=o||e.thisDep,l=l||e.propDep,s=s||e.contextDep;else{switch(i(c,".",e,"="),typeof r){case"number":i(r);break;case"string":i("",r,"");break;case"object":Array.isArray(r)&&i("[",r.join(),"]");break;default:i(t.link(r))}i(";")}})),e.dynamic[r]=new W.DynamicVariable(4,{thisDep:o,contextDep:s,propDep:l,ref:c,append:function(t,e){a.forEach((function(r){var i=n[r];W.isDynamic(i)&&(i=t.invoke(e,i),e(c,".",r,"=",i,";"))}))}}),delete e.static[r]}}var K=u.Record,Q={add:32774,subtract:32778,"reverse subtract":32779};r.ext_blend_minmax&&(Q.min=32775,Q.max=32776);var $=r.angle_instanced_arrays,tt=r.webgl_draw_buffers,et=r.oes_vertex_array_object,nt={dirty:!0,profile:v.profile},it={},at=[],ot={},lt={};x("dither",3024),x("blend.enable",3042),b("blend.color","blendColor",[0,0,0,0]),b("blend.equation","blendEquationSeparate",[32774,32774]),b("blend.func","blendFuncSeparate",[1,0,1,0]),x("depth.enable",2929,!0),b("depth.func","depthFunc",513),b("depth.range","depthRange",[0,1]),b("depth.mask","depthMask",!0),b("colorMask","colorMask",[!0,!0,!0,!0]),x("cull.enable",2884),b("cull.face","cullFace",1029),b("frontFace","frontFace",2305),b("lineWidth","lineWidth",1),x("polygonOffset.enable",32823),b("polygonOffset.offset","polygonOffset",[0,0]),x("sample.alpha",32926),x("sample.enable",32928),b("sample.coverage","sampleCoverage",[1,!1]),x("stencil.enable",2960),b("stencil.mask","stencilMask",-1),b("stencil.func","stencilFunc",[519,0,-1]),b("stencil.opFront","stencilOpSeparate",[1028,7680,7680,7680]),b("stencil.opBack","stencilOpSeparate",[1029,7680,7680,7680]),x("scissor.enable",3089),b("scissor.box","scissor",[0,0,t.drawingBufferWidth,t.drawingBufferHeight]),b("viewport","viewport",[0,0,t.drawingBufferWidth,t.drawingBufferHeight]);var ct={gl:t,context:p,strings:e,next:it,current:nt,draw:h,elements:a,buffer:i,shader:f,attributes:u.state,vao:u,uniforms:c,framebuffer:l,extensions:r,timer:d,isBufferArgs:F},ut={primTypes:st,compareFuncs:Ct,blendFuncs:Lt,blendEquations:Q,stencilOps:Pt,glTypes:rt,orientationType:It};tt&&(ut.backBuffer=[1029],ut.drawBuffer=o(n.maxDrawbuffers,(function(t){return 0===t?[0]:o(t,(function(t){return 36064+t}))}))));var ft=0;return{next:it,current:nt,procs:function(){var t=_(),e=t.proc("poll"),i=t.proc("refresh"),a=t.block();e(a),i(a);var s,l=(f=t.shared).gl,c=f.next,u=f.current;a(u,".dirty=false;"),E(t,e),E(t,i,null,!0),$&&(s=t.link($)),r.oes_vertex_array_

object&&i(t.link(r.oes_vertex_array_object),".bindVertexArrayOES(null);");var
f=i.def(f.attributes),h=i.def(0),p=t.cond(h,".buffer");p.then(l,".enableVertexAttribArray(i);",l,".bindBuffer(",34962,"
,",h,".buffer.buffer);",l,".vertexAttribPointer(i,",h,".size,",h,".type,",h,".normalized,",h,".stride,",h,".offset);").else(l,"
.disableVertexAttribArray(i);",l,".vertexAttrib4f(i,",h,".x,",h,".y,",h,".z,",h,".w);",h,".buffer=null;");var
d=t.link(n.maxAttributes,{stable:!0});return i("for(var i=0;i<",d,";++i){",h,"=",f,"[i];",p,"}"),$&&i("for(var
i=0;i<",d,";++i){",s,".vertexAttribDivisorANGLE(i,",f,"[i].divisor);","}"),i(t.shared.vao,".currentVAO=null;",t.share
d.vao,".setVAO(",t.shared.vao,".targetVAO);"),Object.keys(ot).forEach((function(r){var
n=ot[r],o=a.def(c,".",r),s=t.block();s("if(",o,"){",l,".enable(",n,")}else{",l,".disable(",n,")}",u,".",r,"=",o,";"),i(s),e("if
(",o,"!==",u,".",r,"){",s,"}")})),Object.keys(lt).forEach((function(r){var
n,s,f=lt[r],h=nt[r],p=t.block();p(l,".",f,"(",y(h)?(f=h.length,n=t.global.def(c,".",r),s=t.global.def(u,".",r),p(o(f,(functi
on(t){return n+"["+t+"]"})),");",o(f,(function(t){return
s+"["+t+"]="+n+"["+t+"];"})).join("")),e("if(",o(f,(function(t){return
n+"["+t+"]!=="+s+"["+t+"]"})).join("||"),"){",p,"}")):(n=a.def(c,".",r),s=a.def(u,".",r),p(n,");",u,".",r,"=",n,";"),e("if("
,n,"!==",s,"){",p,"}")),i(p))})),t.compile()}(),compile:function(t,e,r,n,i){var
a=_();a.stats=a.link(i),Object.keys(e.static).forEach((function(t){J(a,e,t)})),Et.forEach((function(e){J(a,t,e)}));var
o=M(t,e,r,n);return o.shader.program&&(o.shader.program.attributes.sort((function(t,e){return t.name<e.name?-
1:1})),o.shader.program.uniforms.sort((function(t,e){return t.name<e.name?-1:1}))),function(t,e){var
r=t.proc("draw",1);P(t,r),S(t,r,e.context),E(t,r,e.framebuffer),L(t,r,e),C(t,r,e.state),I(t,r,e,!1,!0);var
n=e.shader.progVar.append(t,r);if(r(t.shared.gl,".useProgram(",n,".program);"),e.shader.program)H(t,r,e,e.shader.pro
gram);else{r(t.shared.vao,".setVAO(null);");var
i=t.global.def("{}"),a=r.def(n,".id"),o=r.def(i,"[",a,"]");r(t.cond(o).then(o,".call(this,a0);").else(o,"=",i,"[",a,"]=",t.lin
k((function(r){return
q(H,t,e,r,1)})),"(",n,");",o,".call(this,a0);"))}0<Object.keys(e.state).length&&r(t.shared.current,".dirty=true;"),t.share
d.vao&&r(t.shared.vao,".setVAO(null);")}(a,o),Z(a,o),function(t,e){function r(t){return
t.contextDep&&i||t.propDep}var n=t.proc("batch",2);t.batchId="0",P(t,n);var
i=!1,a=!0;Object.keys(e.context).forEach((function(t){i=i||e.context[t].propDep})),i||(S(t,n,e.context),a=!1);var
o=!1;if((s=e.framebuffer)?(s.propDep?i=o=!0:s.contextDep&&i&&(o=!0),o||E(t,n,s)):E(t,n,null),e.state.viewport&&
e.state.viewport.propDep&&(i=!0),L(t,n,e),C(t,n,e.state,(function(t){return!r(t)})),e.profile&&r(e.profile)||I(t,n,e,!1,
"a1"),e.contextDep=i,e.needsContext=a,e.needsFramebuffer=o,(a=e.shader.progVar).contextDep&&i||a.propDep)X(
t,n,e,null);else
if(a=a.append(t,n),n(t.shared.gl,".useProgram(",a,".program);"),e.shader.program)X(t,n,e,e.shader.program);else{n(t.
shared.vao,".setVAO(null);");var
s=t.global.def("{}"),l=(o=n.def(a,".id"),n.def(s,"[",o,"]"));n(t.cond(l).then(l,".call(this,a0,a1);").else(l,"=",s,"[",o,"]="
,t.link((function(r){return
q(X,t,e,r,2)})),"(",a,");",l,".call(this,a0,a1);"))}0<Object.keys(e.state).length&&n(t.shared.current,".dirty=true;"),t.sh
ared.vao&&n(t.shared.vao,".setVAO(null);")}(a,o),G(a.compile(),{destroy:function(){o.shader.program.destroy()}}
)}}}function H(t,e){for(var r=0;r<t.length;++r)if(t[r]===e)return r;return-1}var G=function(t,e){for(var
r=Object.keys(e),n=0;n<r.length;++n)t[r[n]]=e[r[n]];return
t},Y=0,W={DynamicVariable:t,define:function(e,n){return new
t(e,r(n+""))},isDynamic:function(e){return"function"==typeof e&&!e._reglType||e instanceof t},unbox:function
e(r,n){return"function"==typeof r?new t(0,r):"number"==typeof r||"boolean"==typeof r?new
t(5,r):Array.isArray(r)?new t(6,r.map((function(t,r){return e(t,n+"["+r+"]")}))):r instanceof t?r:void
0},accessor:r},X={next:"function"==typeof requestAnimationFrame?function(t){return
requestAnimationFrame(t)}:function(t){return setTimeout(t,16)},cancel:"function"==typeof
cancelAnimationFrame?function(t){return cancelAnimationFrame(t)}:clearTimeout},Z="undefined"!=typeof
performance&&performance.now?function(){return performance.now()}:function(){return+new
Date},J=l();J.zero=l();var K=function(t,e){var r=1;e.ext_texture_filter_anisotropic&&(r=t.getParameter(34047));var
n=1,i=1;e.webgl_draw_buffers&&(n=t.getParameter(34852),i=t.getParameter(36063));var

a=!!e.oes_texture_float;if(a){a=t.createTexture(),t.bindTexture(3553,a),t.texImage2D(3553,0,6408,1,1,0,6408,5126,null);var o=t.createFramebuffer();if(t.bindFramebuffer(36160,o),t.framebufferTexture2D(36160,36064,3553,a,0),t.bindTexture(3553,null),36053!==t.checkFramebufferStatus(36160))a=!1;else{t.viewport(0,0,1,1),t.clearColor(1,0,0,1),t.clear(16384);var s=J.allocType(5126,4);t.readPixels(0,0,1,1,6408,5126,s),t.getError()?a=!1:(t.deleteFramebuffer(o),t.deleteTexture(a),a=1===s[0]),J.freeType(s)}}return s=!0,"undefined"!=typeof navigator&&(/MSIE/.test(navigator.userAgent)||/Trident\//.test(navigator.appVersion)||/Edge/.test(navigator.userAgent))||(s=t.createTexture(),o=J.allocType(5121,36),t.activeTexture(33984),t.bindTexture(34067,s),t.texImage2D(34069,0,6408,3,3,0,6408,5121,o),J.freeType(o),t.bindTexture(34067,null),t.deleteTexture(s),s=!t.getError()),{colorBits:[t.getParameter(3410),t.getParameter(3411),t.getParameter(3412),t.getParameter(3413)],depthBits:t.getParameter(3414),stencilBits:t.getParameter(3415),subpixelBits:t.getParameter(3408),extensions:Object.keys(e).filter((function(t){return!!e[t]})),maxAnisotropic:r,maxDrawbuffers:n,maxColorAttachments:i,pointSizeDims:t.getParameter(33901),lineWidthDims:t.getParameter(33902),maxViewportDims:t.getParameter(3386),maxCombinedTextureUnits:t.getParameter(35661),maxCubeMapSize:t.getParameter(34076),maxRenderbufferSize:t.getParameter(34024),maxTextureUnits:t.getParameter(34930),maxTextureSize:t.getParameter(3379),maxAttributes:t.getParameter(34921),maxVertexUniforms:t.getParameter(36347),maxVertexTextureUnits:t.getParameter(35660),maxVaryingVectors:t.getParameter(36348),maxFragmentUniforms:t.getParameter(36349),glsl:t.getParameter(35724),renderer:t.getParameter(7937),vendor:t.getParameter(7936),version:t.getParameter(7938),readFloat:a,npotTextureCube:s}},Q=function(t){return t instanceof Uint8Array||t instanceof Uint16Array||t instanceof Uint32Array||t instanceof Int8Array||t instanceof Int16Array||t instanceof Int32Array||t instanceof Float32Array||t instanceof Float64Array||t instanceof Uint8ClampedArray},$=function(t){return Object.keys(t).map((function(e){return t[e]}))},tt={shape:function(t){for(var e=[];t.length;t=t[0])e.push(t.length);return e},flatten:function(t,e,r,n){var i=1;if(e.length)for(var a=0;a<e.length;++a)i*=e[a];else i=0;switch(r=n||J.allocType(r,i),e.length){case 0:break;case 1:for(n=e[0],e=0;e<n;++e)r[e]=t[e];break;case 2:for(n=e[0],e=e[1],a=i=0;a<n;++a)for(var o=t[a],s=0;s<e;++s)r[i++]=o[s];break;case 3:u(t,e[0],e[1],e[2],r,0);break;default:f(t,e,0,r,0)}return r}},et={"[object Int8Array]":5120,"[object Int16Array]":5122,"[object Int32Array]":5124,"[object Uint8Array]":5121,"[object Uint8ClampedArray]":5121,"[object Uint16Array]":5123,"[object Uint32Array]":5125,"[object Float32Array]":5126,"[object Float64Array]":5121,"[object ArrayBuffer]":5121},rt={int8:5120,int16:5122,int32:5124,uint8:5121,uint16:5123,uint32:5125,float:5126,float32:5126},nt={dynamic:35048,stream:35040,static:35044},it=tt.flatten,at=tt.shape,ot=[];ot[5120]=1,ot[5122]=2,ot[5124]=4,ot[5121]=1,ot[5123]=2,ot[5125]=4,ot[5126]=4;var st={points:0,point:0,lines:1,line:1,triangles:4,triangle:4,"line loop":2,"line strip":3,"triangle strip":5,"triangle fan":6},lt=new Float32Array(1),ct=new Uint32Array(lt.buffer),ut=[9984,9986,9985,9987],ft=[0,6409,6410,6407,6408],ht={};ht[6409]=ht[6406]=ht[6402]=1,ht[34041]=ht[6410]=2,ht[6407]=ht[35904]=3,ht[6408]=ht[35906]=4;var pt=x("HTMLCanvasElement"),dt=x("OffscreenCanvas"),gt=x("CanvasRenderingContext2D"),vt=x("ImageBitmap"),mt=x("HTMLImageElement"),yt=x("HTMLVideoElement"),xt=Object.keys(et).concat([pt,dt,gt,vt,mt,yt]),bt=[];bt[5121]=1,bt[5126]=4,bt[36193]=2,bt[5123]=2,bt[5125]=4;var _t=[];_t[32854]=2,_t[32855]=2,_t[36194]=2,_t[34041]=4,_t[33776]=.5,_t[33777]=.5,_t[33778]=1,_t[33779]=1,_t[35986]=.5,_t[35987]=1,_t[34798]=1,_t[35840]=.5,_t[35841]=.25,_t[35842]=.5,_t[35843]=.25,_t[36196]=.5;var wt=[];wt[32854]=2,wt[32855]=2,wt[36194]=2,wt[33189]=2,wt[36168]=1,wt[34041]=4,wt[35907]=4,wt[34836]=16,wt[34842]=8,wt[34843]=6;var Tt=function(t,e,r,n,i){function a(t){this.id=c++,this.refCount=1,this.renderbuffer=t,this.format=32854,this.height=this.width=0,i.profile&&(this.stats={size:0})}function o(e){var r=e.renderbuffer;t.bindRenderbuffer(36161,null),t.deleteRenderbuffer(r),e.renderbuffer=null,e.refCount=0,delete u[e.id],n.renderbufferCount--}var s={rgba4:32854,rgb565:36194,"rgb5 a1":32855,depth:33189,stencil:36168,"depth stencil":34041};e.ext_srgb&&(s.srgba=35907),e.ext_color_buffer_half_float&&(s.rgba16f=34842,s.rgb16f=34843),e.webgl_color_buffer_float&&(s.rgba32f=34836);var l=[];Object.keys(s).forEach((function(t){l[s[t]]=t}));var

c=0,u={};return a.prototype.decRef=function(){0>=--
this.refCount&&o(this)},i.profile&&(n.getTotalRenderbufferSize=function(){var t=0;return
Object.keys(u).forEach((function(e){t+=u[e].stats.size})),t}),{create:function(e,r){function o(e,r){var
n=0,a=0,u=32854;if("object"==typeof e&&e?("shape"in e?(n=0|(a=e.shape)[0],a=0|a[1]):("radius"in
e&&(n=a=0|e.radius),"width"in e&&(n=0|e.width),"height"in e&&(a=0|e.height)),"format"in
e&&(u=s[e.format])):"number"==typeof e?(n=0|e,a="number"==typeof
r?0|r:n):e||(n=a=1),n!==c.width||a!==c.height||u!==c.format)return
o.width=c.width=n,o.height=c.height=a,c.format=u,t.bindRenderbuffer(36161,c.renderbuffer),t.renderbufferStorage(
36161,u,n,a),i.profile&&(c.stats.size=wt[c.format]*c.width*c.height),o.format=l[c.format],o}var c=new
a(t.createRenderbuffer());return u[c.id]=c,n.renderbufferCount++,o(e,r),o.resize=function(e,r){var
n=0|e,a=0|r||n;return
n===c.width&&a===c.height||(o.width=c.width=n,o.height=c.height=a,t.bindRenderbuffer(36161,c.renderbuffer),t.r
enderbufferStorage(36161,c.format,n,a),i.profile&&(c.stats.size=wt[c.format]*c.width*c.height)),o},o._reglType="r
enderbuffer",o._renderbuffer=c,i.profile&&(o.stats=c.stats),o.destroy=function(){c.decRef()},o},clear:function(){$(
u).forEach(o)},restore:function(){$(u).forEach((function(e){e.renderbuffer=t.createRenderbuffer(),t.bindRenderbuff
er(36161,e.renderbuffer),t.renderbufferStorage(36161,e.format,e.width,e.height)})),t.bindRenderbuffer(36161,null)}
}},kt=[];kt[6408]=4,kt[6407]=3;var At=[];At[5121]=1,At[5126]=4,At[36193]=2;var
Mt=[1116352408,1899447441,-1245643825,-373957723,961987163,1508970993,-1841331548,-1424204075,-
670586216,310598401,607225278,1426881987,1925078388,-2132889090,-1680079193,-1046744716,-
459576895,-272742522,264347078,604807628,770255983,1249150122,1555081692,1996064986,-1740746414,-
1473132947,-1341970488,-1084653625,-958395405,-
710438585,113926993,338241895,666307205,773529912,1294757372,1396182291,1695183700,1986661051,-
2117940946,-1838011259,-1564481375,-1474664885,-1035236496,-949202525,-778901479,-694614492,-
200395387,275423344,430227734,506948616,659060556,883997877,958139571,1322822218,1537002063,174787
3779,1955562222,2024104815,-2067236844,-1933114872,-1866530822,-1538233109,-1090935817,-
965641998],St=["x","y","z","w"],Et="blend.func blend.equation stencil.func stencil.opFront stencil.opBack
sample.coverage viewport scissor.box polygonOffset.offset".split(" "),Lt={0:0,1:1,zero:0,one:1,"src color":768,"one
minus src color":769,"src alpha":770,"one minus src alpha":771,"dst color":774,"one minus dst color":775,"dst
alpha":772,"one minus dst alpha":773,"constant color":32769,"one minus constant color":32770,"constant
alpha":32771,"one minus constant alpha":32772,"src alpha
saturate":776},Ct={never:512,less:513,"<":513,equal:514,"=":514,"==":514,"===":514,lequal:515,"<=":515,greater
:516,">":516,notequal:517,"!=":517,"!==":517,gequal:518,">=":518,always:519},Pt={0:0,zero:0,keep:7680,replace:
7681,increment:7682,decrement:7683,"increment wrap":34055,"decrement
wrap":34056,invert:5386},It={cw:2304,ccw:2305},Ot=new N(!1,!1,!1,(function(){}));return function(t){function
e(){if(0===J.length)T&&T.update(),et=null;else{et=X.next(e),f();for(var t=J.length-1;0<=t;--t){var
r=J[t];r&&r(I,null,0)}d.flush(),T&&T.update()}}function r(){!et&&0<J.length&&(et=X.next(e))}function
n(){et&&(X.cancel(e),et=null)}function i(t){t.preventDefault(),n(),Q.forEach((function(t){t()}))}function
o(t){d.getError(),y.restore(),F.restore(),z.restore(),B.restore(),N.restore(),j.restore(),R.restore(),T&&T.restore(),U.pr
ocs.refresh(),r(),$.forEach((function(t){t()}))}function s(t){function e(t,e){var r={},n={};return
Object.keys(t).forEach((function(i){var
a=t[i];if(W.isDynamic(a))n[i]=W.unbox(a,i);else{if(e&&Array.isArray(a))for(var
o=0;o<a.length;++o)if(W.isDynamic(a[o]))return void(n[i]=W.unbox(a,i));r[i]=a}})),{dynamic:n,static:r}}var
r=e(t.context||{},!0),n=e(t.uniforms||{},!0),i=e(t.attributes||{},!1);t=e(function(t){function e(t){if(t in r){var
e=r[t];delete r[t],Object.keys(e).forEach((function(n){r[t+"."+n]=e[n]}))}}var r=G({},t);return delete
r.uniforms,delete r.attributes,delete r.context,delete r.vao,"stencil"in
r&&r.stencil.op&&(r.stencil.opBack=r.stencil.opFront=r.stencil.op,delete
r.stencil.op),e("blend"),e("depth"),e("cull"),e("stencil"),e("polygonOffset"),e("scissor"),e("sample"),"vao"in
t&&(r.vao=t.vao),r}(t),!1);var

a={gpuTime:0,cpuTime:0,count:0},o=U.compile(t,i,n,r,a),s=o.draw,l=o.batch,c=o.scope,u=[];return G((function(t,e){var r;if("function"==typeof t)return c.call(this,null,t,0);if("function"==typeof e)if("number"==typeof t)for(r=0;r<t;++r)c.call(this,null,e,r);else{if(!Array.isArray(t))return c.call(this,t,e,0);for(r=0;r<t.length;++r)c.call(this,t[r],e,r)}else if("number"==typeof t){if(0<t)return l.call(this,function(t){for(;u.length<t;)u.push(null);return u}(0|t),0|t)}else{if(!Array.isArray(t))return s.call(this,t);if(t.length)return l.call(this,t,t.length)}}),{stats:a,destroy:function(){o.destroy()}})}function l(t,e){var r=0;U.procs.poll();var n=e.color;n&&(d.clearColor(+n[0]||0,+n[1]||0,+n[2]||0,+n[3]||0),r|=16384),"depth"in e&&(d.clearDepth(+e.depth),r|=256),"stencil"in e&&(d.clearStencil(0|e.stencil),r|=1024),d.clear(r)}function c(t){return J.push(t),r(),{cancel:function(){var e=H(J,t);J[e]=function t(){var e=H(J,t);J[e]=J[J.length-1],--J.length,0>=J.length&&n()}}}}function u(){var t=V.viewport,e=V.scissor_box;t[0]=t[1]=e[0]=e[1]=0,I.viewportWidth=I.framebufferWidth=I.drawingBufferWidth=t[2]=e[2]=d.drawingBufferWidth,I.viewportHeight=I.framebufferHeight=I.drawingBufferHeight=t[3]=e[3]=d.drawingBufferHeight}function f(){I.tick+=1,I.time=p(),u(),U.procs.poll()}function h(){B.refresh(),u(),U.procs.refresh(),T&&T.update()}function p(){return(Z()-k)/1e3}if(!(t=a(t)))return null;var d=t.gl,m=d.getContextAttributes();d.isContextLost();var y=function(t,e){function r(e){var r;e=e.toLowerCase();try{r=n[e]=t.getExtension(e)}catch(t){}return!!r}for(var n={},i=0;i<e.extensions.length;++i){var a=e.extensions[i];if(!r(a))return e.onDestroy(),e.onDone('"'+a+'" extension is not supported by the current WebGL context, try upgrading your system or a different browser'),null}return e.optionalExtensions.forEach(r),{extensions:n,restore:function(){Object.keys(n).forEach((function(t){if(n[t]&&!r(t))throw Error("(regl): error restoring extension "+t)}))}}}(d,t);if(!y)return null;var x=function(){var t={"":0},e=[""];return{id:function(r){var n=t[r];return n||(n=t[r]=e.length,e.push(r),n)},str:function(t){return e[t]}}}(),b={vaoCount:0,bufferCount:0,elementsCount:0,framebufferCount:0,shaderCount:0,textureCount:0,cubeCount:0,renderbufferCount:0,maxTextureUnits:0},_=t.cachedCode||{},w=y.extensions,T=function(t,e){function r(){this.endQueryIndex=this.startQueryIndex=-1,this.sum=0,this.stats=null}function n(t,e,n){var i=o.pop()||new r;i.startQueryIndex=t,i.endQueryIndex=e,i.sum=0,i.stats=n,s.push(i)}if(!e.ext_disjoint_timer_query)return null;var i=[],a=[],o=[],s=[],l=[],c=[];return{beginQuery:function(t){var r=i.pop()||e.ext_disjoint_timer_query.createQueryEXT();e.ext_disjoint_timer_query.beginQueryEXT(35007,r),a.push(r),n(a.length-1,a.length,t)},endQuery:function(){e.ext_disjoint_timer_query.endQueryEXT(35007)},pushScopeStats:n,update:function(){var t,r;if(0!==(t=a.length)){c.length=Math.max(c.length,t+1),l.length=Math.max(l.length,t+1),l[0]=0;var n=c[0]=0;for(r=t=0;r<a.length;++r){var u=a[r];e.ext_disjoint_timer_query.getQueryObjectEXT(u,34919)?(n+=e.ext_disjoint_timer_query.getQueryObjectEXT(u,34918),i.push(u)):a[t++]=u,l[r+1]=n,c[r+1]=t}for(a.length=t,r=t=0;r<s.length;++r){var f=(n=s[r]).startQueryIndex;u=n.endQueryIndex,n.sum+=l[u]-l[f],f=c[f],(u=c[u])===f?(n.stats.gpuTime+=n.sum/1e6,o.push(n)):(n.startQueryIndex=f,n.endQueryIndex=u,s[t++]=n)}s.length=t},getNumPendingQueries:function(){return a.length},clear:function(){i.push.apply(i,a);for(var t=0;t<i.length;t++)e.ext_disjoint_timer_query.deleteQueryEXT(i[t]);a.length=0,i.length=0},restore:function(){a.length=0,i.length=0}}}(0,w),k=Z(),A=d.drawingBufferWidth,E=d.drawingBufferHeight,I={tick:0,time:0,viewportWidth:A,viewportHeight:E,framebufferWidth:A,framebufferHeight:E,drawingBufferWidth:A,drawingBufferHeight:E,pixelRatio:t.pixelRatio},O=(A={elements:null,primitive:4,count:-1,offset:0,instances:-1},K(d,w)),z=g(d,b,t,(function(t){return R.destroyBuffer(t)})),D=v(d,w,z,b),R=L(d,w,O,b,z,D,A),F=C(d,x,b,t),B=M(d,w,O,(function(){U.procs.poll()}),I,b,t),N=Tt(d,w,0,b,t),j=S(d,w,O,B,N,b),U=q(d,x,w,O,z,D,0,j,{},R,F,A,I,T,_,t),V=(x=P(d,j,U.procs.poll,I),U.next),Y=d.canvas,J=[],Q=[],$=[],tt=[t.onDestroy],et=null;Y&&(Y.addEventListener("webglcontextlost",i,!1),Y.addEventListener("webglcontextrestored",o,!1));var rt=j.setFBO=s({framebuffer:W.define.call(null,1,"framebuffer")});return h(),m=G(s,{clear:function(t){if("framebuffer"in t)if(t.framebuffer&&"framebufferCube"===t.framebuffer_reglType)for(var e=0;6>e;++e)rt(G({framebuffer:t.framebuffer.faces[e]},t),l);else rt(t,l);else

l(0,t)},prop:W.define.bind(null,1),context:W.define.bind(null,2),this:W.define.bind(null,3),draw:s({}),buffer:functio
n(t){return z.create(t,34962,!1,!1)},elements:function(t){return
D.create(t,!1)},texture:B.create2D,cube:B.createCube,renderbuffer:N.create,framebuffer:j.create,framebufferCube:j.
createCube,vao:R.createVAO,attributes:m,frame:c,on:function(t,e){var r;switch(t){case"frame":return
c(e);case"lost":r=Q;break;case"restore":r=$;break;case"destroy":r=tt}return r.push(e),{cancel:function(){for(var
t=0;t<r.length;++t)if(r[t]===e){r[t]=r[r.length-1],r.pop();break}}}},limits:O,hasExtension:function(t){return
0<=O.extensions.indexOf(t.toLowerCase())},read:x,destroy:function(){J.length=0,n(),Y&&(Y.removeEventListener
("webglcontextlost",i),Y.removeEventListener("webglcontextrestored",o)),F.clear(),j.clear(),N.clear(),R.clear(),B.cl
ear(),D.clear(),z.clear(),T&&T.clear(),tt.forEach((function(t){t()}))},_gl:d,_refresh:h,poll:function(){f(),T&&T.upda
te()},now:p,stats:b,getCachedCode:function(){return
},preloadCachedCode:function(t){Object.entries(t).forEach((function(t){[t[0]]=t[1]}))}}),t.onDone(null,m)},"
object"==typeof r&&void 0!==e?e.exports=n():this.createREGL=n()},{}],284:[function(t,e,r){var
n=t("buffer"),i=n.Buffer;function a(t,e){for(var r in t)e[r]=t[r]}function o(t,e,r){return
i(t,e,r)}i.from&&i.alloc&&i.allocUnsafe&&i.allocUnsafeSlow?e.exports=n:(a(n,r),r.Buffer=o),o.prototype=Object.
create(i.prototype),a(i,o),o.from=function(t,e,r){if("number"==typeof t)throw new TypeError("Argument must not
be a number");return i(t,e,r)},o.alloc=function(t,e,r){if("number"!=typeof t)throw new TypeError("Argument must
be a number");var n=i(t);return void 0!==e?"string"==typeof
r?n.fill(e,r):n.fill(e):n.fill(0),n},o.allocUnsafe=function(t){if("number"!=typeof t)throw new TypeError("Argument
must be a number");return i(t)},o.allocUnsafeSlow=function(t){if("number"!=typeof t)throw new
TypeError("Argument must be a number");return
n.SlowBuffer(t)}},{buffer:85}],285:[function(t,e,r){e.exports=i;var n=t("events").EventEmitter;function
i(){n.call(this)}t("inherits")(i,n),i.Readable=t("readable-stream/lib/_stream_readable.js"),i.Writable=t("readable-
stream/lib/_stream_writable.js"),i.Duplex=t("readable-stream/lib/_stream_duplex.js"),i.Transform=t("readable-
stream/lib/_stream_transform.js"),i.PassThrough=t("readable-
stream/lib/_stream_passthrough.js"),i.finished=t("readable-stream/lib/internal/streams/end-of-
stream.js"),i.pipeline=t("readable-
stream/lib/internal/streams/pipeline.js"),i.Stream=i,i.prototype.pipe=function(t,e){var r=this;function
i(e){t.writable&&!1===t.write(e)&&r.pause&&r.pause()}function
a(){r.readable&&r.resume&&r.resume()}r.on("data",i),t.on("drain",a),t._isStdio||e&&!1===e.end||(r.on("end",s),r.o
n("close",l));var o=!1;function s(){o||(o=!0,t.end())}function l(){o||(o=!0,"function"==typeof
t.destroy&&t.destroy())}function c(t){if(u(),0===n.listenerCount(this,"error"))throw t}function
u(){r.removeListener("data",i),t.removeListener("drain",a),r.removeListener("end",s),r.removeListener("close",l),r.r
emoveListener("error",c),t.removeListener("error",c),r.removeListener("end",u),r.removeListener("close",u),t.remov
eListener("close",u)}return
r.on("error",c),t.on("error",c),r.on("end",u),r.on("close",u),t.on("close",u),t.emit("pipe",r),t}},{events:84,inherits:231
,"readable-stream/lib/_stream_duplex.js":287,"readable-stream/lib/_stream_passthrough.js":288,"readable-
stream/lib/_stream_readable.js":289,"readable-stream/lib/_stream_transform.js":290,"readable-
stream/lib/_stream_writable.js":291,"readable-stream/lib/internal/streams/end-of-stream.js":295,"readable-
stream/lib/internal/streams/pipeline.js":297}],286:[function(t,e,r){"use strict";var n={};function
i(t,e,r){r||(r=Error);var i=function(t){function r(r,n,i){return t.call(this,function(t,r,n){return"string"==typeof
e?e:e(t,r,n)}(r,n,i))||this}return
i=t,(n=r).prototype=Object.create(i.prototype),n.prototype.constructor=n,n.__proto__=i,r;var
n,i}(r);i.prototype.name=r.name,i.prototype.code=t,n[t]=i}function a(t,e){if(Array.isArray(t)){var r=t.length;return
t=t.map((function(t){return String(t)})),r>2?"one of ".concat(e," ").concat(t.slice(0,r-1).join(", "),", or ")+t[r-
1]:2===r?"one of ".concat(e," ").concat(t[0]," or ").concat(t[1]):"of ".concat(e," ").concat(t[0])}return"of ".concat(e,"
").concat(String(t))}i("ERR_INVALID_OPT_VALUE",(function(t,e){return'The value "'+e+'" is invalid for option
"'+t+'"'}),TypeError),i("ERR_INVALID_ARG_TYPE",(function(t,e,r){var n,i,o,s;if("string"==typeof e&&(o="not
",e.substr(!s||s<0?0:+s,o.length)===o)?(n="must not be",e=e.replace(/^not /,"")):n="must

be",function(t,e,r){return(void 0===r||r>t.length)&&(r=t.length),t.substring(r-e.length,r)===e}(t," argument"))i="The ".concat(t," ").concat(n," ").concat(a(e,"type"));else{var l=function(t,e,r){return"number"!=typeof r&&(r=0),!(r+e.length>t.length)&&-1!==t.indexOf(e,r)}(t,".")?"property":"argument";i='The "'.concat(t,'" ').concat(l," ").concat(n," ").concat(a(e,"type"))}return i+". Received type ".concat(typeof r)}),TypeError),i("ERR_STREAM_PUSH_AFTER_EOF","stream.push() after EOF"),i("ERR_METHOD_NOT_IMPLEMENTED",(function(t){return"The "+t+" method is not implemented"})),i("ERR_STREAM_PREMATURE_CLOSE","Premature close"),i("ERR_STREAM_DESTROYED",(function(t){return"Cannot call "+t+" after a stream was destroyed"})),i("ERR_MULTIPLE_CALLBACK","Callback called multiple times"),i("ERR_STREAM_CANNOT_PIPE","Cannot pipe, not readable"),i("ERR_STREAM_WRITE_AFTER_END","write after end"),i("ERR_STREAM_NULL_VALUES","May not write null values to stream",TypeError),i("ERR_UNKNOWN_ENCODING",(function(t){return"Unknown encoding: "+t}),TypeError),i("ERR_STREAM_UNSHIFT_AFTER_END_EVENT","stream.unshift() after end event"),e.exports.codes=n},{}],287:[function(t,e,r){(function(r){(function(){"use strict";var n=Object.keys||function(t){var e=[];for(var r in t)e.push(r);return e};e.exports=c;var i=t("./_stream_readable"),a=t("./_stream_writable");t("inherits")(c,i);for(var o=n(a.prototype),s=0;s<o.length;s++){var l=o[s];c.prototype[l]||(c.prototype[l]=a.prototype[l])}function c(t){if(!(this instanceof c))return new c(t);i.call(this,t),a.call(this,t),this.allowHalfOpen=!0,t&&(!1===t.readable&&(this.readable=!1),!1===t.writable&&(this.writable=!1),!1===t.allowHalfOpen&&(this.allowHalfOpen=!1,this.once("end",u))))}function u(){this._writableState.ended||r.nextTick(f,this)}function f(t){t.end()}Object.defineProperty(c.prototype,"writableHighWaterMark",{enumerable:!1,get:function(){return this._writableState.highWaterMark}}),Object.defineProperty(c.prototype,"writableBuffer",{enumerable:!1,get:function(){return this._writableState&&this._writableState.getBuffer()}}),Object.defineProperty(c.prototype,"writableLength",{enumerable:!1,get:function(){return this._writableState.length}}),Object.defineProperty(c.prototype,"destroyed",{enumerable:!1,get:function(){return void 0!==this._readableState&&void 0!==this._writableState&&this._readableState.destroyed&&this._writableState.destroyed},set:function(t){void 0!==this._readableState&&void 0!==this._writableState&&(this._readableState.destroyed=t,this._writableState.destroyed=t)}})}).call(this)}).call(this,t("_process"))},{"./_stream_readable":289,"./_stream_writable":291,_process:277,inherits:231}],288:[function(t,e,r){"use strict";e.exports=i;var n=t("./_stream_transform");function i(t){if(!(this instanceof i))return new i(t);n.call(this,t)}t("inherits")(i,n),i.prototype._transform=function(t,e,r){r(null,t)}},{"./_stream_transform":290,inherits:231}],289:[function(t,e,n){(function(r,n){(function(){"use strict";var i;e.exports=A,A.ReadableState=k,t("events").EventEmitter;var a,o=function(t,e){return t.listeners(e).length},s=t("./internal/streams/stream"),l=t("buffer").Buffer,c=n.Uint8Array||function(){},u=t("util");a=u&&u.debuglog?u.debuglog("stream"):function(){};var f,h,p,d=t("./internal/streams/buffer_list"),g=t("./internal/streams/destroy"),v=t("./internal/streams/state").getHighWaterMark,m=t("../errors").codes,y=m.ERR_INVALID_ARG_TYPE,x=m.ERR_STREAM_PUSH_AFTER_EOF,b=m.ERR_METHOD_NOT_IMPLEMENTED,_=m.ERR_STREAM_UNSHIFT_AFTER_END_EVENT;t("inherits")(A,s);var w=g.errorOrDestroy,T=["error","close","destroy","pause","resume"];function k(e,r,n){i=i||t("./_stream_duplex"),e=e||{},"boolean"!=typeof n&&(n=r instanceof i),this.objectMode=!!e.objectMode,n&&(this.objectMode=this.objectMode||!!e.readableObjectMode),this.highWaterMark=v(this,e,"readableHighWaterMark",n),this.buffer=new d,this.length=0,this.pipes=null,this.pipesCount=0,this.flowing=null,this.ended=!1,this.endEmitted=!1,this.reading=!

1,this.sync=!0,this.needReadable=!1,this.emittedReadable=!1,this.readableListening=!1,this.resumeScheduled=!1,this.paused=!0,this.emitClose=!1!==e.emitClose,this.autoDestroy=!!e.autoDestroy,this.destroyed=!1,this.defaultEncoding=e.defaultEncoding||"utf8",this.awaitDrain=0,this.readingMore=!1,this.decoder=null,this.encoding=null,e.encoding&&(f||(f=t("string_decoder/").StringDecoder),this.decoder=new f(e.encoding),this.encoding=e.encoding)}function A(e){if(i=i||t("./_stream_duplex"),!(this instanceof A))return new A(e);var r=this instanceof i;this._readableState=new k(e,this,r),this.readable=!0,e&&("function"==typeof e.read&&(this._read=e.read),"function"==typeof e.destroy&&(this._destroy=e.destroy)),s.call(this)}function M(t,e,r,n,i){a("readableAddChunk",e);var o,s=t._readableState;if(null===e)s.reading=!1,function(t,e){if(a("onEofChunk"),!e.ended){if(e.decoder){var r=e.decoder.end();r&&r.length&&(e.buffer.push(r),e.length+=e.objectMode?1:r.length)}e.ended=!0,e.sync?C(t):(e.needReadable=!1,e.emittedReadable||(e.emittedReadable=!0,P(t)))}}(t,s);else if(i||(o=function(t,e){var r,n;return n=e,l.isBuffer(n)||n instanceof c||"string"==typeof e||void 0===e||t.objectMode||(r=new y("chunk",["string","Buffer","Uint8Array"],e)),r}(s,e)),o)w(t,o);else if(s.objectMode||e&&e.length>0)if("string"==typeof e||s.objectMode||Object.getPrototypeOf(e)===l.prototype||(e=function(t){return l.from(t)}(e)),n)s.endEmitted?w(t,new _):S(t,s,e,!0);else if(s.ended)w(t,new x);else{if(s.destroyed)return!1;s.reading=!1,s.decoder&&!r?(e=s.decoder.write(e),s.objectMode||0!==e.length?S(t,s,e,!1):I(t,s)):S(t,s,e,!1)}else n||(s.reading=!1,I(t,s));return!s.ended&&(s.length<s.highWaterMark||0===s.length)}function S(t,e,r,n){e.flowing&&0===e.length&&!e.sync?(e.awaitDrain=0,t.emit("data",r)):(e.length+=e.objectMode?1:r.length,n?e.buffer.unshift(r):e.buffer.push(r),e.needReadable&&C(t)),I(t,e)}Object.defineProperty(A.prototype,"destroyed",{enumerable:!1,get:function(){return void 0!==this._readableState&&this._readableState.destroyed},set:function(t){this._readableState&&(this._readableState.destroyed=t)}}),A.prototype.destroy=g.destroy,A.prototype._undestroy=g.undestroy,A.prototype._destroy=function(t,e){e(t)},A.prototype.push=function(t,e){var r,n=this._readableState;return n.objectMode?r=!0:"string"==typeof t&&((e=e||n.defaultEncoding)!==n.encoding&&(t=l.from(t,e),e=""),r=!0),M(this,t,e,!1,r)},A.prototype.unshift=function(t){return M(this,t,null,!0,!1)},A.prototype.isPaused=function(){return!1===this._readableState.flowing},A.prototype.setEncoding=function(e){f||(f=t("string_decoder/").StringDecoder);var r=new f(e);this._readableState.decoder=r,this._readableState.encoding=this._readableState.decoder.encoding;for(var n=this._readableState.buffer.head,i="";null!==n;)i+=r.write(n.data),n=n.next;return this._readableState.buffer.clear(),""!==i&&this._readableState.buffer.push(i),this._readableState.length=i.length,this};var E=1073741824;function L(t,e){return t<=0||0===e.length&&e.ended?0:e.objectMode?1:t!=t?e.flowing&&e.length?e.buffer.head.data.length:e.length:(t>e.highWaterMark&&(e.highWaterMark=function(t){return t>=E?t=E:(t--,t|=t>>>1,t|=t>>>2,t|=t>>>4,t|=t>>>8,t|=t>>>16,t++),t}(t)),t<=e.length?t:e.ended?e.length:(e.needReadable=!0,0))}function C(t){var e=t._readableState;a("emitReadable",e.needReadable,e.emittedReadable),e.needReadable=!1,e.emittedReadable||(a("emitReadable",e.flowing),e.emittedReadable=!0,r.nextTick(P,t))}function P(t){var e=t._readableState;a("emitReadable_",e.destroyed,e.length,e.ended),e.destroyed||!e.length&&!e.ended||(t.emit("readable"),e.emittedReadable=!1),e.needReadable=!e.flowing&&!e.ended&&e.length<=e.highWaterMark,F(t)}function I(t,e){e.readingMore||(e.readingMore=!0,r.nextTick(O,t,e))}function O(t,e){for(;!e.reading&&!e.ended&&(e.length<e.highWaterMark||e.flowing&&0===e.length);){var r=e.length;if(a("maybeReadMore read 0"),t.read(0),r===e.length)break}e.readingMore=!1}function z(t){var e=t._readableState;e.readableListening=t.listenerCount("readable")>0,e.resumeScheduled&&!e.paused?e.flowing=!0:t.listenerCount("data")>0&&t.resume()}function D(t){a("readable nexttick read 0"),t.read(0)}function R(t,e){a("resume",e.reading),e.reading||t.read(0),e.resumeScheduled=!1,t.emit("resume"),F(t),e.flowing&&!e.reading&&t.read(0)}function F(t){var e=t._readableState;for(a("flow",e.flowing);e.flowing&&null!==t.read(););}function

B(t,e){return
0===e.length?null:(e.objectMode?r=e.buffer.shift():!t||t>=e.length?(r=e.decoder?e.buffer.join(""):1===e.buffer.lengt
h?e.buffer.first():e.buffer.concat(e.length),e.buffer.clear()):r=e.buffer.consume(t,e.decoder),r);var r}function
N(t){var e=t._readableState;a("endReadable",e.endEmitted),e.endEmitted||(e.ended=!0,r.nextTick(j,e,t))}function
j(t,e){if(a("endReadableNT",t.endEmitted,t.length),!t.endEmitted&&0===t.length&&(t.endEmitted=!0,e.readable=!
1,e.emit("end"),t.autoDestroy)){var r=e._writableState;(!r||r.autoDestroy&&r.finished)&&e.destroy()}}function
U(t,e){for(var r=0,n=t.length;r<n;r++)if(t[r]===e)return r;return-
1}A.prototype.read=function(t){a("read",t),t=parseInt(t,10);var
e=this._readableState,r=t;if(0!==t&&(e.emittedReadable=!1),0===t&&e.needReadable&&((0!==e.highWaterMark?
e.length>=e.highWaterMark:e.length>0)||e.ended))return a("read:
emitReadable",e.length,e.ended),0===e.length&&e.ended?N(this):C(this),null;if(0===(t=L(t,e))&&e.ended)return
0===e.length&&N(this),null;var n,i=e.needReadable;return a("need readable",i),(0===e.length||e.length-
t<e.highWaterMark)&&a("length less than watermark",i=!0),e.ended||e.reading?a("reading or
ended",i=!1):i&&(a("do
read"),e.reading=!0,e.sync=!0,0===e.length&&(e.needReadable=!0),this._read(e.highWaterMark),e.sync=!1,e.readi
ng||(t=L(r,e))),null===(n=t>0?B(t,e):null)?(e.needReadable=e.length<=e.highWaterMark,t=0):(e.length-
=t,e.awaitDrain=0),0===e.length&&(e.ended||(e.needReadable=!0),r!==t&&e.ended&&N(this)),null!==n&&this.e
mit("data",n),n},A.prototype._read=function(t){w(this,new b("_read()"))},A.prototype.pipe=function(t,e){var
n=this,i=this._readableState;switch(i.pipesCount){case 0:i.pipes=t;break;case
1:i.pipes=[i.pipes,t];break;default:i.pipes.push(t)}i.pipesCount+=1,a("pipe count=%d opts=%j",i.pipesCount,e);var
s=e&&!1===e.end||t===r.stdout||t===r.stderr?v:c;function
l(e,r){a("onunpipe"),e===n&&r&&!1===r.hasUnpiped&&(r.hasUnpiped=!0,a("cleanup"),t.removeListener("close",
d),t.removeListener("finish",g),t.removeListener("drain",u),t.removeListener("error",p),t.removeListener("unpipe",l)
,n.removeListener("end",c),n.removeListener("end",v),n.removeListener("data",h),f=!0,!i.awaitDrain||t._writableSta
te&&!t._writableState.needDrain||u())}function
c(){a("onend"),t.end()}i.endEmitted?r.nextTick(s):n.once("end",s),t.on("unpipe",l);var u=function(t){return
function(){var e=t._readableState;a("pipeOnDrain",e.awaitDrain),e.awaitDrain&&e.awaitDrain--
,0===e.awaitDrain&&o(t,"data")&&(e.flowing=!0,F(t))}}(n);t.on("drain",u);var f=!1;function h(e){a("ondata");var
r=t.write(e);a("dest.write",r),!1===r&&((1===i.pipesCount&&i.pipes===t||i.pipesCount>1&&-
1!==U(i.pipes,t))&&!f&&(a("false write response, pause",i.awaitDrain),i.awaitDrain++),n.pause())}function
p(e){a("onerror",e),v(),t.removeListener("error",p),0===o(t,"error")&&w(t,e)}function
d(){t.removeListener("finish",g),v()}function g(){a("onfinish"),t.removeListener("close",d),v()}function
v(){a("unpipe"),n.unpipe(t)}return n.on("data",h),function(t,e,r){if("function"==typeof t.prependListener)return
t.prependListener(e,r);t._events&&t._events[e]?Array.isArray(t._events[e])?t._events[e].unshift(r):t._events[e]=[r,t.
_events[e]]:t.on(e,r)}(t,"error",p),t.once("close",d),t.once("finish",g),t.emit("pipe",n),i.flowing||(a("pipe
resume"),n.resume()),t},A.prototype.unpipe=function(t){var
e=this._readableState,r={hasUnpiped:!1};if(0===e.pipesCount)return this;if(1===e.pipesCount)return
t&&t!==e.pipes||(t||(t=e.pipes),e.pipes=null,e.pipesCount=0,e.flowing=!1,t&&t.emit("unpipe",this,r)),this;if(!t){var
n=e.pipes,i=e.pipesCount;e.pipes=null,e.pipesCount=0,e.flowing=!1;for(var
a=0;a<i;a++)n[a].emit("unpipe",this,{hasUnpiped:!1});return this}var o=U(e.pipes,t);return-
1===o||(e.pipes.splice(o,1),e.pipesCount-
=1,1===e.pipesCount&&(e.pipes=e.pipes[0]),t.emit("unpipe",this,r)),this},A.prototype.on=function(t,e){var
n=s.prototype.on.call(this,t,e),i=this._readableState;return"data"===t?(i.readableListening=this.listenerCount("reada
ble")>0,!1!==i.flowing&&this.resume()):"readable"===t&&(i.endEmitted||i.readableListening||(i.readableListening
=i.needReadable=!0,i.flowing=!1,i.emittedReadable=!1,a("on
readable",i.length,i.reading),i.length?C(this):i.reading||r.nextTick(D,this))),n},A.prototype.addListener=A.prototype.
on,A.prototype.removeListener=function(t,e){var
n=s.prototype.removeListener.call(this,t,e);return"readable"===t&&r.nextTick(z,this),n},A.prototype.removeAllList

eners=function(t){var e=s.prototype.removeAllListeners.apply(this,arguments);return"readable"!==t&&void 0!==t||r.nextTick(z,this),e},A.prototype.resume=function(){var t=this._readableState;return t.flowing||(a("resume"),t.flowing=!t.readableListening,function(t,e){e.resumeScheduled||(e.resumeScheduled=!0,r.nextTick(R,t,e))}(this,t)),t.paused=!1,this},A.prototype.pause=function(){return a("call pause flowing=%j",this._readableState.flowing),!1!==this._readableState.flowing&&(a("pause"),this._readableState.flowing=!1,this.emit("pause")),this._readableState.paused=!0,this},A.prototype.wrap=function(t){var e=this,r=this._readableState,n=!1;for(var i in t.on("end",(function(){if(a("wrapped end"),r.decoder&&!r.ended){var t=r.decoder.end();t&&t.length&&e.push(t)}e.push(null)})),t.on("data",(function(i){a("wrapped data"),r.decoder&&(i=r.decoder.write(i)),r.objectMode&&null==i||(r.objectMode||i&&i.length)&&(e.push(i)||(n=!0,t.pause()))})),t)void 0===this[i]&&"function"==typeof t[i]&&(this[i]=function(e){return function(){return t[e].apply(t,arguments)}}(i));for(var o=0;o<T.length;o++)t.on(T[o],this.emit.bind(this,T[o]));return this._read=function(e){a("wrapped _read",e),n&&(n=!1,t.resume())},this},"function"==typeof Symbol&&(A.prototype[Symbol.asyncIterator]=function(){return void 0===h&&(h=t("./internal/streams/async_iterator")),h(this)}),Object.defineProperty(A.prototype,"readableHighWaterMark",{enumerable:!1,get:function(){return this._readableState.highWaterMark}}),Object.defineProperty(A.prototype,"readableBuffer",{enumerable:!1,get:function(){return this._readableState&&this._readableState.buffer}}),Object.defineProperty(A.prototype,"readableFlowing",{enumerable:!1,get:function(){return this._readableState.flowing},set:function(t){this._readableState&&(this._readableState.flowing=t)}}),A._fromList=B,Object.defineProperty(A.prototype,"readableLength",{enumerable:!1,get:function(){return this._readableState.length}}),"function"==typeof Symbol&&(A.from=function(e,r){return void 0===p&&(p=t("./internal/streams/from")),p(A,e,r)})}).call(this)}).call(this,t("_process"),void 0!==r.g?r.g:"undefined"!=typeof self?self:"undefined"!=typeof window?window:{})},{"../errors":286,"./_stream_duplex":287,"./internal/streams/async_iterator":292,"./internal/streams/buffer_list":293,"./internal/streams/destroy":294,"./internal/streams/from":296,"./internal/streams/state":298,"./internal/streams/stream":299,_process:277,buffer:85,events:84,inherits:231,"string_decoder/":300,util:83}],290:[function(t,e,r){"use strict";e.exports=u;var n=t("../errors").codes,i=n.ERR_METHOD_NOT_IMPLEMENTED,a=n.ERR_MULTIPLE_CALLBACK,o=n.ERR_TRANSFORM_ALREADY_TRANSFORMING,s=n.ERR_TRANSFORM_WITH_LENGTH_0,l=t("./_stream_duplex");function c(t,e){var r=this._transformState;r.transforming=!1;var n=r.writecb;if(null===n)return this.emit("error",new a);r.writechunk=null,r.writecb=null,null!=e&&this.push(e),n(t);var i=this._readableState;i.reading=!1,(i.needReadable||i.length<i.highWaterMark)&&this._read(i.highWaterMark)}function u(t){if(!(this instanceof u))return new u(t);l.call(this,t),this._transformState={afterTransform:c.bind(this),needTransform:!1,transforming:!1,writecb:null,writechunk:null,writeencoding:null},this._readableState.needReadable=!0,this._readableState.sync=!1,t&&("function"==typeof t.transform&&(this._transform=t.transform),"function"==typeof t.flush&&(this._flush=t.flush)),this.on("prefinish",f)}function f(){var t=this;"function"!=typeof this._flush||this._readableState.destroyed?h(this,null,null):this._flush((function(e,r){h(t,e,r)}))}function h(t,e,r){if(e)return t.emit("error",e);if(null!=r&&t.push(r),t._writableState.length)throw new s;if(t._transformState.transforming)throw new o;return t.push(null)}t("inherits")(u,l),u.prototype.push=function(t,e){return this._transformState.needTransform=!1,l.prototype.push.call(this,t,e)},u.prototype._transform=function(t,e,r){r(new i("_transform()"))},u.prototype._write=function(t,e,r){var n=this._transformState;if(n.writecb=r,n.writechunk=t,n.writeencoding=e,!n.transforming){var i=this._readableState;(n.needTransform||i.needReadable||i.length<i.highWaterMark)&&this._read(i.highWaterMark)}},u.prototype._read=function(t){var e=this._transformState;null===e.writechunk||e.transforming?e.needTransform=!0:(e.transforming=!0,this._transfor

m(e.writechunk,e.writeencoding,e.afterTransform))},u.prototype._destroy=function(t,e){l.prototype._destroy.call(this,t,(function(t){e(t)}))}},{"../errors":286,"./_stream_duplex":287,inherits:231}],291:[function(t,e,n){(function(r,n){(function(){"use strict";function i(t){var e=this;this.next=null,this.entry=null,this.finish=function(){!function(t,e,r){var n=t.entry;for(t.entry=null;n;){var i=n.callback;e.pendingcb--,i(r),n=n.next}e.corkedRequestsFree.next=t}(e,t)}}var a;e.exports=A,A.WritableState=k;var o,s={deprecate:t("util-deprecate")},l=t("./internal/streams/stream"),c=t("buffer").Buffer,u=n.Uint8Array||function(){},f=t("./internal/streams/destroy"),h=t("./internal/streams/state").getHighWaterMark,p=t("../errors").codes,d=p.ERR_INVALID_ARG_TYPE,g=p.ERR_METHOD_NOT_IMPLEMENTED,v=p.ERR_MULTIPLE_CALLBACK,m=p.ERR_STREAM_CANNOT_PIPE,y=p.ERR_STREAM_DESTROYED,x=p.ERR_STREAM_NULL_VALUES,b=p.ERR_STREAM_WRITE_AFTER_END,_=p.ERR_UNKNOWN_ENCODING,w=f.errorOrDestroy;function T(){}function k(e,n,o){a=a||t("./_stream_duplex"),e=e||{},"boolean"!=typeof o&&(o=n instanceof a),this.objectMode=!!e.objectMode,o&&(this.objectMode=this.objectMode||!!e.writableObjectMode),this.highWaterMark=h(this,e,"writableHighWaterMark",o),this.finalCalled=!1,this.needDrain=!1,this.ending=!1,this.ended=!1,this.finished=!1,this.destroyed=!1;var s=!1===e.decodeStrings;this.decodeStrings=!s,this.defaultEncoding=e.defaultEncoding||"utf8",this.length=0,this.writing=!1,this.corked=0,this.sync=!0,this.bufferProcessing=!1,this.onwrite=function(t){!function(t,e){var n=t._writableState,i=n.sync,a=n.writecb;if("function"!=typeof a)throw new v;if(function(t){t.writing=!1,t.writecb=null,t.length-=t.writelen,t.writelen=0}(n),e)!function(t,e,n,i,a){--e.pendingcb,n?(r.nextTick(a,i),r.nextTick(I,t,e),t._writableState.errorEmitted=!0,w(t,i)):(a(i),t._writableState.errorEmitted=!0,w(t,i),I(t,e))}(t,n,i,e,a);else{var o=C(n)||t.destroyed;o||n.corked||n.bufferProcessing||!n.bufferedRequest||L(t,n),i?r.nextTick(E,t,n,o,a):E(t,n,o,a)}}(n,t)},this.writecb=null,this.writelen=0,this.bufferedRequest=null,this.lastBufferedRequest=null,this.pendingcb=0,this.prefinished=!1,this.errorEmitted=!1,this.emitClose=!1!==e.emitClose,this.autoDestroy=!!e.autoDestroy,this.bufferedRequestCount=0,this.corkedRequestsFree=new i(this)}function A(e){var r=this instanceof(a=a||t("./_stream_duplex"));if(!r&&!o.call(A,this))return new A(e);this._writableState=new k(e,this,r),this.writable=!0,e&&("function"==typeof e.write&&(this._write=e.write),"function"==typeof e.writev&&(this._writev=e.writev),"function"==typeof e.destroy&&(this._destroy=e.destroy),"function"==typeof e.final&&(this._final=e.final)),l.call(this)}function M(t,e,r,n,i,a){if(!r){var o=function(t,e,r){return t.objectMode||!1===t.decodeStrings||"string"!=typeof e||(e=c.from(e,r)),e}(e,n,i);n!==o&&(r=!0,i="buffer",n=o)}var s=e.objectMode?1:n.length;e.length+=s;var l=e.length<e.highWaterMark;if(l||(e.needDrain=!0),e.writing||e.corked){var u=e.lastBufferedRequest;e.lastBufferedRequest={chunk:n,encoding:i,isBuf:r,callback:a,next:null},u?u.next=e.lastBufferedRequest:e.bufferedRequest=e.lastBufferedRequest,e.bufferedRequestCount+=1}else S(t,e,!1,s,n,i,a);return l}function S(t,e,r,n,i,a,o){e.writelen=n,e.writecb=o,e.writing=!0,e.sync=!0,e.destroyed?e.onwrite(new y("write")):r?t._writev(i,e.onwrite):t._write(i,a,e.onwrite),e.sync=!1}function E(t,e,r,n){r||function(t,e){0===e.length&&e.needDrain&&(e.needDrain=!1,t.emit("drain"))}(t,e),e.pendingcb--,n(),I(t,e)}function L(t,e){e.bufferProcessing=!0;var r=e.bufferedRequest;if(t._writev&&r&&r.next){var n=e.bufferedRequestCount,a=new Array(n),o=e.corkedRequestsFree;o.entry=r;for(var s=0,l=!0;r;)a[s]=r,r.isBuf||(l=!1),r=r.next,s+=1;a.allBuffers=l,S(t,e,!0,e.length,a,"",o.finish),e.pendingcb++,e.lastBufferedRequest=null,o.next?(e.corkedRequestsFree=o.next,o.next=null):e.corkedRequestsFree=new i(e),e.bufferedRequestCount=0}else{for(;r;){var c=r.chunk,u=r.encoding,f=r.callback;if(S(t,e,!1,e.objectMode?1:c.length,c,u,f),r=r.next,e.bufferedRequestCount--,e.writing)break}null===r&&(e.lastBufferedRequest=null)}e.bufferedRequest=r,e.bufferProcessing=!1}function C(t){return t.ending&&0===t.length&&null===t.bufferedRequest&&!t.finished&&!t.writing}function P(t,e){t._final((function(r){e.pendingcb--,r&&w(t,r),e.prefinished=!0,t.emit("prefinish"),I(t,e)}))}function I(t,e){var n=C(e);if(n&&(function(t,e){e.prefinished||e.finalCalled||("function"!=typeof t._final||e.destroyed?(e.prefinished=!0,t.emit("prefinish")):(e.pendingcb++,e.finalCalled=!0,r.nextTick(P,t,e)))}(t,e),

0===e.pendingcb&&(e.finished=!0,t.emit("finish"),e.autoDestroy))){var i=t._readableState;(!i||i.autoDestroy&&i.endEmitted)&&t.destroy()}return n}t("inherits")(A,l),k.prototype.getBuffer=function(){for(var t=this.bufferedRequest,e=[];t;)e.push(t),t=t.next;return e},function(){try{Object.defineProperty(k.prototype,"buffer",{get:s.deprecate((function(){return this.getBuffer()}),"_writableState.buffer is deprecated. Use _writableState.getBuffer instead.","DEP0003")})}catch(t){}}(),"function"==typeof Symbol&&Symbol.hasInstance&&"function"==typeof Function.prototype[Symbol.hasInstance]?(o=Function.prototype[Symbol.hasInstance],Object.defineProperty(A,Symbol.hasInstance,{value:function(t){return!!o.call(this,t)||this===A&&t&&t._writableState instanceof k}})):o=function(t){return t instanceof this},A.prototype.pipe=function(){w(this,new m)},A.prototype.write=function(t,e,n){var i,a=this._writableState,o=!1,s=!a.objectMode&&(i=t,c.isBuffer(i)||i instanceof u);return s&&!c.isBuffer(t)&&(t=function(t){return c.from(t)}(t)),"function"==typeof e&&(n=e,e=null),s?e="buffer":e||(e=a.defaultEncoding),"function"!=typeof n&&(n=T),a.ending?function(t,e){var n=new b;w(t,n),r.nextTick(e,n)}(this,n):(s||function(t,e,n,i){var a;return null===n?a=new x:"string"==typeof n||e.objectMode||(a=new d("chunk",["string","Buffer"],n)),!a||(w(t,a),r.nextTick(i,a),!1)}(this,a,t,n))&&(a.pendingcb++,o=M(this,a,s,t,e,n)),o},A.prototype.cork=function(){this._writableState.corked++},A.prototype.uncork=function(){var t=this._writableState;t.corked&&(t.corked--,t.writing||t.corked||t.bufferProcessing||!t.bufferedRequest||L(this,t))},A.prototype.setDefaultEncoding=function(t){if("string"==typeof t&&(t=t.toLowerCase()),!(["hex","utf8","utf-8","ascii","binary","base64","ucs2","ucs-2","utf16le","utf-16le","raw"].indexOf((t+"").toLowerCase())>-1))throw new _(t);return this._writableState.defaultEncoding=t,this},Object.defineProperty(A.prototype,"writableBuffer",{enumerable:!1,get:function(){return this._writableState&&this._writableState.getBuffer()}}),Object.defineProperty(A.prototype,"writableHighWaterMark",{enumerable:!1,get:function(){return this._writableState.highWaterMark}}),A.prototype._write=function(t,e,r){r(new g("_write()"))},A.prototype._writev=null,A.prototype.end=function(t,e,n){var i=this._writableState;return"function"==typeof t?(n=t,t=null,e=null):"function"==typeof e&&(n=e,e=null),null!=t&&this.write(t,e),i.corked&&(i.corked=1,this.uncork()),i.ending||function(t,e,n){e.ending=!0,I(t,e),n&&(e.finished?r.nextTick(n):t.once("finish",n)),e.ended=!0,t.writable=!1}(this,i,n),this},Object.defineProperty(A.prototype,"writableLength",{enumerable:!1,get:function(){return this._writableState.length}}),Object.defineProperty(A.prototype,"destroyed",{enumerable:!1,get:function(){return void 0!==this._writableState&&this._writableState.destroyed},set:function(t){this._writableState&&(this._writableState.destroyed=t)}}),A.prototype.destroy=f.destroy,A.prototype._undestroy=f.undestroy,A.prototype._destroy=function(t,e){e(t)}}).call(this)}).call(this,t("_process"),void 0!==r.g?r.g:"undefined"!=typeof self?self:"undefined"!=typeof window?window:{})},{"../errors":286,"./_stream_duplex":287,"./internal/streams/destroy":294,"./internal/streams/state":298,"./internal/streams/stream":299,_process:277,buffer:85,inherits:231,"util-deprecate":330}],292:[function(t,e,r){(function(r){(function(){"use strict";var n;function i(t,e,r){return e in t?Object.defineProperty(t,e,{value:r,enumerable:!0,configurable:!0,writable:!0}):t[e]=r,t}var a=t("./end-of-stream"),o=Symbol("lastResolve"),s=Symbol("lastReject"),l=Symbol("error"),c=Symbol("ended"),u=Symbol("lastPromise"),f=Symbol("handlePromise"),h=Symbol("stream");function p(t,e){return{value:t,done:e}}function d(t){var e=t[o];if(null!==e){var r=t[h].read();null!==r&&(t[u]=null,t[o]=null,t[s]=null,e(p(r,!1)))}}function g(t){r.nextTick(d,t)}var v=Object.getPrototypeOf((function(){})),m=Object.setPrototypeOf((i(n={get stream(){return this[h]},next:function(){var t=this,e=this[l];if(null!==e)return Promise.reject(e);if(this[c])return Promise.resolve(p(void 0,!0));if(this[h].destroyed)return new Promise((function(e,n){r.nextTick((function(){t[l]?n(t[l]):e(p(void 0,!0))}))}));var n,i=this[u];if(i)n=new Promise(function(t,e){return function(r,n){t.then((function(){e[c]?r(p(void 0,!0)):e[f](r,n)}),n)}}(i,this));else{var a=this[h].read();if(null!==a)return Promise.resolve(p(a,!1));n=new Promise(this[f])}return

this[u]=n,n}},Symbol.asyncIterator,(function(){return this})),i(n,"return",(function(){var t=this;return new Promise((function(e,r){t[h].destroy(null,(function(t){t?r(t):e(p(void 0,!0))}))}))})),n),v);e.exports=function(t){var e,r=Object.create(m,(i(e={},h,{value:t,writable:!0}),i(e,o,{value:null,writable:!0}),i(e,s,{value:null,writable:!0}),i(e,l,{value:null,writable:!0}),i(e,c,{value:t._readableState.endEmitted,writable:!0}),i(e,f,{value:function(t,e){var n=r[h].read();n?(r[u]=null,r[o]=null,r[s]=null,t(p(n,!1))):(r[o]=t,r[s]=e)},writable:!0}),e));return r[u]=null,a(t,(function(t){if(t&&"ERR_STREAM_PREMATURE_CLOSE"!==t.code){var e=r[s];return null!==e&&(r[u]=null,r[o]=null,r[s]=null,e(t)),void(r[l]=t)}var n=r[o];null!==n&&(r[u]=null,r[o]=null,r[s]=null,n(p(void 0,!0))),r[c]=!0})),t.on("readable",g.bind(null,r)),r})}).call(this)}).call(this,t("_process"))},{"./end-of-stream":295,_process:277}],293:[function(t,e,r){"use strict";function n(t,e){var r=Object.keys(t);if(Object.getOwnPropertySymbols){var n=Object.getOwnPropertySymbols(t);e&&(n=n.filter((function(e){return Object.getOwnPropertyDescriptor(t,e).enumerable}))),r.push.apply(r,n)}return r}function i(t,e,r){return e in t?Object.defineProperty(t,e,{value:r,enumerable:!0,configurable:!0,writable:!0}):t[e]=r,t}function a(t,e){for(var r=0;r<e.length;r++){var n=e[r];n.enumerable=n.enumerable||!1,n.configurable=!0,"value"in n&&(n.writable=!0),Object.defineProperty(t,n.key,n)}}var o=t("buffer").Buffer,s=t("util").inspect,l=s&&s.custom||"inspect";e.exports=function(){function t(){((function(t,e){if(!(t instanceof e))throw new TypeError("Cannot call a class as a function")})(this,t),this.head=null,this.tail=null,this.length=0}return e=t,(r=[{key:"push",value:function(t){var e={data:t,next:null};this.length>0?this.tail.next=e:this.head=e,this.tail=e,++this.length}},{key:"unshift",value:function(t){var e={data:t,next:this.head};0===this.length&&(this.tail=e),this.head=e,++this.length}},{key:"shift",value:function(){if(0!==this.length){var t=this.head.data;return 1===this.length?this.head=this.tail=null:this.head=this.head.next,--this.length,t}}},{key:"clear",value:function(){this.head=this.tail=null,this.length=0}},{key:"join",value:function(t){if(0===this.length)return"";for(var e=this.head,r=""+e.data;e=e.next;)r+=t+e.data;return r}},{key:"concat",value:function(t){if(0===this.length)return o.alloc(0);for(var e=o.allocUnsafe(t>>>0),r=this.head,n=0;r;)i=r.data,a=e,s=n,o.prototype.copy.call(i,a,s),n+=r.data.length,r=r.next;var i,a,s;return e}},{key:"consume",value:function(t,e){var r;return t<this.head.data.length?(r=this.head.data.slice(0,t),this.head.data=this.head.data.slice(t)):r=t===this.head.data.length?this.shift():e?this._getString(t):this._getBuffer(t),r}},{key:"first",value:function(){return this.head.data}},{key:"_getString",value:function(t){var e=this.head,r=1,n=e.data;for(t-=n.length;e=e.next;){var i=e.data,a=t>i.length?i.length:t;if(a===i.length?n+=i:n+=i.slice(0,t),0==(t-=a)){a===i.length?(++r,e.next?this.head=e.next:this.head=this.tail=null):(this.head=e,e.data=i.slice(a));break}++r}return this.length-=r,n}},{key:"_getBuffer",value:function(t){var e=o.allocUnsafe(t),r=this.head,n=1;for(r.data.copy(e),t-=r.data.length;r=r.next;){var i=r.data,a=t>i.length?i.length:t;if(i.copy(e,e.length-t,0,a),0==(t-=a)){a===i.length?(++n,r.next?this.head=r.next:this.head=this.tail=null):(this.head=r,r.data=i.slice(a));break}++n}return this.length-=n,e}},{key:l,value:function(t,e){return s(this,function(t){for(var e=1;e<arguments.length;e++){var r=null!=arguments[e]?arguments[e]:{};e%2?n(Object(r),!0).forEach((function(e){i(t,e,r[e])})):Object.getOwnPropertyDescriptors?Object.defineProperties(t,Object.getOwnPropertyDescriptors(r)):n(Object(r)).forEach((function(e){Object.defineProperty(t,e,Object.getOwnPropertyDescriptor(r,e))}))}return t}({},e,{depth:0,customInspect:!1}))}}])&&a(e.prototype,r),c&&a(e,c),t;var e,r,c}()},{buffer:85,util:83}],294:[function(t,e,r){(function(t){(function(){"use strict";function r(t,e){i(t,e),n(t)}function n(t){t._writableState&&!t._writableState.emitClose||t._readableState&&!t._readableState.emitClose||t.emit("close")}function i(t,e){t.emit("error",e)}e.exports={destroy:function(e,a){var o=this,s=this._readableState&&this._readableState.destroyed,l=this._writableState&&this._writableState.destroyed;

return
s||l?(a?a(e):e&&(this._writableState?this._writableState.errorEmitted||(this._writableState.errorEmitted=!0,t.nextTick(i,this,e)):t.nextTick(i,this,e)),this):(this._readableState&&(this._readableState.destroyed=!0),this._writableState&&(this._writableState.destroyed=!0),this._destroy(e||null,(function(e){!a&&e?o._writableState?o._writableState.errorEmitted?t.nextTick(n,o):(o._writableState.errorEmitted=!0,t.nextTick(r,o,e)):t.nextTick(r,o,e):a?(t.nextTick(n,o),a(e)):t.nextTick(n,o)})),this)},undestroy:function(){this._readableState&&(this._readableState.destroyed=!1,this._readableState.reading=!1,this._readableState.ended=!1,this._readableState.endEmitted=!1),this._writableState&&(this._writableState.destroyed=!1,this._writableState.ended=!1,this._writableState.ending=!1,this._writableState.finalCalled=!1,this._writableState.prefinished=!1,this._writableState.finished=!1,this._writableState.errorEmitted=!1)},errorOrDestroy:function(t,e){var
r=t._readableState,n=t._writableState;r&&r.autoDestroy||n&&n.autoDestroy?t.destroy(e):t.emit("error",e)}}}).call(this)}).call(this,t("_process"))},{_process:277}],295:[function(t,e,r){"use strict";var
n=t("../../../errors").codes.ERR_STREAM_PREMATURE_CLOSE;function i(){}e.exports=function
t(e,r,a){if("function"==typeof r)return t(e,null,r);r||(r={}),a=function(t){var e=!1;return
function(){if(!e){e=!0;for(var r=arguments.length,n=new
Array(r),i=0;i<r;i++)n[i]=arguments[i];t.apply(this,n)}}}(a||i);var
o=r.readable||!1!==r.readable&&e.readable,s=r.writable||!1!==r.writable&&e.writable,l=function(){e.writable||u()},c=e._writableState&&e._writableState.finished,u=function(){s=!1,c=!0,o||a.call(e)},f=e._readableState&&e._readableState.endEmitted,h=function(){o=!1,f=!0,s||a.call(e)},p=function(t){a.call(e,t)},d=function(){var t;return
o&&!f?(e._readableState&&e._readableState.ended||(t=new
n),a.call(e,t)):s&&!c?(e._writableState&&e._writableState.ended||(t=new n),a.call(e,t)):void
0},g=function(){e.req.on("finish",u)};return function(t){return t.setHeader&&"function"==typeof
t.abort}(e)?(e.on("complete",u),e.on("abort",d),e.req?g():e.on("request",g)):s&&!e._writableState&&(e.on("end",l),e.on("close",l)),e.on("end",h),e.on("finish",u),!1!==r.error&&e.on("error",p),e.on("close",d),function(){e.removeListener("complete",u),e.removeListener("abort",d),e.removeListener("request",g),e.req&&e.req.removeListener("finish",u),e.removeListener("end",l),e.removeListener("close",l),e.removeListener("finish",u),e.removeListener("end",h),e.removeListener("error",p),e.removeListener("close",d)}}},{"../../../errors":286}],296:[function(t,e,r){e.exports=function(){throw new Error("Readable.from is not available in the browser")}},{}],297:[function(t,e,r){"use strict";var
n,i=t("../../../errors").codes,a=i.ERR_MISSING_ARGS,o=i.ERR_STREAM_DESTROYED;function s(t){if(t)throw t}function l(e,r,i,a){a=function(t){var e=!1;return function(){e||(e=!0,t.apply(void 0,arguments))}}(a);var
s=!1;e.on("close",(function(){s=!0})),void 0===n&&(n=t("./end-of-stream")),n(e,{readable:r,writable:i},(function(t){if(t)return a(t);s=!0,a()}));var l=!1;return
function(t){if(!s&&!l)return l=!0,function(t){return t.setHeader&&"function"==typeof
t.abort}(e)?e.abort():"function"==typeof e.destroy?e.destroy():void a(t||new o("pipe"))}}function c(t){t()}function
u(t,e){return t.pipe(e)}function f(t){return t.length?"function"!=typeof t[t.length-1]?s:t.pop():s}e.exports=function(){for(var t=arguments.length,e=new Array(t),r=0;r<t;r++)e[r]=arguments[r];var
n,i=f(e);if(Array.isArray(e[0])&&(e=e[0]),e.length<2)throw new a("streams");var o=e.map((function(t,r){var
a=r<e.length-1;return l(t,a,r>0,(function(t){n||(n=t),t&&o.forEach(c),a||(o.forEach(c),i(n))}))}));return
e.reduce(u)}},{"../../../errors":286,"./end-of-stream":295}],298:[function(t,e,r){"use strict";var
n=t("../../../errors").codes.ERR_INVALID_OPT_VALUE;e.exports={getHighWaterMark:function(t,e,r,i){var
a=function(t,e,r){return
null!=t.highWaterMark?t.highWaterMark:e?t[r]:null}(e,i,r);if(null!=a){if(!isFinite(a)||Math.floor(a)!==a||a<0)throw
new n(i?r:"highWaterMark",a);return Math.floor(a)}return
t.objectMode?16:16384}}},{"../../../errors":286}],299:[function(t,e,r){e.exports=t("events").EventEmitter},{events:84}],300:[function(t,e,r){"use strict";var n=t("safe-
buffer").Buffer,i=n.isEncoding||function(t){switch((t=""+t)&&t.toLowerCase()){case"hex":case"utf8":case"utf-8":case"ascii":case"binary":case"base64":case"ucs2":case"ucs-2":case"utf16le":case"utf-16le":case"raw":return!0;default:return!1}};function a(t){var e;switch(this.encoding=function(t){var

e=function(t){if(!t)return"utf8";for(var e;;)switch(t){case"utf8":case"utf-8":return"utf8";case"ucs2":case"ucs-2":case"utf16le":case"utf-16le":return"utf16le";case"latin1":case"binary":return"latin1";case"base64":case"ascii":case"hex":return t;default:if(e)return;t=(""+t).toLowerCase(),e=!0}}(t);if("string"!=typeof e&&(n.isEncoding===i||!i(t)))throw new Error("Unknown encoding: "+t);return e||t}(t),this.encoding){case"utf16le":this.text=l,this.end=c,e=4;break;case"utf8":this.fillLast=s,e=4;break;case"base64":this.text=u,this.end=f,e=3;break;default:return this.write=h,void(this.end=p)}this.lastNeed=0,this.lastTotal=0,this.lastChar=n.allocUnsafe(e)}function o(t){return t<=127?0:t>>5==6?2:t>>4==14?3:t>>3==30?4:t>>6==2?-1:-2}function s(t){var e=this.lastTotal-this.lastNeed,r=function(t,e,r){if(128!=(192&e[0]))return t.lastNeed=0,"";if(t.lastNeed>1&&e.length>1){if(128!=(192&e[1]))return t.lastNeed=1,"";if(t.lastNeed>2&&e.length>2&&128!=(192&e[2]))return t.lastNeed=2,""}}(this,t);return void 0!==r?r:this.lastNeed<=t.length?(t.copy(this.lastChar,e,0,this.lastNeed),this.lastChar.toString(this.encoding,0,this.lastTotal)):(t.copy(this.lastChar,e,0,t.length),void(this.lastNeed-=t.length))}function l(t,e){if((t.length-e)%2==0){var r=t.toString("utf16le",e);if(r){var n=r.charCodeAt(r.length-1);if(n>=55296&&n<=56319)return this.lastNeed=2,this.lastTotal=4,this.lastChar[0]=t[t.length-2],this.lastChar[1]=t[t.length-1],r.slice(0,-1)}return r}return this.lastNeed=1,this.lastTotal=2,this.lastChar[0]=t[t.length-1],t.toString("utf16le",e,t.length-1)}function c(t){var e=t&&t.length?this.write(t):"";if(this.lastNeed){var r=this.lastTotal-this.lastNeed;return e+this.lastChar.toString("utf16le",0,r)}return e}function u(t,e){var r=(t.length-e)%3;return 0===r?t.toString("base64",e):(this.lastNeed=3-r,this.lastTotal=3,1===r?this.lastChar[0]=t[t.length-1]:(this.lastChar[0]=t[t.length-2],this.lastChar[1]=t[t.length-1]),t.toString("base64",e,t.length-r))}function f(t){var e=t&&t.length?this.write(t):"";return this.lastNeed?e+this.lastChar.toString("base64",0,3-this.lastNeed):e}function h(t){return t.toString(this.encoding)}function p(t){return t&&t.length?this.write(t):""}r.StringDecoder=a,a.prototype.write=function(t){if(0===t.length)return"";var e,r;if(this.lastNeed){if(void 0===(e=this.fillLast(t)))return"";r=this.lastNeed,this.lastNeed=0}else r=0;return r<t.length?e?e+this.text(t,r):this.text(t,r):e||""},a.prototype.end=function(t){var e=t&&t.length?this.write(t):"";return this.lastNeed?e+"":e},a.prototype.text=function(t,e){var r=function(t,e,r){var n=e.length-1;if(n<r)return 0;var i=o(e[n]);return i>=0?(i>0&&(t.lastNeed=i-1),i):--n<r||-2===i?0:(i=o(e[n]))>=0?(i>0&&(t.lastNeed=i-2),i):--n<r||-2===i?0:(i=o(e[n]))>=0?(i>0&&(2===i?i=0:t.lastNeed=i-3),i):0}(this,t,e);if(!this.lastNeed)return t.toString("utf8",e);this.lastTotal=r;var n=t.length-(r-this.lastNeed);return t.copy(this.lastChar,0,n),t.toString("utf8",e,n)},a.prototype.fillLast=function(t){if(this.lastNeed<=t.length)return t.copy(this.lastChar,this.lastTotal-this.lastNeed,0,this.lastNeed),this.lastChar.toString(this.encoding,0,this.lastTotal);t.copy(this.lastChar,this.lastTotal-this.lastNeed,0,t.length),this.lastNeed-=t.length}},{"safe-buffer":284}],301:[function(t,e,r){(function(r,n){(function(){var r=t("assert"),i=t("debug")("stream-parser");function a(t){i("initializing parser stream"),t._parserBytesLeft=0,t._parserBuffers=[],t._parserBuffered=0,t._parserState=-1,t._parserCallback=null,"function"==typeof t.push&&(t._parserOutput=t.push.bind(t)),t._parserInit=!0}function o(t,e){r(!this._parserCallback,'there is already a "callback" set!'),r(isFinite(t)&&t>0,'can only buffer a finite number of bytes > 0, got "'+t+'"'),this._parserInit||a(this),i("buffering %o bytes",t),this._parserBytesLeft=t,this._parserCallback=e,this._parserState=0}function s(t,e){r(!this._parserCallback,'there is already a "callback" set!'),r(t>0,'can only skip > 0 bytes, got "'+t+'"'),this._parserInit||a(this),i("skipping %o bytes",t),this._parserBytesLeft=t,this._parserCallback=e,this._parserState=1}function l(t,e){r(!this._parserCallback,'There is already a "callback" set!'),r(t>0,'can only pass through > 0 bytes, got "'+t+'"'),this._parserInit||a(this),i("passing through %o bytes",t),this._parserBytesLeft=t,this._parserCallback=e,this._parserState=2}function c(t,e,r){this._parserInit||a(this),i("write(%o bytes)",t.length),"function"==typeof e&&(r=e),h(this,t,null,r)}function

u(t,e,r){this._parserInit||a(this),i("transform(%o bytes)",t.length),"function"!=typeof e&&(e=this._parserOutput),h(this,t,e,r)}function f(t,e,r,a){if(t._parserBytesLeft-=e.length,i("%o bytes left for stream
piece",t._parserBytesLeft),0===t._parserState?(t._parserBuffers.push(e),t._parserBuffered+=e.length):2===t._parserState&&r(e),0!==t._parserBytesLeft)return a;var o=t._parserCallback;if(o&&0===t._parserState&&t._parserBuffers.length>1&&(e=n.concat(t._parserBuffers,t._parserBuffered)),0!==t._parserState&&(e=null),t._parserCallback=null,t._parserBuffered=0,t._parserState=-1,t._parserBuffers.splice(0),o){var s=[];e&&s.push(e),r&&s.push(r);var l=o.length>s.length;l&&s.push(p(a));var c=o.apply(t,s);if(!l||a===c)return a}}e.exports=function(t){var e=t&&"function"==typeof t._transform,r=t&&"function"==typeof t._write;if(!e&&!r)throw new Error("must pass a Writable or Transform stream in");i("extending Parser into stream"),t._bytes=o,t._skipBytes=s,e&&(t._passthrough=l),e?t._transform=u:t._write=c};var h=p((function t(e,r,n,i){return e._parserBytesLeft<=0?i(new Error("got data but not currently parsing anything")):r.length<=e._parserBytesLeft?function(){return f(e,r,n,i)}:function(){var a=r.slice(0,e._parserBytesLeft);return f(e,a,n,(function(o){return o?i(o):r.length>a.length?function(){return t(e,r.slice(a.length),n,i)}:void 0}))}}));function p(t){return function(){for(var e=t.apply(this,arguments);"function"==typeof e;)e=e();return e}}}).call(this)}).call(this,t("_process"),t("buffer").Buffer)},{_process:277,assert:75,buffer:85,debug:302}],302:[function(t,e,r){(function(n){(function(){function i(){var t;try{t=r.storage.debug}catch(t){}return!t&&void 0!==n&&"env"in n&&(t=n.env.DEBUG),t}(r=e.exports=t("./debug")).log=function(){return"object"==typeof console&&console.log&&Function.prototype.apply.call(console.log,console,arguments)},r.formatArgs=function(t){var e=this.useColors;if(t[0]=(e?"%c":"")+this.namespace+(e?" %c":" ")+t[0]+(e?"%c ":" ")+"+"+r.humanize(this.diff),e){var n="color: "+this.color;t.splice(1,0,n,"color: inherit");var i=0,a=0;t[0].replace(/%[a-zA-Z%]/g,(function(t){"%%"!==t&&(i++,"%c"===t&&(a=i))})),t.splice(a,0,n)}},r.save=function(t){try{null==t?r.storage.removeItem("debug"):r.storage.debug=t}catch(t){}},r.load=i,r.useColors=function(){return!("undefined"==typeof window||!window.process||"renderer"!==window.process.type)||"undefined"!=typeof document&&document.documentElement&&document.documentElement.style&&document.documentElement.style.WebkitAppearance||"undefined"!=typeof window&&window.console&&(window.console.firebug||window.console.exception&&window.console.table)||"undefined"!=typeof navigator&&navigator.userAgent&&navigator.userAgent.toLowerCase().match(/firefox\/(\d+)/)&&parseInt(RegExp.$1,10)>=31||"undefined"!=typeof navigator&&navigator.userAgent&&navigator.userAgent.toLowerCase().match(/applewebkit\/(\d+)/)},r.storage="undefined"!=typeof chrome&&void 0!==chrome.storage?chrome.storage.local:function(){try{return window.localStorage}catch(t){}}(),r.colors=["lightseagreen","forestgreen","goldenrod","dodgerblue","darkorchid","crimson"],r.formatters.j=function(t){try{return JSON.stringify(t)}catch(t){return"[UnexpectedJSONParseError]: "+t.message}},r.enable(i())}).call(this)}).call(this,t("_process"))},{"./debug":303,_process:277}],303:[function(t,e,r){var n;function i(t){function e(){if(e.enabled){var t=e,i=+new Date,a=i-(n||i);t.diff=a,t.prev=n,t.curr=i,n=i;for(var o=new Array(arguments.length),s=0;s<o.length;s++)o[s]=arguments[s];o[0]=r.coerce(o[0]),"string"!=typeof o[0]&&o.unshift("%O");var l=0;o[0]=o[0].replace(/%([a-zA-Z%])/g,(function(e,n){if("%%"===e)return e;l++;var i=r.formatters[n];if("function"==typeof i){var a=o[l];e=i.call(t,a),o.splice(l,1),l--}return e})),r.formatArgs.call(t,o),(e.log||r.log||console.log.bind(console)).apply(t,o)}}return e.namespace=t,e.enabled=r.enabled(t),e.useColors=r.useColors(),e.color=function(t){var e,n=0;for(e in t)n=(n<<5)-n+t.charCodeAt(e),n|=0;return r.colors[Math.abs(n)%r.colors.length]}(t),"function"==typeof r.init&&r.init(e),e}(r=e.exports=i.debug=i.default=i).coerce=function(t){return t instanceof Error?t.stack||t.message:t},r.disable=function(){r.enable("")},r.enable=function(t){r.save(t),r.names=[],r.skips=[];for(var e=("string"==typeof t?t:"").split(/[\s,]+/),n=e.length,i=0;i<n;i++)e[i]&&("-

"===(t=e[i].replace(/*/g,".*?"))[0]?r.skips.push(new RegExp("^"+t.substr(1)+"$")):r.names.push(new RegExp("^"+t+"$"))}},r.enabled=function(t){var e,n;for(e=0,n=r.skips.length;e<n;e++)if(r.skips[e].test(t))return!1;for(e=0,n=r.names.length;e<n;e++)if(r.names[e].test(t))return!0;return!1},r.humanize=t("ms"),r.names=[],r.skips=[],r.formatters={}},{ms:304}],304:[function(t,e,r){var n=1e3,i=60*n,a=60*i,o=24*a;function s(t,e,r){if(!(t<e))return t<1.5*e?Math.floor(t/e)+" "+r:Math.ceil(t/e)+" "+r+"s"}e.exports=function(t,e){e=e||{};var r,l=typeof t;if("string"===l&&t.length>0)return function(t){if(!((t=String(t)).length>100)){var e=/^((?:\d+)?\.?\d+) *(milliseconds?|msecs?|ms|seconds?|secs?|s|minutes?|mins?|m|hours?|hrs?|h|days?|d|years?|yrs?|y)?$/i.exec(t);if(e){var r=parseFloat(e[1]);switch((e[2]||"ms").toLowerCase()){case"years":case"year":case"yrs":case"yr":case"y":return 315576e5*r;case"days":case"day":case"d":return r*o;case"hours":case"hour":case"hrs":case"hr":case"h":return r*a;case"minutes":case"minute":case"mins":case"min":case"m":return r*i;case"seconds":case"second":case"secs":case"sec":case"s":return r*n;case"milliseconds":case"millisecond":case"msecs":case"msec":case"ms":return r;default:return}}}}(t);if("number"===l&&!1===isNaN(t))return e.long?s(r=t,o,"day")||s(r,a,"hour")||s(r,i,"minute")||s(r,n,"second")||r+" ms":function(t){return t>=o?Math.round(t/o)+"d":t>=a?Math.round(t/a)+"h":t>=i?Math.round(t/i)+"m":t>=n?Math.round(t/n)+"s":t+"ms"}(t);throw new Error("val is not a non-empty string or a valid number. val="+JSON.stringify(t))}},{}],305:[function(t,e,r){"use strict";var n=t("parenthesis");e.exports=function(t,e,r){if(null==t)throw Error("First argument should be a string");if(null==e)throw Error("Separator should be a string or a RegExp");r?("string"==typeof r||Array.isArray(r))&&(r={ignore:r}):r={},null==r.escape&&(r.escape=!0),null==r.ignore?r.ignore=["[]","()","{}","<>","''",'""',"``","“”","«»"]:("string"==typeof r.ignore&&(r.ignore=[r.ignore]),r.ignore=r.ignore.map((function(t){return 1===t.length&&(t+=t),t})));var i=n.parse(t,{flat:!0,brackets:r.ignore}),a=i[0].split(e);if(r.escape){for(var o=[],s=0;s<a.length;s++){var l=a[s],c=a[s+1];"\\"===l[l.length-1]&&"\\"!==l[l.length-2]?(o.push(l+e+c),s++):o.push(l)}a=o}for(s=0;s<a.length;s++)i[0]=a[s],a[s]=n.stringify(i,{flat:!0});return a}},{parenthesis:248}],306:[function(t,e,r){"use strict";e.exports=function(t){for(var e=t.length,r=new Array(e),n=new Array(e),i=new Array(e),a=new Array(e),o=new Array(e),s=new Array(e),l=0;l<e;++l)r[l]=-1,n[l]=0,i[l]=!1,a[l]=0,o[l]=-1,s[l]=[];var c,u=0,f=[],h=[];function p(e){var l=[e],c=[e];for(r[e]=n[e]=u,i[e]=!0,u+=1;c.length>0;){e=c[c.length-1];var p=t[e];if(a[e]<p.length){for(var d=a[e];d<p.length;++d){var g=p[d];if(r[g]<0){r[g]=n[g]=u,i[g]=!0,u+=1,l.push(g),c.push(g);break}i[g]&&(n[e]=0|Math.min(n[e],n[g])),o[g]>=0&&s[e].push(o[g])}a[e]=d}else{if(n[e]===r[e]){var v=[],m=[],y=0;for(d=l.length-1;d>=0;--d){var x=l[d];if(i[x]=!1,v.push(x),m.push(s[x]),y+=s[x].length,o[x]=f.length,x===e){l.length=d;break}}f.push(v);var b=new Array(y);for(d=0;d<m.length;d++)for(var _=0;_<m[d].length;_++)b[--y]=m[d][_];h.push(b)}c.pop()}}}for(l=0;l<e;++l)r[l]<0&&p(l);for(l=0;l<h.length;l++){var d=h[l];if(0!==d.length){d.sort((function(t,e){return t-e})),c=[d[0]];for(var g=1;g<d.length;g++)d[g]!==d[g-1]&&c.push(d[g]);h[l]=c}}return{components:f,adjacencyList:h}}},{}],307:[function(t,e,r){"use strict";Object.defineProperty(r,"__esModule",{value:!0});var n=function(t,e){if(Array.isArray(t))return t;if(Symbol.iterator in Object(t))return function(t,e){var r=[],n=!0,i=!1,a=void 0;try{for(var o,s=t[Symbol.iterator]();!(n=(o=s.next()).done)&&(r.push(o.value),!e||r.length!==e);n=!0);}catch(t){i=!0,a=t}finally{try{!n&&s.return&&s.return()}finally{if(i)throw a}}return r}(t,e);throw new TypeError("Invalid attempt to destructure non-iterable instance")},i=2*Math.PI,a=function(t,e,r,n,i,a,o){var s=t.x,l=t.y;return{x:n*(s*=e)-i*(l*=r)+a,y:i*s+n*l+o}},o=function(t,e){var r=1.5707963267948966===e?.551915024494:-1.5707963267948966===e?-.551915024494:4/3*Math.tan(e/4),n=Math.cos(t),i=Math.sin(t),a=Math.cos(t+e),o=Math.sin(t+e);return[{x:n-i*r,y:i+n*r},{x:a+o*r,y:o-a*r},{x:a,y:o}]},s=function(t,e,r,n){var i=t*r+e*n;return i>1&&(i=1),i<-1&&(i=-1),(t*n-e*r<0?-1:1)*Math.acos(i)};r.default=function(t){var

e=t.px,r=t.py,l=t.cx,c=t.cy,u=t.rx,f=t.ry,h=t.xAxisRotation,p=void 0===h?0:h,d=t.largeArcFlag,g=void 0===d?0:d,v=t.sweepFlag,m=void 0===v?0:v,y=[];if(0===u||0===f)return[];var x=Math.sin(p*i/360),b=Math.cos(p*i/360),_=b*(e-l)/2+x*(r-c)/2,w=-x*(e-l)/2+b*(r-c)/2;if(0===_&&0===w)return[];u=Math.abs(u),f=Math.abs(f);var T=Math.pow(_,2)/Math.pow(u,2)+Math.pow(w,2)/Math.pow(f,2);T>1&&(u*=Math.sqrt(T),f*=Math.sqrt(T));var k=function(t,e,r,n,a,o,l,c,u,f,h,p){var d=Math.pow(a,2),g=Math.pow(o,2),v=Math.pow(h,2),m=Math.pow(p,2),y=d*g-d*m-g*v;y<0&&(y=0),y/=d*m+g*v;var x=(y=Math.sqrt(y)*(l===c?-1:1))*a/o*p,b=y*-o/a*h,_=f*x-u*b+(t+r)/2,w=u*x+f*b+(e+n)/2,T=(h-x)/a,k=(p-b)/o,A=(-h-x)/a,M=(-p-b)/o,S=s(1,0,T,k),E=s(T,k,A,M);return 0===c&&E>0&&(E-=i),1===c&&E<0&&(E+=i),[_,w,S,E]}(e,r,l,c,u,f,g,m,x,b,_,w),A=n(k,4),M=A[0],S=A[1],E=A[2],L=A[3],C=Math.abs(L)/(i/4);Math.abs(1-C)<1e-7&&(C=1);var P=Math.max(Math.ceil(C),1);L/=P;for(var I=0;I<P;I++)y.push(o(E,L)),E+=L;return y.map((function(t){var e=a(t[0],u,f,b,x,M,S),r=e.x,n=e.y,i=a(t[1],u,f,b,x,M,S),o=i.x,s=i.y,l=a(t[2],u,f,b,x,M,S);return{x1:r,y1:n,x2:o,y2:s,x:l.x,y:l.y}}))},e.exports=r.default},{}],308:[function(t,e,r){"use strict";var n=t("parse-svg-path"),i=t("abs-svg-path"),a=t("normalize-svg-path"),o=t("is-svg-path"),s=t("assert");e.exports=function(t){if(Array.isArray(t)&&1===t.length&&"string"==typeof t[0]&&(t=t[0]),"string"==typeof t&&(s(o(t),"String is not an SVG path."),t=n(t)),s(Array.isArray(t),"Argument should be a string or an array of path segments."),t=i(t),!(t=a(t)).length)return[0,0,0,0];for(var e=[1/0,1/0,-1/0,-1/0],r=0,l=t.length;r<l;r++)for(var c=t[r].slice(1),u=0;u<c.length;u+=2)c[u+0]<e[0]&&(e[0]=c[u+0]),c[u+1]<e[1]&&(e[1]=c[u+1]),c[u+0]>e[2]&&(e[2]=c[u+0]),c[u+1]>e[3]&&(e[3]=c[u+1]);return e}},{"abs-svg-path":70,assert:75,"is-svg-path":238,"normalize-svg-path":309,"parse-svg-path":250}],309:[function(t,e,r){"use strict";e.exports=function(t){for(var e,r=[],o=0,s=0,l=0,c=0,u=null,f=null,h=0,p=0,d=0,g=t.length;d<g;d++){var v=t[d],m=v[0];switch(m){case"M":l=v[1],c=v[2];break;case"A":var y=n({px:h,py:p,cx:v[6],cy:v[7],rx:v[1],ry:v[2],xAxisRotation:v[3],largeArcFlag:v[4],sweepFlag:v[5]});if(!y.length)continue;for(var x,b=0;b<y.length;b++)v=["C",(x=y[b]).x1,x.y1,x.x2,x.y2,x.x,x.y],b<y.length-1&&r.push(v);break;case"S":var _=h,w=p;"C"!=e&&"S"!=e||(_+=_-o,w+=w-s),v=["C",_,w,v[1],v[2],v[3],v[4]];break;case"T":"Q"==e||"T"==e?(u=2*h-u,f=2*p-f):(u=h,f=p),v=a(h,p,u,f,v[1],v[2]);break;case"Q":u=v[1],f=v[2],v=a(h,p,v[1],v[2],v[3],v[4]);break;case"L":v=i(h,p,v[1],v[2]);break;case"H":v=i(h,p,v[1],p);break;case"V":v=i(h,p,h,v[1]);break;case"Z":v=i(h,p,l,c)}e=m,h=v[v.length-2],p=v[v.length-1],v.length>4?(o=v[v.length-4],s=v[v.length-3]):(o=h,s=p),r.push(v)}return r};var n=t("svg-arc-to-cubic-bezier");function i(t,e,r,n){return["C",t,e,r,n,r,n]}function a(t,e,r,n,i,a){return["C",t/3+2/3*r,e/3+2/3*n,i/3+2/3*r,a/3+2/3*n,i,a]}},{"svg-arc-to-cubic-bezier":307}],310:[function(t,e,r){"use strict";var n,i=t("svg-path-bounds"),a=t("parse-svg-path"),o=t("draw-svg-path"),s=t("is-svg-path"),l=t("bitmap-sdf"),c=document.createElement("canvas"),u=c.getContext("2d");e.exports=function(t,e){if(!s(t))throw Error("Argument should be valid svg path string");var r,f;e||(e={}),e.shape?(r=e.shape[0],f=e.shape[1]):(r=c.width=e.w||e.width||200,f=c.height=e.h||e.height||200);var h=Math.min(r,f),p=e.stroke||0,d=e.viewbox||e.viewBox||i(t),g=[r/(d[2]-d[0]),f/(d[3]-d[1])],v=Math.min(g[0]||0,g[1]||0)/2;if(u.fillStyle="black",u.fillRect(0,0,r,f),u.fillStyle="white",p&&("number"!=typeof p&&(p=1),u.strokeStyle=p>0?"white":"black",u.lineWidth=Math.abs(p)),u.translate(.5*r,.5*f),u.scale(v,v),function(){if(null!=n)return n;var t=document.createElement("canvas").getContext("2d");if(t.canvas.width=t.canvas.height=1,!window.Path2D)return n=!1;var e=new Path2D("M0,0h1v1h-1v-1Z");t.fillStyle="black",t.fill(e);var r=t.getImageData(0,0,1,1);return n=r&&r.data&&255===r.data[3]}()){var m=new Path2D(t);u.fill(m),p&&u.stroke(m)}else{var y=a(t);o(u,y),u.fill(),p&&u.stroke()}return

u.setTransform(1,0,0,1,0,0),l(u,{cutoff:null!=e.cutoff?e.cutoff:.5,radius:null!=e.radius?e.radius:.5*h})}},{"bitmap-sdf":82,"draw-svg-path":126,"is-svg-path":238,"parse-svg-path":250,"svg-path-bounds":308}],311:[function(t,e,r){(function(e,n){((function(){var i=t("process/browser.js").nextTick,a=Function.prototype.apply,o=Array.prototype.slice,s={},l=0;function c(t,e){this._id=t,this._clearFn=e}r.setTimeout=function(){return new c(a.call(setTimeout,window,arguments),clearTimeout)},r.setInterval=function(){return new c(a.call(setInterval,window,arguments),clearInterval)},r.clearTimeout=r.clearInterval=function(t){t.close()},c.prototype.unref=c.prototype.ref=function(){},c.prototype.close=function(){this._clearFn.call(window,this._id)},r.enroll=function(t,e){clearTimeout(t._idleTimeoutId),t._idleTimeout=e},r.unenroll=function(t){clearTimeout(t._idleTimeoutId),t._idleTimeout=-1},r._unrefActive=r.active=function(t){clearTimeout(t._idleTimeoutId);var e=t._idleTimeout;e>=0&&(t._idleTimeoutId=setTimeout((function(){t._onTimeout&&t._onTimeout()}),e))},r.setImmediate="function"==typeof e?e:function(t){var e=l++,n=!(arguments.length<2)&&o.call(arguments,1);return s[e]=!0,i((function(){s[e]&&(n?t.apply(null,n):t.call(null),r.clearImmediate(e))})),e},r.clearImmediate="function"==typeof n?n:function(t){delete s[t]}}).call(this)}).call(this,t("timers").setImmediate,t("timers").clearImmediate)},{"process/browser.js":277,timers:311}],312:[function(t,e,r){!function(t){var r=/^\s+/,n=/\s+$/,i=0,a=t.round,o=t.min,s=t.max,l=t.random;function c(e,l){if(l=l||{},(e=e||"")instanceof c)return e;if(!(this instanceof c))return new c(e,l);var u=function(e){var i,a,l,c={r:0,g:0,b:0},u=1,f=null,h=null,p=null,d=!1,g=!1;return"string"==typeof e&&(e=function(t){t=t.replace(r,"").replace(n,"").toLowerCase();var e,i=!1;if(S[t])t=S[t],i=!0;else if("transparent"==t)return{r:0,g:0,b:0,a:0,format:"name"};return(e=j.rgb.exec(t))?{r:e[1],g:e[2],b:e[3]}:(e=j.rgba.exec(t))?{r:e[1],g:e[2],b:e[3],a:e[4]}:(e=j.hsl.exec(t))?{h:e[1],s:e[2],l:e[3]}:(e=j.hsla.exec(t))?{h:e[1],s:e[2],l:e[3],a:e[4]}:(e=j.hsv.exec(t))?{h:e[1],s:e[2],v:e[3]}:(e=j.hsva.exec(t))?{h:e[1],s:e[2],v:e[3],a:e[4]}:(e=j.hex8.exec(t))?{r:I(e[1]),g:I(e[2]),b:I(e[3]),a:R(e[4]),format:i?"name":"hex8"}:(e=j.hex6.exec(t))?{r:I(e[1]),g:I(e[2]),b:I(e[3]),format:i?"name":"hex"}:(e=j.hex4.exec(t))?{r:I(e[1]+""+e[1]),g:I(e[2]+""+e[2]),b:I(e[3]+""+e[3]),a:R(e[4]+""+e[4]),format:i?"name":"hex8"}:!!(e=j.hex3.exec(t))&&{r:I(e[1]+""+e[1]),g:I(e[2]+""+e[2]),b:I(e[3]+""+e[3]),format:i?"name":"hex"}}(e)),"object"==typeof e&&(U(e.r)&&U(e.g)&&U(e.b)?(i=e.r,a=e.g,l=e.b,c={r:255*C(i,255),g:255*C(a,255),b:255*C(l,255)},d=!0,g="%"===String(e.r).substr(-1)?"prgb":"rgb"):U(e.h)&&U(e.s)&&U(e.v)?(f=z(e.s),h=z(e.v),c=function(e,r,n){e=6*C(e,360),r=C(r,100),n=C(n,100);var i=t.floor(e),a=e-i,o=n*(1-r),s=n*(1-a*r),l=n*(1-(1-a)*r),c=i%6;return{r:255*[n,s,o,o,l,n][c],g:255*[l,n,n,s,o,o][c],b:255*[o,o,l,n,n,s][c]}}(e.h,f,h),d=!0,g="hsv"):U(e.h)&&U(e.s)&&U(e.l)&&(f=z(e.s),p=z(e.l),c=function(t,e,r){var n,i,a;function o(t,e,r){return r<0&&(r+=1),r>1&&(r-=1),r<1/6?t+6*(e-t)*r:r<.5?e:r<2/3?t+(e-t)*(2/3-r)*6:t}if(t=C(t,360),e=C(e,100),r=C(r,100),0===e)n=i=a=r;else{var s=r<.5?r*(1+e):r+e-r*e,l=2*r-s;n=o(l,s,t+1/3),i=o(l,s,t),a=o(l,s,t-1/3)}return{r:255*n,g:255*i,b:255*a}}(e.h,f,p),d=!0,g="hsl"),e.hasOwnProperty("a")&&(u=e.a)),u=L(u),{ok:d,format:e.format||g,r:o(255,s(c.r,0)),g:o(255,s(c.g,0)),b:o(255,s(c.b,0)),a:u}}(e);this._originalInput=e,this._r=u.r,this._g=u.g,this._b=u.b,this._a=u.a,this._roundA=a(100*this._a)/100,this._format=l.format||u.format,this._gradientType=l.gradientType,this._r<1&&(this._r=a(this._r)),this._g<1&&(this._g=a(this._g)),this._b<1&&(this._b=a(this._b)),this._ok=u.ok,this._tc_id=i++}function u(t,e,r){t=C(t,255),e=C(e,255),r=C(r,255);var n,i,a=s(t,e,r),l=o(t,e,r),c=(a+l)/2;if(a==l)n=i=0;else{var u=a-l;switch(i=c>.5?u/(2-a-l):u/(a+l),a){case t:n=(e-r)/u+(e<r?6:0);break;case e:n=(r-t)/u+2;break;case r:n=(t-e)/u+4}n/=6}return{h:n,s:i,l:c}}function f(t,e,r){t=C(t,255),e=C(e,255),r=C(r,255);var n,i,a=s(t,e,r),l=o(t,e,r),c=a,u=a-l;if(i=0===a?0:u/a,a==l)n=0;else{switch(a){case t:n=(e-r)/u+(e<r?6:0);break;case e:n=(r-t)/u+2;break;case r:n=(t-e)/u+4}n/=6}return{h:n,s:i,v:c}}function h(t,e,r,n){var i=[O(a(t).toString(16)),O(a(e).toString(16)),O(a(r).toString(16))];return n&&i[0].charAt(0)==i[0].charAt(1)&&i[1].charAt(0)==i[1].charAt(1)&&i[2].charAt(0)==i[2].charAt(1)?i[0].charAt(0)+i[1].charAt(0)+i[2].charAt(0):i.join("")}function p(t,e,r,n){return[O(D(n)),O(a(t).toString(16)),O(a(e).toString(16)),O(a(r).toString(16))].join("")}function

d(t,e){e=0===e?0:e||10;var r=c(t).toHsl();return r.s-=e/100,r.s=P(r.s),c(r)}function g(t,e){e=0===e?0:e||10;var r=c(t).toHsl();return r.s+=e/100,r.s=P(r.s),c(r)}function v(t){return c(t).desaturate(100)}function m(t,e){e=0===e?0:e||10;var r=c(t).toHsl();return r.l+=e/100,r.l=P(r.l),c(r)}function y(t,e){e=0===e?0:e||10;var r=c(t).toRgb();return r.r=s(0,o(255,r.r-a(-e/100*255))),r.g=s(0,o(255,r.g-a(-e/100*255))),r.b=s(0,o(255,r.b-a(-e/100*255))),c(r)}function x(t,e){e=0===e?0:e||10;var r=c(t).toHsl();return r.l-=e/100,r.l=P(r.l),c(r)}function b(t,e){var r=c(t).toHsl(),n=(r.h+e)%360;return r.h=n<0?360+n:n,c(r)}function _(t){var e=c(t).toHsl();return e.h=(e.h+180)%360,c(e)}function w(t){var e=c(t).toHsl(),r=e.h;return[c(t),c({h:(r+120)%360,s:e.s,l:e.l}),c({h:(r+240)%360,s:e.s,l:e.l})]}function T(t){var e=c(t).toHsl(),r=e.h;return[c(t),c({h:(r+90)%360,s:e.s,l:e.l}),c({h:(r+180)%360,s:e.s,l:e.l}),c({h:(r+270)%360,s:e.s,l:e.l})]}function k(t){var e=c(t).toHsl(),r=e.h;return[c(t),c({h:(r+72)%360,s:e.s,l:e.l}),c({h:(r+216)%360,s:e.s,l:e.l})]}function A(t,e,r){e=e||6,r=r||30;var n=c(t).toHsl(),i=360/r,a=[c(t)];for(n.h=(n.h-(i*e>>1)+720)%360;--e;)n.h=(n.h+i)%360,a.push(c(n));return a}function M(t,e){e=e||6;for(var r=c(t).toHsv(),n=r.h,i=r.s,a=r.v,o=[],s=1/e;e--;)o.push(c({h:n,s:i,v:a})),a=(a+s)%1;return o}c.prototype={isDark:function(){return this.getBrightness()<128},isLight:function(){return!this.isDark()},isValid:function(){return this._ok},getOriginalInput:function(){return this._originalInput},getFormat:function(){return this._format},getAlpha:function(){return this._a},getBrightness:function(){var t=this.toRgb();return(299*t.r+587*t.g+114*t.b)/1e3},getLuminance:function(){var e,r,n,i=this.toRgb();return e=i.r/255,r=i.g/255,n=i.b/255,.2126*(e<=.03928?e/12.92:t.pow((e+.055)/1.055,2.4))+.7152*(r<=.03928?r/12.92:t.pow((r+.055)/1.055,2.4))+.0722*(n<=.03928?n/12.92:t.pow((n+.055)/1.055,2.4))},setAlpha:function(t){return this._a=L(t),this._roundA=a(100*this._a)/100,this},toHsv:function(){var t=f(this._r,this._g,this._b);return{h:360*t.h,s:t.s,v:t.v,a:this._a}},toHsvString:function(){var t=f(this._r,this._g,this._b),e=a(360*t.h),r=a(100*t.s),n=a(100*t.v);return 1==this._a?"hsv("+e+", "+r+"%, "+n+"%)":"hsva("+e+", "+r+"%, "+n+"%, "+this._roundA+")"},toHsl:function(){var t=u(this._r,this._g,this._b);return{h:360*t.h,s:t.s,l:t.l,a:this._a}},toHslString:function(){var t=u(this._r,this._g,this._b),e=a(360*t.h),r=a(100*t.s),n=a(100*t.l);return 1==this._a?"hsl("+e+", "+r+"%, "+n+"%)":"hsla("+e+", "+r+"%, "+n+"%, "+this._roundA+")"},toHex:function(t){return h(this._r,this._g,this._b,t)},toHexString:function(t){return"#"+this.toHex(t)},toHex8:function(t){return function(t,e,r,n,i){var o=[O(a(t).toString(16)),O(a(e).toString(16)),O(a(r).toString(16)),O(D(n))];return i&&o[0].charAt(0)==o[0].charAt(1)&&o[1].charAt(0)==o[1].charAt(1)&&o[2].charAt(0)==o[2].charAt(1)&&o[3].charAt(0)==o[3].charAt(1)?o[0].charAt(0)+o[1].charAt(0)+o[2].charAt(0)+o[3].charAt(0):o.join("")}(this._r,this._g,this._b,this._a,t)},toHex8String:function(t){return"#"+this.toHex8(t)},toRgb:function(){return{r:a(this._r),g:a(this._g),b:a(this._b),a:this._a}},toRgbString:function(){return 1==this._a?"rgb("+a(this._r)+", "+a(this._g)+", "+a(this._b)+")":"rgba("+a(this._r)+", "+a(this._g)+", "+a(this._b)+", "+this._roundA+")"},toPercentageRgb:function(){return{r:a(100*C(this._r,255))+"%",g:a(100*C(this._g,255))+"%",b:a(100*C(this._b,255))+"%",a:this._a}},toPercentageRgbString:function(){return 1==this._a?"rgb("+a(100*C(this._r,255))+"%, "+a(100*C(this._g,255))+"%, "+a(100*C(this._b,255))+"%)":"rgba("+a(100*C(this._r,255))+"%, "+a(100*C(this._g,255))+"%, "+a(100*C(this._b,255))+"%, "+this._roundA+")"},toName:function(){return 0===this._a?"transparent":!(this._a<1)&&(E[h(this._r,this._g,this._b,!0)]||!1)},toFilter:function(t){var e="#"+p(this._r,this._g,this._b,this._a),r=e,n=this._gradientType?"GradientType = 1, ":"";if(t){var i=c(t);r="#"+p(i._r,i._g,i._b,i._a)}return"progid:DXImageTransform.Microsoft.gradient("+n+"startColorstr="+e+",endColorstr="+r+")"},toString:function(t){var e=!!t;t=t||this._format;var r=!1,n=this._a<1&&this._a>=0;return e||!n||"hex"!==t&&"hex6"!==t&&"hex3"!==t&&"hex4"!==t&&"hex8"!==t&&"name"!==t?("rgb"===t&&(r=this.toRgbString()),"prgb"===t&&(r=this.toPercentageRgbString()),"hex"!==t&&"hex6"!==t||(r=this.toHexString()),"hex3"===t&&(r=this.toHexString(!0)),"hex4"===t&&(r=this.toHex8String(!0)),"hex8"===t&&(r=this.toHex8String()),"name"===t&&(r=this.toName()),"hsl"===t&&(r=this.toHslString()),"hsv"===t&&(r=this.toHsvString()),r||this.to

HexString()):"name"===t&&0===this._a?this.toName():this.toRgbString()},clone:function(){return c(this.toString())},_applyModification:function(t,e){var r=t.apply(null,[this].concat([].slice.call(e)));return this._r=r._r,this._g=r._g,this._b=r._b,this.setAlpha(r._a),this},lighten:function(){return this._applyModification(m,arguments)},brighten:function(){return this._applyModification(y,arguments)},darken:function(){return this._applyModification(x,arguments)},desaturate:function(){return this._applyModification(d,arguments)},saturate:function(){return this._applyModification(g,arguments)},greyscale:function(){return this._applyModification(v,arguments)},spin:function(){return this._applyModification(b,arguments)},_applyCombination:function(t,e){return t.apply(null,[this].concat([].slice.call(e)))},analogous:function(){return this._applyCombination(A,arguments)},complement:function(){return this._applyCombination(_,arguments)},monochromatic:function(){return this._applyCombination(M,arguments)},splitcomplement:function(){return this._applyCombination(k,arguments)},triad:function(){return this._applyCombination(w,arguments)},tetrad:function(){return this._applyCombination(T,arguments)}},c.fromRatio=function(t,e){if("object"==typeof t){var r={};for(var n in t)t.hasOwnProperty(n)&&(r[n]="a"===n?t[n]:z(t[n]));t=r}return c(t,e)},c.equals=function(t,e){return!(!t||!e)&&c(t).toRgbString()==c(e).toRgbString()},c.random=function(){return c.fromRatio({r:l(),g:l(),b:l()})},c.mix=function(t,e,r){r=0===r?0:r||50;var n=c(t).toRgb(),i=c(e).toRgb(),a=r/100;return c({r:(i.r-n.r)*a+n.r,g:(i.g-n.g)*a+n.g,b:(i.b-n.b)*a+n.b,a:(i.a-n.a)*a+n.a})},c.readability=function(e,r){var n=c(e),i=c(r);return(t.max(n.getLuminance(),i.getLuminance())+.05)/(t.min(n.getLuminance(),i.getLuminance())+.05)},c.isReadable=function(t,e,r){var n,i,a,o,s,l=c.readability(t,e);switch(i=!1,(a=r,"AA"!==(o=((a=a||{level:"AA",size:"small"}).level||"AA").toUpperCase())&&"AAA"!==o&&(o="AA"),"small"!==(s=(a.size||"small").toLowerCase())&&"large"!==s&&(s="small"),n={level:o,size:s}).level+n.size){case"AAsmall":case"AAAlarge":i=l>=4.5;break;case"AAlarge":i=l>=3;break;case"AAAsmall":i=l>=7}return i},c.mostReadable=function(t,e,r){var n,i,a,o,s=null,l=0;i=(r=r||{}).includeFallbackColors,a=r.level,o=r.size;for(var u=0;u<e.length;u++)(n=c.readability(t,e[u]))>l&&(l=n,s=c(e[u]));return c.isReadable(t,s,{level:a,size:o})||!i?s:(r.includeFallbackColors=!1,c.mostReadable(t,["#fff","#000"],r))};var S=c.names={aliceblue:"f0f8ff",antiquewhite:"faebd7",aqua:"0ff",aquamarine:"7fffd4",azure:"f0ffff",beige:"f5f5dc",bisque:"ffe4c4",black:"000",blanchedalmond:"ffebcd",blue:"00f",blueviolet:"8a2be2",brown:"a52a2a",burlywood:"deb887",burntsienna:"ea7e5d",cadetblue:"5f9ea0",chartreuse:"7fff00",chocolate:"d2691e",coral:"ff7f50",cornflowerblue:"6495ed",cornsilk:"fff8dc",crimson:"dc143c",cyan:"0ff",darkblue:"00008b",darkcyan:"008b8b",darkgoldenrod:"b8860b",darkgray:"a9a9a9",darkgreen:"006400",darkgrey:"a9a9a9",darkkhaki:"bdb76b",darkmagenta:"8b008b",darkolivegreen:"556b2f",darkorange:"ff8c00",darkorchid:"9932cc",darkred:"8b0000",darksalmon:"e9967a",darkseagreen:"8fbc8f",darkslateblue:"483d8b",darkslategray:"2f4f4f",darkslategrey:"2f4f4f",darkturquoise:"00ced1",darkviolet:"9400d3",deeppink:"ff1493",deepskyblue:"00bfff",dimgray:"696969",dimgrey:"696969",dodgerblue:"1e90ff",firebrick:"b22222",floralwhite:"fffaf0",forestgreen:"228b22",fuchsia:"f0f",gainsboro:"dcdcdc",ghostwhite:"f8f8ff",gold:"ffd700",goldenrod:"daa520",gray:"808080",green:"008000",greenyellow:"adff2f",grey:"808080",honeydew:"f0fff0",hotpink:"ff69b4",indianred:"cd5c5c",indigo:"4b0082",ivory:"fffff0",khaki:"f0e68c",lavender:"e6e6fa",lavenderblush:"fff0f5",lawngreen:"7cfc00",lemonchiffon:"fffacd",lightblue:"add8e6",lightcoral:"f08080",lightcyan:"e0ffff",lightgoldenrodyellow:"fafad2",lightgray:"d3d3d3",lightgreen:"90ee90",lightgrey:"d3d3d3",lightpink:"ffb6c1",lightsalmon:"ffa07a",lightseagreen:"20b2aa",lightskyblue:"87cefa",lightslategray:"789",lightslategrey:"789",lightsteelblue:"b0c4de",lightyellow:"ffffe0",lime:"0f0",limegreen:"32cd32",linen:"faf0e6",magenta:"f0f",maroon:"800000",mediumaquamarine:"66cdaa",mediumblue:"0000cd",mediumorchid:"ba55d3",mediumpurple:"9370db",mediumseagreen:"3cb371",mediumslateblue:"7b68ee",mediumspringgreen:"00fa9a",mediumturquoise:"48d1cc",mediumvioletred:"c7

1585",midnightblue:"191970",mintcream:"f5fffa",mistyrose:"ffe4e1",moccasin:"ffe4b5",navajowhite:"ffdead",navy:"000080",oldlace:"fdf5e6",olive:"808000",olivedrab:"6b8e23",orange:"ffa500",orangered:"ff4500",orchid:"da70d6",palegoldenrod:"eee8aa",palegreen:"98fb98",paleturquoise:"afeeee",palevioletred:"db7093",papayawhip:"ffefd5",peachpuff:"ffdab9",peru:"cd853f",pink:"ffc0cb",plum:"dda0dd",powderblue:"b0e0e6",purple:"800080",rebeccapurple:"663399",red:"f00",rosybrown:"bc8f8f",royalblue:"4169e1",saddlebrown:"8b4513",salmon:"fa8072",sandybrown:"f4a460",seagreen:"2e8b57",seashell:"fff5ee",sienna:"a0522d",silver:"c0c0c0",skyblue:"87ceeb",slateblue:"6a5acd",slategray:"708090",slategrey:"708090",snow:"fffafa",springgreen:"00ff7f",steelblue:"4682b4",tan:"d2b48c",teal:"008080",thistle:"d8bfd8",tomato:"ff6347",turquoise:"40e0d0",violet:"ee82ee",wheat:"f5deb3",white:"fff",whitesmoke:"f5f5f5",yellow:"ff0",yellowgreen:"9acd32"},E=c.hexNames=function(t){var e={};for(var r in t)t.hasOwnProperty(r)&&(e[t[r]]=r);return e}(S);function L(t){return t=parseFloat(t),(isNaN(t)||t<0||t>1)&&(t=1),t}function C(e,r){(function(t){return"string"==typeof t&&-1!=t.indexOf(".")&&1===parseFloat(t)})(e)&&(e="100%");var n=function(t){return"string"==typeof t&&-1!=t.indexOf("%")}(e);return e=o(r,s(0,parseFloat(e))),n&&(e=parseInt(e*r,10)/100),t.abs(e-r)<1e-6?1:e%r/parseFloat(r)}function P(t){return o(1,s(0,t))}function I(t){return parseInt(t,16)}function O(t){return 1==t.length?"0"+t:""+t}function z(t){return t<=1&&(t=100*t+"%"),t}function D(e){return t.round(255*parseFloat(e)).toString(16)}function R(t){return I(t)/255}var F,B,N,j=(B="[\\s|\\(]+("+(F="(?:[-\\+]?\\d*\\.\\d+%?)|(?:[-\\+]?\\d+%?)")+")[,|\\s]+("+F+")[,|\\s]+("+F+")\\s*\\)?",N="[\\s|\\(]+("+F+")[,|\\s]+("+F+")[,|\\s]+("+F+")[,|\\s]+("+F+")\\s*\\)?",{CSS_UNIT:new RegExp(F),rgb:new RegExp("rgb"+B),rgba:new RegExp("rgba"+N),hsl:new RegExp("hsl"+B),hsla:new RegExp("hsla"+N),hsv:new RegExp("hsv"+B),hsva:new RegExp("hsva"+N),hex3:/^#?([0-9a-fA-F]{1})([0-9a-fA-F]{1})([0-9a-fA-F]{1})$/,hex6:/^#?([0-9a-fA-F]{2})([0-9a-fA-F]{2})([0-9a-fA-F]{2})$/,hex4:/^#?([0-9a-fA-F]{1})([0-9a-fA-F]{1})([0-9a-fA-F]{1})([0-9a-fA-F]{1})$/,hex8:/^#?([0-9a-fA-F]{2})([0-9a-fA-F]{2})([0-9a-fA-F]{2})([0-9a-fA-F]{2})$/});function U(t){return!!j.CSS_UNIT.exec(t)}void 0!==e&&e.exports?e.exports=c:window.tinycolor=c}(Math)},{}],313:[function(t,e,r){"use strict";e.exports=i,e.exports.float32=e.exports.float=i,e.exports.fract32=e.exports.fract=function(t,e){if(t.length){if(t instanceof Float32Array)return new Float32Array(t.length);e instanceof Float32Array||(e=i(t));for(var r=0,n=e.length;r<n;r++)e[r]=t[r]-e[r];return e}return i(t-i(t))};var n=new Float32Array(1);function i(t){return t.length?t instanceof Float32Array?t:new Float32Array(t):(n[0]=t,n[0])}},{}],314:[function(t,e,r){"use strict";var n=t("parse-unit");function i(t,e){var r=n(getComputedStyle(t).getPropertyValue(e));return r[0]*a(r[1],t)}function a(t,e){switch(e=e||document.body,t=(t||"px").trim().toLowerCase(),e!==window&&e!==document||(e=document.body),t){case"%":return e.clientHeight/100;case"ch":case"ex":return function(t,e){var r=document.createElement("div");r.style["font-size"]="128"+t,e.appendChild(r);var n=i(r,"font-size")/128;return e.removeChild(r),n}(t,e);case"em":return i(e,"font-size");case"rem":return i(document.body,"font-size");case"vw":return window.innerWidth/100;case"vh":return window.innerHeight/100;case"vmin":return Math.min(window.innerWidth,window.innerHeight)/100;case"vmax":return Math.max(window.innerWidth,window.innerHeight)/100;case"in":return 96;case"cm":return 96/2.54;case"mm":return 96/25.4;case"pt":return 96/72;case"pc":return 16}return 1}e.exports=a},{"parse-unit":251}],315:[function(t,e,r){var n;n=this,function(t){"use strict";function e(t){return t}function r(t){if(null==t)return e;var r,n,i=t.scale[0],a=t.scale[1],o=t.translate[0],s=t.translate[1];return function(t,e){e||(r=n=0);var l=2,c=t.length,u=new Array(c);for(u[0]=(r+=t[0])*i+o,u[1]=(n+=t[1])*a+s;l<c;)u[l]=t[l],++l;return u}}function n(t){var e,n=r(t.transform),i=1/0,a=i,o=-i,s=-i;function l(t){(t=n(t))[0]<i&&(i=t[0]),t[0]>o&&(o=t[0]),t[1]<a&&(a=t[1]),t[1]>s&&(s=t[1])}function c(t){switch(t.type){case"GeometryCollection":t.geometries.forEach(c);break;case"Point":l(t.coordinates);break;case"MultiPoint":t.coordinates.forEach(l)}}for(e in t.arcs.forEach((function(t){for(var e,r=-1,l=t.length;++r<l;)(e=n(t[r],r))[0]<i&&(i=e[0]),e[0]>o&&(o=e[0]),e[1]<a&&(a=e[1]),e[1]>s&&(s=e[1])})),t.objects)c(t.objects[e]);return[i,a,o,s]}function i(t,e){var

r=e.id,n=e.bbox,i=null==e.properties?{}:e.properties,o=a(t,e);return
null==r&&null==n?{type:"Feature",properties:i,geometry:o}:null==n?{type:"Feature",id:r,properties:i,geometry:o}:
{type:"Feature",id:r,bbox:n,properties:i,geometry:o}}function a(t,e){var n=r(t.transform),i=t.arcs;function
a(t,e){e.length&&e.pop();for(var r=i[t<0?~t:t],a=0,o=r.length;a<o;++a)e.push(n(r[a],a));t<0&&function(t,e){for(var
r,n=t.length,i=n-e;i<--n;)r=t[i],t[i++]=t[n],t[n]=r}(e,o)}function o(t){return n(t)}function s(t){for(var
e=[],r=0,n=t.length;r<n;++r)a(t[r],e);return e.length<2&&e.push(e[0]),e}function l(t){for(var
e=s(t);e.length<4;)e.push(e[0]);return e}function c(t){return t.map(l)}return function t(e){var
r,n=e.type;switch(n){case"GeometryCollection":return{type:n,geometries:e.geometries.map(t)};case"Point":r=o(e.c
oordinates);break;case"MultiPoint":r=e.coordinates.map(o);break;case"LineString":r=s(e.arcs);break;case"MultiLin
eString":r=e.arcs.map(s);break;case"Polygon":r=c(e.arcs);break;case"MultiPolygon":r=e.arcs.map(c);break;default:r
eturn null}return{type:n,coordinates:r}}(e)}function o(t,e){var r={},n={},i={},a=[],o=-1;function s(t,e){for(var n in
t){var i=t[n];delete e[i.start],delete i.start,delete i.end,i.forEach((function(t){r[t<0?~t:t]=1})),a.push(i)}}return
e.forEach((function(r,n){var
i,a=t.arcs[r<0?~r:r];a.length<3&&!a[1][0]&&!a[1][1]&&(i=e[++o],e[o]=r,e[n]=i)})),e.forEach((function(e){var
r,a,o=function(e){var r,n=t.arcs[e<0?~e:e],i=n[0];return
t.transform?(r=[0,0],n.forEach((function(t){r[0]+=t[0],r[1]+=t[1]}))):r=n[n.length-
1],e<0?[r,i]:[i,r]}(e),s=o[0],l=o[1];if(r=i[s])if(delete i[r.end],r.push(e),r.end=l,a=n[l]){delete n[a.start];var
c=a===r?r:r.concat(a);n[c.start=r.start]=i[c.end=a.end]=c}else n[r.start]=i[r.end]=r;else if(r=n[l])if(delete
n[r.start],r.unshift(e),r.start=s,a=i[s]){delete i[a.end];var
u=a===r?r:a.concat(r);n[u.start=a.start]=i[u.end=r.end]=u}else n[r.start]=i[r.end]=r;else
n[(r=[e]).start=s]=i[r.end=l]=r})),s(i,n),s(n,i),e.forEach((function(t){r[t<0?~t:t]||a.push([t])})),a}function s(t,e,r){var
n,i,a;if(arguments.length>1)n=l(0,e,r);else for(i=0,n=new
Array(a=t.arcs.length);i<a;++i)n[i]=i;return{type:"MultiLineString",arcs:o(t,n)}}function l(t,e,r){var
n,i=[],a=[];function o(t){var e=t<0?~t:t;(a[e]||(a[e]=[])).push({i:t,g:n})}function s(t){t.forEach(o)}function
l(t){t.forEach(s)}return function
t(e){switch(n=e,e.type){case"GeometryCollection":e.geometries.forEach(t);break;case"LineString":s(e.arcs);break;c
ase"MultiLineString":case"Polygon":l(e.arcs);break;case"MultiPolygon":!function(t){t.forEach(l)}(e.arcs)}}(e),a.for
Each(null==r?function(t){i.push(t[0].i)}:function(t){r(t[0].g,t[t.length-1].g)&&i.push(t[0].i)}),i}function c(t,e){var
r={},n=[],i=[];function
s(t){t.forEach((function(e){e.forEach((function(e){(r[e=e<0?~e:e]||(r[e]=[])).push(t)}))}))},n.push(t)}function
l(e){return function(t){for(var e,r=-1,n=t.length,i=t[n-1],a=0;++r<n;)e=i,i=t[r],a+=e[0]*i[1]-e[1]*i[0];return
Math.abs(a)}(a(t,{type:"Polygon",arcs:[e]}).coordinates[0])}return e.forEach((function
t(e){switch(e.type){case"GeometryCollection":e.geometries.forEach(t);break;case"Polygon":s(e.arcs);break;case"M
ultiPolygon":e.arcs.forEach(s)}})),n.forEach((function(t){if(!t._){var
e=[],n=[t];for(t._=1,i.push(e);t=n.pop();)e.push(t),t.forEach((function(t){t.forEach((function(t){r[t<0?~t:t].forEach((
function(t){t._||(t._=1,n.push(t))}))}))}))}})),n.forEach((function(t){delete
t._})),{type:"MultiPolygon",arcs:i.map((function(e){var
n,i=[];if(e.forEach((function(t){t.forEach((function(t){t.forEach((function(t){r[t<0?~t:t].length<2&&i.push(t)}))}))}
)),(n=(i=o(t,i)).length)>1)for(var a,s,c=1,u=l(i[0]);c<n;++c)(a=l(i[c]))>u&&(s=i[0],i[0]=i[c],i[c]=s,u=a);return
i})).filter((function(t){return t.length>0}))}}function u(t,e){for(var r=0,n=t.length;r<n;){var
i=r+n>>>1;t[i]<e?r=i+1:n=i}return r}function f(t){if(null==t)return e;var
r,n,i=t.scale[0],a=t.scale[1],o=t.translate[0],s=t.translate[1];return function(t,e){e||(r=n=0);var l=2,c=t.length,u=new
Array(c),f=Math.round((t[0]-o)/i),h=Math.round((t[1]-s)/a);for(u[0]=f-r,r=f,u[1]=h-n,n=h;l<c;)u[l]=t[l],++l;return
u}}t.bbox=n,t.feature=function(t,e){return"string"==typeof
e&&(e=t.objects[e]),"GeometryCollection"===e.type?{type:"FeatureCollection",features:e.geometries.map((functio
n(e){return i(t,e)}))}:i(t,e)},t.merge=function(t){return
a(t,c.apply(this,arguments))},t.mergeArcs=c,t.mesh=function(t){return
a(t,s.apply(this,arguments))},t.meshArcs=s,t.neighbors=function(t){var

e={},r=t.map((function(){return[]}));function n(t,r){t.forEach((function(t){t<0&&(t=~t);var n=e[t];n?n.push(r):e[t]=[r]}))}function i(t,e){t.forEach((function(t){n(t,e)}))}var a={LineString:n,MultiLineString:i,Polygon:i,MultiPolygon:function(t,e){t.forEach((function(t){i(t,e)}))}};for(var o in t.forEach((function t(e,r){"GeometryCollection"===e.type?e.geometries.forEach((function(e){t(e,r)})):e.type in a&&a[e.type](e.arcs,r)})),e)for(var s=e[o],l=s.length,c=0;c<l;++c)for(var f=c+1;f<l;++f){var h,p=s[c],d=s[f];(h=r[p])[o=u(h,d)]!==d&&h.splice(o,0,d),(h=r[d])[o=u(h,p)]!==p&&h.splice(o,0,p)}return r},t.quantize=function(t,e){if(t.transform)throw new Error("already quantized");if(e&&e.scale)l=t.bbox;else{if(!((r=Math.floor(e))>=2))throw new Error("n must be 2");var r,i=(l=t.bbox||n(t))[0],a=l[1],o=l[2],s=l[3];e={scale:[o-i?(o-i)/(r-1):1,s-a?(s-a)/(r-1):1],translate:[i,a]}}var l,c,u=f(e),h=t.objects,p={};function d(t){return u(t)}function g(t){var e;switch(t.type){case"GeometryCollection":e={type:"GeometryCollection",geometries:t.geometries.map(g)};break;case"Point":e={type:"Point",coordinates:d(t.coordinates)};break;case"MultiPoint":e={type:"MultiPoint",coordinates:t.coordinates.map(d)};break;default:return t}return null!=t.id&&(e.id=t.id),null!=t.bbox&&(e.bbox=t.bbox),null!=t.properties&&(e.properties=t.properties),e}for(c in h)p[c]=g(h[c]);return{type:"Topology",bbox:l,transform:e,objects:p,arcs:t.arcs.map((function(t){var e,r=0,n=1,i=t.length,a=new Array(i);for(a[0]=u(t[0],0);++r<i;)((e=u(t[r],r))[0]||e[1])&&(a[n++]=e);return 1===n&&(a[n++]=[0,0]),a.length=n,a}))}},t.transform=r,t.untransform=f,Object.defineProperty(t,"__esModule",{value:!0})}("object"==typeof r&&void 0!==e?r:(n=n||self).topojson=n.topojson||{})},{}],316:[function(t,e,r){"use strict";var n=t("../prototype/is");e.exports=function(t){if("function"!=typeof t)return!1;if(!hasOwnProperty.call(t,"length"))return!1;try{if("number"!=typeof t.length)return!1;if("function"!=typeof t.call)return!1;if("function"!=typeof t.apply)return!1}catch(t){return!1}return!n(t)}},{"../prototype/is":323}],317:[function(t,e,r){"use strict";var n=t("../value/is"),i=t("../object/is"),a=t("../string/coerce"),o=t("./to-short-string"),s=function(t,e){return t.replace("%v",o(e))};e.exports=function(t,e,r){if(!i(r))throw new TypeError(s(e,t));if(!n(t)){if("default"in r)return r.default;if(r.isOptional)return null}var o=a(r.errorMessage);throw n(o)||(o=e),new TypeError(s(o,t))}},{"../object/is":320,"../string/coerce":324,"../value/is":326,"./to-short-string":319}],318:[function(t,e,r){"use strict";e.exports=function(t){try{return t.toString()}catch(e){try{return String(t)}catch(t){return null}}}},{}],319:[function(t,e,r){"use strict";var n=t("./safe-to-string"),i=/[\n\r\u2028\u2029]/g;e.exports=function(t){var e=n(t);return null===e?"<Non-coercible to string value>":(e.length>100&&(e=e.slice(0,99)+"…"),e=e.replace(i,(function(t){switch(t){case"\n":return"\\n";case"\r":return"\\r";case"\u2028":return"\\u2028";case"\u2029":return"\\u2029";default:throw new Error("Unexpected character")}})))}},{"./safe-to-string":318}],320:[function(t,e,r){"use strict";var n=t("../value/is"),i={object:!0,function:!0,undefined:!0};e.exports=function(t){return!!n(t)&&hasOwnProperty.call(i,typeof t)}},{"../value/is":326}],321:[function(t,e,r){"use strict";var n=t("../lib/resolve-exception"),i=t("./is");e.exports=function(t){return i(t)?t:n(t,"%v is not a plain function",arguments[1])}},{"../lib/resolve-exception":317,"./is":322}],322:[function(t,e,r){"use strict";var n=t("../function/is"),i=/^\s*class[\s{/}]/,a=Function.prototype.toString;e.exports=function(t){return!!n(t)&&!i.test(a.call(t))}},{"../function/is":316}],323:[function(t,e,r){"use strict";var n=t("../object/is");e.exports=function(t){if(!n(t))return!1;try{return!!t.constructor&&t.constructor.prototype===t}catch(t){return!1}}},{"../object/is":320}],324:[function(t,e,r){"use strict";var n=t("../value/is"),i=t("../object/is"),a=Object.prototype.toString;e.exports=function(t){if(!n(t))return null;if(i(t)){var e=t.toString;if("function"!=typeof e)return null;if(e===a)return null}try{return""+t}catch(t){return null}}},{"../object/is":320,"../value/is":326}],325:[function(t,e,r){"use strict";var n=t("../lib/resolve-exception"),i=t("./is");e.exports=function(t){return i(t)?t:n(t,"Cannot use %v",arguments[1])}},{"../lib/resolve-exception":317,"./is":326}],326:[function(t,e,r){"use strict";e.exports=function(t){return null!=t}},{}],327:[function(t,e,n){(function(e){(function(){"use strict";var r=t("bit-twiddle"),i=t("dup"),a=t("buffer").Buffer;e.__TYPEDARRAY_POOL||(e.__TYPEDARRAY_POOL={UINT8:i([32,0]),UINT16:i([32,0]),UINT32:i([32,0]),BIGUINT64:i([32,0]),INT8:i([32,0]),INT16:i([32,0]),INT32:i([32,0]),BIGI

NT64:i([32,0]),FLOAT:i([32,0]),DOUBLE:i([32,0]),DATA:i([32,0]),UINT8C:i([32,0]),BUFFER:i([32,0])});var o="undefined"!=typeof Uint8ClampedArray,s="undefined"!=typeof BigUint64Array,l="undefined"!=typeof BigInt64Array,c=e.__TYPEDARRAY_POOL;c.UINT8C||(c.UINT8C=i([32,0])),c.BIGUINT64||(c.BIGUINT64=i([32,0])),c.BIGINT64||(c.BIGINT64=i([32,0])),c.BUFFER||(c.BUFFER=i([32,0]));var u=c.DATA,f=c.BUFFER;function h(t){if(t){var e=t.length||t.byteLength,n=r.log2(e);u[n].push(t)}}function p(t){t=r.nextPow2(t);var e=r.log2(t),n=u[e];return n.length>0?n.pop():new ArrayBuffer(t)}function d(t){return new Uint8Array(p(t),0,t)}function g(t){return new Uint16Array(p(2*t),0,t)}function v(t){return new Uint32Array(p(4*t),0,t)}function m(t){return new Int8Array(p(t),0,t)}function y(t){return new Int16Array(p(2*t),0,t)}function x(t){return new Int32Array(p(4*t),0,t)}function b(t){return new Float32Array(p(4*t),0,t)}function _(t){return new Float64Array(p(8*t),0,t)}function w(t){return o?new Uint8ClampedArray(p(t),0,t):d(t)}function T(t){return s?new BigUint64Array(p(8*t),0,t):null}function k(t){return l?new BigInt64Array(p(8*t),0,t):null}function A(t){return new DataView(p(t),0,t)}function M(t){t=r.nextPow2(t);var e=r.log2(t),n=f[e];return n.length>0?n.pop():new a(t)}n.free=function(t){if(a.isBuffer(t))f[r.log2(t.length)].push(t);else{if("[object ArrayBuffer]"!==Object.prototype.toString.call(t)&&(t=t.buffer),!t)return;var e=t.length||t.byteLength,n=0|r.log2(e);u[n].push(t)}},n.freeUint8=n.freeUint16=n.freeUint32=n.freeBigUint64=n.freeInt8=n.freeInt16=n.freeInt32=n.freeBigInt64=n.freeFloat32=n.freeFloat=n.freeFloat64=n.freeDouble=n.freeUint8Clamped=n.freeDataView=function(t){h(t.buffer)},n.freeArrayBuffer=h,n.freeBuffer=function(t){f[r.log2(t.length)].push(t)},n.malloc=function(t,e){if(void 0===e||"arraybuffer"===e)return p(t);switch(e){case"uint8":return d(t);case"uint16":return g(t);case"uint32":return v(t);case"int8":return m(t);case"int16":return y(t);case"int32":return x(t);case"float":case"float32":return b(t);case"double":case"float64":return _(t);case"uint8_clamped":return w(t);case"bigint64":return k(t);case"biguint64":return T(t);case"buffer":return M(t);case"data":case"dataview":return A(t);default:return null}return null},n.mallocArrayBuffer=p,n.mallocUint8=d,n.mallocUint16=g,n.mallocUint32=v,n.mallocInt8=m,n.mallocInt16=y,n.mallocInt32=x,n.mallocFloat32=n.mallocFloat=b,n.mallocFloat64=n.mallocDouble=_,n.mallocUint8Clamped=w,n.mallocBigUint64=T,n.mallocBigInt64=k,n.mallocDataView=A,n.mallocBuffer=M,n.clearCache=function(){for(var t=0;t<32;++t)c.UINT8[t].length=0,c.UINT16[t].length=0,c.UINT32[t].length=0,c.INT8[t].length=0,c.INT16[t].length=0,c.INT32[t].length=0,c.FLOAT[t].length=0,c.DOUBLE[t].length=0,c.BIGUINT64[t].length=0,c.BIGINT64[t].length=0,c.UINT8C[t].length=0,u[t].length=0,f[t].length=0}).call(this)}).call(this,void 0!==r.g?r.g:"undefined"!=typeof self?self:"undefined"!=typeof window?window:{})},{"bit-twiddle":81,buffer:85,dup:128}],328:[function(t,e,r){var n=/[\'\"]/;e.exports=function(t){return t?(n.test(t.charAt(0))&&(t=t.substr(1)),n.test(t.charAt(t.length-1))&&(t=t.substr(0,t.length-1)),t):""}},{}],329:[function(t,e,r){"use strict";e.exports=function(t,e,r){Array.isArray(r)||(r=[].slice.call(arguments,2));for(var n=0,i=r.length;n<i;n++){var a=r[n];for(var o in a)if((void 0===e[o]||Array.isArray(e[o]))||t[o]!==e[o])&&o in e){var s;if(!0===a[o])s=e[o];else{if(!1===a[o])continue;if("function"==typeof a[o]&&void 0===(s=a[o](e[o],t,e)))continue}t[o]=s}}return t}},{}],330:[function(t,e,n){(function(t){(function(){function r(e){try{if(!t.localStorage)return!1}catch(t){return!1}var r=t.localStorage[e];return null!=r&&"true"===String(r).toLowerCase()}e.exports=function(t,e){if(r("noDeprecation"))return t;var n=!1;return function(){if(!n){if(r("throwDeprecation"))throw new Error(e);r("traceDeprecation")?console.trace(e):console.warn(e),n=!0}return t.apply(this,arguments)}}}).call(this)}).call(this,void 0!==r.g?r.g:"undefined"!=typeof self?self:"undefined"!=typeof window?window:{})},{}],331:[function(t,e,r){var n=t("get-canvas-context");e.exports=function(t){return n("webgl",t)}},{"get-canvas-context":194}],332:[function(t,e,r){var n=t("../main"),i=t("object-assign"),a=n.instance();function o(t){this.local=this.regionalOptions[t||""]||this.regionalOptions[""]}o.prototype=new n.baseCalendar,i(o.prototype,{name:"Chinese",jdEpoch:1721425.5,hasYearZero:!1,minMonth:0,firstMonth:0,minDay:1,regionalOptions:{"":{name:"Chinese",epochs:["BEC","EC"],monthNumbers:function(t,e){if("string"==typeof

t){var r=t.match(l);return r?r[0]:""}var n=this._validateYear(t),i=t.month(),a=""+this.toChineseMonth(n,i);return e&&a.length<2&&(a="0"+a),this.isIntercalaryMonth(n,i)&&(a+="i"),a},monthNames:function(t){if("string"==typeof t){var e=t.match(c);return e?e[0]:""}var r=this._validateYear(t),n=t.month(),i=["","","","","","","","","","","","",""][this.toChineseMonth(r,n)-1];return this.isIntercalaryMonth(r,n)&&(i="
"+i),i},monthNamesShort:function(t){if("string"==typeof t){var e=t.match(u);return e?e[0]:""}var r=this._validateYear(t),n=t.month(),i=["","","","","","","","","","","","",""][this.toChineseMonth(r,n)-1];return this.isIntercalaryMonth(r,n)&&(i=""+i),i},parseMonth:function(t,e){t=this._validateYear(t);var r,n=parseInt(e);if(isNaN(n))""===e[0]&&(r=!0,e=e.substring(1)),""===e[e.length-1]&&(e=e.substring(0,e.length-1)),n=1+["","","","","","","","","","","","",""].indexOf(e);else{var i=e[e.length-1];r="i"===i||"I"===i}return this.toMonthIndex(t,n,r)},dayNames:["Sunday","Monday","Tuesday","Wednesday","Thursday","Friday","Saturday"],dayNamesShort:["Sun","Mon","Tue","Wed","Thu","Fri","Sat"],dayNamesMin:["Su","Mo","Tu","We","Th","Fr","Sa"],digits:null,dateFormat:"yyyy/mm/dd",firstDay:1,isRTL:!1}},_validateYear:function(t,e){if(t.year&&(t=t.year()),"number"!=typeof t||t<1888||t>2111)throw e.replace(/\{0\}/,this.local.name);return t},toMonthIndex:function(t,e,r){var i=this.intercalaryMonth(t);if(r&&e!==i||e<1||e>12)throw n.local.invalidMonth.replace(/\{0\}/,this.local.name);return i?!r&&e<=i?e-1:e:e-1},toChineseMonth:function(t,e){t.year&&(e=(t=t.year()).month());var r=this.intercalaryMonth(t);if(e<0||e>(r?12:11))throw n.local.invalidMonth.replace(/\{0\}/,this.local.name);return r?e<r?e+1:e:e+1},intercalaryMonth:function(t){return t=this._validateYear(t),f[t-f[0]]>>13},isIntercalaryMonth:function(t,e){t.year&&(e=(t=t.year()).month());var r=this.intercalaryMonth(t);return!!r&&r===e},leapYear:function(t){return 0!==this.intercalaryMonth(t)},weekOfYear:function(t,e,r){var i,o=this._validateYear(t,n.local.invalidyear),s=h[o-h[0]],l=s>>9&4095,c=s>>5&15,u=31&s;(i=a.newDate(l,c,u)).add(4-(i.dayOfWeek()||7),"d");var f=this.toJD(t,e,r)-i.toJD();return 1+Math.floor(f/7)},monthsInYear:function(t){return this.leapYear(t)?13:12},daysInMonth:function(t,e){t.year&&(e=t.month(),t=t.year()),t=this._validateYear(t);var r=f[t-f[0]];if(e>(r>>13?12:11))throw n.local.invalidMonth.replace(/\{0\}/,this.local.name);return r&1<<12-e?30:29},weekDay:function(t,e,r){return(this.dayOfWeek(t,e,r)||7)<6},toJD:function(t,e,r){var i=this._validate(t,s,r,n.local.invalidDate);t=this._validateYear(i.year()),e=i.month(),r=i.day();var o=this.isIntercalaryMonth(t,e),s=this.toChineseMonth(t,e),l=function(t,e,r,n,i){var a,o,s;if("object"==typeof t)o=t,a=e||{};else{var l;if(!("number"==typeof t&&t>=1888&&t<=2111))throw new Error("Lunar year outside range 1888-2111");if(!("number"==typeof e&&e>=1&&e<=12))throw new Error("Lunar month outside range 1 - 12");if(!("number"==typeof r&&r>=1&&r<=30))throw new Error("Lunar day outside range 1 - 30");"object"==typeof n?(l=!1,a=n):(l=!!n,a=i||{}),o={year:t,month:e,day:r,isIntercalary:l}}s=o.day-1;var c,u=f[o.year-f[0]],p=u>>13;c=p&&(o.month>p||o.isIntercalary)?o.month:o.month-1;for(var d=0;d<c;d++)s+=u&1<<12-d?30:29;var g=h[o.year-h[0]],v=new Date(g>>9&4095,(g>>5&15)-1,(31&g)+s);return a.year=v.getFullYear(),a.month=1+v.getMonth(),a.day=v.getDate(),a}(t,s,r,o);return a.toJD(l.year,l.month,l.day)},fromJD:function(t){var e=a.fromJD(t),r=function(t,e,r,n){var i,a;if("object"==typeof t)i=t,a=e||{};else{if(!("number"==typeof t&&t>=1888&&t<=2111))throw new Error("Solar year outside range 1888-2111");if(!("number"==typeof e&&e>=1&&e<=12))throw new Error("Solar month outside range 1 - 12");if(!("number"==typeof r&&r>=1&&r<=31))throw new Error("Solar day outside range 1 - 31");i={year:t,month:e,day:r},a=n||{}}var o=h[i.year-h[0]],s=i.year<<9|i.month<<5|i.day;a.year=s>=o?i.year:i.year-1,o=h[a.year-h[0]];var l,c=new Date(o>>9&4095,(o>>5&15)-1,31&o),u=new Date(i.year,i.month-1,i.day);l=Math.round((u-c)/864e5);var p,d=f[a.year-f[0]];for(p=0;p<13;p++){var g=d&1<<12-p?30:29;if(l<g)break;l-=g}var v=d>>13;return!v||p<v?(a.isIntercalary=!1,a.month=1+p):p===v?(a.isIntercalary=!0,a.month=p):(a.isIntercalary=!1,a.month=p),a.day=1+l,a}(e.year(),e.month(),e.day()),n=this.toMonthIndex(r.year,r.month,r.isIntercalary);return this.newDate(r.year,n,r.day)},fromString:function(t){var e=t.match(s),r=this._validateYear(+e[1]),n=+e[2],i=!!e[3],a=this.toMonthIndex(r,n,i),o=+e[4];return this.newDate(r,a,o)},add:function(t,e,r){var

n=t.year(),i=t.month(),a=this.isIntercalaryMonth(n,i),s=this.toChineseMonth(n,i),l=Object.getPrototypeOf(o.prototype).add.call(this,t,e,r);if("y"===r){var c=l.year(),u=l.month(),f=this.isIntercalaryMonth(c,s),h=a&&f?this.toMonthIndex(c,s,!0):this.toMonthIndex(c,s,!1);h!==u&&l.month(h)}return l}});var s=/^\s*(-?\d\d\d\d|\d\d)[-/](\d?\d)([iI]?)[-/](\d?\d)/m,l=/^\d?\d[iI]?/m,c=/^??[]?/m,u=/^??[]?/m;n.calendars.chinese=o;var f=[1887,5780,5802,19157,2742,50359,1198,2646,46378,7466,3412,30122,5482,67949,2396,5294,43597,6732,6954,36181,2772,4954,18781,2396,54427,5274,6730,47781,5800,6868,21210,4790,59703,2350,5270,46667,3402,3496,38325,1388,4782,18735,2350,52374,6804,7498,44457,2906,1388,29294,4700,63789,6442,6804,56138,5802,2772,38235,1210,4698,22827,5418,63125,3476,5802,43701,2484,5302,27223,2646,70954,7466,3412,54698,5482,2412,38062,5294,2636,32038,6954,60245,2772,4826,43357,2394,5274,39501,6730,72357,5800,5844,53978,4790,2358,38039,5270,87627,3402,3496,54708,5484,4782,43311,2350,3222,27978,7498,68965,2904,5484,45677,4700,6444,39573,6804,6986,19285,2772,62811,1210,4698,47403,5418,5780,38570,5546,76469,2420,5302,51799,2646,5414,36501,3412,5546,18869,2412,54446,5276,6732,48422,6822,2900,28010,4826,92509,2394,5274,55883,6730,6820,47956,5812,2778,18779,2358,62615,5270,5450,46757,3492,5556,27318,4718,67887,2350,3222,52554,7498,3428,38252,5468,4700,31022,6444,64149,6804,6986,43861,2772,5338,35421,2650,70955,5418,5780,54954,5546,2740,38074,5302,2646,29991,3366,61011,3412,5546,43445,2412,5294,35406,6732,72998,6820,6996,52586,2778,2396,38045,5274,6698,23333,6820,64338,5812,2746,43355,2358,5270,39499,5450,79525,3492,5548],h=[1887,966732,967231,967733,968265,968766,969297,969798,970298,970829,971330,971830,972362,972863,973395,973896,974397,974928,975428,975929,976461,976962,977462,977994,978494,979026,979526,980026,980558,981059,981559,982091,982593,983124,983624,984124,984656,985157,985656,986189,986690,987191,987722,988222,988753,989254,989754,990286,990788,991288,991819,992319,992851,993352,993851,994383,994885,995385,995917,996418,996918,997450,997949,998481,998982,999483,1000014,1000515,1001016,1001548,1002047,1002578,1003080,1003580,1004111,1004613,1005113,1005645,1006146,1006645,1007177,1007678,1008209,1008710,1009211,1009743,1010243,1010743,1011275,1011775,1012306,1012807,1013308,1013840,1014341,1014841,1015373,1015874,1016404,1016905,1017405,1017937,1018438,1018939,1019471,1019972,1020471,1021002,1021503,1022035,1022535,1023036,1023568,1024069,1024568,1025100,1025601,1026102,1026633,1027133,1027666,1028167,1028666,1029198,1029699,1030199,1030730,1031231,1031763,1032264,1032764,1033296,1033797,1034297,1034828,1035329,1035830,1036362,1036861,1037393,1037894,1038394,1038925,1039427,1039927,1040459,1040959,1041491,1041992,1042492,1043023,1043524,1044024,1044556,1045057,1045558,1046090,1046590,1047121,1047622,1048122,1048654,1049154,1049655,1050187,1050689,1051219,1051720,1052220,1052751,1053252,1053752,1054284,1054786,1055285,1055817,1056317,1056849,1057349,1057850,1058382,1058883,1059383,1059915,1060415,1060947,1061447,1061947,1062479,1062981,1063480,1064012,1064514,1065014,1065545,1066045,1066577,1067078,1067578,1068110,1068611,1069112,1069642,1070142,1070674,1071175,1071675,1072207,1072709,1073209,1073740,1074241,1074741,1075273,1075773,1076305,1076807,1077308,1077839,1078340,1078840,1079372,1079871,1080403,1080904]},{"../main":346,"object-assign":247}],333:[function(t,e,r){var n=t("../main"),i=t("object-assign");function a(t){this.local=this.regionalOptions[t||""]||this.regionalOptions[""]}a.prototype=new n.baseCalendar,i(a.prototype,{name:"Coptic",jdEpoch:1825029.5,daysPerMonth:[30,30,30,30,30,30,30,30,30,30,30,30,5],hasYearZero:!1,minMonth:1,firstMonth:1,minDay:1,regionalOptions:{"":{name:"Coptic",epochs:["BAM","AM"],monthNames:["Thout","Paopi","Hathor","Koiak","Tobi","Meshir","Paremhat","Paremoude","Pashons","Paoni","Epip","Mesori","Pi Kogi Enavot"],monthNamesShort:["Tho","Pao","Hath","Koi","Tob","Mesh","Pat","Pad","Pash","Pao","Epi","Meso","Pi K"],dayNames:["Tkyriaka","Pesnau","Pshoment","Peftoou","Ptiou","Psoou","Psabbaton"],dayNamesShort:["Tky","Pes","Psh","Pef","Pti","Pso","Psa"],dayNamesMin:["Tk","Pes","Psh","Pef","Pt","Pso","Psa"],digits:null,dateFormat:"dd/mm/yyyy",firstDay:0,isRTL:!1}},leapYear:function(t){var e=this._validate(t,this.minMonth,this.minDay,n.local.invalidYear);return(t=e.year()+(e.year()<0?1:0))%4==3||t%4==-1},monthsInYear:function(t){return this._validate(t,this.minMonth,this.minDay,n.local.invalidYear||n.regionalOptions[""].invalidYear),13},weekOfYear:function(t,e,r){var n=this.newDate(t,e,r);return n.add(-n.dayOfWeek(),"d"),Math.floor((n.dayOfYear()-

1)/7)+1},daysInMonth:function(t,e){var r=this._validate(t,e,this.minDay,n.local.invalidMonth);return this.daysPerMonth[r.month()-1]+(13===r.month()&&this.leapYear(r.year())?1:0)},weekDay:function(t,e,r){return(this.dayOfWeek(t,e,r)||7)<6},toJD:function(t,e,r){var i=this._validate(t,e,r,n.local.invalidDate);return(t=i.year())<0&&t++,i.day()+30*(i.month()-1)+365*(t-1)+Math.floor(t/4)+this.jdEpoch-1},fromJD:function(t){var e=Math.floor(t)+.5-this.jdEpoch,r=Math.floor((e-Math.floor((e+366)/1461))/365)+1;r<=0&&r--,e=Math.floor(t)+.5-this.newDate(r,1,1).toJD();var n=Math.floor(e/30)+1,i=e-30*(n-1)+1;return this.newDate(r,n,i)}}),n.calendars.coptic=a},{"../main":346,"object-assign":247}],334:[function(t,e,r){var n=t("../main"),i=t("object-assign");function a(t){this.local=this.regionalOptions[t||""]||this.regionalOptions[""]}a.prototype=new n.baseCalendar,i(a.prototype,{name:"Discworld",jdEpoch:1721425.5,daysPerMonth:[16,32,32,32,32,32,32,32,32,32,32,32,32],hasYearZero:!1,minMonth:1,firstMonth:1,minDay:1,regionalOptions:{"":{name:"Discworld",epochs:["BUC","UC"],monthNames:["Ick","Offle","February","March","April","May","June","Grune","August","Spune","Sektober","Ember","December"],monthNamesShort:["Ick","Off","Feb","Mar","Apr","May","Jun","Gru","Aug","Spu","Sek","Emb","Dec"],dayNames:["Sunday","Octeday","Monday","Tuesday","Wednesday","Thursday","Friday","Saturday"],dayNamesShort:["Sun","Oct","Mon","Tue","Wed","Thu","Fri","Sat"],dayNamesMin:["Su","Oc","Mo","Tu","We","Th","Fr","Sa"],digits:null,dateFormat:"yyyy/mm/dd",firstDay:2,isRTL:!1}},leapYear:function(t){return this._validate(t,this.minMonth,this.minDay,n.local.invalidYear),!1},monthsInYear:function(t){return this._validate(t,this.minMonth,this.minDay,n.local.invalidYear),13},daysInYear:function(t){return this._validate(t,this.minMonth,this.minDay,n.local.invalidYear),400},weekOfYear:function(t,e,r){var n=this.newDate(t,e,r);return n.add(-n.dayOfWeek(),"d"),Math.floor((n.dayOfYear()-1)/8)+1},daysInMonth:function(t,e){var r=this._validate(t,e,this.minDay,n.local.invalidMonth);return this.daysPerMonth[r.month()-1]},daysInWeek:function(){return 8},dayOfWeek:function(t,e,r){return(this._validate(t,e,r,n.local.invalidDate).day()+1)%8},weekDay:function(t,e,r){var n=this.dayOfWeek(t,e,r);return n>=2&&n<=6},extraInfo:function(t,e,r){var i=this._validate(t,e,r,n.local.invalidDate);return{century:o[Math.floor((i.year()-1)/100)+1]||""}},toJD:function(t,e,r){var i=this._validate(t,e,r,n.local.invalidDate);return t=i.year()+(i.year()<0?1:0),e=i.month(),(r=i.day())+(e>1?16:0)+(e>2?32*(e-2):0)+400*(t-1)+this.jdEpoch-1},fromJD:function(t){t=Math.floor(t+.5)-Math.floor(this.jdEpoch)-1;var e=Math.floor(t/400)+1;t-=400*(e-1),t+=t>15?16:0;var r=Math.floor(t/32)+1,n=t-32*(r-1)+1;return this.newDate(e<=0?e-1:e,r,n)}});var o={20:"Fruitbat",21:"Anchovy"};n.calendars.discworld=a},{"../main":346,"object-assign":247}],335:[function(t,e,r){var n=t("../main"),i=t("object-assign");function a(t){this.local=this.regionalOptions[t||""]||this.regionalOptions[""]}a.prototype=new n.baseCalendar,i(a.prototype,{name:"Ethiopian",jdEpoch:1724220.5,daysPerMonth:[30,30,30,30,30,30,30,30,30,30,30,30,5],hasYearZero:!1,minMonth:1,firstMonth:1,minDay:1,regionalOptions:{"":{name:"Ethiopian",epochs:["BEE","EE"],monthNames:["Meskerem","Tikemet","Hidar","Tahesas","Tir","Yekatit","Megabit","Miazia","Genbot","Sene","Hamle","Nehase","Pagume"],monthNamesShort:["Mes","Tik","Hid","Tah","Tir","Yek","Meg","Mia","Gen","Sen","Ham","Neh","Pag"],dayNames:["Ehud","Segno","Maksegno","Irob","Hamus","Arb","Kidame"],dayNamesShort:["Ehu","Seg","Mak","Iro","Ham","Arb","Kid"],dayNamesMin:["Eh","Se","Ma","Ir","Ha","Ar","Ki"],digits:null,dateFormat:"dd/mm/yyyy",firstDay:0,isRTL:!1}},leapYear:function(t){var e=this._validate(t,this.minMonth,this.minDay,n.local.invalidYear);return(t=e.year()+(e.year()<0?1:0))%4==3||t%4==-1},monthsInYear:function(t){return this._validate(t,this.minMonth,this.minDay,n.local.invalidYear||n.regionalOptions[""].invalidYear),13},weekOfYear:function(t,e,r){var n=this.newDate(t,e,r);return n.add(-n.dayOfWeek(),"d"),Math.floor((n.dayOfYear()-1)/7)+1},daysInMonth:function(t,e){var r=this._validate(t,e,this.minDay,n.local.invalidMonth);return this.daysPerMonth[r.month()-1]+(13===r.month()&&this.leapYear(r.year())?1:0)},weekDay:function(t,e,r){return(this.dayOfWeek(t,e,r)||7)<6},toJD:function(t,e,r){var i=this._validate(t,e,r,n.local.invalidDate);return(t=i.year())<0&&t++,i.day()+30*(i.month()-

1)+365*(t-1)+Math.floor(t/4)+this.jdEpoch-1},fromJD:function(t){var e=Math.floor(t)+.5-this.jdEpoch,r=Math.floor((e-Math.floor((e+366)/1461))/365)+1;r<=0&&r--,e=Math.floor(t)+.5-this.newDate(r,1,1).toJD();var n=Math.floor(e/30)+1,i=e-30*(n-1)+1;return this.newDate(r,n,i)}}),n.calendars.ethiopian=a},{"../main":346,"object-assign":247}],336:[function(t,e,r){var n=t("../main"),i=t("object-assign");function a(t){this.local=this.regionalOptions[t||""]||this.regionalOptions[""]}function o(t,e){return t-e*Math.floor(t/e)}a.prototype=new n.baseCalendar,i(a.prototype,{name:"Hebrew",jdEpoch:347995.5,daysPerMonth:[30,29,30,29,30,29,30,29,30,29,30,29,29],hasYearZero:!1,minMonth:1,firstMonth:7,minDay:1,regionalOptions:{"":{name:"Hebrew",epochs:["BAM","AM"],monthNames:["Nisan","Iyar","Sivan","Tammuz","Av","Elul","Tishrei","Cheshvan","Kislev","Tevet","Shevat","Adar","Adar II"],monthNamesShort:["Nis","Iya","Siv","Tam","Av","Elu","Tis","Che","Kis","Tev","She","Ada","Ad2"],dayNames:["Yom Rishon","Yom Sheni","Yom Shlishi","Yom Revi'i","Yom Chamishi","Yom Shishi","Yom Shabbat"],dayNamesShort:["Ris","She","Shl","Rev","Cha","Shi","Sha"],dayNamesMin:["Ri","She","Shl","Re","Ch","Shi","Sha"],digits:null,dateFormat:"dd/mm/yyyy",firstDay:0,isRTL:!1}},leapYear:function(t){var e=this._validate(t,this.minMonth,this.minDay,n.local.invalidYear);return this._leapYear(e.year())},_leapYear:function(t){return o(7*(t=t<0?t+1:t)+1,19)<7},monthsInYear:function(t){return this._validate(t,this.minMonth,this.minDay,n.local.invalidYear),this._leapYear(t.year?t.year():t)?13:12},weekOfYear:function(t,e,r){var n=this.newDate(t,e,r);return n.add(-n.dayOfWeek(),"d"),Math.floor((n.dayOfYear()-1)/7)+1},daysInYear:function(t){return t=this._validate(t,this.minMonth,this.minDay,n.local.invalidYear).year(),this.toJD(-1===t?1:t+1,7,1)-this.toJD(t,7,1)},daysInMonth:function(t,e){return t.year&&(e=t.month(),t=t.year()),this._validate(t,e,this.minDay,n.local.invalidMonth),12===e&&this.leapYear(t)||8===e&&5===o(this.daysInYear(t),10)?30:9===e&&3===o(this.daysInYear(t),10)?29:this.daysPerMonth[e-1]},weekDay:function(t,e,r){return 6!==this.dayOfWeek(t,e,r)},extraInfo:function(t,e,r){var i=this._validate(t,e,r,n.local.invalidDate);return{yearType:(this.leapYear(i)?"embolismic":"common")+" "+["deficient","regular","complete"][this.daysInYear(i)%10-3]}},toJD:function(t,e,r){var i=this._validate(t,e,r,n.local.invalidDate);t=i.year(),e=i.month(),r=i.day();var a=t<=0?t+1:t,o=this.jdEpoch+this._delay1(a)+this._delay2(a)+r+1;if(e<7){for(var s=7;s<=this.monthsInYear(t);s++)o+=this.daysInMonth(t,s);for(s=1;s<e;s++)o+=this.daysInMonth(t,s)}else for(s=7;s<e;s++)o+=this.daysInMonth(t,s);return o},_delay1:function(t){var e=Math.floor((235*t-234)/19),r=12084+13753*e,n=29*e+Math.floor(r/25920);return o(3*(n+1),7)<3&&n++,n},_delay2:function(t){var e=this._delay1(t-1),r=this._delay1(t);return this._delay1(t+1)-r==356?2:r-e==382?1:0},fromJD:function(t){t=Math.floor(t)+.5;for(var e=Math.floor(98496*(t-this.jdEpoch)/35975351)-1;t>=this.toJD(-1===e?1:e+1,7,1);)e++;for(var r=t<this.toJD(e,1,1)?7:1;t>this.toJD(e,r,this.daysInMonth(e,r));)r++;var n=t-this.toJD(e,r,1)+1;return this.newDate(e,r,n)}}),n.calendars.hebrew=a},{"../main":346,"object-assign":247}],337:[function(t,e,r){var n=t("../main"),i=t("object-assign");function a(t){this.local=this.regionalOptions[t||""]||this.regionalOptions[""]}a.prototype=new n.baseCalendar,i(a.prototype,{name:"Islamic",jdEpoch:1948439.5,daysPerMonth:[30,29,30,29,30,29,30,29,30,29,30,29],hasYearZero:!1,minMonth:1,firstMonth:1,minDay:1,regionalOptions:{"":{name:"Islamic",epochs:["BH","AH"],monthNames:["Muharram","Safar","Rabi' al-awwal","Rabi' al-thani","Jumada al-awwal","Jumada al-thani","Rajab","Sha'aban","Ramadan","Shawwal","Dhu al-Qi'dah","Dhu al-Hijjah"],monthNamesShort:["Muh","Saf","Rab1","Rab2","Jum1","Jum2","Raj","Sha'","Ram","Shaw","DhuQ","DhuH"],dayNames:["Yawm al-ahad","Yawm al-ithnayn","Yawm ath-thulaathaa'","Yawm al-arbi'aa'","Yawm al-khams","Yawm al-jum'a","Yawm as-sabt"],dayNamesShort:["Aha","Ith","Thu","Arb","Kha","Jum","Sab"],dayNamesMin:["Ah","It","Th","Ar","Kh","Ju","Sa"],digits:null,dateFormat:"yyyy/mm/dd",firstDay:6,isRTL:!1}},leapYear:function(t){return(11*this._validate(t,

this.minMonth,this.minDay,n.local.invalidYear).year()+14)%30<11},weekOfYear:function(t,e,r){var n=this.newDate(t,e,r);return n.add(-n.dayOfWeek(),"d"),Math.floor((n.dayOfYear()-1)/7)+1},daysInYear:function(t){return this.leapYear(t)?355:354},daysInMonth:function(t,e){var r=this._validate(t,e,this.minDay,n.local.invalidMonth);return this.daysPerMonth[r.month()-1]+(12===r.month()&&this.leapYear(r.year())?1:0)},weekDay:function(t,e,r){return 5!==this.dayOfWeek(t,e,r)},toJD:function(t,e,r){var i=this._validate(t,e,r,n.local.invalidDate);return t=i.year(),e=i.month(),t=t<=0?t+1:t,(r=i.day())+Math.ceil(29.5*(e-1))+354*(t-1)+Math.floor((3+11*t)/30)+this.jdEpoch-1},fromJD:function(t){t=Math.floor(t)+.5;var e=Math.floor((30*(t-this.jdEpoch)+10646)/10631);e=e<=0?e-1:e;var r=Math.min(12,Math.ceil((t-29-this.toJD(e,1,1))/29.5)+1),n=t-this.toJD(e,r,1)+1;return this.newDate(e,r,n)}}),n.calendars.islamic=a},{"../main":346,"object-assign":247}],338:[function(t,e,r){var n=t("../main"),i=t("object-assign");function a(t){this.local=this.regionalOptions[t||""]||this.regionalOptions[""]}a.prototype=new n.baseCalendar,i(a.prototype,{name:"Julian",jdEpoch:1721423.5,daysPerMonth:[31,28,31,30,31,30,31,31,30,31,30,31],hasYearZero:!1,minMonth:1,firstMonth:1,minDay:1,regionalOptions:{"":{name:"Julian",epochs:["BC","AD"],monthNames:["January","February","March","April","May","June","July","August","September","October","November","December"],monthNamesShort:["Jan","Feb","Mar","Apr","May","Jun","Jul","Aug","Sep","Oct","Nov","Dec"],dayNames:["Sunday","Monday","Tuesday","Wednesday","Thursday","Friday","Saturday"],dayNamesShort:["Sun","Mon","Tue","Wed","Thu","Fri","Sat"],dayNamesMin:["Su","Mo","Tu","We","Th","Fr","Sa"],digits:null,dateFormat:"mm/dd/yyyy",firstDay:0,isRTL:!1}},leapYear:function(t){var e=this._validate(t,this.minMonth,this.minDay,n.local.invalidYear);return(t=e.year()<0?e.year()+1:e.year())%4==0},weekOfYear:function(t,e,r){var n=this.newDate(t,e,r);return n.add(4-(n.dayOfWeek()||7),"d"),Math.floor((n.dayOfYear()-1)/7)+1},daysInMonth:function(t,e){var r=this._validate(t,e,this.minDay,n.local.invalidMonth);return this.daysPerMonth[r.month()-1]+(2===r.month()&&this.leapYear(r.year())?1:0)},weekDay:function(t,e,r){return(this.dayOfWeek(t,e,r)||7)<6},toJD:function(t,e,r){var i=this._validate(t,e,r,n.local.invalidDate);return t=i.year(),e=i.month(),r=i.day(),t<0&&t++,e<=2&&(t--,e+=12),Math.floor(365.25*(t+4716))+Math.floor(30.6001*(e+1))+r-1524.5},fromJD:function(t){var e=Math.floor(t+.5)+1524,r=Math.floor((e-122.1)/365.25),n=Math.floor(365.25*r),i=Math.floor((e-n)/30.6001),a=i-Math.floor(i<14?1:13),o=r-Math.floor(a>2?4716:4715),s=e-n-Math.floor(30.6001*i);return o<=0&&o--,this.newDate(o,a,s)}}),n.calendars.julian=a},{"../main":346,"object-assign":247}],339:[function(t,e,r){var n=t("../main"),i=t("object-assign");function a(t){this.local=this.regionalOptions[t||""]||this.regionalOptions[""]}function o(t,e){return t-e*Math.floor(t/e)}function s(t,e){return o(t-1,e)+1}a.prototype=new n.baseCalendar,i(a.prototype,{name:"Mayan",jdEpoch:584282.5,hasYearZero:!0,minMonth:0,firstMonth:0,minDay:0,regionalOptions:{"":{name:"Mayan",epochs:["",""],monthNames:["0","1","2","3","4","5","6","7","8","9","10","11","12","13","14","15","16","17"],monthNamesShort:["0","1","2","3","4","5","6","7","8","9","10","11","12","13","14","15","16","17"],dayNames:["0","1","2","3","4","5","6","7","8","9","10","11","12","13","14","15","16","17","18","19"],dayNamesShort:["0","1","2","3","4","5","6","7","8","9","10","11","12","13","14","15","16","17","18","19"],dayNamesMin:["0","1","2","3","4","5","6","7","8","9","10","11","12","13","14","15","16","17","18","19"],digits:null,dateFormat:"YYYY.m.d",firstDay:0,isRTL:!1,haabMonths:["Pop","Uo","Zip","Zotz","Tzec","Xul","Yaxkin","Mol","Chen","Yax","Zac","Ceh","Mac","Kankin","Muan","Pax","Kayab","Cumku","Uayeb"],tzolkinMonths:["Imix","Ik","Akbal","Kan","Chicchan","Cimi","Manik","Lamat","Muluc","Oc","Chuen","Eb","Ben","Ix","Men","Cib","Caban","Etznab","Cauac","Ahau"]}},leapYear:function(t){return this._validate(t,this.minMonth,this.minDay,n.local.invalidYear),!1},formatYear:function(t){t=this._validate(t,this.minMonth,this.minDay,n.local.invalidYear).year();var e=Math.floor(t/400);return t%=400,t+=t<0?400:0,e+"."+Math.floor(t/20)+"."+t%20},forYear:function(t){if((t=t.split(".")).length<3)throw"Invalid Mayan year";for(var e=0,r=0;r<t.length;r++){var n=parseInt(t[r],10);if(Math.abs(n)>19||r>0&&n<0)throw"Invalid Mayan year";e=20*e+n}return

e},monthsInYear:function(t){return
this._validate(t,this.minMonth,this.minDay,n.local.invalidYear),18},weekOfYear:function(t,e,r){return
this._validate(t,e,r,n.local.invalidDate),0},daysInYear:function(t){return
this._validate(t,this.minMonth,this.minDay,n.local.invalidYear),360},daysInMonth:function(t,e){return
this._validate(t,e,this.minDay,n.local.invalidMonth),20},daysInWeek:function(){return
5},dayOfWeek:function(t,e,r){return this._validate(t,e,r,n.local.invalidDate).day()},weekDay:function(t,e,r){return
this._validate(t,e,r,n.local.invalidDate),!0},extraInfo:function(t,e,r){var
i=this._validate(t,e,r,n.local.invalidDate).toJD(),a=this._toHaab(i),o=this._toTzolkin(i);return{haabMonthName:this.
local.haabMonths[a[0]-1],haabMonth:a[0],haabDay:a[1],tzolkinDayName:this.local.tzolkinMonths[o[0]-
1],tzolkinDay:o[0],tzolkinTrecena:o[1]}},_toHaab:function(t){var e=o(8+(t-
=this.jdEpoch)+340,365);return[Math.floor(e/20)+1,o(e,20)]},_toTzolkin:function(t){return[s(20+(t-
=this.jdEpoch),20),s(t+4,13)]},toJD:function(t,e,r){var i=this._validate(t,e,r,n.local.invalidDate);return
i.day()+20*i.month()+360*i.year()+this.jdEpoch},fromJD:function(t){t=Math.floor(t)+.5-this.jdEpoch;var
e=Math.floor(t/360);t%=360,t+=t<0?360:0;var r=Math.floor(t/20),n=t%20;return
this.newDate(e,r,n)}}),n.calendars.mayan=a},{"../main":346,"object-assign":247}],340:[function(t,e,r){var
n=t("../main"),i=t("object-assign");function
a(t){this.local=this.regionalOptions[t||""]||this.regionalOptions[""]}a.prototype=new n.baseCalendar;var
o=n.instance("gregorian");i(a.prototype,{name:"Nanakshahi",jdEpoch:2257673.5,daysPerMonth:[31,31,31,31,31,30
,30,30,30,30,30,30],hasYearZero:!1,minMonth:1,firstMonth:1,minDay:1,regionalOptions:{"":{name:"Nanakshahi",
epochs:["BN","AN"],monthNames:["Chet","Vaisakh","Jeth","Harh","Sawan","Bhadon","Assu","Katak","Maghar","
Poh","Magh","Phagun"],monthNamesShort:["Che","Vai","Jet","Har","Saw","Bha","Ass","Kat","Mgr","Poh","Mgh"
,"Pha"],dayNames:["Somvaar","Mangalvar","Budhvaar","Veervaar","Shukarvaar","Sanicharvaar","Etvaar"],dayNa
mesShort:["Som","Mangal","Budh","Veer","Shukar","Sanichar","Et"],dayNamesMin:["So","Ma","Bu","Ve","Sh","
Sa","Et"],digits:null,dateFormat:"dd-mm-yyyy",firstDay:0,isRTL:!1}},leapYear:function(t){var
e=this._validate(t,this.minMonth,this.minDay,n.local.invalidYear||n.regionalOptions[""].invalidYear);return
o.leapYear(e.year()+(e.year()<1?1:0)+1469)},weekOfYear:function(t,e,r){var n=this.newDate(t,e,r);return n.add(1-
(n.dayOfWeek()||7),"d"),Math.floor((n.dayOfYear()-1)/7)+1},daysInMonth:function(t,e){var
r=this._validate(t,e,this.minDay,n.local.invalidMonth);return this.daysPerMonth[r.month()-
1]+(12===r.month()&&this.leapYear(r.year())?1:0)},weekDay:function(t,e,r){return(this.dayOfWeek(t,e,r)||7)<6},t
oJD:function(t,e,r){var i=this._validate(t,e,r,n.local.invalidMonth);(t=i.year())<0&&t++;for(var
a=i.day(),s=1;s<i.month();s++)a+=this.daysPerMonth[s-1];return
a+o.toJD(t+1468,3,13)},fromJD:function(t){t=Math.floor(t+.5);for(var e=Math.floor((t-(this.jdEpoch-
1))/366);t>=this.toJD(e+1,1,1);)e++;for(var r=t-Math.floor(this.toJD(e,1,1)+.5)+1,n=1;r>this.daysInMonth(e,n);)r-
=this.daysInMonth(e,n),n++;return this.newDate(e,n,r)}}),n.calendars.nanakshahi=a},{"../main":346,"object-
assign":247}],341:[function(t,e,r){var n=t("../main"),i=t("object-assign");function
a(t){this.local=this.regionalOptions[t||""]||this.regionalOptions[""]}a.prototype=new
n.baseCalendar,i(a.prototype,{name:"Nepali",jdEpoch:1700709.5,daysPerMonth:[31,31,32,32,31,30,30,29,30,29,30,
30],hasYearZero:!1,minMonth:1,firstMonth:1,minDay:1,daysPerYear:365,regionalOptions:{"":{name:"Nepali",epo
chs:["BBS","ABS"],monthNames:["Baisakh","Jestha","Ashadh","Shrawan","Bhadra","Ashwin","Kartik","Mangsir"
,"Paush","Mangh","Falgun","Chaitra"],monthNamesShort:["Bai","Je","As","Shra","Bha","Ash","Kar","Mang","Pau
","Ma","Fal","Chai"],dayNames:["Aaitabaar","Sombaar","Manglbaar","Budhabaar","Bihibaar","Shukrabaar","Shani
baar"],dayNamesShort:["Aaita","Som","Mangl","Budha","Bihi","Shukra","Shani"],dayNamesMin:["Aai","So","Ma
n","Bu","Bi","Shu","Sha"],digits:null,dateFormat:"dd/mm/yyyy",firstDay:1,isRTL:!1}},leapYear:function(t){return
this.daysInYear(t)!==this.daysPerYear},weekOfYear:function(t,e,r){var n=this.newDate(t,e,r);return n.add(-
n.dayOfWeek(),"d"),Math.floor((n.dayOfYear()-
1)/7)+1},daysInYear:function(t){if(t=this._validate(t,this.minMonth,this.minDay,n.local.invalidYear).year(),void
0===this.NEPALI_CALENDAR_DATA[t])return this.daysPerYear;for(var
e=0,r=this.minMonth;r<=12;r++)e+=this.NEPALI_CALENDAR_DATA[t][r];return

e},daysInMonth:function(t,e){return
t.year&&(e=t.month(),t=t.year()),this._validate(t,e,this.minDay,n.local.invalidMonth),void
0===this.NEPALI_CALENDAR_DATA[t]?this.daysPerMonth[e-
1]:this.NEPALI_CALENDAR_DATA[t][e]},weekDay:function(t,e,r){return
6!==this.dayOfWeek(t,e,r)},toJD:function(t,e,r){var
i=this._validate(t,e,r,n.local.invalidDate);t=i.year(),e=i.month(),r=i.day();var
a=n.instance(),o=0,s=e,l=t;this._createMissingCalendarData(t);var c=t-
(s>9||9===s&&r>=this.NEPALI_CALENDAR_DATA[l][0]?56:57);for(9!==e&&(o=r,s--);9!==s;)s<=0&&(s=12,l-
-),o+=this.NEPALI_CALENDAR_DATA[l][s],s--;return 9===e?(o+=r-
this.NEPALI_CALENDAR_DATA[l][0])<0&&(o+=a.daysInYear(c)):o+=this.NEPALI_CALENDAR_DATA[l][9]
-this.NEPALI_CALENDAR_DATA[l][0],a.newDate(c,1,1).add(o,"d").toJD()},fromJD:function(t){var
e=n.instance().fromJD(t),r=e.year(),i=e.dayOfYear(),a=r+56;this._createMissingCalendarData(a);for(var
o=9,s=this.NEPALI_CALENDAR_DATA[a][0],l=this.NEPALI_CALENDAR_DATA[a][o]-
s+1;i>l;)++o>12&&(o=1,a++),l+=this.NEPALI_CALENDAR_DATA[a][o];var
c=this.NEPALI_CALENDAR_DATA[a][o]-(l-i);return
this.newDate(a,o,c)},_createMissingCalendarData:function(t){var
e=this.daysPerMonth.slice(0);e.unshift(17);for(var r=t-1;r<t+2;r++)void
0===this.NEPALI_CALENDAR_DATA[r]&&(this.NEPALI_CALENDAR_DATA[r]=e)},NEPALI_CALENDAR
_DATA:{1970:[18,31,31,32,31,31,31,30,29,30,29,30,30],1971:[18,31,31,32,31,32,30,30,29,30,29,30,30],1972:[17,3
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assign":247}],343:[function(t,e,r){var n=t("../main"),i=t("object-assign"),a=n.instance();function o(t){this.local=this.regionalOptions[t||""]||this.regionalOptions[""]}o.prototype=new n.baseCalendar,i(o.prototype,{name:"Taiwan",jdEpoch:2419402.5,yearsOffset:1911,daysPerMonth:[31,28,31,30,31,30,31,31,30,31,30,31],hasYearZero:!1,minMonth:1,firstMonth:1,minDay:1,regionalOptions:{"":{name:"Taiwan",epochs:["BROC","ROC"],monthNames:["January","February","March","April","May","June","July","August","September","October","November","December"],monthNamesShort:["Jan","Feb","Mar","Apr","May","Jun","Jul","Aug","Sep","Oct","Nov","Dec"],dayNames:["Sunday","Monday","Tuesday","Wednesday","Thursday","Friday","Saturday"],dayNamesShort:["Sun","Mon","Tue","Wed","Thu","Fri","Sat"],dayNamesMin:["Su","Mo","Tu","We","Th","Fr","Sa"],digits:null,dateFormat:"yyyy/mm/dd",firstDay:1,isRTL:!1}},leapYear:function(t){var e=this._validate(t,this.minMonth,this.minDay,n.local.invalidYear);return t=this._t2gYear(e.year()),a.leapYear(t)},weekOfYear:function(t,e,r){var i=this._validate(t,this.minMonth,this.minDay,n.local.invalidYear);return t=this._t2gYear(i.year()),a.weekOfYear(t,i.month(),i.day())},daysInMonth:function(t,e){var r=this._validate(t,e,this.minDay,n.local.invalidMonth);return this.daysPerMonth[r.month()-1]+(2===r.month()&&this.leapYear(r.year())?1:0)},weekDay:function(t,e,r){return(this.dayOfWeek(t,e,r)||7)<6},toJD:function(t,e,r){var i=this._validate(t,e,r,n.local.invalidDate);return t=this._t2gYear(i.year()),a.toJD(t,i.month(),i.day())},fromJD:function(t){var e=a.fromJD(t),r=this._g2tYear(e.year());return this.newDate(r,e.month(),e.day())},_t2gYear:function(t){return t+this.yearsOffset+(t>=-this.yearsOffset&&t<=-1?1:0)},_g2tYear:function(t){return t-this.yearsOffset-(t>=1&&t<=this.yearsOffset?1:0)}}),n.calendars.taiwan=o},{"../main":346,"object-assign":247}],344:[function(t,e,r){var n=t("../main"),i=t("object-assign"),a=n.instance();function o(t){this.local=this.regionalOptions[t||""]||this.regionalOptions[""]}o.prototype=new n.baseCalendar,i(o.prototype,{name:"Thai",jdEpoch:1523098.5,yearsOffset:543,daysPerMonth:[31,28,31,30,31,30,31,31,30,31,30,31],hasYearZero:!1,minMonth:1,firstMonth:1,minDay:1,regionalOptions:{"":{name:"Thai",epochs:["BBE","BE"],monthNames:["January","February","March","April","May","June","July","August","September","October","November","December"],monthNamesShort:["Jan","Feb","Mar","Apr","May","Jun","Jul","Aug","Sep","Oct","Nov","Dec"],dayNames:["Sunday","Monday","Tuesday","Wednesday","Thursday","Friday","Saturday"],dayNamesShort:["Sun","Mon","Tue","Wed","Thu","Fri","Sat"],dayNamesMin:["Su","Mo","Tu","We","Th","Fr","Sa"],digits:null,dateFormat:"dd/mm/yyyy",firstDay:0,isRTL:!1}},leapYear:function(t){var e=this._validate(t,this.minMonth,this.minDay,n.local.invalidYear);return t=this._t2gYear(e.year()),a.leapYear(t)},weekOfYear:function(t,e,r){var i=this._validate(t,this.minMonth,this.minDay,n.local.invalidYear);return t=this._t2gYear(i.year()),a.weekOfYear(t,i.month(),i.day())},daysInMonth:function(t,e){var r=this._validate(t,e,this.minDay,n.local.invalidMonth);return this.daysPerMonth[r.month()-1]+(2===r.month()&&this.leapYear(r.year())?1:0)},weekDay:function(t,e,r){return(this.dayOfWeek(t,e,r)||7)<6},toJD:function(t,e,r){var i=this._validate(t,e,r,n.local.invalidDate);return t=this._t2gYear(i.year()),a.toJD(t,i.month(),i.day())},fromJD:function(t){var e=a.fromJD(t),r=this._g2tYear(e.year());return this.newDate(r,e.month(),e.day())},_t2gYear:function(t){return t-this.yearsOffset-(t>=1&&t<=this.yearsOffset?1:0)},_g2tYear:function(t){return t+this.yearsOffset+(t>=-this.yearsOffset&&t<=-1?1:0)}}),n.calendars.thai=o},{"../main":346,"object-assign":247}],345:[function(t,e,r){var n=t("../main"),i=t("object-assign");function a(t){this.local=this.regionalOptions[t||""]||this.regionalOptions[""]}a.prototype=new n.baseCalendar,i(a.prototype,{name:"UmmAlQura",hasYearZero:!1,minMonth:1,firstMonth:1,minDay:1,regionalOptions:{"":{name:"Umm al-Qura",epochs:["BH","AH"],monthNames:["Al-Muharram","Safar","Rabi' al-awwal","Rabi' Al-Thani","Jumada Al-Awwal","Jumada Al-Thani","Rajab","Sha'aban","Ramadan","Shawwal","Dhu al-Qi'dah","Dhu al-Hijjah"],monthNamesShort:["Muh","Saf","Rab1","Rab2","Jum1","Jum2","Raj","Sha'","Ram","Shaw","DhuQ","DhuH"],dayNames:["Yawm al-Ahad","Yawm al-Ithnain","Yawm al-Thalth’","Yawm al-Arba‘’","Yawm al-

Khams","Yawm al-Jum‘a","Yawm al-Sabt"],dayNamesMin:["Ah","Ith","Th","Ar","Kh","Ju","Sa"],digits:null,dateFormat:"yyyy/mm/dd",firstDay:6,isRTL:!0}},leapYear:function(t){var e=this._validate(t,this.minMonth,this.minDay,n.local.invalidYear);return 355===this.daysInYear(e.year())},weekOfYear:function(t,e,r){var n=this.newDate(t,e,r);return n.add(-n.dayOfWeek(),"d"),Math.floor((n.dayOfYear()-1)/7)+1},daysInYear:function(t){for(var e=0,r=1;r<=12;r++)e+=this.daysInMonth(t,r);return e},daysInMonth:function(t,e){for(var r=this._validate(t,e,this.minDay,n.local.invalidMonth).toJD()-24e5+.5,i=0,a=0;a<o.length;a++){if(o[a]>r)return o[i]-o[i-1];i++}return 30},weekDay:function(t,e,r){return 5!==this.dayOfWeek(t,e,r)},toJD:function(t,e,r){var i=this._validate(t,e,r,n.local.invalidDate),a=12*(i.year()-1)+i.month()-15292;return i.day()+o[a-1]-1+24e5-.5},fromJD:function(t){for(var e=t-24e5+.5,r=0,n=0;n<o.length&&!(o[n]>e);n++)r++;var i=r+15292,a=Math.floor((i-1)/12),s=a+1,l=i-12*a,c=e-o[r-1]+1;return this.newDate(s,l,c)},isValid:function(t,e,r){var i=n.baseCalendar.prototype.isValid.apply(this,arguments);return i&&(i=(t=null!=t.year?t.year:t)>=1276&&t<=1500),i},_validate:function(t,e,r,i){var a=n.baseCalendar.prototype._validate.apply(this,arguments);if(a.year<1276||a.year>1500)throw i.replace(/\{0\}/,this.local.name);return a}}),n.calendars.ummalqura=a;var o=[20,50,79,109,138,168,197,227,256,286,315,345,374,404,433,463,492,522,551,581,611,641,670,700,729,759,788,818,847,877,906,936,965,995,1024,1054,1083,1113,1142,1172,1201,1231,1260,1290,1320,1350,1379,1409,1438,1468,1497,1527,1556,1586,1615,1645,1674,1704,1733,1763,1792,1822,1851,1881,1910,1940,1969,1999,2028,2058,2087,2117,2146,2176,2205,2235,2264,2294,2323,2353,2383,2413,2442,2472,2501,2531,2560,2590,2619,2649,2678,2708,2737,2767,2796,2826,2855,2885,2914,2944,2973,3003,3032,3062,3091,3121,3150,3180,3209,3239,3268,3298,3327,3357,3386,3416,3446,3476,3505,3535,3564,3594,3623,3653,3682,3712,3741,3771,3800,3830,3859,3889,3918,3948,3977,4007,4036,4066,4095,4125,4155,4185,4214,4244,4273,4303,4332,4362,4391,4421,4450,4480,4509,4539,4568,4598,4627,4657,4686,4716,4745,4775,4804,4834,4863,4893,4922,4952,4981,5011,5040,5070,5099,5129,5158,5188,5218,5248,5277,5307,5336,5366,5395,5425,5454,5484,5513,5543,5572,5602,5631,5661,5690,5720,5749,5779,5808,5838,5867,5897,5926,5956,5985,6015,6044,6074,6103,6133,6162,6192,6221,6251,6281,6311,6340,6370,6399,6429,6458,6488,6517,6547,6576,6606,6635,6665,6694,6724,6753,6783,6812,6842,6871,6901,6930,6960,6989,7019,7048,7078,7107,7137,7166,7196,7225,7255,7284,7314,7344,7374,7403,7433,7462,7492,7521,7551,7580,7610,7639,7669,7698,7728,7757,7787,7816,7846,7875,7905,7934,7964,7993,8023,8053,8083,8112,8142,8171,8201,8230,8260,8289,8319,8348,8378,8407,8437,8466,8496,8525,8555,8584,8614,8643,8673,8702,8732,8761,8791,8821,8850,8880,8909,8938,8968,8997,9027,9056,9086,9115,9145,9175,9205,9234,9264,9293,9322,9352,9381,9410,9440,9470,9499,9529,9559,9589,9618,9648,9677,9706,9736,9765,9794,9824,9853,9883,9913,9943,9972,10002,10032,10061,10090,10120,10149,10178,10208,10237,10267,10297,10326,10356,10386,10415,10445,10474,10504,10533,10562,10592,10621,10651,10680,10710,10740,10770,10799,10829,10858,10888,10917,10947,10976,11005,11035,11064,11094,11124,11153,11183,11213,11242,11272,11301,11331,11360,11389,11419,11448,11478,11507,11537,11567,11596,11626,11655,11685,11715,11744,11774,11803,11832,11862,11891,11921,11950,11980,12010,12039,12069,12099,12128,12158,12187,12216,12246,12275,12304,12334,12364,12393,12423,12453,12483,12512,12542,12571,12600,12630,12659,12688,12718,12747,12777,12807,12837,12866,12896,12926,12955,12984,13014,13043,13072,13102,13131,13161,13191,13220,13250,13280,13310,13339,13368,13398,13427,13456,13486,13515,13545,13574,13604,13634,13664,13693,13723,13752,13782,13811,13840,13870,13899,13929,13958,13988,14018,14047,14077,14107,14136,14166,14195,14224,14254,14283,14313,14342,14372,14401,14431,14461,14490,14520,14550,14579,14609,14638,14667,14697,14726,14756,14785,14815,14844,14874,14904,14933,14963,14993,15021,15051,15081,15110,15140,15169,15199,15228,15258,15287,15317,15347,15377,15406,15436,15465,15494,15524,15553,15582,15612,15641,15671,15701,15731,15760,15790,15820,15849,15878,15908,15937,15966,15996,16025,16055,16085,16114,16144,16174,16204,16233,16262,16292,16321,16350,16380,16409,16439,16468,16498,16528,16558,16587,16617,16646,16676,16705,16734,16764,16793,16823,16852,16882,16912,16941,16971,17001,17030,17060,17089,17118,17148,17177,17207,17236,17266,17295,17325,17355,17384,17414,17444,17473,17502,17532,17561,17591,17620,17650,17679,17709,17738,17768,17798,17827,17857,17886,17916,17945,17975,18004,18034,18063,18093,18122,18152,18181,18211,18241,18270,18300,18330,18359,18388,18418,18447,18476,18506,18535,1

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9570,19599,19628,19658,19687,19717,19746,19776,19806,19836,19865,19895,19924,19954,19983,20012,20042,2
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2080,22109,22138,22168,22197,22227,22256,22286,22316,22346,22375,22405,22434,22464,22493,22522,22552,2
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3083,23113,23143,23173,23202,23232,23261,23290,23320,23349,23379,23408,23438,23467,23497,23527,23556,2
3586,23616,23645,23674,23704,23733,23763,23792,23822,23851,23881,23910,23940,23970,23999,24029,24058,2
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7099,27129,27159,27188,27218,27248,27277,27307,27336,27366,27395,27425,27454,27484,27513,27542,27572,2
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1618,31648,31676,31706,31736,31766,31795,31825,31854,31884,31913,31943,31972,32002,32031,32061,32090,3
2120,32150,32180,32209,32239,32268,32298,32327,32357,32386,32416,32445,32475,32504,32534,32563,32593,3
2622,32652,32681,32711,32740,32770,32799,32829,32858,32888,32917,32947,32976,33006,33035,33065,33094,3
3124,33153,33183,33213,33243,33272,33302,33331,33361,33390,33420,33450,33479,33509,33539,33568,33598,3
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4631,34660,34690,34719,34749,34778,34808,34837,34867,34896,34926,34955,34985,35015,35044,35074,35103,3
5133,35162,35192,35222,35251,35280,35310,35340,35370,35399,35429,35458,35488,35517,35547,35576,35605,3
5635,35665,35694,35723,35753,35782,35811,35841,35871,35901,35930,35960,35989,36019,36048,36078,36107,3
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6639,36669,36698,36728,36757,36786,36816,36845,36875,36904,36934,36963,36993,37022,37052,37081,37111,3
7141,37170,37200,37229,37259,37288,37318,37347,37377,37406,37436,37465,37495,37524,37554,37584,37613,3
7643,37672,37701,37731,37760,37790,37819,37849,37878,37908,37938,37967,37997,38027,38056,38085,38115,3
8144,38174,38203,38233,38262,38292,38322,38351,38381,38410,38440,38469,38499,38528,38558,38587,38617,3
8646,38676,38705,38735,38764,38794,38823,38853,38882,38912,38941,38971,39001,39030,39059,39089,39118,3
9148,39178,39208,39237,39267,39297,39326,39355,39385,39414,39444,39473,39503,39532,39562,39592,39621,3
9650,39680,39709,39739,39768,39798,39827,39857,39886,39916,39946,39975,40005,40035,40064,40094,40123,4
0153,40182,40212,40241,40271,40300,40330,40359,40389,40418,40448,40477,40507,40536,40566,40595,40625,4
0655,40685,40714,40744,40773,40803,40832,40862,40892,40921,40951,40980,41009,41039,41068,41098,41127,4
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1658,41688,41718,41748,41777,41807,41836,41865,41894,41924,41953,41983,42012,42042,42072,42102,42131,4
2161,42190,42220,42249,42279,42308,42337,42367,42397,42426,42456,42485,42515,42545,42574,42604,42633,4

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3666,43696,43726,43755,43785,43814,43844,43873,43903,43932,43962,43991,44021,44050,44080,44109,44139,4
4169,44198,44228,44258,44287,44317,44346,44375,44405,44434,44464,44493,44523,44553,44582,44612,44641,4
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5674,45704,45733,45763,45793,45823,45852,45882,45911,45940,45970,45999,46028,46058,46088,46117,46147,4
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6679,46708,46738,46767,46797,46826,46856,46885,46915,46944,46974,47003,47033,47063,47092,47122,47151,4
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0234,60264,60293,60323,60352,60381,60411,60440,60469,60499,60528,60558,60588,60618,60648,60677,60707,6
0736,60765,60795,60824,60853,60883,60912,60942,60972,61002,61031,61061,61090,61120,61149,61179,61208,6
1237,61267,61296,61326,61356,61385,61415,61445,61474,61504,61533,61563,61592,61621,61651,61680,61710,6
1739,61769,61799,61828,61858,61888,61917,61947,61976,62006,62035,62064,62094,62123,62153,62182,62212,6
2242,62271,62301,62331,62360,62390,62419,62448,62478,62507,62537,62566,62596,62625,62655,62685,62715,6
2744,62774,62803,62832,62862,62891,62921,62950,62980,63009,63039,63069,63099,63128,63157,63187,63216,6
3246,63275,63305,63334,63363,63393,63423,63453,63482,63512,63541,63571,63600,63630,63659,63689,63718,6
3747,63777,63807,63836,63866,63895,63925,63955,63984,64014,64043,64073,64102,64131,64161,64190,64220,6
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5755,65785,65815,65844,65874,65903,65933,65963,65992,66022,66051,66081,66110,66140,66169,66199,66228,6
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6760,66789,66819,66849,66878,66908,66937,66967,66996,67025,67055,67084,67114,67143,67173,67203,67233,67262,67292,67321,67351,67380,67409,67439,67468,67497,67527,67557,67587,67617,67646,67676,67705,67735,67764,67793,67823,67852,67882,67911,67941,67971,68e3,68030,68060,68089,68119,68148,68177,68207,68236,68266,68295,68325,68354,68384,68414,68443,68473,68502,68532,68561,68591,68620,68650,68679,68708,68738,68768,68797,68827,68857,68886,68916,68946,68975,69004,69034,69063,69092,69122,69152,69181,69211,69240,69270,69300,69330,69359,69388,69418,69447,69476,69506,69535,69565,69595,69624,69654,69684,69713,69743,69772,69802,69831,69861,69890,69919,69949,69978,70008,70038,70067,70097,70126,70156,70186,70215,70245,70274,70303,70333,70362,70392,70421,70451,70481,70510,70540,70570,70599,70629,70658,70687,70717,70746,70776,70805,70835,70864,70894,70924,70954,70983,71013,71042,71071,71101,71130,71159,71189,71218,71248,71278,71308,71337,71367,71397,71426,71455,71485,71514,71543,71573,71602,71632,71662,71691,71721,71751,71781,71810,71839,71869,71898,71927,71957,71986,72016,72046,72075,72105,72135,72164,72194,72223,72253,72282,72311,72341,72370,72400,72429,72459,72489,72518,72548,72577,72607,72637,72666,72695,72725,72754,72784,72813,72843,72872,72902,72931,72961,72991,73020,73050,73080,73109,73139,73168,73197,73227,73256,73286,73315,73345,73375,73404,73434,73464,73493,73523,73552,73581,73611,73640,73669,73699,73729,73758,73788,73818,73848,73877,73907,73936,73965,73995,74024,74053,74083,74113,74142,74172,74202,74231,74261,74291,74320,74349,74379,74408,74437,74467,74497,74526,74556,74586,74615,74645,74675,74704,74733,74763,74792,74822,74851,74881,74910,74940,74969,74999,75029,75058,75088,75117,75147,75176,75206,75235,75264,75294,75323,75353,75383,75412,75442,75472,75501,75531,75560,75590,75619,75648,75678,75707,75737,75766,75796,75826,75856,75885,75915,75944,75974,76003,76032,76062,76091,76121,76150,76180,76210,76239,76269,76299,76328,76358,76387,76416,76446,76475,76505,76534,76564,76593,76623,76653,76682,76712,76741,76771,76801,76830,76859,76889,76918,76948,76977,77007,77036,77066,77096,77125,77155,77185,77214,77243,77273,77302,77332,77361,77390,77420,77450,77479,77509,77539,77569,77598,77627,77657,77686,77715,77745,77774,77804,77833,77863,77893,77923,77952,77982,78011,78041,78070,78099,78129,78158,78188,78217,78247,78277,78307,78336,78366,78395,78425,78454,78483,78513,78542,78572,78601,78631,78661,78690,78720,78750,78779,78808,78838,78867,78897,78926,78956,78985,79015,79044,79074,79104,79133,79163,79192,79222,79251,79281,79310,79340,79369,79399,79428,79458,79487,79517,79546,79576,79606,79635,79665,79695,79724,79753,79783,79812,79841,79871,79900,79930,79960,79990]},{"../main":346,"object-assign":247}],346:[function(t,e,r){var n=t("object-assign");function i(){this.regionalOptions=[],this.regionalOptions[""]={invalidCalendar:"Calendar {0} not found",invalidDate:"Invalid {0} date",invalidMonth:"Invalid {0} month",invalidYear:"Invalid {0} year",differentCalendars:"Cannot mix {0} and {1} dates"},this.local=this.regionalOptions[""],this.calendars={},this._localCals={}}function a(t,e,r,n){if(this._calendar=t,this._year=e,this._month=r,this._day=n,0===this._calendar._validateLevel&&!this._calendar.isValid(this._year,this._month,this._day))throw(c.local.invalidDate||c.regionalOptions[""].invalidDate).replace(/\{0\}/,this._calendar.local.name)}function o(t,e){return"000000".substring(0,e-(t=""+t).length)+t}function s(){this.shortYearCutoff="+10"}function l(t){this.local=this.regionalOptions[t]||this.regionalOptions[""]}n(i.prototype,{instance:function(t,e){t=(t||"gregorian").toLowerCase(),e=e||"";var r=this._localCals[t+"-"+e];if(!r&&this.calendars[t]&&(r=new this.calendars[t](e),this._localCals[t+"-"+e]=r),!r)throw(this.local.invalidCalendar||this.regionalOptions[""].invalidCalendar).replace(/\{0\}/,t);return r},newDate:function(t,e,r,n,i){return(n=(null!=t&&t.year?t.calendar():"string"==typeof n?this.instance(n,i):n)||this.instance()).newDate(t,e,r)},substituteDigits:function(t){return function(e){return(e+"").replace(/[0-9]/g,(function(e){return t[e]}))}},substituteChineseDigits:function(t,e){return function(r){for(var n="",i=0;r>0;){var a=r%10;n=(0===a?"":t[a]+e[i])+n,i++,r=Math.floor(r/10)}return 0===n.indexOf(t[1]+e[1])&&(n=n.substr(1)),n||t[0]}}}),n(a.prototype,{newDate:function(t,e,r){return this._calendar.newDate(null==t?this:t,e,r)},year:function(t){return 0===arguments.length?this._year:this.set(t,"y")},month:function(t){return 0===arguments.length?this._month:this.set(t,"m")},day:function(t){return 0===arguments.length?this._day:this.set(t,"d")},date:function(t,e,r){if(!this._calendar.isValid(t,e,r))throw(c.local.in

validDate||c.regionalOptions[""].invalidDate).replace(/\{0\}/,this._calendar.local.name);return this._year=t,this._month=e,this._day=r,this},leapYear:function(){return this._calendar.leapYear(this)},epoch:function(){return this._calendar.epoch(this)},formatYear:function(){return this._calendar.formatYear(this)},monthOfYear:function(){return this._calendar.monthOfYear(this)},weekOfYear:function(){return this._calendar.weekOfYear(this)},daysInYear:function(){return this._calendar.daysInYear(this)},dayOfYear:function(){return this._calendar.dayOfYear(this)},daysInMonth:function(){return this._calendar.daysInMonth(this)},dayOfWeek:function(){return this._calendar.dayOfWeek(this)},weekDay:function(){return this._calendar.weekDay(this)},extraInfo:function(){return this._calendar.extraInfo(this)},add:function(t,e){return this._calendar.add(this,t,e)},set:function(t,e){return this._calendar.set(this,t,e)},compareTo:function(t){if(this._calendar.name!==t._calendar.name)throw(c.local.differentCalendars||c.regionalOptions[""].differentCalendars).replace(/\{0\}/,this._calendar.local.name).replace(/\{1\}/,t._calendar.local.name);var e=this._year!==t._year?this._year-t._year:this._month!==t._month?this.monthOfYear()-t.monthOfYear():this._day-t._day;return 0===e?0:e<0?-1:1},calendar:function(){return this._calendar},toJD:function(){return this._calendar.toJD(this)},fromJD:function(t){return this._calendar.fromJD(t)},toJSDate:function(){return this._calendar.toJSDate(this)},fromJSDate:function(t){return this._calendar.fromJSDate(t)},toString:function(){return(this.year()<0?"-":"")+o(Math.abs(this.year()),4)+"-"+o(this.month(),2)+"-"+o(this.day(),2)}}),n(s.prototype,{_validateLevel:0,newDate:function(t,e,r){return null==t?this.today():(t.year&&(this._validate(t,e,r,c.local.invalidDate||c.regionalOptions[""].invalidDate),r=t.day(),e=t.month(),t=t.year()),new a(this,t,e,r))},today:function(){return this.fromJSDate(new Date)},epoch:function(t){return this._validate(t,this.minMonth,this.minDay,c.local.invalidYear||c.regionalOptions[""].invalidYear).year()<0?this.local.epochs[0]:this.local.epochs[1]},formatYear:function(t){var e=this._validate(t,this.minMonth,this.minDay,c.local.invalidYear||c.regionalOptions[""].invalidYear);return(e.year()<0?"-":"")+o(Math.abs(e.year()),4)},monthsInYear:function(t){return this._validate(t,this.minMonth,this.minDay,c.local.invalidYear||c.regionalOptions[""].invalidYear),12},monthOfYear:function(t,e){var r=this._validate(t,e,this.minDay,c.local.invalidMonth||c.regionalOptions[""].invalidMonth);return(r.month()+this.monthsInYear(r)-this.firstMonth)%this.monthsInYear(r)+this.minMonth},fromMonthOfYear:function(t,e){var r=(e+this.firstMonth-2*this.minMonth)%this.monthsInYear(t)+this.minMonth;return this._validate(t,r,this.minDay,c.local.invalidMonth||c.regionalOptions[""].invalidMonth),r},daysInYear:function(t){var e=this._validate(t,this.minMonth,this.minDay,c.local.invalidYear||c.regionalOptions[""].invalidYear);return this.leapYear(e)?366:365},dayOfYear:function(t,e,r){var n=this._validate(t,e,r,c.local.invalidDate||c.regionalOptions[""].invalidDate);return n.toJD()-this.newDate(n.year(),this.fromMonthOfYear(n.year(),this.minMonth),this.minDay).toJD()+1},daysInWeek:function(){return 7},dayOfWeek:function(t,e,r){var n=this._validate(t,e,r,c.local.invalidDate||c.regionalOptions[""].invalidDate);return(Math.floor(this.toJD(n))+2)%this.daysInWeek()},extraInfo:function(t,e,r){return this._validate(t,e,r,c.local.invalidDate||c.regionalOptions[""].invalidDate),{}},add:function(t,e,r){return this._validate(t,this.minMonth,this.minDay,c.local.invalidDate||c.regionalOptions[""].invalidDate),this._correctAdd(t,this._add(t,e,r),e,r)},_add:function(t,e,r){if(this._validateLevel++,"d"===r||"w"===r){var n=t.toJD()+e*("w"===r?this.daysInWeek():1),i=t.calendar().fromJD(n);return this._validateLevel--,[i.year(),i.month(),i.day()]}try{var a=t.year()+("y"===r?e:0),o=t.monthOfYear()+("m"===r?e:0),s=(i=t.day(),function(t){for(;o<t.minMonth;)a--,o+=t.monthsInYear(a);for(var e=t.monthsInYear(a);o>e-1+t.minMonth;)a++,o-=e,e=t.monthsInYear(a)});"y"===r?(t.month()!==this.fromMonthOfYear(a,o)&&(o=this.newDate(a,t.month(),this.

minDay).monthOfYear()),o=Math.min(o,this.monthsInYear(a)),i=Math.min(i,this.daysInMonth(a,this.fromMonthOfYear(a,o)))):"m"===r&&(s(this),i=Math.min(i,this.daysInMonth(a,this.fromMonthOfYear(a,o))));var l=[a,this.fromMonthOfYear(a,o),i];return this._validateLevel--,l}catch(t){throw this._validateLevel--,t}},_correctAdd:function(t,e,r,n){if(!(this.hasYearZero||"y"!==n&&"m"!==n||0!==e[0]&&t.year()>0==e[0]>0)){var i={y:[1,1,"y"],m:[1,this.monthsInYear(-1),"m"],w:[this.daysInWeek(),this.daysInYear(-1),"d"],d:[1,this.daysInYear(-1),"d"]}[n],a=r<0?-1:1;e=this._add(t,r*i[0]+a*i[1],i[2])}return t.date(e[0],e[1],e[2])},set:function(t,e,r){this._validate(t,this.minMonth,this.minDay,c.local.invalidDate||c.regionalOptions[""].invalidDate);var n="y"===r?e:t.year(),i="m"===r?e:t.month(),a="d"===r?e:t.day();return"y"!==r&&"m"!==r||(a=Math.min(a,this.daysInMonth(n,i))),t.date(n,i,a)},isValid:function(t,e,r){this._validateLevel++;var n=this.hasYearZero||0!==t;if(n){var i=this.newDate(t,e,this.minDay);n=e>=this.minMonth&&e-this.minMonth<this.monthsInYear(i)&&r>=this.minDay&&r-this.minDay<this.daysInMonth(i)}return this._validateLevel--,n},toJSDate:function(t,e,r){var n=this._validate(t,e,r,c.local.invalidDate||c.regionalOptions[""].invalidDate);return c.instance().fromJD(this.toJD(n)).toJSDate()},fromJSDate:function(t){return this.fromJD(c.instance().fromJSDate(t).toJD())},_validate:function(t,e,r,n){if(t.year){if(0===this._validateLevel&&this.name!==t.calendar().name)throw(c.local.differentCalendars||c.regionalOptions[""].differentCalendars).replace(/\{0\}/,this.local.name).replace(/\{1\}/,t.calendar().local.name);return t}try{if(this._validateLevel++,1===this._validateLevel&&!this.isValid(t,e,r))throw n.replace(/\{0\}/,this.local.name);var i=this.newDate(t,e,r);return this._validateLevel--,i}catch(t){throw this._validateLevel--,t}}}),l.prototype=new s,n(l.prototype,{name:"Gregorian",jdEpoch:1721425.5,daysPerMonth:[31,28,31,30,31,30,31,31,30,31,30,31],hasYearZero:!1,minMonth:1,firstMonth:1,minDay:1,regionalOptions:{"":{name:"Gregorian",epochs:["BCE","CE"],monthNames:["January","February","March","April","May","June","July","August","September","October","November","December"],monthNamesShort:["Jan","Feb","Mar","Apr","May","Jun","Jul","Aug","Sep","Oct","Nov","Dec"],dayNames:["Sunday","Monday","Tuesday","Wednesday","Thursday","Friday","Saturday"],dayNamesShort:["Sun","Mon","Tue","Wed","Thu","Fri","Sat"],dayNamesMin:["Su","Mo","Tu","We","Th","Fr","Sa"],digits:null,dateFormat:"mm/dd/yyyy",firstDay:0,isRTL:!1}},leapYear:function(t){var e=this._validate(t,this.minMonth,this.minDay,c.local.invalidYear||c.regionalOptions[""].invalidYear);return(t=e.year()+(e.year()<0?1:0))%4==0&&(t%100!=0||t%400==0)},weekOfYear:function(t,e,r){var n=this.newDate(t,e,r);return n.add(4-(n.dayOfWeek()||7),"d"),Math.floor((n.dayOfYear()-1)/7)+1},daysInMonth:function(t,e){var r=this._validate(t,e,this.minDay,c.local.invalidMonth||c.regionalOptions[""].invalidMonth);return this.daysPerMonth[r.month()-1]+(2===r.month()&&this.leapYear(r.year())?1:0)},weekDay:function(t,e,r){return(this.dayOfWeek(t,e,r)||7)<6},toJD:function(t,e,r){var n=this._validate(t,e,r,c.local.invalidDate||c.regionalOptions[""].invalidDate);t=n.year(),e=n.month(),r=n.day(),t<0&&t++,e<3&&(e+=12,t--);var i=Math.floor(t/100),a=2-i+Math.floor(i/4);return Math.floor(365.25*(t+4716))+Math.floor(30.6001*(e+1))+r+a-1524.5},fromJD:function(t){var e=Math.floor(t+.5),r=Math.floor((e-1867216.25)/36524.25),n=1524+(r=e+1+r-Math.floor(r/4)),i=Math.floor((n-122.1)/365.25),a=Math.floor(365.25*i),o=Math.floor((n-a)/30.6001),s=n-a-Math.floor(30.6001*o),l=o-(o>13.5?13:1),c=i-(l>2.5?4716:4715);return c<=0&&c--,this.newDate(c,l,s)},toJSDate:function(t,e,r){var n=this._validate(t,e,r,c.local.invalidDate||c.regionalOptions[""].invalidDate),i=new Date(n.year(),n.month()-1,n.day());return i.setHours(0),i.setMinutes(0),i.setSeconds(0),i.setMilliseconds(0),i.setHours(i.getHours()>12?i.getHours()+2:0),i},fromJSDate:function(t){return this.newDate(t.getFullYear(),t.getMonth()+1,t.getDate())}});var c=e.exports=new i;c.cdate=a,c.baseCalendar=s,c.calendars.gregorian=l},{"object-assign":247}],347:[function(t,e,r){var n=t("object-assign"),i=t("./main");n(i.regionalOptions[""],{invalidArguments:"Invalid arguments",invalidFormat:"Cannot

format a date from another calendar",missingNumberAt:"Missing number at position {0}",unknownNameAt:"Unknown name at position {0}",unexpectedLiteralAt:"Unexpected literal at position {0}",unexpectedText:"Additional text found at end"}),i.local=i.regionalOptions[""],n(i.cdate.prototype,{formatDate:function(t,e){return"string"!=typeof t&&(e=t,t=""),this._calendar.formatDate(t||"",this,e)}}),n(i.baseCalendar.prototype,{UNIX_EPOCH:i.instance().newDate(1970,1,1).toJD(),SECS_PER_DAY:86400,TICKS_EPOCH:i.instance().jdEpoch,TICKS_PER_DAY:864e9,ATOM:"yyyy-mm-dd",COOKIE:"D, dd M yyyy",FULL:"DD, MM d, yyyy",ISO_8601:"yyyy-mm-dd",JULIAN:"J",RFC_822:"D, d M yy",RFC_850:"DD, dd-M-yy",RFC_1036:"D, d M yy",RFC_1123:"D, d M yyyy",RFC_2822:"D, d M yyyy",RSS:"D, d M yy",TICKS:"!",TIMESTAMP:"@",W3C:"yyyy-mm-dd",formatDate:function(t,e,r){if("string"!=typeof t&&(r=e,e=t,t=""),!e)return"";if(e.calendar()!==this)throw i.local.invalidFormat||i.regionalOptions[""].invalidFormat;t=t||this.local.dateFormat;for(var n=(r=r||{}).dayNamesShort||this.local.dayNamesShort,a=r.dayNames||this.local.dayNames,o=r.monthNumbers||this.local.monthNumbers,s=r.monthNamesShort||this.local.monthNamesShort,l=r.monthNames||this.local.monthNames,c=(r.calculateWeek||this.local.calculateWeek,function(e,r){for(var n=1;y+n<t.length&&t.charAt(y+n)===e;)n++;return y+=n-1,Math.floor(n/(r||1))>1}),u=function(t,e,r,n){var i=""+e;if(c(t,n))for(;i.length<r;)i="0"+i;return i},f=this,h=function(t){return"function"==typeof o?o.call(f,t,c("m")):g(u("m",t.month(),2))},p=function(t,e){return e?"function"==typeof l?l.call(f,t):l[t.month()-f.minMonth]:"function"==typeof s?s.call(f,t):s[t.month()-f.minMonth]},d=this.local.digits,g=function(t){return r.localNumbers&&d?d(t):t},v="",m=!1,y=0;y<t.length;y++)if(m)"'"!==t.charAt(y)||c("'")?v+=t.charAt(y):m=!1;else switch(t.charAt(y)){case"d":v+=g(u("d",e.day(),2));break;case"D":v+=(x="D",b=e.dayOfWeek(),_=n,w=a,c(x)?w[b]:_[b]);break;case"o":v+=u("o",e.dayOfYear(),3);break;case"w":v+=u("w",e.weekOfYear(),2);break;case"m":v+=h(e);break;case"M":v+=p(e,c("M"));break;case"y":v+=c("y",2)?e.year():(e.year()%100<10?"0":"")+e.year()%100;break;case"Y":c("Y",2),v+=e.formatYear();break;case"J":v+=e.toJD();break;case"@":v+=(e.toJD()-this.UNIX_EPOCH)*this.SECS_PER_DAY;break;case"!":v+=(e.toJD()-this.TICKS_EPOCH)*this.TICKS_PER_DAY;break;case"'":c("'")?v+="'":m=!0;break;default:v+=t.charAt(y)}var x,b,_,w;return v},parseDate:function(t,e,r){if(null==e)throw i.local.invalidArguments||i.regionalOptions[""].invalidArguments;if(""===(e="object"==typeof e?e.toString():e+""))return null;t=t||this.local.dateFormat;var n=(r=r||{}).shortYearCutoff||this.shortYearCutoff;n="string"!=typeof n?n:this.today().year()%100+parseInt(n,10);for(var a=r.dayNamesShort||this.local.dayNamesShort,o=r.dayNames||this.local.dayNames,s=r.parseMonth||this.local.parseMonth,l=r.monthNumbers||this.local.monthNumbers,c=r.monthNamesShort||this.local.monthNamesShort,u=r.monthNames||this.local.monthNames,f=-1,h=-1,p=-1,d=-1,g=-1,v=!1,m=!1,y=function(e,r){for(var n=1;M+n<t.length&&t.charAt(M+n)===e;)n++;return M+=n-1,Math.floor(n/(r||1))>1},x=function(t,r){var n=y(t,r),a=[2,3,n?4:2,n?4:2,10,11,20]["oyYJ@!".indexOf(t)+1],o=new RegExp("^-?\\d{1,"+a+"}"),s=e.substring(A).match(o);if(!s)throw(i.local.missingNumberAt||i.regionalOptions[""].missingNumberAt).replace(/\{0\}/,A);return A+=s[0].length,parseInt(s[0],10)},b=this,_=function(){if("function"==typeof l){y("m");var t=l.call(b,e.substring(A));return A+=t.length,t}return x("m")},w=function(t,r,n,a){for(var o=y(t,a)?n:r,s=0;s<o.length;s++)if(e.substr(A,o[s].length).toLowerCase()===o[s].toLowerCase())return A+=o[s].length,s+b.minMonth;throw(i.local.unknownNameAt||i.regionalOptions[""].unknownNameAt).replace(/\{0\}/,A)},T=function(){if("function"==typeof u){var t=y("M")?u.call(b,e.substring(A)):c.call(b,e.substring(A));return A+=t.length,t}return w("M",c,u)},k=function(){if(e.charAt(A)!==t.charAt(M))throw(i.local.unexpectedLiteralAt||i.regionalOptions[""].unexpectedLiteralAt).replace(/\{0\}/,A);A++},A=0,M=0;M<t.length;M++)if(m)"'"!==t.charAt(M)||y("'")?k():m=!1;else switch(t.charAt(M)){case"d":d=x("d");break;case"D":w("D",a,o);break;case"o":g=x("o");break;case"w":x("w");break;case"m":p=_();break;case"M":p=T();break;case"y":var S=M;v=!y("y",2),M=S,h=x("y",2);break;case"Y":h=x("Y",2);break;case"J":f=x("J")+.5,"."===e.charAt(A)&&(A++

,x("J"));break;case"@":f=x("@")/this.SECS_PER_DAY+this.UNIX_EPOCH;break;case"!":f=x("!")/this.TICKS_PER_DAY+this.TICKS_EPOCH;break;case"*":A=e.length;break;case"'":y("'")?k():m=!0;break;default:k()}if(A<e.length)throw i.local.unexpectedText||i.regionalOptions[""].unexpectedText;if(-1===h?h=this.today().year():h<100&&v&&(h+=-1===n?1900:this.today().year()-this.today().year()%100-(h<=n?0:100)),"string"==typeof p&&(p=s.call(this,h,p)),g>-1){p=1,d=g;for(var E=this.daysInMonth(h,p);d>E;E=this.daysInMonth(h,p))p++,d-=E}return f>-1?this.fromJD(f):this.newDate(h,p,d)},determineDate:function(t,e,r,n,i){r&&"object"!=typeof r&&(i=n,n=r,r=null),"string"!=typeof n&&(i=n,n="");var a=this;return e=e?e.newDate():null,null==t?e:"string"==typeof t?function(t){try{return a.parseDate(n,t,i)}catch(t){}for(var e=((t=t.toLowerCase()).match(/^c/)&&r?r.newDate():null)||a.today(),o=/([+-]?[0-9]+)\s*(d|w|m|y)?/g,s=o.exec(t);s;)e.add(parseInt(s[1],10),s[2]||"d"),s=o.exec(t);return e}(t):"number"==typeof t?isNaN(t)||t===1/0||t===-1/0?e:a.today().add(t,"d"):a.newDate(t)}})},{"./main":346,"object-assign":247}],348:[function(t,e,r){"use strict";e.exports=[{path:"",backoff:0},{path:"M-2.4,-3V3L0.6,0Z",backoff:.6},{path:"M-3.7,-2.5V2.5L1.3,0Z",backoff:1.3},{path:"M-4.45,-3L-1.65,-0.2V0.2L-4.45,3L1.55,0Z",backoff:1.55},{path:"M-2.2,-2.2L-0.2,-0.2V0.2L-2.2,2.2L-1.4,3L1.6,0L-1.4,-3Z",backoff:1.6},{path:"M-4.4,-2.1L-0.6,-0.2V0.2L-4.4,2.1L-4,3L2,0L-4,-3Z",backoff:2},{path:"M2,0A2,2 0 1,1 0,-2A2,2 0 0,1 2,0Z",backoff:0,noRotate:!0},{path:"M2,2V-2H-2V2Z",backoff:0,noRotate:!0}]},{}],349:[function(t,e,r){"use strict";var n=t("./arrow_paths"),i=t("../../plots/font_attributes"),a=t("../../plots/cartesian/constants"),o=t("../../plot_api/plot_template").templatedArray;t("../../constants/axis_placeable_objects"),e.exports=o("annotation",{visible:{valType:"boolean",dflt:!0,editType:"calc+arraydraw"},text:{valType:"string",editType:"calc+arraydraw"},textangle:{valType:"angle",dflt:0,editType:"calc+arraydraw"},font:i({editType:"calc+arraydraw",colorEditType:"arraydraw"}),width:{valType:"number",min:1,dflt:null,editType:"calc+arraydraw"},height:{valType:"number",min:1,dflt:null,editType:"calc+arraydraw"},opacity:{valType:"number",min:0,max:1,dflt:1,editType:"arraydraw"},align:{valType:"enumerated",values:["left","center","right"],dflt:"center",editType:"arraydraw"},valign:{valType:"enumerated",values:["top","middle","bottom"],dflt:"middle",editType:"arraydraw"},bgcolor:{valType:"color",dflt:"rgba(0,0,0,0)",editType:"arraydraw"},bordercolor:{valType:"color",dflt:"rgba(0,0,0,0)",editType:"arraydraw"},borderpad:{valType:"number",min:0,dflt:1,editType:"calc+arraydraw"},borderwidth:{valType:"number",min:0,dflt:1,editType:"calc+arraydraw"},showarrow:{valType:"boolean",dflt:!0,editType:"calc+arraydraw"},arrowcolor:{valType:"color",editType:"arraydraw"},arrowhead:{valType:"integer",min:0,max:n.length,dflt:1,editType:"arraydraw"},startarrowhead:{valType:"integer",min:0,max:n.length,dflt:1,editType:"arraydraw"},arrowside:{valType:"flaglist",flags:["end","start"],extras:["none"],dflt:"end",editType:"arraydraw"},arrowsize:{valType:"number",min:.3,dflt:1,editType:"calc+arraydraw"},startarrowsize:{valType:"number",min:.3,dflt:1,editType:"calc+arraydraw"},arrowwidth:{valType:"number",min:.1,editType:"calc+arraydraw"},standoff:{valType:"number",min:0,dflt:0,editType:"calc+arraydraw"},startstandoff:{valType:"number",min:0,dflt:0,editType:"calc+arraydraw"},ax:{valType:"any",editType:"calc+arraydraw"},ay:{valType:"any",editType:"calc+arraydraw"},axref:{valType:"enumerated",dflt:"pixel",values:["pixel",a.idRegex.x.toString()],editType:"calc"},ayref:{valType:"enumerated",dflt:"pixel",values:["pixel",a.idRegex.y.toString()],editType:"calc"},xref:{valType:"enumerated",values:["paper",a.idRegex.x.toString()],editType:"calc"},x:{valType:"any",editType:"calc+arraydraw"},xanchor:{valType:"enumerated",values:["auto","left","center","right"],dflt:"auto",editType:"calc+arraydraw"},xshift:{valType:"number",dflt:0,editType:"calc+arraydraw"},yref:{valType:"enumerated",values:["paper",a.idRegex.y.toString()],editType:"calc"},y:{valType:"any",editType:"calc+arraydraw"},yanchor:{valType:"enumerated",values:["auto","top","middle","bottom"],dflt:"auto",editType:"calc+arraydraw"},yshift:{valType:"number",dflt:0,editType:"calc+arraydraw"},clicktoshow:{valType:"enumerated",values:[!1,"onoff","onout"],dflt:!1,editType:"arraydraw"},xclick:{valType:"any",editType:"arraydraw"},yclick:{valType:"any",editType:"arraydraw"},hovertext:{valType:"string",editType:"arraydraw"},hoverlabel:{bgcolor:{valType:"color",editType:"arraydraw"},bordercolor:{valType:"color",editType:"arraydraw"},font:i({editType:"arraydraw"}),editType:"arraydraw"},captureevents:{valType:"boolean",editType:"arraydraw"},editType:"calc",_deprecated:{ref:{valType:"string",editType:"calc"}}})},{"../../constants/axis_placeable_objects":472,"../../plot_api/plot_template":543,"../../plots/cartesian/constants":561,"../../plots/fon

t_attributes":585,"./arrow_paths":348}],350:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("../../plots/cartesian/axes"),a=t("./draw").draw;function o(t){var
e=t._fullLayout;n.filterVisible(e.annotations).forEach((function(e){var
r=i.getFromId(t,e.xref),n=i.getFromId(t,e.yref),a=i.getRefType(e.xref),o=i.getRefType(e.yref);e._extremes={},"rang
e"===a&&s(e,r),"range"===o&&s(e,n)}))}function s(t,e){var
r,n=e._id,a=n.charAt(0),o=t[a],s=t["a"+a],l=t[a+"ref"],c=t["a"+a+"ref"],u=t["_"+a+"padplus"],f=t["_"+a+"padminus
"],h={x:1,y:-1}[a]*t[a+"shift"],p=3*t.arrowsize*t.arrowwidth||0,d=p+h,g=p-
h,v=3*t.startarrowsize*t.arrowwidth||0,m=v+h,y=v-h;if(c===l){var
x=i.findExtremes(e,[e.r2c(o)],{ppadplus:d,ppadminus:g}),b=i.findExtremes(e,[e.r2c(s)],{ppadplus:Math.max(u,m),p
padminus:Math.max(f,y)});r={min:[x.min[0],b.min[0]],max:[x.max[0],b.max[0]]}}else m=s?m+s:m,y=s?y-
s:y,r=i.findExtremes(e,[e.r2c(o)],{ppadplus:Math.max(u,d,m),ppadminus:Math.max(f,g,y)});t._extremes[n]=r}e.exp
orts=function(t){var e=t._fullLayout;if(n.filterVisible(e.annotations).length&&t._fullData.length)return
n.syncOrAsync([a,o],t)}},{"../../lib":503,"../../plots/cartesian/axes":554,"./draw":355}],351:[function(t,e,r){"use
strict";var n=t("../../lib"),i=t("../../registry"),a=t("../../plot_api/plot_template").arrayEditor;function o(t,e){var
r,n,i,a,o,l,c,u=t._fullLayout.annotations,f=[],h=[],p=[],d=(e||[]).length;for(r=0;r<u.length;r++)if(a=(i=u[r]).clicktosho
w){for(n=0;n<d;n++)if(l=(o=e[n]).xaxis,c=o.yaxis,l._id===i.xref&&c._id===i.yref&&l.d2r(o.x)===s(i._xclick,l)&
&c.d2r(o.y)===s(i._yclick,c)){(i.visible?"onout"===a?h:p:f).push(r);break}n===d&&i.visible&&"onout"===a&&h
.push(r)}return{on:f,off:h,explicitOff:p}}function
s(t,e){return"log"===e.type?e.l2r(t):e.d2r(t)}e.exports={hasClickToShow:function(t,e){var r=o(t,e);return
r.on.length>0||r.explicitOff.length>0},onClick:function(t,e){var
r,s,l=o(t,e),c=l.on,u=l.off.concat(l.explicitOff),f={},h=t._fullLayout.annotations;if(c.length||u.length){for(r=0;r<c.le
ngth;r++)(s=a(t.layout,"annotations",h[c[r]])).modifyItem("visible",!0),n.extendFlat(f,s.getUpdateObj());for(r=0;r<u
.length;r++)(s=a(t.layout,"annotations",h[u[r]])).modifyItem("visible",!1),n.extendFlat(f,s.getUpdateObj());return
i.call("update",t,{},f)}}},{"../../lib":503,"../../plot_api/plot_template":543,"../../registry":638}],352:[function(t,e,r){
"use strict";var n=t("../../lib"),i=t("../color");e.exports=function(t,e,r,a){a("opacity");var
o=a("bgcolor"),s=a("bordercolor"),l=i.opacity(s);a("borderpad");var
c=a("borderwidth"),u=a("showarrow");if(a("text",u?"
":r._dfltTitle.annotation),a("textangle"),n.coerceFont(a,"font",r.font),a("width"),a("align"),a("height")&&a("valign")
,u){var f,h,p=a("arrowside");-1!==p.indexOf("end")&&(f=a("arrowhead"),h=a("arrowsize")),-
1!==p.indexOf("start")&&(a("startarrowhead",f),a("startarrowsize",h)),a("arrowcolor",l?e.bordercolor:i.defaultLine)
,a("arrowwidth",2*(l&&c||1)),a("standoff"),a("startstandoff")}var d=a("hovertext"),g=r.hoverlabel||{};if(d){var
v=a("hoverlabel.bgcolor",g.bgcolor||(i.opacity(o)?i.rgb(o):i.defaultLine)),m=a("hoverlabel.bordercolor",g.bordercol
or||i.contrast(v));n.coerceFont(a,"hoverlabel.font",{family:g.font.family,size:g.font.size,color:g.font.color||m})}a("ca
ptureevents",!!d)}},{"../../lib":503,"../color":366}],353:[function(t,e,r){"use strict";var n=t("fast-
isnumeric"),i=t("../../lib/to_log_range");e.exports=function(t,e,r,a){e=e||{};var
o="log"===r&&"linear"===e.type,s="linear"===r&&"log"===e.type;if(o||s)for(var
l,c,u=t._fullLayout.annotations,f=e._id.charAt(0),h=0;h<u.length;h++)l=u[h],c="annotations["+h+"].",l[f+"ref"]===
e._id&&p(f),l["a"+f+"ref"]===e._id&&p("a"+f);function p(t){var
r=l[t],s=null;s=o?i(r,e.range):Math.pow(10,r),n(s)||(s=null),a(c+t,s)}}},{"../../lib/to_log_range":531,"fast-
isnumeric":190}],354:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("../../plots/cartesian/axes"),a=t("../../plots/array_container_defaults"),o=t("./common_defaults"),s=t
("./attributes");function l(t,e,r){function a(r,i){return n.coerce(t,e,s,r,i)}var
l=a("visible"),c=a("clicktoshow");if(l||c){o(t,e,r,a);for(var u=e.showarrow,f=["x","y"],h=[-10,-
30],p={_fullLayout:r},d=0;d<2;d++){var
g=f[d],v=i.coerceRef(t,e,p,g,"","paper");if("paper"!==v&&i.getFromId(p,v)._annIndices.push(e._index),i.coercePos
ition(e,p,a,v,g,.5),u){var
m="a"+g,y=i.coerceRef(t,e,p,m,"pixel",["pixel","paper"]);"pixel"!==y&&y!==v&&(y=e[m]="pixel");var
x="pixel"===y?h[d]:.4;i.coercePosition(e,p,a,y,m,x)}a(g+"anchor"),a(g+"shift")}if(n.noneOrAll(t,e,["x","y"]),u&&

n.noneOrAll(t,e,["ax","ay"]),c){var b=a("xclick"),_=a("yclick");e._xclick=void 0===b?e.x:i.cleanPosition(b,p,e.xref),e._yclick=void 0===_?e.y:i.cleanPosition(_,p,e.yref)}}e.exports=function(t,e){a(t,e,{name:"annotations",handleItemDefaults:l})}},{"../../lib":503,"../../plots/array_container_defaults":549,"../../plots/cartesian/axes":554,"./attributes":349,"./common_defaults":352}],355:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../registry"),a=t("../../plots/plots"),o=t("../../lib"),s=o.strTranslate,l=t("../../plots/cartesian/axes"),c=t("../color"),u=t("../drawing"),f=t("../fx"),h=t("../../lib/svg_text_utils"),p=t("../../lib/setcursor"),d=t("../dragelement"),g=t("../../plot_api/plot_template").arrayEditor,v=t("./draw_arrow_head");function m(t,e){var r=t._fullLayout.annotations[e]||{},n=l.getFromId(t,r.xref),i=l.getFromId(t,r.yref);n&&n.setScale(),i&&i.setScale(),x(t,r,e,!1,n,i)}function y(t,e,r,n,i){var a=i[r],o=i[r+"ref"],s=-1!==r.indexOf("y"),c="domain"===l.getRefType(o),u=s?n.h:n.w;return t?c?a+(s?-e:e)/t._length:t.p2r(t.r2p(a)+e):a+(s?-e:e)/u}function x(t,e,r,a,m,x){var b,_,w=t._fullLayout,T=t._fullLayout._size,k=t._context.edits;a?(b="annotation-"+a,_=a+".annotations"):(b="annotation",_="annotations");var A=g(t.layout,_,e),M=A.modifyBase,S=A.modifyItem,E=A.getUpdateObj;w._infolayer.selectAll("."+b+'[data-index="'+r+'"]').remove();var L="clip"+w._uid+"_ann"+r;if(e._input&&!1!==e.visible){var C={x:{},y:{}},P=+e.textangle||0,I=w._infolayer.append("g").classed(b,!0).attr("data-index",String(r)).style("opacity",e.opacity),O=I.append("g").classed("annotation-text-g",!0),z=k[e.showarrow?"annotationTail":"annotationPosition"],D=e.captureevents||k.annotationText||z,R=O.append("g").style("pointer-events",D?"all":null).call(p,"pointer").on("click",(function(){t._dragging=!1,t.emit("plotly_clickannotation",Y(n.event))}));e.hovertext&&R.on("mouseover",(function(){var r=e.hoverlabel,n=r.font,i=this.getBoundingClientRect(),a=t.getBoundingClientRect();f.loneHover({x0:i.left-a.left,x1:i.right-a.left,y:(i.top+i.bottom)/2-a.top,text:e.hovertext,color:r.bgcolor,borderColor:r.bordercolor,fontFamily:n.family,fontSize:n.size,fontColor:n.color},{container:w._hoverlayer.node(),outerContainer:w._paper.node(),gd:t})})).on("mouseout",(function(){f.loneUnhover(w._hoverlayer.node())}));var F=e.borderwidth,B=e.borderpad,N=F+B,j=R.append("rect").attr("class","bg").style("stroke-width",F+"px").call(c.stroke,e.bordercolor).call(c.fill,e.bgcolor),U=e.width||e.height,V=w._topclips.selectAll("#"+L).data(U?[0]:[]);V.enter().append("clipPath").classed("annclip",!0).attr("id",L).append("rect"),V.exit().remove();var q=e.font,H=w._meta?o.templateString(e.text,w._meta):e.text,G=R.append("text").classed("annotation-text",!0).text(H);k.annotationText?G.call(h.makeEditable,{delegate:R,gd:t}).call(W).on("edit",(function(r){e.text=r,this.call(W),S("text",r),m&&m.autorange&&M(m._name+".autorange",!0),x&&x.autorange&&M(x._name+".autorange",!0),i.call("_guiRelayout",t,E())})):G.call(W)}else n.selectAll("#"+L).remove();function Y(t){var n={index:r,annotation:e._input,fullAnnotation:e,event:t};return a&&(n.subplotId=a),n}function W(r){return r.call(u.font,q).attr({"text-anchor":{left:"start",right:"end"}[e.align]||"middle"}),h.convertToTspans(r,t,X),r}function X(){var r=G.selectAll("a");1===r.size()&&r.text()===G.text()&&R.insert("a",":first-child").attr({"xlink:xlink:href":r.attr("xlink:href"),"xlink:xlink:show":r.attr("xlink:show")}).style({cursor:"pointer"}).node().appendChild(j.node());var n=R.select(".annotation-text-math-group"),f=!n.empty(),g=u.bBox((f?n:G).node()),b=g.width,_=g.height,A=e.width||b,D=e.height||_,B=Math.round(A+2*N),q=Math.round(D+2*N);function H(t,e){return"auto"===e&&(e=t<1/3?"left":t>2/3?"right":"center"),{center:0,middle:0,left:.5,bottom:-.5,right:-.5,top:.5}[e]}for(var W=!1,X=["x","y"],Z=0;Z<X.length;Z++){var J,K,Q,$,tt,et=X[Z],rt=e[et+"ref"]||et,nt=e["a"+et+"ref"],it={x:m,y:x}[et],at=(P+("x"===et?0:-90))*Math.PI/180,ot=B*Math.cos(at),st=q*Math.sin(at),lt=Math.abs(ot)+Math.abs(st),ct=e[et+"anchor"],ut=e[et+"shift"]*("x"===et?1:-1),ft=C[et],ht=l.getRefType(rt);if(it&&"domain"!==ht){var pt=it.r2fraction(e[et]);(pt<0||pt>1)&&(nt===rt?((pt=it.r2fraction(e["a"+et]))<0||pt>1)&&(W=!0):W=!0),J=it._offset+it.r2p(e[et]),$=.5}else{var

dt="domain"===ht;"x"===et?(Q=e[et],J=dt?it._offset+it._length*Q:J=T.l+T.w*Q):(Q=1-e[et],J=dt?it._offset+it._length*Q:J=T.t+T.h*Q),$=e.showarrow?.5:Q}if(e.showarrow){ft.head=J;var gt=e["a"+et];if(tt=ot*H(.5,e.xanchor)-st*H(.5,e.yanchor),nt===rt){var vt=l.getRefType(nt);"domain"===vt?("y"===et&&(gt=1-gt),ft.tail=it._offset+it._length*gt):"paper"===vt?"y"===et?(gt=1-gt,ft.tail=T.t+T.h*gt):ft.tail=T.l+T.w*gt:ft.tail=it._offset+it.r2p(gt),K=tt}else ft.tail=J+gt,K=tt+gt;ft.text=ft.tail+tt;var mt=w["x"===et?"width":"height"];if("paper"===rt&&(ft.head=o.constrain(ft.head,1,mt-1)),"pixel"===nt){var yt=-Math.max(ft.tail-3,ft.text),xt=Math.min(ft.tail+3,ft.text)-mt;yt>0?(ft.tail+=yt,ft.text+=yt):xt>0&&(ft.tail-=xt,ft.text-=xt)}ft.tail+=ut,ft.head+=ut}else K=tt=lt*H($,ct),ft.text=J+tt;ft.text+=ut,tt+=ut,K+=ut,e["_"+et+"padplus"]=lt/2+K,e["_"+et+"padminus"]=lt/2-K,e["_"+et+"size"]=lt,e["_"+et+"shift"]=tt}if(W)R.remove();else{var bt=0,_t=0;if("left"!==e.align&&(bt=(A-b)*("center"===e.align?.5:1)),"top"!==e.valign&&(_t=(D-_)*("middle"===e.valign?.5:1)),f)n.select("svg").attr({x:N+bt-1,y:N+_t}).call(u.setClipUrl,U?L:null,t);else{var wt=N+_t-g.top,Tt=N+bt-g.left;G.call(h.positionText,Tt,wt).call(u.setClipUrl,U?L:null,t)}V.select("rect").call(u.setRect,N,N,A,D),j.call(u.setRect,F/2,F/2,B-F,q-F),R.call(u.setTranslate,Math.round(C.x.text-B/2),Math.round(C.y.text-q/2)),O.attr({transform:"rotate("+P+","+C.x.text+","+C.y.text+")"})};var kt,At=function(r,n){I.selectAll(".annotation-arrow-g").remove();var l=C.x.head,f=C.y.head,h=C.x.tail+r,p=C.y.tail+n,g=C.x.text+r,b=C.y.text+n,_=o.rotationXYMatrix(P,g,b),w=o.apply2DTransform(_),A=o.apply2DTransform2(_),L=+j.attr("width"),z=+j.attr("height"),D=g-.5*L,F=D+L,B=b-.5*z,N=B+z,U=[[D,B,D,N],[D,N,F,N],[F,N,F,B],[F,B,D,B]].map(A);if(!U.reduce((function(t,e){return t^!!o.segmentsIntersect(l,f,l+1e6,f+1e6,e[0],e[1],e[2],e[3])}),!1)){U.forEach((function(t){var e=o.segmentsIntersect(h,p,l,f,t[0],t[1],t[2],t[3]);e&&(h=e.x,p=e.y)}));var V=e.arrowwidth,q=e.arrowcolor,H=e.arrowside,G=I.append("g").style({opacity:c.opacity(q)}).classed("annotation-arrow-g",!0),Y=G.append("path").attr("d","M"+h+","+p+"L"+l+","+f).style("stroke-width",V+"px").call(c.stroke,c.rgb(q));if(v(Y,H,e),k.annotationPosition&&Y.node().parentNode&&!a){var W=l,X=f;if(e.standoff){var Z=Math.sqrt(Math.pow(l-h,2)+Math.pow(f-p,2));W+=e.standoff*(h-l)/Z,X+=e.standoff*(p-f)/Z}var J,K,Q=G.append("path").classed("annotation-arrow",!0).classed("anndrag",!0).classed("cursor-move",!0).attr({d:"M3,3H-3V-3H3ZM0,0L"+(h-W)+","+(p-X),transform:s(W,X)}).style("stroke-width",V+6+"px").call(c.stroke,"rgba(0,0,0,0)").call(c.fill,"rgba(0,0,0,0)");d.init({element:Q.node(),gd:t,prepFn:function(){var t=u.getTranslate(R);J=t.x,K=t.y,m&&m.autorange&&M(m._name+".autorange",!0),x&&x.autorange&&M(x._name+".autorange",!0)},moveFn:function(t,r){var n=w(J,K),i=n[0]+t,a=n[1]+r;R.call(u.setTranslate,i,a),S("x",y(m,t,"x",T,e)),S("y",y(x,r,"y",T,e)),e.axref===e.xref&&S("ax",y(m,t,"ax",T,e)),e.ayref===e.yref&&S("ay",y(x,r,"ay",T,e)),G.attr("transform",s(t,r)),O.attr({transform:"rotate("+P+","+i+","+a+")"})},doneFn:function(){i.call("_guiRelayout",t,E());var e=document.querySelector(".js-notes-box-panel");e&&e.redraw(e.selectedObj)}})}};e.showarrow&&At(0,0),z&&d.init({element:R.node(),gd:t,prepFn:function(){kt=O.attr("transform")},moveFn:function(t,r){var n="pointer";if(e.showarrow)e.axref===e.xref?S("ax",y(m,t,"ax",T,e)):S("ax",e.ax+t),e.ayref===e.yref?S("ay",y(x,r,"ay",T.w,e)):S("ay",e.ay+r),At(t,r);else{if(a)return;var i,o;if(m)i=y(m,t,"x",T,e);else{var l=e._xsize/T.w,c=e.x+(e._xshift-e.xshift)/T.w-l/2;i=d.align(c+t/T.w,l,0,1,e.xanchor)}if(x)o=y(x,r,"y",T,e);else{var u=e._ysize/T.h,f=e.y-(e._yshift+e.yshift)/T.h-u/2;o=d.align(f-r/T.h,u,0,1,e.yanchor)}S("x",i),S("y",o),m&&x||(n=d.getCursor(m?.5:i,x?.5:o,e.xanchor,e.yanchor))}O.attr({transform:s(t,r)+kt}),p(R,n)},clickFn:function(r,n){e.captureevents&&t.emit("plotly_clickannotation",Y(n))},doneFn:function(){p(R),i.call("_guiRelayout",t,E());var e=document.querySelector(".js-notes-box-

panel");e&&e.redraw(e.selectedObj)})}}}e.exports={draw:function(t){var
e=t._fullLayout;e._infolayer.selectAll(".annotation").remove();for(var
r=0;r<e.annotations.length;r++)e.annotations[r].visible&&m(t,r);return
a.previousPromises(t)},drawOne:m,drawRaw:x}},{"../../lib":503,"../../lib/setcursor":524,"../../lib/svg_text_utils":529
,"../../plot_api/plot_template":543,"../../plots/cartesian/axes":554,"../../plots/plots":619,"../../registry":638,"../color":3
66,"../dragelement":385,"../drawing":388,"../fx":406,"./draw_arrow_head":356,"@plotly/d3":58}],356:[function(t,e,r
){"use strict";var
n=t("@plotly/d3"),i=t("../color"),a=t("./arrow_paths"),o=t("../../lib"),s=o.strScale,l=o.strRotate,c=o.strTranslate;e.ex
ports=function(t,e,r){var
o,u,f,h,p=t.node(),d=a[r.arrowhead||0],g=a[r.startarrowhead||0],v=(r.arrowwidth||1)*(r.arrowsize||1),m=(r.arrowwidth
||1)*(r.startarrowsize||1),y=e.indexOf("start")>=0,x=e.indexOf("end")>=0,b=d.backoff*v+r.standoff,_=g.backoff*m
+r.startstandoff;if("line"===p.nodeName){o={x:+t.attr("x1"),y:+t.attr("y1")},u={x:+t.attr("x2"),y:+t.attr("y2")};var
w=o.x-u.x,T=o.y-u.y;if(h=(f=Math.atan2(T,w))+Math.PI,b&&_&&b+_>Math.sqrt(w*w+T*T))return void
z();if(b){if(b*b>w*w+T*T)return void z();var
k=b*Math.cos(f),A=b*Math.sin(f);u.x+=k,u.y+=A,t.attr({x2:u.x,y2:u.y})}if(_){if(_*_>w*w+T*T)return void
z();var M=_*Math.cos(f),S=_*Math.sin(f);o.x-=M,o.y-=S,t.attr({x1:o.x,y1:o.y})}}else
if("path"===p.nodeName){var E=p.getTotalLength(),L="";if(E<b+_)return void z();var
C=p.getPointAtLength(0),P=p.getPointAtLength(.1);f=Math.atan2(C.y-P.y,C.x-
P.x),o=p.getPointAtLength(Math.min(_,E)),L="0px,"+_+"px,";var
I=p.getPointAtLength(E),O=p.getPointAtLength(E-.1);h=Math.atan2(I.y-O.y,I.x-
O.x),u=p.getPointAtLength(Math.max(0,E-b)),L+=E-(L?_+b:b)+"px,"+E+"px",t.style("stroke-
dasharray",L)}function z(){t.style("stroke-dasharray","0px,100px")}function
D(e,a,o,u){e.path&&(e.noRotate&&(o=0),n.select(p.parentNode).append("path").attr({class:t.attr("class"),d:e.path,t
ransform:c(a.x,a.y)+l(180*o/Math.PI)+s(u)}).style({fill:i.rgb(r.arrowcolor),"stroke-
width":0}))}y&&D(g,o,f,m),x&&D(d,u,h,v)}},{"../../lib":503,"../color":366,"./arrow_paths":348,"@plotly/d3":58}],
357:[function(t,e,r){"use strict";var
n=t("./draw"),i=t("./click");e.exports={moduleType:"component",name:"annotations",layoutAttributes:t("./attributes
"),supplyLayoutDefaults:t("./defaults"),includeBasePlot:t("../../plots/cartesian/include_components")("annotations"),
calcAutorange:t("./calc_autorange"),draw:n.draw,drawOne:n.drawOne,drawRaw:n.drawRaw,hasClickToShow:i.has
ClickToShow,onClick:i.onClick,convertCoords:t("./convert_coords")}},{"../../plots/cartesian/include_components":
567,"./attributes":349,"./calc_autorange":350,"./click":351,"./convert_coords":353,"./defaults":354,"./draw":355}],3
58:[function(t,e,r){"use strict";var
n=t("../annotations/attributes"),i=t("../../plot_api/edit_types").overrideAll,a=t("../../plot_api/plot_template").template
dArray;e.exports=i(a("annotation",{visible:n.visible,x:{valType:"any"},y:{valType:"any"},z:{valType:"any"},ax:{v
alType:"number"},ay:{valType:"number"},xanchor:n.xanchor,xshift:n.xshift,yanchor:n.yanchor,yshift:n.yshift,text:
n.text,textangle:n.textangle,font:n.font,width:n.width,height:n.height,opacity:n.opacity,align:n.align,valign:n.valign,
bgcolor:n.bgcolor,bordercolor:n.bordercolor,borderpad:n.borderpad,borderwidth:n.borderwidth,showarrow:n.showar
row,arrowcolor:n.arrowcolor,arrowhead:n.arrowhead,startarrowhead:n.startarrowhead,arrowside:n.arrowside,arrows
ize:n.arrowsize,startarrowsize:n.startarrowsize,arrowwidth:n.arrowwidth,standoff:n.standoff,startstandoff:n.startstan
doff,hovertext:n.hovertext,hoverlabel:n.hoverlabel,captureevents:n.captureevents}),"calc","from-
root")},{"../../plot_api/edit_types":536,"../../plot_api/plot_template":543,"../annotations/attributes":349}],359:[functi
on(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plots/cartesian/axes");function a(t,e){var
r=e.fullSceneLayout.domain,a=e.fullLayout._size,o={pdata:null,type:"linear",autorange:!1,range:[-
1/0,1/0]};t._xa={},n.extendFlat(t._xa,o),i.setConvert(t._xa),t._xa._offset=a.l+r.x[0]*a.w,t._xa.l2p=function(){return.
5*(1+t._pdata[0]/t._pdata[3])*a.w*(r.x[1]-
r.x[0])},t._ya={},n.extendFlat(t._ya,o),i.setConvert(t._ya),t._ya._offset=a.t+(1-
r.y[1])*a.h,t._ya.l2p=function(){return.5*(1-t._pdata[1]/t._pdata[3])*a.h*(r.y[1]-
r.y[0])}}e.exports=function(t){for(var

e=t.fullSceneLayout.annotations,r=0;r<e.length;r++)a(e[r],t);t.fullLayout._infolayer.selectAll(".annotation-"+t.id).remove()}},{"../../lib":503,"../../plots/cartesian/axes":554}],360:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plots/cartesian/axes"),a=t("../../plots/array_container_defaults"),o=t("../annotations/common_defaults"),s=t("./attributes");function l(t,e,r,a){function l(r,i){return n.coerce(t,e,s,r,i)}function c(t){var n=t+"axis",a={_fullLayout:{}};return a._fullLayout[n]=r[n],i.coercePosition(e,a,l,t,t,.5)}l("visible")&&(o(t,e,a.fullLayout,l),c("x"),c("y"),c("z"),n.noneOrAll(t,e,["x","y","z"]),e.xref="x",e.yref="y",e.zref="z",l("xanchor"),l("yanchor"),l("xshift"),l("yshift"),e.showarrow&&(e.axref="pixel",e.ayref="pixel",l("ax",-10),l("ay",-30),n.noneOrAll(t,e,["ax","ay"])))}e.exports=function(t,e,r){a(t,e,{name:"annotations",handleItemDefaults:l,fullLayout:r.fullLayout})}},{"../../lib":503,"../../plots/array_container_defaults":549,"../../plots/cartesian/axes":554,"../annotations/common_defaults":352,"./attributes":358}],361:[function(t,e,r){"use strict";var n=t("../annotations/draw").drawRaw,i=t("../../plots/gl3d/project"),a=["x","y","z"];e.exports=function(t){for(var e=t.fullSceneLayout,r=t.dataScale,o=e.annotations,s=0;s<o.length;s++){for(var l=o[s],c=!1,u=0;u<3;u++){var f=a[u],h=l[f],p=e[f+"axis"].r2fraction(h);if(p<0||p>1){c=!0;break}}c?t.fullLayout._infolayer.select(".annotation-"+t.id+'[data-index="'+s+'"]').remove():(l._pdata=i(t.glplot.cameraParams,[e.xaxis.r2l(l.x)*r[0],e.yaxis.r2l(l.y)*r[1],e.zaxis.r2l(l.z)*r[2]]),n(t.graphDiv,l,s,t.id,l._xa,l._ya))}}},{"../../plots/gl3d/project":607,"../annotations/draw":355}],362:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../lib");e.exports={moduleType:"component",name:"annotations3d",schema:{subplots:{scene:{annotations:t("./attributes")}}},layoutAttributes:t("./attributes"),handleDefaults:t("./defaults"),includeBasePlot:function(t,e){var r=n.subplotsRegistry.gl3d;if(r)for(var a=r.attrRegex,o=Object.keys(t),s=0;s<o.length;s++){var l=o[s];a.test(l)&&(t[l].annotations||[]).length&&(i.pushUnique(e._basePlotModules,r),i.pushUnique(e._subplots.gl3d,l))}},convert:t("./convert"),draw:t("./draw")}},{"../../lib":503,"../../registry":638,"./attributes":358,"./convert":359,"./defaults":360,"./draw":361}],363:[function(t,e,r){"use strict";e.exports=t("world-calendars/dist/main"),t("world-calendars/dist/plus"),t("world-calendars/dist/calendars/chinese"),t("world-calendars/dist/calendars/coptic"),t("world-calendars/dist/calendars/discworld"),t("world-calendars/dist/calendars/ethiopian"),t("world-calendars/dist/calendars/hebrew"),t("world-calendars/dist/calendars/islamic"),t("world-calendars/dist/calendars/julian"),t("world-calendars/dist/calendars/mayan"),t("world-calendars/dist/calendars/nanakshahi"),t("world-calendars/dist/calendars/nepali"),t("world-calendars/dist/calendars/persian"),t("world-calendars/dist/calendars/taiwan"),t("world-calendars/dist/calendars/thai"),t("world-calendars/dist/calendars/ummalqura")},{"world-calendars/dist/calendars/chinese":332,"world-calendars/dist/calendars/coptic":333,"world-calendars/dist/calendars/discworld":334,"world-calendars/dist/calendars/ethiopian":335,"world-calendars/dist/calendars/hebrew":336,"world-calendars/dist/calendars/islamic":337,"world-calendars/dist/calendars/julian":338,"world-calendars/dist/calendars/mayan":339,"world-calendars/dist/calendars/nanakshahi":340,"world-calendars/dist/calendars/nepali":341,"world-calendars/dist/calendars/persian":342,"world-calendars/dist/calendars/taiwan":343,"world-calendars/dist/calendars/thai":344,"world-calendars/dist/calendars/ummalqura":345,"world-calendars/dist/main":346,"world-calendars/dist/plus":347}],364:[function(t,e,r){"use strict";var n=t("./calendars"),i=t("../../lib"),a=t("../../constants/numerical"),o=a.EPOCHJD,s=a.ONEDAY,l={valType:"enumerated",values:i.sortObjectKeys(n.calendars),editType:"calc",dflt:"gregorian"},c=function(t,e,r,n){var a={};return a[r]=l,i.coerce(t,e,a,r,n)},u="##",f={d:{0:"dd","-":"d"},e:{0:"d","-":"d"},a:{0:"D","-":"D"},A:{0:"DD","-":"DD"},j:{0:"oo","-":"o"},W:{0:"ww","-":"w"},m:{0:"mm","-":"m"},b:{0:"M","-":"M"},B:{0:"MM","-":"MM"},y:{0:"yy","-":"yy"},Y:{0:"yyyy","-":"yyyy"},U:u,w:u,c:{0:"D M d %X yyyy","-":"D M d %X yyyy"},x:{0:"mm/dd/yyyy","-":"mm/dd/yyyy"}},h={};function p(t){var e=h[t];return e||(h[t]=n.instance(t))}function d(t){return i.extendFlat({},l,{description:t})}function g(t){return"Sets the calendar system to use with `"+t+"` date data."}var v={xcalendar:d(g("x"))},m=i.extendFlat({},v,{ycalendar:d(g("y"))}),y=i.extendFlat({},m,{zcalendar:d(g("z"))}),x=

d(["Sets the calendar system to use for `range` and `tick0`","if this is a date axis. This does not set the calendar for","interpreting data on this axis, that's specified in the trace","or via the global `layout.calendar`"].join(" "));e.exports={moduleType:"component",name:"calendars",schema:{traces:{scatter:m,bar:m,box:m,heatmap:m,contour:m,histogram:m,histogram2d:m,histogram2dcontour:m,scatter3d:y,surface:y,mesh3d:y,scattergl:m,ohlc:v,candlestick:v},layout:{calendar:d(["Sets the default calendar system to use for interpreting and","displaying dates throughout the plot."].join(" "))},subplots:{xaxis:{calendar:x},yaxis:{calendar:x},scene:{xaxis:{calendar:x},yaxis:{calendar:x},zaxis:{calendar:x}},polar:{radialaxis:{calendar:x}}},transforms:{filter:{valuecalendar:d(["WARNING: All transforms are deprecated and may be removed from the API in next major version.","Sets the calendar system to use for `value`, if it is a date."].join(" ")),targetcalendar:d(["WARNING: All transforms are deprecated and may be removed from the API in next major version.","Sets the calendar system to use for `target`, if it is an","array of dates. If `target` is a string (eg *x*) we use the","corresponding trace attribute (eg `xcalendar`) if it exists,","even if `targetcalendar` is provided."].join(" "))}}},layoutAttributes:l,handleDefaults:c,handleTraceDefaults:function(t,e,r,n){for(var i=0;i<r.length;i++)c(t,e,r[i]+"calendar",n.calendar)},CANONICAL_SUNDAY:{chinese:"2000-01-02",coptic:"2000-01-03",discworld:"2000-01-03",ethiopian:"2000-01-05",hebrew:"5000-01-01",islamic:"1000-01-02",julian:"2000-01-03",mayan:"5000-01-01",nanakshahi:"1000-01-05",nepali:"2000-01-05",persian:"1000-01-01",jalali:"1000-01-01",taiwan:"1000-01-04",thai:"2000-01-04",ummalqura:"1400-01-06"},CANONICAL_TICK:{chinese:"2000-01-01",coptic:"2000-01-01",discworld:"2000-01-01",ethiopian:"2000-01-01",hebrew:"5000-01-01",islamic:"1000-01-01",julian:"2000-01-01",mayan:"5000-01-01",nanakshahi:"1000-01-01",nepali:"2000-01-01",persian:"1000-01-01",jalali:"1000-01-01",taiwan:"1000-01-01",thai:"2000-01-01",ummalqura:"1400-01-01"},DFLTRANGE:{chinese:["2000-01-01","2001-01-01"],coptic:["1700-01-01","1701-01-01"],discworld:["1800-01-01","1801-01-01"],ethiopian:["2000-01-01","2001-01-01"],hebrew:["5700-01-01","5701-01-01"],islamic:["1400-01-01","1401-01-01"],julian:["2000-01-01","2001-01-01"],mayan:["5200-01-01","5201-01-01"],nanakshahi:["0500-01-01","0501-01-01"],nepali:["2000-01-01","2001-01-01"],persian:["1400-01-01","1401-01-01"],jalali:["1400-01-01","1401-01-01"],taiwan:["0100-01-01","0101-01-01"],thai:["2500-01-01","2501-01-01"],ummalqura:["1400-01-01","1401-01-01"]},getCal:p,worldCalFmt:function(t,e,r){for(var n,i,a,l,c,h=Math.floor((e+.05)/s)+o,d=p(r).fromJD(h),g=0;-1!==(g=t.indexOf("%",g));)"0"===(n=t.charAt(g+1))||"-"===n||"_"===n?(a=3,i=t.charAt(g+2),"_"===n&&(n="-")):(i=n,n="0",a=2),(l=f[i])?(c=l===u?u:d.formatDate(l[n]),t=t.substr(0,g)+c+t.substr(g+a),g+=c.length):g+=a;return t}}},{"../../constants/numerical":479,"../../lib":503,"./calendars":363}],365:[function(t,e,r){"use strict";r.defaults=["#1f77b4","#ff7f0e","#2ca02c","#d62728","#9467bd","#8c564b","#e377c2","#7f7f7f","#bcbd22","#17becf"],r.defaultLine="#444",r.lightLine="#eee",r.background="#fff",r.borderLine="#BEC8D9",r.lightFraction=1e3/11},{}],366:[function(t,e,r){"use strict";var n=t("tinycolor2"),i=t("fast-isnumeric"),a=t("../../lib/array").isTypedArray,o=e.exports={},s=t("./attributes");o.defaults=s.defaults;var l=o.defaultLine=s.defaultLine;o.lightLine=s.lightLine;var c=o.background=s.background;function u(t){if(i(t)||"string"!=typeof t)return t;var e=t.trim();if("rgb"!==e.substr(0,3))return t;var r=e.match(/^rgba?\s*\(([^()]*)\)$/);if(!r)return t;var n=r[1].trim().split(/\s*[\s,]\s*/),a="a"===e.charAt(3)&&4===n.length;if(!a&&3!==n.length)return t;for(var o=0;o<n.length;o++){if(!n[o].length)return t;if(n[o]=Number(n[o]),!(n[o]>=0))return t;if(3===o)n[o]>1&&(n[o]=1);else if(n[o]>=1)return t}var s=Math.round(255*n[0])+", "+Math.round(255*n[1])+", "+Math.round(255*n[2]);return a?"rgba("+s+", "+n[3]+")":"rgb("+s+")"}o.tinyRGB=function(t){var e=t.toRgb();return"rgb("+Math.round(e.r)+", "+Math.round(e.g)+", "+Math.round(e.b)+")"},o.rgb=function(t){return o.tinyRGB(n(t))},o.opacity=function(t){return t?n(t).getAlpha():0},o.addOpacity=function(t,e){var r=n(t).toRgb();return"rgba("+Math.round(r.r)+", "+Math.round(r.g)+", "+Math.round(r.b)+", "+e+")"},o.combine=function(t,e){var r=n(t).toRgb();if(1===r.a)return n(t).toRgbString();var i=n(e||c).toRgb(),a=1===i.a?i:{r:255*(1-i.a)+i.r*i.a,g:255*(1-i.a)+i.g*i.a,b:255*(1-i.a)+i.b*i.a},o={r:a.r*(1-r.a)+r.r*r.a,g:a.g*(1-r.a)+r.g*r.a,b:a.b*(1-r.a)+r.b*r.a};return n(o).toRgbString()},o.contrast=function(t,e,r){var i=n(t);return

1!==i.getAlpha()&&(i=n(o.combine(t,c))),(i.isDark()?e?i.lighten(e):c:r?i.darken(r):l).toString()},o.stroke=function(t,e){var r=n(e);t.style({stroke:o.tinyRGB(r),"stroke-opacity":r.getAlpha()})},o.fill=function(t,e){var r=n(e);t.style({fill:o.tinyRGB(r),"fill-opacity":r.getAlpha()})},o.clean=function(t){if(t&&"object"==typeof t){var e,r,n,i,s=Object.keys(t);for(e=0;e<s.length;e++)if(i=t[n=s[e]],"color"===n.substr(n.length-5))if(Array.isArray(i))for(r=0;r<i.length;r++)i[r]=u(i[r]);else t[n]=u(i);else if("colorscale"===n.substr(n.length-10)&&Array.isArray(i))for(r=0;r<i.length;r++)Array.isArray(i[r])&&(i[r][1]=u(i[r][1]));else if(Array.isArray(i)){var l=i[0];if(!Array.isArray(l)&&l&&"object"==typeof l)for(r=0;r<i.length;r++)o.clean(i[r])}else i&&"object"==typeof i&&!a(i)&&o.clean(i)}},{"../../lib/array":485,"./attributes":365,"fast-isnumeric":190,tinycolor2:312}],367:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/layout_attributes"),i=t("../../plots/font_attributes"),a=t("../../lib/extend").extendFlat,o=t("../../plot_api/edit_types").overrideAll;e.exports=o({orientation:{valType:"enumerated",values:["h","v"],dflt:"v"},thicknessmode:{valType:"enumerated",values:["fraction","pixels"],dflt:"pixels"},thickness:{valType:"number",min:0,dflt:30},lenmode:{valType:"enumerated",values:["fraction","pixels"],dflt:"fraction"},len:{valType:"number",min:0,dflt:1},x:{valType:"number",min:-2,max:3},xanchor:{valType:"enumerated",values:["left","center","right"]},xpad:{valType:"number",min:0,dflt:10},y:{valType:"number",min:-2,max:3},yanchor:{valType:"enumerated",values:["top","middle","bottom"]},ypad:{valType:"number",min:0,dflt:10},outlinecolor:n.linecolor,outlinewidth:n.linewidth,bordercolor:n.linecolor,borderwidth:{valType:"number",min:0,dflt:0},bgcolor:{valType:"color",dflt:"rgba(0,0,0,0)"},tickmode:n.tickmode,nticks:n.nticks,tick0:n.tick0,dtick:n.dtick,tickvals:n.tickvals,ticktext:n.ticktext,ticks:a({},n.ticks,{dflt:""}),ticklabeloverflow:a({},n.ticklabeloverflow,{}),ticklabelposition:{valType:"enumerated",values:["outside","inside","outside top","inside top","outside left","inside left","outside right","inside right","outside bottom","inside bottom"],dflt:"outside"},ticklen:n.ticklen,tickwidth:n.tickwidth,tickcolor:n.tickcolor,ticklabelstep:n.ticklabelstep,showticklabels:n.showticklabels,tickfont:i({}),tickangle:n.tickangle,tickformat:n.tickformat,tickformatstops:n.tickformatstops,tickprefix:n.tickprefix,showtickprefix:n.showtickprefix,ticksuffix:n.ticksuffix,showticksuffix:n.showticksuffix,separatethousands:n.separatethousands,exponentformat:n.exponentformat,minexponent:n.minexponent,showexponent:n.showexponent,title:{text:{valType:"string"},font:i({}),side:{valType:"enumerated",values:["right","top","bottom"]}},_deprecated:{title:{valType:"string"},titlefont:i({}),titleside:{valType:"enumerated",values:["right","top","bottom"],dflt:"top"}}},"colorbars","from-root")},{"../../lib/extend":493,"../../plot_api/edit_types":536,"../../plots/cartesian/layout_attributes":569,"../../plots/font_attributes":585}],368:[function(t,e,r){"use strict";e.exports={cn:{colorbar:"colorbar",cbbg:"cbbg",cbfill:"cbfill",cbfills:"cbfills",cbline:"cbline",cblines:"cblines",cbaxis:"cbaxis",cbtitleunshift:"cbtitleunshift",cbtitle:"cbtitle",cboutline:"cboutline",crisp:"crisp",jsPlaceholder:"js-placeholder"}}},{}],369:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plot_api/plot_template"),a=t("../../plots/cartesian/tick_value_defaults"),o=t("../../plots/cartesian/tick_mark_defaults"),s=t("../../plots/cartesian/tick_label_defaults"),l=t("../../plots/cartesian/prefix_suffix_defaults"),c=t("./attributes");e.exports=function(t,e,r){var u=i.newContainer(e,"colorbar"),f=t.colorbar||{};function h(t,e){return n.coerce(f,u,c,t,e)}var p=r.margin||{t:0,b:0,l:0,r:0},d=r.width-p.l-p.r,g=r.height-p.t-p.b,v="v"===h("orientation"),m=h("thicknessmode");h("thickness","fraction"===m?30/(v?d:g):30);var y=h("lenmode");h("len","fraction"===y?1:v?g:d),h("x",v?1.02:.5),h("xanchor",v?"left":"center"),h("xpad"),h("y",v?.5:1.02),h("yanchor",v?"middle":"bottom"),h("ypad"),n.noneOrAll(f,u,["x","y"]),h("outlinecolor"),h("outlinewidth"),h("bordercolor"),h("borderwidth"),h("bgcolor");var x=n.coerce(f,u,{ticklabelposition:{valType:"enumerated",dflt:"outside",values:v?["outside","inside","outside top","inside top","outside bottom","inside bottom"]:["outside","inside","outside left","inside left","outside right","inside right"]}},"ticklabelposition");h("ticklabeloverflow",-1!==x.indexOf("inside")?"hide past domain":"hide past div"),a(f,u,h,"linear");var b=r.font,_={outerTicks:!1,font:b};-1!==x.indexOf("inside")&&(_.bgColor="black"),l(f,u,h,"linear",_),s(f,u,h,"linear",_),o(f,u,h,"linear",_),h("title.text"

,r._dfltTitle.colorbar);var
w=u.tickfont,T=n.extendFlat({},w,{color:b.color,size:n.bigFont(w.size)});n.coerceFont(h,"title.font",T),h("title.side
",v?"top":"right")}},{"../../lib":503,"../../plot_api/plot_template":543,"../../plots/cartesian/prefix_suffix_defaults":573
,"../../plots/cartesian/tick_label_defaults":578,"../../plots/cartesian/tick_mark_defaults":579,"../../plots/cartesian/tick_
value_defaults":580,"./attributes":367}],370:[function(t,e,r){"use strict";var
n=t("@plotly/d3"),i=t("tinycolor2"),a=t("../../plots/plots"),o=t("../../registry"),s=t("../../plots/cartesian/axes"),l=t("../d
ragelement"),c=t("../../lib"),u=c.strTranslate,f=t("../../lib/extend").extendFlat,h=t("../../lib/setcursor"),p=t("../drawing
"),d=t("../color"),g=t("../titles"),v=t("../../lib/svg_text_utils"),m=t("../colorscale/helpers").flipScale,y=t("../../plots/cart
esian/axis_defaults"),x=t("../../plots/cartesian/position_defaults"),b=t("../../plots/cartesian/layout_attributes"),_=t("../.
./constants/alignment"),w=_.LINE_SPACING,T=_.FROM_TL,k=_.FROM_BR,A=t("./constants").cn;e.exports={dr
aw:function(t){var e=t._fullLayout._infolayer.selectAll("g."+A.colorbar).data(function(t){var
e,r,n,i,a=t._fullLayout,o=t.calcdata,s=[];function l(t){return
f(t,{_fillcolor:null,_line:{color:null,width:null,dash:null},_levels:{start:null,end:null,size:null},_filllevels:null,_fillgr
adient:null,_zrange:null})}function c(){"function"==typeof
i.calc?i.calc(t,n,e):(e._fillgradient=r.reversescale?m(r.colorscale):r.colorscale,e._zrange=[r[i.min],r[i.max]])}for(var
u=0;u<o.length;u++){var h=o[u],p=(n=h[0].trace)._module.colorbar;if(!0===n.visible&&p)for(var
d=Array.isArray(p),g=d?p:[p],v=0;v<g.length;v++){var
y=(i=g[v]).container;(r=y?n[y]:n)&&r.showscale&&((e=l(r.colorbar))._id="cb"+n.uid+(d&&y?"-
"+y:""),e._traceIndex=n.index,e._propPrefix=(y?y+".":"")+"colorbar.",e._meta=n._meta,c(),s.push(e))}}for(var x in
a._colorAxes)if((r=a[x]).showscale){var
b=a._colorAxes[x];(e=l(r.colorbar))._id="cb"+x,e._propPrefix=x+".colorbar.",e._meta=a._meta,i={min:"cmin",max
:"cmax"},"heatmap"!==b[0]&&(n=b[1],i.calc=n._module.colorbar.calc),c(),s.push(e)}return
s}(t),(function(t){return t._id}));e.enter().append("g").attr("class",(function(t){return
t._id})).classed(A.colorbar,!0),e.each((function(e){var
r=n.select(this);c.ensureSingle(r,"rect",A.cbbg),c.ensureSingle(r,"g",A.cbfills),c.ensureSingle(r,"g",A.cblines),c.ens
ureSingle(r,"g",A.cbaxis,(function(t){t.classed(A.crisp,!0)})),c.ensureSingle(r,"g",A.cbtitleunshift,(function(t){t.app
end("g").classed(A.cbtitle,!0)})),c.ensureSingle(r,"rect",A.cboutline);var m=function(t,e,r){var
o="v"===e.orientation,l=e.len,h=e.lenmode,m=e.thickness,_=e.thicknessmode,M=e.outlinewidth,S=e.borderwidth,E
=e.bgcolor,L=e.xanchor,C=e.yanchor,P=e.xpad,I=e.ypad,O=e.x,z=o?e.y:1-
e.y,D=r._fullLayout,R=D._size,F=e._fillcolor,B=e._line,N=e.title,j=N.side,U=e._zrange||n.extent(("function"==type
of F?F:B.color).domain()),V="function"==typeof B.color?B.color:function(){return B.color},q="function"==typeof
F?F:function(){return F},H=e._levels,G=function(t,e,r){var
n,i,a=e._levels,o=[],s=[],l=a.end+a.size/100,c=a.size,u=1.001*r[0]-.001*r[1],f=1.001*r[1]-
.001*r[0];for(i=0;i<1e5&&(n=a.start+i*c,!(c>0?n>=l:n<=l));i++)n>u&&n<f&&o.push(n);if(e._fillgradient)s=[0];el
se if("function"==typeof e._fillcolor){var
h=e._filllevels;if(h)for(l=h.end+h.size/100,c=h.size,i=0;i<1e5&&(n=h.start+i*c,!(c>0?n>=l:n<=l));i++)n>r[0]&&n<
r[1]&&s.push(n);else(s=o.map((function(t){return t-a.size/2}))).push(s[s.length-1]+a.size)}else
e._fillcolor&&"string"==typeof e._fillcolor&&(s=[0]);return
a.size<0&&(o.reverse(),s.reverse()),{line:o,fill:s}}(0,e,U),Y=G.fill,W=G.line,X=Math.round(m*("fraction"===_?o?
R.w:R.h:1)),Z=X/(o?R.w:R.h),J=Math.round(l*("fraction"===h?o?R.h:R.w:1)),K=J/(o?R.h:R.w),Q=Math.round(o?
O*R.w+P:z*R.h+I),$={center:.5,right:1}[L]||0,tt={top:1,middle:.5}[C]||0,et=o?O-$*Z:z-tt*Z,rt=o?z-tt*K:O-
$*K,nt=Math.round(o?R.h*(1-rt):R.w*rt);e._lenFrac=K,e._thickFrac=Z,e._uFrac=et,e._vFrac=rt;var
it=e._axis=function(t,e,r){var
n=t._fullLayout,i="v"===e.orientation,a={type:"linear",range:r,tickmode:e.tickmode,nticks:e.nticks,tick0:e.tick0,dti
ck:e.dtick,tickvals:e.tickvals,ticktext:e.ticktext,ticks:e.ticks,ticklen:e.ticklen,tickwidth:e.tickwidth,tickcolor:e.tickcol
or,showticklabels:e.showticklabels,ticklabelposition:e.ticklabelposition,ticklabeloverflow:e.ticklabeloverflow,tickla
belstep:e.ticklabelstep,tickfont:e.tickfont,tickangle:e.tickangle,tickformat:e.tickformat,exponentformat:e.exponentfor
mat,minexponent:e.minexponent,separatethousands:e.separatethousands,showexponent:e.showexponent,showtickpr

efix:e.showtickprefix,tickprefix:e.tickprefix,showticksuffix:e.showticksuffix,ticksuffix:e.ticksuffix,title:e.title,showline:!0,anchor:"free",side:i?"right":"bottom",position:1},o=i?"y":"x",s={type:"linear",_id:o+e._id},l={letter:o,font:n.font,noHover:!0,noTickson:!0,noTicklabelmode:!0,calendar:n.calendar};function u(t,e){return c.coerce(a,s,b,t,e)}return y(a,s,u,l,n),x(a,s,u,l),s}(r,e,U);it.position=Z+(o?O+P/R.w:z+I/R.h);var at=-1!==["top","bottom"].indexOf(j);if(o&&at&&(it.title.side=j,it.titlex=O+P/R.w,it.titley=rt+("top"===N.side?K-I/R.h:I/R.h)),o||at||(it.title.side=j,it.titley=z+I/R.h,it.titlex=rt+P/R.w),B.color&&"auto"===e.tickmode){it.tickmode="linear",it.tick0=H.start;var ot=H.size,st=c.constrain(J/50,4,15)+1,lt=(U[1]-U[0])/((e.nticks||st)*ot);if(lt>1){var ct=Math.pow(10,Math.floor(Math.log(lt)/Math.LN10));ot*=ct*c.roundUp(lt/ct,[2,5,10]),(Math.abs(H.start)/H.size+1e-6)%1<2e-6&&(it.tick0=0)}it.dtick=ot}it.domain=o?[rt+I/R.h,rt+K-I/R.h]:[rt+P/R.w,rt+K-P/R.w],it.setScale(),t.attr("transform",u(Math.round(R.l),Math.round(R.t)));var ut,ft=t.select("."+A.cbtitleunshift).attr("transform",u(-Math.round(R.l),-Math.round(R.t))),ht=it.ticklabelposition,pt=it.title.font.size,dt=t.select("."+A.cbaxis),gt=0,vt=0;function mt(n,i){var a={propContainer:it,propName:e._propPrefix+"title",traceIndex:e._traceIndex,_meta:e._meta,placeholder:D._dfltTitle.colorbar,containerGroup:t.select("."+A.cbtitle)},o="h"===n.charAt(0)?n.substr(1):"h"+n;t.selectAll("."+o+",."+o+"-math-group").remove(),g.draw(r,n,f(a,i||{}))}function yt(){var t,e;(o&&at||!o&&!at)&&("top"===j&&(t=P+R.l+R.w*O,e=I+R.t+R.h*(1-rt-K)+3+.75*pt),"bottom"===j&&(t=P+R.l+R.w*O,e=I+R.t+R.h*(1-rt)-3-.25*pt),"right"===j&&(e=I+R.t+R.h*z+3+.75*pt,t=P+R.l+R.w*rt),mt(it._id+"title",{attributes:{x:t,y:e,"text-anchor":o?"start":"middle"}}))}function xt(){if(o&&!at||!o&&at){var t,i,a=it.position||0,s=it._offset+it._length/2;if("right"===j)i=s,t=R.l+R.w*a+10+pt*(it.showticklabels?1:.5);else if(t=s,"bottom"===j&&(i=R.t+R.h*a+10+(-1===ht.indexOf("inside")?it.tickfont.size:0)+("intside"!==it.ticks&&e.ticklen||0)),"top"===j){var l=N.text.split("<br>").length;i=R.t+R.h*a+10-X-w*pt*l}mt((o?"h":"v")+it._id+"title",{avoid:{selection:n.select(r).selectAll("g."+it._id+"tick"),side:j,offsetTop:o?0:R.t,offsetLeft:o?R.l:0,maxShift:o?D.width:D.height},attributes:{x:t,y:i,"text-anchor":"middle"},transform:{rotate:o?-90:0,offset:0}})}}function bt(){if(!o&&!at||o&&at){var a,l=t.select("."+A.cbtitle),f=l.select("text"),h=[-M/2,M/2],d=l.select(".h"+it._id+"title-math-group").node(),g=15.6;if(f.node()&&(g=parseInt(f.node().style.fontSize,10)*w),d?(a=p.bBox(d),vt=a.width,(gt=a.height)>g&&(h[1]-=(gt-g)/2)):f.node()&&!f.classed(A.jsPlaceholder)&&(a=p.bBox(f.node()),vt=a.width,gt=a.height),o){if(gt){if(gt+=5,"top"===j)it.domain[1]-=gt/R.h,h[1]*=-1;else{it.domain[0]+=gt/R.h;var m=v.lineCount(f);h[1]+=(1-m)*g}l.attr("transform",u(h[0],h[1])),it.setScale()}}else vt&&("right"===j&&(it.domain[0]+=(vt+pt/2)/R.w),l.attr("transform",u(h[0],h[1])),it.setScale())}t.selectAll("."+A.cbfills+",."+A.cblines).attr("transform",o?u(0,Math.round(R.h*(1-it.domain[1]))):u(Math.round(R.w*it.domain[0]),0)),dt.attr("transform",o?u(0,Math.round(-R.t)):u(Math.round(-R.l),0));var y=t.select("."+A.cbfills).selectAll("rect."+A.cbfill).attr("style","").data(Y);y.enter().append("rect").classed(A.cbfill,!0).style("stroke","none"),y.exit().remove();var x=U.map(it.c2p).map(Math.round).sort((function(t,e){return t-e}));y.each((function(t,a){var s=[0===a?U[0]:(Y[a]+Y[a-1])/2,a===Y.length-1?U[1]:(Y[a]+Y[a+1])/2].map(it.c2p).map(Math.round);o&&(s[1]=c.constrain(s[1]+(s[1]>s[0])?1:-1,x[0],x[1]));var l=n.select(this).attr(o?"x":"y",Q).attr(o?"y":"x",n.min(s)).attr(o?"width":"height",Math.max(X,2)).attr(o?"height":"width",Math.max(n.max(s)-n.min(s),2));if(e._fillgradient)p.gradient(l,r,e._id,o?"vertical":"horizontalreversed",e._fillgradient,"fill");else{var u=q(t).replace("e-","");l.attr("fill",i(u).toHexString())}}));var b=t.select("."+A.cblines).selectAll("path."+A.cbline).data(B.color&&B.width?W:[]);b.enter().append("path").classed(A.cbline,!0),b.exit().remove(),b.each((function(t){var e=Q,r=Math.round(it.c2p(t))+B.width/2%1;n.select(this).attr("d","M"+(o?e+","+r:r+","+e)+(o?"h":"v")+X).call(p.lineGroupStyle,B.width,V(t),B.dash)})),dt.selectAll("g."+it._id+"tick,path").remove();var _=Q+X+(M||0)/2-

("outside"===e.ticks?1:0),T=s.calcTicks(it),k=s.getTickSigns(it)[2];return
s.drawTicks(r,it,{vals:"inside"===it.ticks?s.clipEnds(it,T):T,layer:dt,path:s.makeTickPath(it,_,k),transFn:s.makeTra
nsTickFn(it)}),s.drawLabels(r,it,{vals:T,layer:dt,transFn:s.makeTransTickLabelFn(it),labelFns:s.makeLabelFns(it,_)
})}function _t(){var n,s=X+M/2;-
1===ht.indexOf("inside")&&(n=p.bBox(dt.node()),s+=o?n.width:n.height),ut=ft.select("text");var
c=0,f=o&&"top"===j,g=!o&&"right"===j,v=0;if(ut.node()&&!ut.classed(A.jsPlaceholder)){var
y,x=ft.select(".h"+it._id+"title-math-
group").node();x&&(o&&at||!o&&!at)?(c=(n=p.bBox(x)).width,y=n.height):(c=(n=p.bBox(ft.node())).right-R.l-
(o?Q:nt),y=n.bottom-R.t-
(o?nt:Q),o||"top"!==j||(s+=n.height,v=n.height)),g&&(ut.attr("transform",u(c/2+pt/2,0)),c*=2),s=Math.max(s,o?c:y)
}var
b=2*(o?P:I)+s+S+M/2,w=0;!o&&N.text&&"bottom"===C&&z<=0&&(b+=w=b/2,v+=w),D._hColorbarMoveTitle
=w,D._hColorbarMoveCBTitle=v;var F=S+M;t.select("."+A.cbbg).attr("x",(o?Q:nt)-F/2-(o?P:0)).attr("y",(o?nt:Q)-
(o?J:I+v-w)).attr(o?"width":"height",Math.max(b-
w,2)).attr(o?"height":"width",Math.max(J+F,2)).call(d.fill,E).call(d.stroke,e.bordercolor).style("stroke-width",S);var
B=g?Math.max(c-10,0):0;if(t.selectAll("."+A.cboutline).attr("x",(o?Q:nt+P)+B).attr("y",(o?nt+I-
J:Q)+(f?gt:0)).attr(o?"width":"height",Math.max(X,2)).attr(o?"height":"width",Math.max(J-
(o?2*I+gt:2*P+B),2)).call(d.stroke,e.outlinecolor).style({fill:"none","stroke-width":M}),t.attr("transform",u(R.l-
(o?$*b:0),R.t-(o?0:(1-tt)*b-v))),!o&&(S||i(E).getAlpha()&&!i.equals(D.paper_bgcolor,E))){var
U=dt.selectAll("text"),V=U[0].length,q=t.select("."+A.cbbg).node(),H=p.bBox(q),G=p.getTranslate(t),Y=2;U.each((
function(t,e){var r=0,n=V-1;if(e===r||e===n){var i,a=p.bBox(this),o=p.getTranslate(this);if(e===n){var
s=a.right+o.x;(i=H.right+G.x+nt-S-Y+O-s)>0&&(i=0)}else if(e===r){var l=a.left+o.x;(i=H.left+G.x+nt+S+Y-
l)<0&&(i=0)}i&&(V<3?this.setAttribute("transform","translate("+i+",0)
"+this.getAttribute("transform")):this.setAttribute("visibility","hidden"))}}))}var
W={},Z=T[L],K=k[L],et=T[C],rt=k[C],ot=b-
X;o?("pixels"===h?(W.y=z,W.t=J*et,W.b=J*rt):(W.t=W.b=0,W.yt=z+l*et,W.yb=z-
l*rt),"pixels"===_?(W.x=O,W.l=b*Z,W.r=b*K):(W.l=ot*Z,W.r=ot*K,W.xl=O-
m*Z,W.xr=O+m*K)):("pixels"===h?(W.x=O,W.l=J*Z,W.r=J*K):(W.l=W.r=0,W.xl=O+l*Z,W.xr=O-
l*K),"pixels"===_?(W.y=1-z,W.t=b*et,W.b=b*rt):(W.t=ot*et,W.b=ot*rt,W.yt=z-
m*et,W.yb=z+m*rt)),a.autoMargin(r,e._id,W)}return
c.syncOrAsync([a.previousPromises,yt,bt,xt,a.previousPromises,_t],r)}(r,e,t);m&&m.then&&(t._promises||[]).push(
m),t._context.edits.colorbarPosition&&function(t,e,r){var
n,i,a,s="v"===e.orientation,c=r._fullLayout._size;l.init({element:t.node(),gd:r,prepFn:function(){n=t.attr("transform
"),h(t)},moveFn:function(r,o){t.attr("transform",n+u(r,o)),i=l.align((s?e._uFrac:e._vFrac)+r/c.w,s?e._thickFrac:e._le
nFrac,0,1,e.xanchor),a=l.align((s?e._vFrac:1-e._uFrac)-o/c.h,s?e._lenFrac:e._thickFrac,0,1,e.yanchor);var
f=l.getCursor(i,a,e.xanchor,e.yanchor);h(t,f)},doneFn:function(){if(h(t),void 0!==i&&void 0!==a){var
n={};n[e._propPrefix+"x"]=i,n[e._propPrefix+"y"]=a,void
0!==e._traceIndex?o.call("_guiRestyle",r,n,e._traceIndex):o.call("_guiRelayout",r,n)}}})}(r,e,t)})),e.exit().each((fun
ction(e){a.autoMargin(t,e._id)})).remove(),e.order()}}},{"../../constants/alignment":471,"../../lib":503,"../../lib/exten
d":493,"../../lib/setcursor":524,"../../lib/svg_text_utils":529,"../../plots/cartesian/axes":554,"../../plots/cartesian/axis_d
efaults":556,"../../plots/cartesian/layout_attributes":569,"../../plots/cartesian/position_defaults":572,"../../plots/plots":
619,"../../registry":638,"../color":366,"../colorscale/helpers":377,"../dragelement":385,"../drawing":388,"../titles":464,
"./constants":368,"@plotly/d3":58,tinycolor2:312}],371:[function(t,e,r){"use strict";var
n=t("../../lib");e.exports=function(t){return n.isPlainObject(t.colorbar)}},{"../../lib":503}],372:[function(t,e,r){"use
strict";e.exports={moduleType:"component",name:"colorbar",attributes:t("./attributes"),supplyDefaults:t("./defaults"
),draw:t("./draw").draw,hasColorbar:t("./has_colorbar")}},{"./attributes":367,"./defaults":369,"./draw":370,"./has_co
lorbar":371}],373:[function(t,e,r){"use strict";var
n=t("../colorbar/attributes"),i=t("../../lib/regex").counter,a=t("../../lib/sort_object_keys"),o=t("./scales.js").scales;funct

ion s(t){return"`"+t+"`"}a(o),e.exports=function(t,e){t=t||"";var r,a=(e=e||{}).cLetter||"c",l=("onlyIfNumerical"in e?e.onlyIfNumerical:Boolean(t),"noScale"in e?e.noScale:"marker.line"===t),c="showScaleDflt"in e?e.showScaleDflt:"z"===a,u="string"==typeof e.colorscaleDflt?o[e.colorscaleDflt]:null,f=e.editTypeOverride||"",h=t?t+".":"";"colorAttr"in e?(r=e.colorAttr,e.colorAttr):s(h+(r={z:"z",c:"color"}[a]));var p=a+"auto",d=a+"min",g=a+"max",v=a+"mid",m=(s(h+p),s(h+d),s(h+g),{});m[d]=m[g]=void 0;var y={};y[p]=!1;var x={};return"color"===r&&(x.color={valType:"color",arrayOk:!0,editType:f||"style"},e.anim&&(x.color.anim=!0)),x[p]={valType:"boolean",dflt:!0,editType:"calc",impliedEdits:m},x[d]={valType:"number",dflt:null,editType:f||"plot",impliedEdits:y},x[g]={valType:"number",dflt:null,editType:f||"plot",impliedEdits:y},x[v]={valType:"number",dflt:null,editType:"calc",impliedEdits:m},x.colorscale={valType:"colorscale",editType:"calc",dflt:u,impliedEdits:{autocolorscale:!1}},x.autocolorscale={valType:"boolean",dflt:!1!==e.autoColorDflt,editType:"calc",impliedEdits:{colorscale:void 0}},x.reversescale={valType:"boolean",dflt:!1,editType:"plot"},l||(x.showscale={valType:"boolean",dflt:c,editType:"calc"},x.colorbar=n),e.noColorAxis||(x.coloraxis={valType:"subplotid",regex:i("coloraxis"),dflt:null,editType:"calc"}),x}},{"../../lib/regex":520,"../../lib/sort_object_keys":526,"../colorbar/attributes":367,"./scales.js":381}],374:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib"),a=t("./helpers").extractOpts;e.exports=function(t,e,r){var o,s=t._fullLayout,l=r.vals,c=r.containerStr,u=c?i.nestedProperty(e,c).get():e,f=a(u),h=!1!==f.auto,p=f.min,d=f.max,g=f.mid,v=function(){return i.aggNums(Math.min,null,l)},m=function(){return i.aggNums(Math.max,null,l)};void 0===p?p=v():h&&(p=u._colorAx&&n(p)?Math.min(p,v()):v()),void 0===d?d=m():h&&(d=u._colorAx&&n(d)?Math.max(d,m()):m()),h&&void 0!==g&&(d-g>g-p?p=g-(d-g):d-g<g-p&&(d=g+(g-p))),p===d&&(p-=.5,d+=.5),f._sync("min",p),f._sync("max",d),f.autocolorscale&&(o=p*d<0?s.colorscale.diverging:p>=0?s.colorscale.sequential:s.colorscale.sequentialminus,f._sync("colorscale",o))}},{"../../lib":503,"./helpers":377,"fast-isnumeric":190}],375:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./helpers").hasColorscale,a=t("./helpers").extractOpts;e.exports=function(t,e){function r(t,e){var r=t["_"+e];void 0!==r&&(t[e]=r)}function o(t,i){var o=i.container?n.nestedProperty(t,i.container).get():t;if(o)if(o.coloraxis)o._colorAx=e[o.coloraxis];else{var s=a(o),l=s.auto;(l||void 0===s.min)&&r(o,i.min),(l||void 0===s.max)&&r(o,i.max),s.autocolorscale&&r(o,"colorscale")}}for(var s=0;s<t.length;s++){var l=t[s],c=l._module.colorbar;if(c)if(Array.isArray(c))for(var u=0;u<c.length;u++)o(l,c[u]);else o(l,c);i(l,"marker.line")&&o(l,{container:"marker.line",min:"cmin",max:"cmax"})}for(var f in e._colorAxes)o(e[f],{min:"cmin",max:"cmax"})}},{"../../lib":503,"./helpers":377}],376:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib"),a=t("../colorbar/has_colorbar"),o=t("../colorbar/defaults"),s=t("./scales").isValid,l=t("../../registry").traceIs;function c(t,e){var r=e.slice(0,e.length-1);return e?i.nestedProperty(t,r).get()||{}:t}e.exports=function t(e,r,u,f,h){var p=h.prefix,d=h.cLetter,g="_module"in r,v=c(e,p),m=c(r,p),y=c(r._template||{},p)||{},x=function(){return delete e.coloraxis,delete r.coloraxis,t(e,r,u,f,h)};if(g){var b=u._colorAxes||{},_=f(p+"coloraxis");if(_){var w=l(r,"contour")&&i.nestedProperty(r,"contours.coloring").get()||"heatmap",T=b[_];return void(T?(T[2].push(x),T[0]!==w&&(T[0]=!1,i.warn(["Ignoring coloraxis:",_,"setting","as it is linked to incompatible colorscales."].join(" ")))):b[_]=[w,r,[x]])}}var k=v[d+"min"],A=v[d+"max"],M=n(k)&&n(A)&&k<A;f(p+d+"auto",!M)?f(p+d+"mid"):(f(p+d+"min"),f(p+d+"max"));var S,E,L=v.colorscale,C=y.colorscale;void 0!==L&&(S=!s(L)),void 0!==C&&(S=!s(C)),f(p+"autocolorscale",S),f(p+"colorscale"),f(p+"reversescale"),"marker.line."!==p&&(p&&g&&(E=a(v)),f(p+"showscale",E)&&(p&&y&&(m._template=y),o(v,m,u)))}},{"../../lib":503,"../../registry":638,"../colorbar/defaults":369,"../colorbar/has_colorbar":371,"./scales":381,"fast-isnumeric":190}],377:[function(t,e,r){"use

strict";var n=t("@plotly/d3"),i=t("tinycolor2"),a=t("fast-isnumeric"),o=t("../../lib"),s=t("../color"),l=t("./scales").isValid,c=["showscale","autocolorscale","colorscale","reversescale","colorbar"],u=["min","max","mid","auto"];function f(t){var e,r,n,i=t._colorAx,a=i||t,o={};for(r=0;r<c.length;r++)o[n=c[r]]=a[n];if(i)for(e="c",r=0;r<u.length;r++)o[n=u[r]]=a["c"+n];else{var s;for(r=0;r<u.length;r++)((s="c"+(n=u[r]))in a||(s="z"+n)in a)&&(o[n]=a[s]);e=s.charAt(0)}return o._sync=function(t,r){var n=-1!==u.indexOf(t)?e+t:t;a[n]=a["_"+n]=r},o}function h(t){for(var e=f(t),r=e.min,n=e.max,i=e.reversescale?p(e.colorscale):e.colorscale,a=i.length,o=new Array(a),s=new Array(a),l=0;l<a;l++){var c=i[l];o[l]=r+c[0]*(n-r),s[l]=c[1]}return{domain:o,range:s}}function p(t){for(var e=t.length,r=new Array(e),n=e-1,i=0;n>=0;n--,i++){var a=t[n];r[i]=[1-a[0],a[1]]}return r}function d(t,e){e=e||{};for(var r=t.domain,o=t.range,l=o.length,c=new Array(l),u=0;u<l;u++){var f=i(o[u]).toRgb();c[u]=[f.r,f.g,f.b,f.a]}var h,p=n.scale.linear().domain(r).range(c).clamp(!0),d=e.noNumericCheck,v=e.returnArray;return(h=d&&v?p:d?function(t){return g(p(t))}:v?function(t){return a(t)?p(t):i(t).isValid()?t:s.defaultLine}:function(t){return a(t)?g(p(t)):i(t).isValid()?t:s.defaultLine}).domain=p.domain,h.range=function(){return o},h}function g(t){var e={r:t[0],g:t[1],b:t[2],a:t[3]};return i(e).toRgbString()}e.exports={hasColorscale:function(t,e,r){var n=e?o.nestedProperty(t,e).get()||{}:t,i=n[r||"color"],s=!1;if(o.isArrayOrTypedArray(i))for(var c=0;c<i.length;c++)if(a(i[c])){s=!0;break}return o.isPlainObject(n)&&(s||!0===n.showscale||a(n.cmin)&&a(n.cmax)||l(n.colorscale)||o.isPlainObject(n.colorbar))},extractOpts:f,extractScale:h,flipScale:p,makeColorScaleFunc:d,makeColorScaleFuncFromTrace:function(t,e){return d(h(t),e)}}},{"../../lib":503,"../color":366,"./scales":381,"@plotly/d3":58,"fast-isnumeric":190,tinycolor2:312}],378:[function(t,e,r){"use strict";var n=t("./scales"),i=t("./helpers");e.exports={moduleType:"component",name:"colorscale",attributes:t("./attributes"),layoutAttributes:t("./layout_attributes"),supplyLayoutDefaults:t("./layout_defaults"),handleDefaults:t("./defaults"),crossTraceDefaults:t("./cross_trace_defaults"),calc:t("./calc"),scales:n.scales,defaultScale:n.defaultScale,getScale:n.get,isValidScale:n.isValid,hasColorscale:i.hasColorscale,extractOpts:i.extractOpts,extractScale:i.extractScale,flipScale:i.flipScale,makeColorScaleFunc:i.makeColorScaleFunc,makeColorScaleFuncFromTrace:i.makeColorScaleFuncFromTrace}},{"./attributes":373,"./calc":374,"./cross_trace_defaults":375,"./defaults":376,"./helpers":377,"./layout_attributes":379,"./layout_defaults":380,"./scales":381}],379:[function(t,e,r){"use strict";var n=t("../../lib/extend").extendFlat,i=t("./attributes"),a=t("./scales").scales;e.exports={editType:"calc",colorscale:{editType:"calc",sequential:{valType:"colorscale",dflt:a.Reds,editType:"calc"},sequentialminus:{valType:"colorscale",dflt:a.Blues,editType:"calc"},diverging:{valType:"colorscale",dflt:a.RdBu,editType:"calc"}},coloraxis:n({_isSubplotObj:!0,editType:"calc"},i("",{colorAttr:"corresponding trace color array(s)",noColorAxis:!0,showScaleDflt:!0}))}},{"../../lib/extend":493,"./attributes":373,"./scales":381}],380:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plot_api/plot_template"),a=t("./layout_attributes"),o=t("./defaults");e.exports=function(t,e){function r(r,i){return n.coerce(t,e,a,r,i)}r("colorscale.sequential"),r("colorscale.sequentialminus"),r("colorscale.diverging");var s,l,c=e._colorAxes;function u(t,e){return n.coerce(s,l,a.coloraxis,t,e)}for(var f in c){var h=c[f];if(h[0])s=t[f]||{},(l=i.newContainer(e,f,"coloraxis"))._name=f,o(s,l,e,u,{prefix:"",cLetter:"c"});else{for(var p=0;p<h[2].length;p++)h[2][p]();delete e._colorAxes[f]}}}},{"../../lib":503,"../../plot_api/plot_template":543,"./defaults":376,"./layout_attributes":379}],381:[function(t,e,r){"use strict";var n=t("tinycolor2"),i={Greys:[[0,"rgb(0,0,0)"],[1,"rgb(255,255,255)"]],YlGnBu:[[0,"rgb(8,29,88)"],[.125,"rgb(37,52,148)"],[.25,"rgb(34,94,168)"],[.375,"rgb(29,145,192)"],[.5,"rgb(65,182,196)"],[.625,"rgb(127,205,187)"],[.75,"rgb(199,233,180)"],[.875,"rgb(237,248,217)"],[1,"rgb(255,255,217)"]],Greens:[[0,"rgb(0,68,27)"],[.125,"rgb(0,109,44)"],[.25,"rgb(35,139,69)"],[.375,"rgb(65,171,93)"],[.5,"rgb(116,196,118)"],[.625,"rgb(161,217,155)"],[.75,"rgb(199,233,192)"],[.875,"rgb(229,245,224)"],[1,"rgb(247,252,245)"]],YlOrRd:[[0,"rgb(128,0,38)"],[.125,"rgb(189,0,38)"],[.25,"rgb(227,26,28)"],[.375,"rgb(252,78,42)"],[.5,"rgb(253,141,60)"],[.625,"rgb(254,178,76)"],[.75,"rgb(254,217,118)"],[.

875,"rgb(255,237,160)"],[1,"rgb(255,255,204)"]],Bluered:[[0,"rgb(0,0,255)"],[1,"rgb(255,0,0)"]],RdBu:[[0,"rgb(5,10,172)"],[.35,"rgb(106,137,247)"],[.5,"rgb(190,190,190)"],[.6,"rgb(220,170,132)"],[.7,"rgb(230,145,90)"],[1,"rgb(178,10,28)"]],Reds:[[0,"rgb(220,220,220)"],[.2,"rgb(245,195,157)"],[.4,"rgb(245,160,105)"],[1,"rgb(178,10,28)"]],Blues:[[0,"rgb(5,10,172)"],[.35,"rgb(40,60,190)"],[.5,"rgb(70,100,245)"],[.6,"rgb(90,120,245)"],[.7,"rgb(106,137,247)"],[1,"rgb(220,220,220)"]],Picnic:[[0,"rgb(0,0,255)"],[.1,"rgb(51,153,255)"],[.2,"rgb(102,204,255)"],[.3,"rgb(153,204,255)"],[.4,"rgb(204,204,255)"],[.5,"rgb(255,255,255)"],[.6,"rgb(255,204,255)"],[.7,"rgb(255,153,255)"],[.8,"rgb(255,102,204)"],[.9,"rgb(255,102,102)"],[1,"rgb(255,0,0)"]],Rainbow:[[0,"rgb(150,0,90)"],[.125,"rgb(0,0,200)"],[.25,"rgb(0,25,255)"],[.375,"rgb(0,152,255)"],[.5,"rgb(44,255,150)"],[.625,"rgb(151,255,0)"],[.75,"rgb(255,234,0)"],[.875,"rgb(255,111,0)"],[1,"rgb(255,0,0)"]],Portland:[[0,"rgb(12,51,131)"],[.25,"rgb(10,136,186)"],[.5,"rgb(242,211,56)"],[.75,"rgb(242,143,56)"],[1,"rgb(217,30,30)"]],Jet:[[0,"rgb(0,0,131)"],[.125,"rgb(0,60,170)"],[.375,"rgb(5,255,255)"],[.625,"rgb(255,255,0)"],[.875,"rgb(250,0,0)"],[1,"rgb(128,0,0)"]],Hot:[[0,"rgb(0,0,0)"],[.3,"rgb(230,0,0)"],[.6,"rgb(255,210,0)"],[1,"rgb(255,255,255)"]],Blackbody:[[0,"rgb(0,0,0)"],[.2,"rgb(230,0,0)"],[.4,"rgb(230,210,0)"],[.7,"rgb(255,255,255)"],[1,"rgb(160,200,255)"]],Earth:[[0,"rgb(0,0,130)"],[.1,"rgb(0,180,180)"],[.2,"rgb(40,210,40)"],[.4,"rgb(230,230,50)"],[.6,"rgb(120,70,20)"],[1,"rgb(255,255,255)"]],Electric:[[0,"rgb(0,0,0)"],[.15,"rgb(30,0,100)"],[.4,"rgb(120,0,100)"],[.6,"rgb(160,90,0)"],[.8,"rgb(230,200,0)"],[1,"rgb(255,250,220)"]],Viridis:[[0,"#440154"],[.06274509803921569,"#48186a"],[.12549019607843137,"#472d7b"],[.18823529411764706,"#424086"],[.25098039215686274,"#3b528b"],[.3137254901960784,"#33638d"],[.3764705882352941,"#2c728e"],[.4392156862745098,"#26828e"],[.5019607843137255,"#21918c"],[.5647058823529412,"#1fa088"],[.6274509803921569,"#28ae80"],[.6901960784313725,"#3fbc73"],[.7529411764705882,"#5ec962"],[.8156862745098039,"#84d44b"],[.8784313725490196,"#addc30"],[.9411764705882353,"#d8e219"],[1,"#fde725"]],Cividis:[[0,"rgb(0,32,76)"],[.058824,"rgb(0,42,102)"],[.117647,"rgb(0,52,110)"],[.176471,"rgb(39,63,108)"],[.235294,"rgb(60,74,107)"],[.294118,"rgb(76,85,107)"],[.352941,"rgb(91,95,109)"],[.411765,"rgb(104,106,112)"],[.470588,"rgb(117,117,117)"],[.529412,"rgb(131,129,120)"],[.588235,"rgb(146,140,120)"],[.647059,"rgb(161,152,118)"],[.705882,"rgb(176,165,114)"],[.764706,"rgb(192,177,109)"],[.823529,"rgb(209,191,102)"],[.882353,"rgb(225,204,92)"],[.941176,"rgb(243,219,79)"],[1,"rgb(255,233,69)"]]},a=i.RdBu;function o(t){var e=0;if(!Array.isArray(t)||t.length<2)return!1;if(!t[0]||!t[t.length-1])return!1;if(0!=+t[0][0]||1!=+t[t.length-1][0])return!1;for(var r=0;r<t.length;r++){var i=t[r];if(2!==i.length||+i[0]<e||!n(i[1]).isValid())return!1;e=+i[0]}return!0}e.exports={scales:i,defaultScale:a,get:function(t,e){if(e||(e=a),!t)return e;function r(){try{t=i[t]||JSON.parse(t)}catch(r){t=e}}return"string"==typeof t&&(r(),"string"==typeof t&&r()),o(t)?t:e},isValid:function(t){return void 0!==i[t]||o(t)}}},{tinycolor2:312}],382:[function(t,e,r){"use strict";e.exports=function(t,e,r,n,i){var a=(t-r)/(n-r),o=a+e/(n-r),s=(a+o)/2;return"left"===i||"bottom"===i?a:"center"===i||"middle"===i?s:"right"===i||"top"===i?o:a<2/3-s?a:o>4/3-s?o:s}},{}],383:[function(t,e,r){"use strict";var n=t("../../lib"),i=[["sw-resize","s-resize","se-resize"],["w-resize","move","e-resize"],["nw-resize","n-resize","ne-resize"]];e.exports=function(t,e,r,a){return t="left"===r?0:"center"===r?1:"right"===r?2:n.constrain(Math.floor(3*t),0,2),e="bottom"===a?0:"middle"===a?1:"top"===a?2:n.constrain(Math.floor(3*e),0,2),i[e][t]}},{"../../lib":503}],384:[function(t,e,r){"use strict";r.selectMode=function(t){return"lasso"===t||"select"===t},r.drawMode=function(t){return"drawclosedpath"===t||"drawopenpath"===t||"drawline"===t||"drawrect"===t||"drawcircle"===t},r.openMode=function(t){return"drawline"===t||"drawopenpath"===t},r.rectMode=function(t){return"select"===t||"drawline"===t||"drawrect"===t||"drawcircle"===t},r.freeMode=function(t){return"lasso"===t||"drawclosedpath"===t||"drawopenpath"===t},r.selectingOrDrawing=function(t){return r.freeMode(t)||r.rectMode(t)}},{}],385:[function(t,e,r){"use strict";var n=t("mouse-event-offset"),i=t("has-hover"),a=t("has-passive-events"),o=t("../../lib").removeElement,s=t("../../plots/cartesian/constants"),l=e.exports={};l.align=t("./align"),l.getCursor=t("./cursor");var c=t("./unhover");function u(){var t=document.createElement("div");t.className="dragcover";var e=t.style;return e.position="fixed",e.left=0,e.right=0,e.top=0,e.bottom=0,e.zIndex=999999999,e.background="none",document.body.appendChild(t),t}function f(t){return n(t.changedTouches?t.changedTouches[0]:t,document.body)}l.unhover=c.wrapped,l.unhoverRaw=c.raw,l.init=funct

ion(t){var
e,r,n,c,h,p,d,g,v=t.gd,m=1,y=v._context.doubleClickDelay,x=t.element;v._mouseDownTime||(v._mouseDownTime
=0),x.style.pointerEvents="all",x.onmousedown=_,a?(x._ontouchstart&&x.removeEventListener("touchstart",x._on
touchstart),x._ontouchstart=_,x.addEventListener("touchstart",_,{passive:!1})):x.ontouchstart=_;var
b=t.clampFn||function(t,e,r){return Math.abs(t)<r&&(t=0),Math.abs(e)<r&&(e=0),[t,e]};function
_(a){v._dragged=!1,v._dragging=!0;var o=f(a);e=o[0],r=o[1],d=a.target,p=a,g=2===a.buttons||a.ctrlKey,void
0===a.clientX&&void 0===a.clientY&&(a.clientX=e,a.clientY=r),(n=(new Date).getTime())-
v._mouseDownTime<y?m+=1:(m=1,v._mouseDownTime=n),t.prepFn&&t.prepFn(a,e,r),i&&!g?(h=u()).style.curso
r=window.getComputedStyle(x).cursor:i||(h=document,c=window.getComputedStyle(document.documentElement).
cursor,document.documentElement.style.cursor=window.getComputedStyle(x).cursor),document.addEventListener(
"mouseup",T),document.addEventListener("touchend",T),!1!==t.dragmode&&(a.preventDefault(),document.addEv
entListener("mousemove",w),document.addEventListener("touchmove",w,{passive:!1}))}function
w(n){n.preventDefault();var i=f(n),a=t.minDrag||s.MINDRAG,o=b(i[0]-e,i[1]-
r,a),c=o[0],u=o[1];(c||u)&&(v._dragged=!0,l.unhover(v,n)),v._dragged&&t.moveFn&&!g&&(v._dragdata={elemen
t:x,dx:c,dy:u},t.moveFn(c,u))}function T(e){if(delete
v._dragdata,!1!==t.dragmode&&(e.preventDefault(),document.removeEventListener("mousemove",w),document.re
moveEventListener("touchmove",w)),document.removeEventListener("mouseup",T),document.removeEventListene
r("touchend",T),i?o(h):c&&(h.documentElement.style.cursor=c,c=null),v._dragging){if(v._dragging=!1,(new
Date).getTime()-v._mouseDownTime>y&&(m=Math.max(m-1,1)),v._dragged)t.doneFn&&t.doneFn();else
if(t.clickFn&&t.clickFn(m,p),!g){var r;try{r=new MouseEvent("click",e)}catch(t){var
n=f(e);(r=document.createEvent("MouseEvents")).initMouseEvent("click",e.bubbles,e.cancelable,e.view,e.detail,e.s
creenX,e.screenY,n[0],n[1],e.ctrlKey,e.altKey,e.shiftKey,e.metaKey,e.button,e.relatedTarget)}d.dispatchEvent(r)}v.
_dragging=!1,v._dragged=!1}else
v._dragged=!1}},l.coverSlip=u},{"../../lib":503,"../../plots/cartesian/constants":561,"./align":382,"./cursor":383,"./un
hover":386,"has-hover":228,"has-passive-events":229,"mouse-event-offset":242}],386:[function(t,e,r){"use
strict";var
n=t("../../lib/events"),i=t("../../lib/throttle"),a=t("../../lib/dom").getGraphDiv,o=t("../fx/constants"),s=e.exports={};s.w
rapped=function(t,e,r){(t=a(t))._fullLayout&&i.clear(t._fullLayout._uid+o.HOVERID),s.raw(t,e,r)},s.raw=function(
t,e){var
r=t._fullLayout,i=t._hoverdata;e||(e={}),e.target&&!t._dragged&&!1===n.triggerHandler(t,"plotly_beforehover",e)|
|(r._hoverlayer.selectAll("g").remove(),r._hoverlayer.selectAll("line").remove(),r._hoverlayer.selectAll("circle").re
move(),t._hoverdata=void
0,e.target&&i&&t.emit("plotly_unhover",{event:e,points:i}))}},{"../../lib/dom":491,"../../lib/events":492,"../../lib/thr
ottle":530,"../fx/constants":400}],387:[function(t,e,r){"use
strict";r.dash={valType:"string",values:["solid","dot","dash","longdash","dashdot","longdashdot"],dflt:"solid",editT
ype:"style"},r.pattern={shape:{valType:"enumerated",values:["","/","\\","x","-
","|","+","."],dflt:"",arrayOk:!0,editType:"style"},fillmode:{valType:"enumerated",values:["replace","overlay"],dflt:
"replace",editType:"style"},bgcolor:{valType:"color",arrayOk:!0,editType:"style"},fgcolor:{valType:"color",arrayO
k:!0,editType:"style"},fgopacity:{valType:"number",editType:"style",min:0,max:1},size:{valType:"number",min:0,
dflt:8,arrayOk:!0,editType:"style"},solidity:{valType:"number",min:0,max:1,dflt:.3,arrayOk:!0,editType:"style"},ed
itType:"style"}},{}],388:[function(t,e,r){"use strict";var
n=t("@plotly/d3"),i=t("../../lib"),a=i.numberFormat,o=t("fast-
isnumeric"),s=t("tinycolor2"),l=t("../../registry"),c=t("../color"),u=t("../colorscale"),f=i.strTranslate,h=t("../../lib/svg_t
ext_utils"),p=t("../../constants/xmlns_namespaces"),d=t("../../constants/alignment").LINE_SPACING,g=t("../../const
ants/interactions").DESELECTDIM,v=t("../../traces/scatter/subtypes"),m=t("../../traces/scatter/make_bubble_size_fu
nc"),y=t("../../components/fx/helpers").appendArrayPointValue,x=e.exports={};function b(t,e,r){var
n=e.fillpattern,i=n&&x.getPatternAttr(n.shape,0,"");if(i){var
a=x.getPatternAttr(n.bgcolor,0,null),o=x.getPatternAttr(n.fgcolor,0,null),s=n.fgopacity,l=x.getPatternAttr(n.size,0,8)

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,u=x.getPatternAttr(n.solidity,0,.3),f=e.uid;x.pattern(t,"point",r,f,i,l,u,void 0,n.fillmode,a,o,s)}else
e.fillcolor&&t.call(c.fill,e.fillcolor)}x.font=function(t,e,r,n){i.isPlainObject(e)&&(n=e.color,r=e.size,e=e.family),e
&&t.style("font-family",e),r+1&&t.style("font-
size",r+"px"),n&&t.call(c.fill,n)},x.setPosition=function(t,e,r){t.attr("x",e).attr("y",r)},x.setSize=function(t,e,r){t.attr
("width",e).attr("height",r)},x.setRect=function(t,e,r,n,i){t.call(x.setPosition,e,r).call(x.setSize,n,i)},x.translatePoint=
function(t,e,r,n){var
i=r.c2p(t.x),a=n.c2p(t.y);return!!(o(i)&&o(a)&&e.node())&&("text"===e.node().nodeName?e.attr("x",i).attr("y",a):
e.attr("transform",f(i,a)),!0)},x.translatePoints=function(t,e,r){t.each((function(t){var
i=n.select(this);x.translatePoint(t,i,e,r)}))},x.hideOutsideRangePoint=function(t,e,r,n,i,a){e.attr("display",r.isPtWithi
nRange(t,i)&&n.isPtWithinRange(t,a)?null:"none")},x.hideOutsideRangePoints=function(t,e){if(e._hasClipOnAxis
False){var r=e.xaxis,i=e.yaxis;t.each((function(e){var a=e[0].trace,o=a.xcalendar,s=a.ycalendar,c=l.traceIs(a,"bar-
like")?".bartext":".point,.textpoint";t.selectAll(c).each((function(t){x.hideOutsideRangePoint(t,n.select(this),r,i,o,s)}
))}))}},x.crispRound=function(t,e,r){return
e&&o(e)?t._context.staticPlot?e:e<1?1:Math.round(e):r||0},x.singleLineStyle=function(t,e,r,n,i){e.style("fill","none"
);var
a=(((t||[])[0]||{}).trace||{}).line||{},o=r||a.width||0,s=i||a.dash||"";c.stroke(e,n||a.color),x.dashLine(e,s,o)},x.lineGroupS
tyle=function(t,e,r,i){t.style("fill","none").each((function(t){var
a=(((t||[])[0]||{}).trace||{}).line||{},o=e||a.width||0,s=i||a.dash||"";n.select(this).call(c.stroke,r||a.color).call(x.dashLine,
s,o)}))},x.dashLine=function(t,e,r){r=+r||0,e=x.dashStyle(e,r),t.style({"stroke-dasharray":e,"stroke-
width":r+"px"})},x.dashStyle=function(t,e){e=+e||1;var
r=Math.max(e,3);return"solid"===t?t="":"dot"===t?t=r+"px,"+r+"px":"dash"===t?t=3*r+"px,"+3*r+"px":"longdas
h"===t?t=5*r+"px,"+5*r+"px":"dashdot"===t?t=3*r+"px,"+r+"px,"+r+"px,"+r+"px":"longdashdot"===t&&(t=5*r+
"px,"+2*r+"px,"+r+"px,"+2*r+"px"),t},x.singleFillStyle=function(t,e){var
r=n.select(t.node());b(t,((r.data()[0]||[])[0]||{}).trace||{},e)},x.fillGroupStyle=function(t,e){t.style("stroke-
width",0).each((function(t){var r=n.select(this);t[0].trace&&b(r,t[0].trace,e)}))};var
_=t("./symbol_defs");x.symbolNames=[],x.symbolFuncs=[],x.symbolNeedLines={},x.symbolNoDot={},x.symbolN
oFill={},x.symbolList=[],Object.keys(_).forEach((function(t){var
e=_[t],r=e.n;x.symbolList.push(r,String(r),t,r+100,String(r+100),t+"-
open"),x.symbolNames[r]=t,x.symbolFuncs[r]=e.f,e.needLine&&(x.symbolNeedLines[r]=!0),e.noDot?x.symbolNo
Dot[r]=!0:x.symbolList.push(r+200,String(r+200),t+"-dot",r+300,String(r+300),t+"-open-
dot"),e.noFill&&(x.symbolNoFill[r]=!0)}));var w=x.symbolNames.length;function T(t,e){var r=t%100;return
x.symbolFuncs[r](e)+(t>=200?"M0,0.5L0.5,0L0,-0.5L-0.5,0Z":"")}x.symbolNumber=function(t){if(o(t))t=+t;else
if("string"==typeof t){var e=0;t.indexOf("-open")>0&&(e=100,t=t.replace("-open","")),t.indexOf("-
dot")>0&&(e+=200,t=t.replace("-dot","")),(t=x.symbolNames.indexOf(t))>=0&&(t+=e)}return
t%100>=w||t>=400?0:Math.floor(Math.max(t,0))};var
k={x1:1,x2:0,y1:0,y2:0},A={x1:0,x2:0,y1:1,y2:0},M=a("~f"),S={radial:{node:"radialGradient"},radialreversed:{no
de:"radialGradient",reversed:!0},horizontal:{node:"linearGradient",attrs:k},horizontalreversed:{node:"linearGradien
t",attrs:k,reversed:!0},vertical:{node:"linearGradient",attrs:A},verticalreversed:{node:"linearGradient",attrs:A,rever
sed:!0}};x.gradient=function(t,e,r,a,o,l){for(var u=o.length,f=S[a],h=new Array(u),p=0;p<u;p++)f.reversed?h[u-1-
p]=[M(100*(1-o[p][0])),o[p][1]]:h[p]=[M(100*o[p][0]),o[p][1]];var d=e._fullLayout,g="g"+d._uid+"-
"+r,v=d._defs.select(".gradients").selectAll("#"+g).data([a+h.join(";")],i.identity);v.exit().remove(),v.enter().append(
f.node).each((function(){var t=n.select(this);f.attrs&&t.attr(f.attrs),t.attr("id",g);var
e=t.selectAll("stop").data(h);e.exit().remove(),e.enter().append("stop"),e.each((function(t){var
e=s(t[1]);n.select(this).attr({offset:t[0]+"%","stop-color":c.tinyRGB(e),"stop-
opacity":e.getAlpha()})}))})),t.style(l,R(g,e)).style(l+"-
opacity",null),t.classed("gradient_filled",!0)},x.pattern=function(t,e,r,a,o,s,l,u,f,h,p,d){var
g="legend"===e;u&&("overlay"===f?(h=u,p=c.contrast(h)):(h=void 0,p=u));var
v,m,y,x,b,_,w,T,k,A,M,S=r._fullLayout,E="p"+S._uid+"-
```

"+a,L={};switch(o){case"/":v=s*Math.sqrt(2),m=s*Math.sqrt(2),_="path",L={d:y="M-"+v/4+","+m/4+"l"+v/2+",-"+m/2+"M0,"+m+"L"+v+",0M"+v/4*3+","+m/4*5+"l"+v/2+",-"+m/2,opacity:d,stroke:p,"stroke-width":(x=l*s)+"px"};break;case"\\":v=s*Math.sqrt(2),m=s*Math.sqrt(2),_="path",L={d:y="M"+v/4*3+",-"+m/4+"l"+v/2+","+m/2+"M0,0L"+v+","+m+"M-"+v/4+","+m/4*3+"l"+v/2+","+m/2,opacity:d,stroke:p,"stroke-width":(x=l*s)+"px"};break;case"x":v=s*Math.sqrt(2),m=s*Math.sqrt(2),y="M-"+v/4+","+m/4+"l"+v/2+",-"+m/2+"M0,"+m+"L"+v+",0M"+v/4*3+","+m/4*5+"l"+v/2+",-"+m/2+"M"+v/4*3+",-"+m/4+"l"+v/2+","+m/2+"M0,0L"+v+","+m+"M-"+v/4+","+m/4*3+"l"+v/2+","+m/2,x=s-s*Math.sqrt(1-l),_="path",L={d:y,opacity:d,stroke:p,"stroke-width":x+"px"};break;case"|":_="path",_="path",L={d:y="M"+(v=s)/2+",0L"+v/2+","+(m=s),opacity:d,stroke:p,"stroke-width":(x=l*s)+"px"};break;case"-":_="path",_="path",L={d:y="M0,"+(m=s)/2+"L"+(v=s)+","+m/2,opacity:d,stroke:p,"stroke-width":(x=l*s)+"px"};break;case"+":_="path",y="M"+(v=s)/2+",0L"+v/2+","+(m=s)+"M0,"+m/2+"L"+v+","+m/2,x=s-s*Math.sqrt(1-l),_="path",L={d:y,opacity:d,stroke:p,"stroke-width":x+"px"};break;case".":v=s,m=s,b=l<Math.PI/4?Math.sqrt(l*s*s/Math.PI):(w=l,T=Math.PI/4,k=1,A=s/2,M=s/Math.sqrt(2),A+(M-A)*(w-T)/(k-T)),_="circle",L={cx:v/2,cy:m/2,r:b,opacity:d,fill:p}}var C=[o||"noSh",h||"noBg",p||"noFg",s,l].join(";"),P=S._defs.select(".patterns").selectAll("#"+E).data([C],i.identity);P.exit().remove(),P.enter().append("pattern").each((function(){var t=n.select(this);if(t.attr({id:E,width:v+"px",height:m+"px",patternUnits:"userSpaceOnUse",patternTransform:g?"scale(0.8)":""}),h){var e=t.selectAll("rect").data([0]);e.exit().remove(),e.enter().append("rect").attr({width:v+"px",height:m+"px",fill:h})}var r=t.selectAll(_).data([0]);r.exit().remove(),r.enter().append(_).attr(L)})),t.style("fill",R(E,r)).style("fill-opacity",null),t.classed("pattern_filled",!0)},x.initGradients=function(t){var e=t._fullLayout;i.ensureSingle(e._defs,"g","gradients").selectAll("linearGradient,radialGradient").remove(),n.select(t).selectAll(".gradient_filled").classed("gradient_filled",!1)},x.initPatterns=function(t){var e=t._fullLayout;i.ensureSingle(e._defs,"g","patterns").selectAll("pattern").remove(),n.select(t).selectAll(".pattern_filled").classed("pattern_filled",!1)},x.getPatternAttr=function(t,e,r){return t&&i.isArrayOrTypedArray(t)?e<t.length?t[e]:r:t},x.pointStyle=function(t,e,r){if(t.size()){var i=x.makePointStyleFns(e);t.each((function(t){x.singlePointStyle(t,n.select(this),e,i,r)}))}},x.singlePointStyle=function(t,e,r,n,a){var o=r.marker,s=o.line;if(e.style("opacity",n.selectedOpacityFn?n.selectedOpacityFn(t):void 0===t.mo?o.opacity:t.mo),n.ms2mrc){var l;l="various"===t.ms||"various"===o.size?3:n.ms2mrc(t.ms),t.mrc=l,n.selectedSizeFn&&(l=t.mrc=n.selectedSizeFn(t));var u=x.symbolNumber(t.mx||o.symbol)||0;t.om=u%200>=100,e.attr("d",T(u,l))}var f,h,p,d=!1;if(t.so)p=s.outlierwidth,h=s.outliercolor,f=o.outliercolor;else{var g=(s||{}).width;p=(t.mlw+1||g+1||(t.trace?(t.trace.marker.line||{}).width:0)+1)-1||0,h="mlc"in t?t.mlcc=n.lineScale(t.mlc):i.isArrayOrTypedArray(s.color)?c.defaultLine:s.color,i.isArrayOrTypedArray(o.color)&&(f=c.defaultLine,d=!0),f="mc"in t?t.mcc=n.markerScale(t.mc):o.color||"rgba(0,0,0,0)",n.selectedColorFn&&(f=n.selectedColorFn(t))}if(t.om)e.call(c.stroke,f).style({"stroke-width":(p||1)+"px",fill:"none"});else{e.style("stroke-width",(t.isBlank?0:p)+"px");var v=o.gradient,m=t.mgt;m?d=!0:m=v&&v.type,i.isArrayOrTypedArray(m)&&(m=m[0],S[m]||(m=0));var y=o.pattern,b=y&&x.getPatternAttr(y.shape,t.i,"");if(m&&"none"!==m){var _=t.mgc;_?d=!0:_=v.color;var w=r.uid;d&&(w+="-"+t.i),x.gradient(e,a,w,m,[[0,_],[1,f]],"fill")}else if(b){var k=x.getPatternAttr(y.bgcolor,t.i,null),A=x.getPatternAttr(y.fgcolor,t.i,null),M=y.fgopacity,E=x.getPatternAttr(y.size,t.i,8),L=x.getPatternAttr(y.solidity,t.i,.3),C=t.mcc||i.isArrayOrTypedArray(y.shape)||i.isArrayOrTypedArray(y.bgcolor)||i.isArrayOrTypedArray(y.size)||i.isArrayOrTypedArray(y.solidity),P=r.uid;C&&(P+="-"+t.i),x.pattern(e,"point",a,P,b,E,L,t.mcc,y.fillmode,k,A,M)}else c.fill(e,f);p&&c.stroke(e,h)}},x.makePointStyleFns=function(t){var e={},r=t.marker;return e.markerScale=x.tryColorscale(r,""),e.lineScale=x.tryColorscale(r,"line"),l.traceIs(t,"symbols")&&(e.ms2mrc=v.isBubble(t)?m(t):function(){return(r.size||6)/2}),t.selectedpoints&&i.extendFlat(e,x.makeSelectedPointStyleFns(t)),e},x

.makeSelectedPointStyleFns=function(t){var
e={},r=t.selected||{},n=t.unselected||{},a=t.marker||{},o=r.marker||{},s=n.marker||{},c=a.opacity,u=o.opacity,f=s.opacity,h=void 0!==u,p=void 0!==f;(i.isArrayOrTypedArray(c)||h||p)&&(e.selectedOpacityFn=function(t){var e=void 0===t.mo?a.opacity:t.mo;return t.selected?h?u:e:p?f:g*e});var
d=a.color,v=o.color,m=s.color;(v||m)&&(e.selectedColorFn=function(t){var e=t.mcc||d;return t.selected?v||e:m||e});var y=a.size,x=o.size,b=s.size,_=void 0!==x,w=void 0!==b;return l.traceIs(t,"symbols")&&(_||w)&&(e.selectedSizeFn=function(t){var e=t.mrc||y/2;return t.selected?_?x/2:e:w?b/2:e}),e},x.makeSelectedTextStyleFns=function(t){var
e={},r=t.selected||{},n=t.unselected||{},i=t.textfont||{},a=r.textfont||{},o=n.textfont||{},s=i.color,l=a.color,u=o.color;return e.selectedTextColorFn=function(t){var e=t.tc||s;return t.selected?l||e:u||(l?e:c.addOpacity(e,g))},e},x.selectedPointStyle=function(t,e){if(t.size()&&e.selectedpoints){var r=x.makeSelectedPointStyleFns(e),i=e.marker||{},a=[];r.selectedOpacityFn&&a.push((function(t,e){t.style("opacity",r.selectedOpacityFn(e))})),r.selectedColorFn&&a.push((function(t,e){c.fill(t,r.selectedColorFn(e))})),r.selectedSizeFn&&a.push((function(t,e){var
n=e.mx||i.symbol||0,a=r.selectedSizeFn(e);t.attr("d",T(x.symbolNumber(n),a)),e.mrc2=a})),a.length&&t.each((function(t){for(var e=n.select(this),r=0;r<a.length;r++)a[r](e,t)}))}},x.tryColorscale=function(t,e){var r=e?i.nestedProperty(t,e).get():t;if(r){var n=r.color;if((r.colorscale||r._colorAx)&&i.isArrayOrTypedArray(n))return u.makeColorScaleFuncFromTrace(r)}return i.identity};var E={start:1,end:-1,middle:0,bottom:1,top:-1};function L(t,e,r,i,a){var o=n.select(t.node().parentNode),s=-1!==e.indexOf("top")?"top":-1!==e.indexOf("bottom")?"bottom":"middle",l=-1!==e.indexOf("left")?"end":-1!==e.indexOf("right")?"start":"middle",c=i?i/.8+1:0,u=(h.lineCount(t)-1)*d+1,p=E[l]*c,g=.75*r+E[s]*c+(E[s]-1)*u*r/2;t.attr("text-anchor",l),a||o.attr("transform",f(p,g))}function C(t,e){var r=t.ts||e.textfont.size;return o(r)&&r>0?r:0}function P(t,e,r,i){var a=t[0]-e[0],o=t[1]-e[1],s=r[0]-e[0],l=r[1]-e[1],c=Math.pow(a*a+o*o,.25),u=Math.pow(s*s+l*l,.25),f=(u*u*a-c*c*s)*i,h=(u*u*o-c*c*l)*i,p=3*u*(c+u),d=3*c*(c+u);return[[n.round(e[0]+(p&&f/p),2),n.round(e[1]+(p&&h/p),2)],[n.round(e[0]-(d&&f/d),2),n.round(e[1]-(d&&h/d),2)]]}x.textPointStyle=function(t,e,r){if(t.size()){var a;if(e.selectedpoints){var o=x.makeSelectedTextStyleFns(e);a=o.selectedTextColorFn}var
s=e.texttemplate,l=r._fullLayout;t.each((function(t){var
o=n.select(this),c=s?i.extractOption(t,e,"txt","texttemplate"):i.extractOption(t,e,"tx","text");if(c||0===c){if(s){var u=e._module.formatLabels,f=u?u(t,e,l):{},p={};y(p,e,t.i);var
d=e._meta||{};c=i.texttemplateString(c,f,l._d3locale,p,t,d)}var
g=t.tp||e.textposition,v=C(t,e),m=a?a(t):t.tc||e.textfont.color;o.call(x.font,t.tf||e.textfont.family,v,m).text(c).call(h.convertToTspans,r).call(L,g,v,t.mrc)}else
o.remove()}))}},x.selectedTextStyle=function(t,e){if(t.size()&&e.selectedpoints){var
r=x.makeSelectedTextStyleFns(e);t.each((function(t){var
i=n.select(this),a=r.selectedTextColorFn(t),o=t.tp||e.textposition,s=C(t,e);c.fill(i,a);var u=l.traceIs(e,"bar-like");L(i,o,s,t.mrc2||t.mrc,u)}))}},x.smoothopen=function(t,e){if(t.length<3)return"M"+t.join("L");var
r,n="M"+t[0],i=[];for(r=1;r<t.length-1;r++)i.push(P(t[r-1],t[r],t[r+1],e));for(n+="Q"+i[0][0]+" "+t[1],r=2;r<t.length-1;r++)n+="C"+i[r-2][1]+" "+i[r-1][0]+" "+t[r];return n+"Q"+i[t.length-3][1]+" "+t[t.length-1]},x.smoothclosed=function(t,e){if(t.length<3)return"M"+t.join("L")+"Z";var r,n="M"+t[0],i=t.length-1,a=[P(t[i],t[0],t[1],e)];for(r=1;r<i;r++)a.push(P(t[r-1],t[r],t[r+1],e));for(a.push(P(t[i-1],t[i],t[0],e)),r=1;r<=i;r++)n+="C"+a[r-1][1]+" "+a[r][0]+" "+t[r];return n+"C"+a[i][1]+" "+a[0][0]+" "+t[0]+"Z"};var
I={hv:function(t,e){return"H"+n.round(e[0],2)+"V"+n.round(e[1],2)},vh:function(t,e){return"V"+n.round(e[1],2)+"H"+n.round(e[0],2)},hvh:function(t,e){return"H"+n.round((t[0]+e[0])/2,2)+"V"+n.round(e[1],2)+"H"+n.round(e[0],2)},vhv:function(t,e){return"V"+n.round((t[1]+e[1])/2,2)+"H"+n.round(e[0],2)+"V"+n.round(e[1],2)}},O=function(t,e){return"L"+n.round(e[0],2)+","+n.round(e[1],2)};x.steps=function(t){var e=I[t]||O;return function(t){for(var r="M"+n.round(t[0][0],2)+","+n.round(t[0][1],2),i=1;i<t.length;i++)r+=e(t[i-1],t[i]);return

r}},x.makeTester=function(){var t=i.ensureSingleById(n.select("body"),"svg","js-plotly-tester",(function(t){t.attr(p.svgAttrs).style({position:"absolute",left:"-10000px",top:"-10000px",width:"9000px",height:"9000px","z-index":"1"})})),e=i.ensureSingle(t,"path","js-reference-point",(function(t){t.attr("d","M0,0H1V1H0Z").style({"stroke-width":0,fill:"black"})}));x.tester=t,x.testref=e},x.savedBBoxes={};var z=0;function D(t){var e=t.getAttribute("data-unformatted");if(null!==e)return e+t.getAttribute("data-math")+t.getAttribute("text-anchor")+t.getAttribute("style")}function R(t,e){if(!t)return null;var r=e._context,n=r._exportedPlot?"":r._baseUrl||"";return n?"url("'+n+"#"+t+'")":"url(#"+t+")"}x.bBox=function(t,e,r){var a,o,s;if(r||(r=D(t)),r){if(a=x.savedBBoxes[r])return i.extendFlat({},a)}else if(1===t.childNodes.length){var l=t.childNodes[0];if(r=D(l)){var c=+l.getAttribute("x")||0,u=+l.getAttribute("y")||0,f=l.getAttribute("transform");if(!f){var p=x.bBox(l,!1,r);return c&&(p.left+=c,p.right+=c),u&&(p.top+=u,p.bottom+=u),p}if(r+="~"+c+"~"+u+"~"+f,a=x.savedBBoxes[r])return i.extendFlat({},a)}}e?o=t:(s=x.tester.node(),o=t.cloneNode(!0),s.appendChild(o)),n.select(o).attr("transform",null).call(h.positionText,0,0);var d=o.getBoundingClientRect(),g=x.testref.node().getBoundingClientRect();e||s.removeChild(o);var v={height:d.height,width:d.width,left:d.left-g.left,top:d.top-g.top,right:d.right-g.left,bottom:d.bottom-g.top};return z>=1e4&&(x.savedBBoxes={},z=0),r&&(x.savedBBoxes[r]=v),z++,i.extendFlat({},v)},x.setClipUrl=function(t,e,r){t.attr("clip-path",R(e,r))},x.getTranslate=function(t){var e=(t[t.attr?"attr":"getAttribute"]("transform")||"").replace(/.*\btranslate\((-?\d*\.?\d*)[^-\d]*(-?\d*\.?\d*)[^\d].*/,(function(t,e,r){return[e,r].join(" ")})).split(" ");return{x:+e[0]||0,y:+e[1]||0}},x.setTranslate=function(t,e,r){var n=t.attr?"attr":"getAttribute",i=t.attr?"attr":"setAttribute",a=t[n]("transform")||"";return e=e||0,r=r||0,a=a.replace(/(\btranslate\(.*?\);?)/,"").trim(),a=(a+=f(e,r)).trim(),t[i]("transform",a),a},x.getScale=function(t){var e=(t[t.attr?"attr":"getAttribute"]("transform")||"").replace(/.*\bscale\((\d*\.?\d*)[^\d]*(\d*\.?\d*)[^\d].*/,(function(t,e,r){return[e,r].join(" ")})).split(" ");return{x:+e[0]||1,y:+e[1]||1}},x.setScale=function(t,e,r){var n=t.attr?"attr":"getAttribute",i=t.attr?"attr":"setAttribute",a=t[n]("transform")||"";return e=e||1,r=r||1,a=a.replace(/(\bscale\(.*?\);?)/,"").trim(),a=(a+="scale("+e+","+r+")").trim(),t[i]("transform",a),a};var F=/\s*sc.*/;x.setPointGroupScale=function(t,e,r){if(e=e||1,r=r||1,t){var n=1===e&&1===r?"":"scale("+e+","+r+")";t.each((function(){var t=(this.getAttribute("transform")||"").replace(F,"");t=(t+=n).trim(),this.setAttribute("transform",t)}))}};var B=/translate\([^)]*\)\s*$/;x.setTextPointsScale=function(t,e,r){t&&t.each((function(){var t,i=n.select(this),a=i.select("text");if(a.node()){var o=parseFloat(a.attr("x")||0),s=parseFloat(a.attr("y")||0),l=(i.attr("transform")||"").match(B);t=1===e&&1===r?[]:[f(o,s),"scale("+e+","+r+")",f(-o,-s)],l&&t.push(l),i.attr("transform",t.join(""))}}))}},{"../../components/fx/helpers":402,"../../constants/alignment":471,"../../constants/interactions":478,"../../constants/xmlns_namespaces":480,"../../lib":503,"../../lib/svg_text_utils":529,"../../registry":638,"../../traces/scatter/make_bubble_size_func":944,"../../traces/scatter/subtypes":952,"../color":366,"../colorscale":378,"./symbol_defs":389,"@plotly/d3":58,"fast-isnumeric":190,tinycolor2:312}],389:[function(t,e,r){"use strict";var n=t("@plotly/d3");e.exports={circle:{n:0,f:function(t){var e=n.round(t,2);return"M"+e+",0A"+e+","+e+" 0 1,1 0,-"+e+"A"+e+","+e+" 0 0,1 "+e+",0Z"}},square:{n:1,f:function(t){var e=n.round(t,2);return"M"+e+","+e+"H-"+e+"V-"+e+"H"+e+"Z"}},diamond:{n:2,f:function(t){var e=n.round(1.3*t,2);return"M"+e+",0L0,"+e+"L-"+e+",0L0,-"+e+"Z"}},cross:{n:3,f:function(t){var e=n.round(.4*t,2),r=n.round(1.2*t,2);return"M"+r+","+e+"H"+e+"V"+r+"H-"+e+"V"+e+"H-"+r+"V-"+e+"H-"+e+"V-"+r+"H"+e+"V-"+e+"H"+r+"Z"}},x:{n:4,f:function(t){var e=n.round(.8*t/Math.sqrt(2),2),r="l"+e+","+e,i="l"+e+",-"+e,a="l-"+e+",-"+e,o="l-"+e+","+e;return"M0,"+e+r+i+a+i+a+o+a+o+r+o+r+"Z"}},"triangle-up":{n:5,f:function(t){var

e=n.round(2*t/Math.sqrt(3),2);return"M-"+e+","+n.round(t/2,2)+"H"+e+"L0,-"+n.round(t,2)+"Z"}},"triangle-down":{n:6,f:function(t){var e=n.round(2*t/Math.sqrt(3),2);return"M-"+e+",-"+n.round(t/2,2)+"H"+e+"L0,"+n.round(t,2)+"Z"}},"triangle-left":{n:7,f:function(t){var e=n.round(2*t/Math.sqrt(3),2);return"M"+n.round(t/2,2)+",-"+e+"V"+e+"L-"+n.round(t,2)+",0Z"}},"triangle-right":{n:8,f:function(t){var e=n.round(2*t/Math.sqrt(3),2);return"M-"+n.round(t/2,2)+",-"+e+"V"+e+"L"+n.round(t,2)+",0Z"}},"triangle-ne":{n:9,f:function(t){var e=n.round(.6*t,2),r=n.round(1.2*t,2);return"M-"+r+",-"+e+"H"+e+"V"+r+"Z"}},"triangle-se":{n:10,f:function(t){var e=n.round(.6*t,2),r=n.round(1.2*t,2);return"M"+e+",-"+r+"V"+e+"H-"+r+"Z"}},"triangle-sw":{n:11,f:function(t){var e=n.round(.6*t,2),r=n.round(1.2*t,2);return"M"+r+","+e+"H-"+e+"V-"+r+"Z"}},"triangle-nw":{n:12,f:function(t){var e=n.round(.6*t,2),r=n.round(1.2*t,2);return"M-"+e+","+r+"V-"+e+"H"+r+"Z"}},pentagon:{n:13,f:function(t){var e=n.round(.951*t,2),r=n.round(.588*t,2),i=n.round(-t,2),a=n.round(-.309*t,2);return"M"+e+","+a+"L"+r+","+n.round(.809*t,2)+"H-"+r+"L-"+e+","+a+"L0,"+i+"Z"}},hexagon:{n:14,f:function(t){var e=n.round(t,2),r=n.round(t/2,2),i=n.round(t*Math.sqrt(3)/2,2);return"M"+i+",-"+r+"V"+r+"L0,"+e+"L-"+i+","+r+"V-"+r+"L0,-"+e+"Z"}},hexagon2:{n:15,f:function(t){var e=n.round(t,2),r=n.round(t/2,2),i=n.round(t*Math.sqrt(3)/2,2);return"M-"+r+","+i+"H"+r+"L"+e+",0L"+r+",-"+i+"H-"+r+"L-"+e+",0Z"}},octagon:{n:16,f:function(t){var e=n.round(.924*t,2),r=n.round(.383*t,2);return"M-"+r+",-"+e+"H"+r+"L"+e+",-"+r+"V"+r+"L"+r+","+e+"H-"+r+"L-"+e+","+r+"V-"+r+"Z"}},star:{n:17,f:function(t){var e=1.4*t,r=n.round(.225*e,2),i=n.round(.951*e,2),a=n.round(.363*e,2),o=n.round(.588*e,2),s=n.round(-e,2),l=n.round(-.309*e,2),c=n.round(.118*e,2),u=n.round(.809*e,2);return"M"+r+","+l+"H"+i+"L"+a+","+c+"L"+o+","+u+"L0,"+n.round(.382*e,2)+"L-"+o+","+u+"L-"+a+","+c+"L-"+i+","+l+"H-"+r+"L0,"+s+"Z"}},hexagram:{n:18,f:function(t){var e=n.round(.66*t,2),r=n.round(.38*t,2),i=n.round(.76*t,2);return"M-"+i+",0l-"+r+",-"+e+"h"+i+"l"+r+",-"+e+"l"+r+","+e+"h"+i+"l-"+r+","+e+"l"+r+","+e+"h-"+i+"l-"+r+","+e+"l-"+r+",-"+e+"h-"+i+"Z"}},"star-triangle-up":{n:19,f:function(t){var e=n.round(t*Math.sqrt(3)*.8,2),r=n.round(.8*t,2),i=n.round(1.6*t,2),a=n.round(4*t,2),o="A "+a+","+a+" 0 0 1 ";return"M-"+e+","+r+o+e+","+r+o+"0,-"+i+o+"-"+e+","+r+"Z"}},"star-triangle-down":{n:20,f:function(t){var e=n.round(t*Math.sqrt(3)*.8,2),r=n.round(.8*t,2),i=n.round(1.6*t,2),a=n.round(4*t,2),o="A "+a+","+a+" 0 0 1 ";return"M"+e+",-"+r+o+"-"+e+",-"+r+o+"0,"+i+o+e+",-"+r+"Z"}},"star-square":{n:21,f:function(t){var e=n.round(1.1*t,2),r=n.round(2*t,2),i="A "+r+","+r+" 0 0 1 ";return"M-"+e+",-"+e+i+"-"+e+","+e+i+e+","+e+i+e+",-"+e+i+"-"+e+",-"+e+"Z"}},"star-diamond":{n:22,f:function(t){var e=n.round(1.4*t,2),r=n.round(1.9*t,2),i="A "+r+","+r+" 0 0 1 ";return"M-"+e+",0"+i+"0,"+e+i+e+",0"+i+"0,-"+e+i+"-"+e+",0Z"}},"diamond-tall":{n:23,f:function(t){var e=n.round(.7*t,2),r=n.round(1.4*t,2);return"M0,"+r+"L"+e+",0L0,-"+r+"L-"+e+",0Z"}},"diamond-wide":{n:24,f:function(t){var e=n.round(1.4*t,2),r=n.round(.7*t,2);return"M0,"+r+"L"+e+",0L0,-"+r+"L-"+e+",0Z"}},hourglass:{n:25,f:function(t){var e=n.round(t,2);return"M"+e+","+e+"H-"+e+"L"+e+",-"+e+"H-"+e+"Z"},noDot:!0},bowtie:{n:26,f:function(t){var e=n.round(t,2);return"M"+e+","+e+"V-"+e+"L-"+e+","+e+"V-"+e+"Z"},noDot:!0},"circle-cross":{n:27,f:function(t){var e=n.round(t,2);return"M0,"+e+"V-"+e+"M"+e+",0H-"+e+"M"+e+",0A"+e+","+e+" 0 1,1 0,-"+e+"A"+e+","+e+" 0 0,1 "+e+",0Z"},needLine:!0,noDot:!0},"circle-x":{n:28,f:function(t){var e=n.round(t,2),r=n.round(t/Math.sqrt(2),2);return"M"+r+","+r+"L-"+r+",-"+r+"M"+r+",-"+r+"L-"+r+","+r+"M"+e+",0A"+e+","+e+" 0 1,1 0,-"+e+"A"+e+","+e+" 0 0,1 "+e+",0Z"},needLine:!0,noDot:!0},"square-cross":{n:29,f:function(t){var e=n.round(t,2);return"M0,"+e+"V-"+e+"M"+e+",0H-"+e+"M"+e+","+e+"H-"+e+"V-"+e+"H"+e+"Z"},needLine:!0,noDot:!0},"square-x":{n:30,f:function(t){var e=n.round(t,2);return"M"+e+","+e+"L-"+e+",-"+e+"M"+e+",-"+e+"L-"+e+","+e+"M"+e+","+e+"H-"+e+"V-"+e+"H"+e+"Z"},needLine:!0,noDot:!0},"diamond-

cross":{n:31,f:function(t){var e=n.round(1.3*t,2);return"M"+e+",0L0,"+e+"L-"+e+",0L0,-"+e+"ZM0,-"+e+"V"+e+"M-"+e+",0H"+e},needLine:!0,noDot:!0},"diamond-x":{n:32,f:function(t){var e=n.round(1.3*t,2),r=n.round(.65*t,2);return"M"+e+",0L0,"+e+"L-"+e+",0L0,-"+e+"ZM-"+r+",-"+r+"L"+r+","+r+"M-"+r+","+r+"L"+r+",-"+r},needLine:!0,noDot:!0},"cross-thin":{n:33,f:function(t){var e=n.round(1.4*t,2);return"M0,"+e+"V-"+e+"M"+e+",0H-"+e},needLine:!0,noDot:!0,noFill:!0},"x-thin":{n:34,f:function(t){var e=n.round(t,2);return"M"+e+","+e+"L-"+e+",-"+e+"M"+e+",-"+e+"L-"+e+","+e},needLine:!0,noDot:!0,noFill:!0},asterisk:{n:35,f:function(t){var e=n.round(1.2*t,2),r=n.round(.85*t,2);return"M0,"+e+"V-"+e+"M"+e+",0H-"+e+"M"+r+","+r+"L-"+r+",-"+r+"M"+r+",-"+r+"L-"+r+","+r},needLine:!0,noDot:!0,noFill:!0},hash:{n:36,f:function(t){var e=n.round(t/2,2),r=n.round(t,2);return"M"+e+","+r+"V-"+r+"m-"+r+",0V"+r+"M"+r+","+e+"H-"+r+"m0,-"+r+"H"+r},needLine:!0,noFill:!0},"y-up":{n:37,f:function(t){var e=n.round(1.2*t,2),r=n.round(1.6*t,2),i=n.round(.8*t,2);return"M-"+e+","+i+"L0,0M"+e+","+i+"L0,0M0,-"+r+"L0,0"},needLine:!0,noDot:!0,noFill:!0},"y-down":{n:38,f:function(t){var e=n.round(1.2*t,2),r=n.round(1.6*t,2),i=n.round(.8*t,2);return"M-"+e+",-"+i+"L0,0M"+e+",-"+i+"L0,0M0,"+r+"L0,0"},needLine:!0,noDot:!0,noFill:!0},"y-left":{n:39,f:function(t){var e=n.round(1.2*t,2),r=n.round(1.6*t,2),i=n.round(.8*t,2);return"M"+i+","+e+"L0,0M"+i+",-"+e+"L0,0M-"+r+",0L0,0"},needLine:!0,noDot:!0,noFill:!0},"y-right":{n:40,f:function(t){var e=n.round(1.2*t,2),r=n.round(1.6*t,2),i=n.round(.8*t,2);return"M-"+i+","+e+"L0,0M-"+i+",-"+e+"L0,0M"+r+",0L0,0"},needLine:!0,noDot:!0,noFill:!0},"line-ew":{n:41,f:function(t){var e=n.round(1.4*t,2);return"M"+e+",0H-"+e},needLine:!0,noDot:!0,noFill:!0},"line-ns":{n:42,f:function(t){var e=n.round(1.4*t,2);return"M0,"+e+"V-"+e},needLine:!0,noDot:!0,noFill:!0},"line-ne":{n:43,f:function(t){var e=n.round(t,2);return"M"+e+",-"+e+"L-"+e+","+e},needLine:!0,noDot:!0,noFill:!0},"line-nw":{n:44,f:function(t){var e=n.round(t,2);return"M"+e+","+e+"L-"+e+",-"+e},needLine:!0,noDot:!0,noFill:!0},"arrow-up":{n:45,f:function(t){var e=n.round(t,2);return"M0,0L-"+e+","+n.round(2*t,2)+"H"+e+"Z"},noDot:!0},"arrow-down":{n:46,f:function(t){var e=n.round(t,2);return"M0,0L-"+e+",-"+n.round(2*t,2)+"H"+e+"Z"},noDot:!0},"arrow-left":{n:47,f:function(t){var e=n.round(2*t,2),r=n.round(t,2);return"M0,0L"+e+",-"+r+"V"+r+"Z"},noDot:!0},"arrow-right":{n:48,f:function(t){var e=n.round(2*t,2),r=n.round(t,2);return"M0,0L-"+e+",-"+r+"V"+r+"Z"},noDot:!0},"arrow-bar-up":{n:49,f:function(t){var e=n.round(t,2);return"M-"+e+",0H"+e+"M0,0L-"+e+","+n.round(2*t,2)+"H"+e+"Z"},needLine:!0,noDot:!0},"arrow-bar-down":{n:50,f:function(t){var e=n.round(t,2);return"M-"+e+",0H"+e+"M0,0L-"+e+",-"+n.round(2*t,2)+"H"+e+"Z"},needLine:!0,noDot:!0},"arrow-bar-left":{n:51,f:function(t){var e=n.round(2*t,2),r=n.round(t,2);return"M0,-"+r+"V"+r+"M0,0L"+e+",-"+r+"V"+r+"Z"},needLine:!0,noDot:!0},"arrow-bar-right":{n:52,f:function(t){var e=n.round(2*t,2),r=n.round(t,2);return"M0,-"+r+"V"+r+"M0,0L-"+e+",-"+r+"V"+r+"Z"},needLine:!0,noDot:!0}}},{"@plotly/d3":58}],390:[function(t,e,r){"use strict";e.exports={visible:{valType:"boolean",editType:"calc"},type:{valType:"enumerated",values:["percent","constant","sqrt","data"],editType:"calc"},symmetric:{valType:"boolean",editType:"calc"},array:{valType:"data_array",editType:"calc"},arrayminus:{valType:"data_array",editType:"calc"},value:{valType:"number",min:0,dflt:10,editType:"calc"},valueminus:{valType:"number",min:0,dflt:10,editType:"calc"},traceref:{valType:"integer",min:0,dflt:0,editType:"style"},tracerefminus:{valType:"integer",min:0,dflt:0,editType:"style"},copy_ystyle:{valType:"boolean",editType:"plot"},copy_zstyle:{valType:"boolean",editType:"style"},color:{valType:"color",editType:"style"},thickness:{valType:"number",min:0,dflt:2,editType:"style"},width:{valType:"number",min:0,editType:"plot"},editType:"calc",_deprecated:{opacity:{valType:"number",editType:"style"}}}},{}],391:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../registry"),a=t("../../plots/cartesian/axes"),o=t("../../lib"),s=t("./compute_error");function l(t,e,r,i){var l=e["error_"+i]||{},c=[];if(l.visible&&-1!==["linear","log"].indexOf(r.type)){for(var u=s(l),f=0;f<t.length;f++){var h=t[f],p=h.i;if(void 0===p)p=f;else if(null===p)continue;var

d=h[i];if(n(r.c2l(d))){var g=u(d,p);if(n(g[0])&&n(g[1])){var v=h[i+"s"]=d-
g[0],m=h[i+"h"]=d+g[1];c.push(v,m)}}}var
y=r._id,x=e._extremes[y],b=a.findExtremes(r,c,o.extendFlat({tozero:x.opts.tozero},{padded:!0}));x.min=x.min.con
cat(b.min),x.max=x.max.concat(b.max)}}e.exports=function(t){for(var e=t.calcdata,r=0;r<e.length;r++){var
n=e[r],o=n[0].trace;if(!0===o.visible&&i.traceIs(o,"errorBarsOK")){var
s=a.getFromId(t,o.xaxis),c=a.getFromId(t,o.yaxis);l(n,o,s,"x"),l(n,o,c,"y")}}}},{"../../lib":503,"../../plots/cartesian/ax
es":554,"../../registry":638,"./compute_error":392,"fast-isnumeric":190}],392:[function(t,e,r){"use strict";function
n(t,e){return"percent"===t?function(t){return Math.abs(t*e/100)}:"constant"===t?function(){return
Math.abs(e)}:"sqrt"===t?function(t){return Math.sqrt(Math.abs(t))}:void 0}e.exports=function(t){var
e=t.type,r=t.symmetric;if("data"===e){var i=t.array||[];if(r)return function(t,e){var r=+i[e];return[r,r]};var
a=t.arrayminus||[];return function(t,e){var r=+i[e],n=+a[e];return isNaN(r)&&isNaN(n)?[NaN,NaN]:[n||0,r||0]}}var
o=n(e,t.value),s=n(e,t.valueminus);return r||void 0===t.valueminus?function(t){var
e=o(t);return[e,e]}:function(t){return[s(t),o(t)]}}},{}],393:[function(t,e,r){"use strict";var n=t("fast-
isnumeric"),i=t("../../registry"),a=t("../../lib"),o=t("../../plot_api/plot_template"),s=t("./attributes");e.exports=function
(t,e,r,l){var c="error_"+l.axis,u=o.newContainer(e,c),f=t[c]||{};function h(t,e){return
a.coerce(f,u,s,t,e)}if(!1!==h("visible",void 0!==f.array||void 0!==f.value||"sqrt"===f.type)){var p=h("type","array"in
f?"data":"percent"),d=!0;"sqrt"!==p&&(d=h("symmetric",!(("data"===p?"arrayminus":"valueminus")in
f))),"data"===p?(h("array"),h("traceref"),d||(h("arrayminus"),h("tracerefminus"))):"percent"!==p&&"constant"!==p||
(h("value"),d||h("valueminus"));var
g="copy_"+l.inherit+"style";l.inherit&&(e["error_"+l.inherit]||{}).visible&&h(g,!(f.color||n(f.thickness)||n(f.width)))
,l.inherit&&u[g]||(h("color",r),h("thickness"),h("width",i.traceIs(e,"gl3d")?0:4))}},{"../../lib":503,"../../plot_api/plot
_template":543,"../../registry":638,"./attributes":390,"fast-isnumeric":190}],394:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("../../plot_api/edit_types").overrideAll,a=t("./attributes"),o={error_x:n.extendFlat({},a),error_y:n.e
xtendFlat({},a)};delete o.error_x.copy_zstyle,delete o.error_y.copy_zstyle,delete o.error_y.copy_ystyle;var
s={error_x:n.extendFlat({},a),error_y:n.extendFlat({},a),error_z:n.extendFlat({},a)};delete
s.error_x.copy_ystyle,delete s.error_y.copy_ystyle,delete s.error_z.copy_ystyle,delete
s.error_z.copy_zstyle,e.exports={moduleType:"component",name:"errorbars",schema:{traces:{scatter:o,bar:o,histog
ram:o,scatter3d:i(s,"calc","nested"),scattergl:i(o,"calc","nested")}},supplyDefaults:t("./defaults"),calc:t("./calc"),mak
eComputeError:t("./compute_error"),plot:t("./plot"),style:t("./style"),hoverInfo:function(t,e,r){(e.error_y||{}).visible
&&(r.yerr=t.yh-t.y,e.error_y.symmetric||(r.yerrneg=t.y-t.ys)),(e.error_x||{}).visible&&(r.xerr=t.xh-
t.x,e.error_x.symmetric||(r.xerrneg=t.x-
t.xs))}}},{"../../lib":503,"../../plot_api/edit_types":536,"./attributes":390,"./calc":391,"./compute_error":392,"./defaul
ts":393,"./plot":395,"./style":396}],395:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("fast-
isnumeric"),a=t("../drawing"),o=t("../../traces/scatter/subtypes");e.exports=function(t,e,r,s){var
l=r.xaxis,c=r.yaxis,u=s&&s.duration>0;e.each((function(e){var
f,h=e[0].trace,p=h.error_x||{},d=h.error_y||{};h.ids&&(f=function(t){return t.id});var
g=o.hasMarkers(h)&&h.marker.maxdisplayed>0;d.visible||p.visible||(e=[]);var
v=n.select(this).selectAll("g.errorbar").data(e,f);if(v.exit().remove(),e.length){p.visible||v.selectAll("path.xerror").re
move(),d.visible||v.selectAll("path.yerror").remove(),v.style("opacity",1);var
m=v.enter().append("g").classed("errorbar",!0);u&&m.style("opacity",0).transition().duration(s.duration).style("opa
city",1),a.setClipUrl(v,r.layerClipId,t),v.each((function(t){var e=n.select(this),r=function(t,e,r){var
n={x:e.c2p(t.x),y:r.c2p(t.y)};return void
0!==t.yh&&(n.yh=r.c2p(t.yh),n.ys=r.c2p(t.ys),i(n.ys)||(n.noYS=!0,n.ys=r.c2p(t.ys,!0))),void
0!==t.xh&&(n.xh=e.c2p(t.xh),n.xs=e.c2p(t.xs),i(n.xs)||(n.noXS=!0,n.xs=e.c2p(t.xs,!0))),n}(t,l,c);if(!g||t.vis){var
a,o=e.select("path.yerror");if(d.visible&&i(r.x)&&i(r.yh)&&i(r.ys)){var f=d.width;a="M"+(r.x-
f)+","+r.yh+"h"+2*f+"m-"+f+",0V"+r.ys,r.noYS||(a+="m-
"+f+",0h"+2*f),o.size()?u&&(o=o.transition().duration(s.duration).ease(s.easing)):o=e.append("path").style("vector-
effect","non-scaling-stroke").classed("yerror",!0),o.attr("d",a)}else o.remove();var

h=e.select("path.xerror");if(p.visible&&i(r.y)&&i(r.xh)&&i(r.xs)){var
v=(p.copy_ystyle?d:p).width;a="M"+r.xh+","+(r.y-v)+"v"+2*v+"m0,-"+v+"H"+r.xs,r.noXS||(a+="m0,-
"+v+"v"+2*v),h.size()?u&&(h=h.transition().duration(s.duration).ease(s.easing)):h=e.append("path").style("vector-
effect","non-scaling-stroke").classed("xerror",!0),h.attr("d",a)}else
h.remove()}))}))}},{"../../traces/scatter/subtypes":952,"../drawing":388,"@plotly/d3":58,"fast-
isnumeric":190}],396:[function(t,e,r){"use strict";var
n=t("@plotly/d3"),i=t("../color");e.exports=function(t){t.each((function(t){var
e=t[0].trace,r=e.error_y||{},a=e.error_x||{},o=n.select(this);o.selectAll("path.yerror").style("stroke-
width",r.thickness+"px").call(i.stroke,r.color),a.copy_ystyle&&(a=r),o.selectAll("path.xerror").style("stroke-
width",a.thickness+"px").call(i.stroke,a.color)}))}},{"../color":366,"@plotly/d3":58}],397:[function(t,e,r){"use
strict";var
n=t("../../plots/font_attributes"),i=t("./layout_attributes").hoverlabel,a=t("../../lib/extend").extendFlat;e.exports={hov
erlabel:{bgcolor:a({},i.bgcolor,{arrayOk:!0}),bordercolor:a({},i.bordercolor,{arrayOk:!0}),font:n({arrayOk:!0,edit
Type:"none"}),align:a({},i.align,{arrayOk:!0}),namelength:a({},i.namelength,{arrayOk:!0}),editType:"none"}}},{"
../../lib/extend":493,"../../plots/font_attributes":585,"./layout_attributes":407}],398:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("../../registry");function
a(t,e,r,i){i=i||n.identity,Array.isArray(t)&&(e[0][r]=i(t))}e.exports=function(t){var
e=t.calcdata,r=t._fullLayout;function o(t){return function(e){return
n.coerceHoverinfo({hoverinfo:e},{_module:t._module},r)}}for(var s=0;s<e.length;s++){var
l=e[s],c=l[0].trace;if(!i.traceIs(c,"pie-like")){var
u=i.traceIs(c,"2dMap")?a:n.fillArray;u(c.hoverinfo,l,"hi",o(c)),c.hovertemplate&&u(c.hovertemplate,l,"ht"),c.hoverl
abel&&(u(c.hoverlabel.bgcolor,l,"hbg"),u(c.hoverlabel.bordercolor,l,"hbc"),u(c.hoverlabel.font.size,l,"hts"),u(c.hove
rlabel.font.color,l,"htc"),u(c.hoverlabel.font.family,l,"htf"),u(c.hoverlabel.namelength,l,"hnl"),u(c.hoverlabel.align,l,
"hta"))}}}},{"../../lib":503,"../../registry":638}],399:[function(t,e,r){"use strict";var
n=t("../../registry"),i=t("./hover").hover;e.exports=function(t,e,r){var
a=n.getComponentMethod("annotations","onClick")(t,t._hoverdata);function
o(){t.emit("plotly_click",{points:t._hoverdata,event:e})}void
0!==r&&i(t,e,r,!0),t._hoverdata&&e&&e.target&&(a&&a.then?a.then(o):o(),e.stopImmediatePropagation&&e.stop
ImmediatePropagation())}},{"../../registry":638,"./hover":403}],400:[function(t,e,r){"use
strict";e.exports={YANGLE:60,HOVERARROWSIZE:6,HOVERTEXTPAD:3,HOVERFONTSIZE:13,HOVERFO
NT:"Arial, sans-serif",HOVERMINTIME:50,HOVERID:"-hover"}},{}],401:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("./attributes"),a=t("./hoverlabel_defaults");e.exports=function(t,e,r,o){var
s=n.extendFlat({},o.hoverlabel);e.hovertemplate&&(s.namelength=-1),a(t,e,(function(r,a){return
n.coerce(t,e,i,r,a)}),s)}},{"../../lib":503,"./attributes":397,"./hoverlabel_defaults":404}],402:[function(t,e,r){"use
strict";var n=t("../../lib");r.getSubplot=function(t){return
t.subplot||t.xaxis+t.yaxis||t.geo},r.isTraceInSubplots=function(t,e){if("splom"===t.type){for(var
n=t.xaxes||[],i=t.yaxes||[],a=0;a<n.length;a++)for(var o=0;o<i.length;o++)if(-
1!==e.indexOf(n[a]+i[o]))return!0;return!1}return-1!==e.indexOf(r.getSubplot(t))},r.flat=function(t,e){for(var
r=new Array(t.length),n=0;n<t.length;n++)r[n]=e;return r},r.p2c=function(t,e){for(var r=new
Array(t.length),n=0;n<t.length;n++)r[n]=t[n].p2c(e);return
r},r.getDistanceFunction=function(t,e,n,i){return"closest"===t?i||r.quadrature(e,n):"x"===t.charAt(0)?e:n},r.getClos
est=function(t,e,r){if(!1!==r.index)r.index>=0&&r.index<t.length?r.distance=0:r.index=!1;else for(var
n=0;n<t.length;n++){var i=e(t[n]);i<=r.distance&&(r.index=n,r.distance=i)}return r},r.inbox=function(t,e,r){return
t*e<0||0===t?r:1/0},r.quadrature=function(t,e){return function(r){var n=t(r),i=e(r);return
Math.sqrt(n*n+i*i)}},r.makeEventData=function(t,e,n){var i="index"in
t?t.index:t.pointNumber,a={data:e._input,fullData:e,curveNumber:e.index,pointNumber:i};if(e._indexToPoints){var
o=e._indexToPoints[i];1===o.length?a.pointIndex=o[0]:a.pointIndices=o}else a.pointIndex=i;return
e._module.eventData?a=e._module.eventData(a,t,e,n,i):("xVal"in t?a.x=t.xVal:"x"in t&&(a.x=t.x),"yVal"in

t?a.y=t.yVal:"y"in t&&(a.y=t.y),t.xa&&(a.xaxis=t.xa),t.ya&&(a.yaxis=t.ya),void 0!==t.zLabelVal&&(a.z=t.zLabelVal)),r.appendArrayPointValue(a,e,i),a},r.appendArrayPointValue=function(t,e,r){var i=e._arrayAttrs;if(i)for(var s=0;s<i.length;s++){var l=i[s],c=a(l);if(void 0===t[c]){var u=o(n.nestedProperty(e,l).get(),r);void 0!==u&&(t[c]=u)}}},r.appendArrayMultiPointValues=function(t,e,r){var i=e._arrayAttrs;if(i)for(var s=0;s<i.length;s++){var l=i[s],c=a(l);if(void 0===t[c]){for(var u=n.nestedProperty(e,l).get(),f=new Array(r.length),h=0;h<r.length;h++)f[h]=o(u,r[h]);t[c]=f}}};var i={ids:"id",locations:"location",labels:"label",values:"value","marker.colors":"color",parents:"parent"};function a(t){return i[t]||t}function o(t,e){return Array.isArray(e)?Array.isArray(t)&&Array.isArray(t[e[0]])?t[e[0]][e[1]]:void 0:t[e]}var s={x:!0,y:!0},l={"x unified":!0,"y unified":!0};r.isUnifiedHover=function(t){return"string"==typeof t&&!!l[t]},r.isXYhover=function(t){return"string"==typeof t&&!!s[t]}},{"../../lib":503}],403:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("fast-isnumeric"),a=t("tinycolor2"),o=t("../../lib"),s=o.strTranslate,l=o.strRotate,c=t("../../lib/events"),u=t("../../lib/svg_text_utils"),f=t("../../lib/override_cursor"),h=t("../drawing"),p=t("../color"),d=t("../dragelement"),g=t("../../plots/cartesian/axes"),v=t("../../registry"),m=t("./helpers"),y=t("./constants"),x=t("../legend/defaults"),b=t("../legend/draw"),_=y.YANGLE,w=Math.PI*_/180,T=1/Math.sin(w),k=Math.cos(w),A=Math.sin(w),M=y.HOVERARROWSIZE,S=y.HOVERTEXTPAD,E={box:!0,ohlc:!0,violin:!0,candlestick:!0},L={scatter:!0,scattergl:!0,splom:!0};function C(t,e,r,a,s){r||(r="xy");var l=Array.isArray(r)?r:[r],u=t._fullLayout,h=u._plots||[],g=h[r],y=u._has("cartesian");if(g){var x=g.overlays.map((function(t){return t.id}));l=l.concat(x)}for(var b=l.length,_=new Array(b),w=new Array(b),k=!1,A=0;A<b;A++){var M=l[A];if(h[M])k=!0,_[A]=h[M].xaxis,w[A]=h[M].yaxis;else{if(!u[M]||!u[M]._subplot)return void o.warn("Unrecognized subplot: "+M);var S=u[M]._subplot;_[A]=S.xaxis,w[A]=S.yaxis}}var C=e.hovermode||u.hovermode;if(C&&!k&&(C="closest"),-1===["x","y","closest","x unified","y unified"].indexOf(C)||!t.calcdata||t.querySelector(".zoombox")||t._dragging)return d.unhoverRaw(t,e);var I=u.hoverdistance;-1===I&&(I=1/0);var z=u.spikedistance;-1===z&&(z=1/0);var N,q,H,G,Y,W,X,Z,J,K,Q,$,tt,et=[],rt=[],nt={hLinePoint:null,vLinePoint:null},it=!1;if(Array.isArray(e))for(C="array",H=0;H<e.length;H++)(Y=t.calcdata[e[H].curveNumber||0])&&(W=Y[0].trace,"skip"!==Y[0].trace.hoverinfo&&(rt.push(Y),"h"===W.orientation&&(it=!0)));else{for(G=0;G<t.calcdata.length;G++)Y=t.calcdata[G],"skip"!==(W=Y[0].trace).hoverinfo&&m.isTraceInSubplots(W,l)&&(rt.push(Y),"h"===W.orientation&&(it=!0));var at,ot;if(s){if(!1===c.triggerHandler(t,"plotly_beforehover",e))return;var st=s.getBoundingClientRect();at=e.clientX-st.left,ot=e.clientY-st.top,u._calcInverseTransform(t);var lt=o.apply3DTransform(u._invTransform)(at,ot);if(at=lt[0],ot=lt[1],at<0||at>_[0]._length||ot<0||ot>w[0]._length)return d.unhoverRaw(t,e)}else at="xpx"in e?e.xpx:_[0]._length/2,ot="ypx"in e?e.ypx:w[0]._length/2;if(e.pointerX=at+_[0]._offset,e.pointerY=ot+w[0]._offset,N="xval"in e?m.flat(l,e.xval):m.p2c(_,at),q="yval"in e?m.flat(l,e.yval):m.p2c(w,ot),!i(N[0])||!i(q[0]))return o.warn("Fx.hover failed",e,t),d.unhoverRaw(t,e)}var ct=1/0;function ut(t,r){for(G=0;G<rt.length;G++)if((Y=rt[G])&&Y[0]&&Y[0].trace&&!0===(W=Y[0].trace).visible&&0!==W._length&&-1===["carpet","contourcarpet"].indexOf(W._module.name)){if("splom"===W.type?X=l[Z=0]:(X=m.getSubplot(W),Z=l.indexOf(X)),J=C,m.isUnifiedHover(J)&&(J=J.charAt(0)),$={cd:Y,trace:W,xa:_[Z],ya:w[Z],maxHoverDistance:I,maxSpikeDistance:z,index:!1,distance:Math.min(ct,I),spikeDistance:1/0,xSpike:void 0,ySpike:void 0,color:p.defaultLine,name:W.name,x0:void 0,x1:void 0,y0:void 0,y1:void 0,xLabelVal:void 0,yLabelVal:void 0,zLabelVal:void 0,text:void 0},u[X]&&($.subplot=u[X]._subplot),u._splomScenes&&u._splomScenes[W.uid]&&($.scene=u._splomScenes[W.uid]),tt=et.length,"array"===J){var n=e[G];"pointNumber"in n?($.index=n.pointNumber,J="closest"):(J="","xval"in n&&(K=n.xval,J="x"),"yval"in n&&(Q=n.yval,J=J?"closest":"y"))}else void 0!==t&&void 0!==r?(K=t,Q=r):(K=N[Z],Q=q[Z]);if(0!==I)if(W._module&&W._module.hoverPoints){var

a=W._module.hoverPoints($,K,Q,J,{finiteRange:!0,hoverLayer:u._hoverlayer});if(a)for(var s,c=0;c<a.length;c++)s=a[c],i(s.x0)&&i(s.y0)&&et.push(R(s,C))}else o.log("Unrecognized trace type in hover:",W);if("closest"===C&&et.length>tt&&(et.splice(0,tt),ct=et[0].distance),y&&0!==z&&0===et.length){$.distance=z,$.index=!1;var f=W._module.hoverPoints($,K,Q,"closest",{hoverLayer:u._hoverlayer});if(f&&(f=f.filter((function(t){return t.spikeDistance<=z}))),f&&f.length){var h,d=f.filter((function(t){return t.xa.showspikes&&"hovered data"!==t.xa.spikesnap}));if(d.length){var g=d[0];i(g.x0)&&i(g.y0)&&(h=ht(g),(!nt.vLinePoint||nt.vLinePoint.spikeDistance>h.spikeDistance)&&(nt.vLinePoint=h))}var v=f.filter((function(t){return t.ya.showspikes&&"hovered data"!==t.ya.spikesnap}));if(v.length){var x=v[0];i(x.x0)&&i(x.y0)&&(h=ht(x),(!nt.hLinePoint||nt.hLinePoint.spikeDistance>h.spikeDistance)&&(nt.hLinePoint=h))}}}}}function ft(t,e,r){for(var n,i=null,a=1/0,o=0;o<t.length;o++)n=t[o].spikeDistance,r&&0===o&&(n=-1/0),n<=a&&n<=e&&(i=t[o],a=n);return i}function ht(t){return t?{xa:t.xa,ya:t.ya,x:void 0!==t.xSpike?t.xSpike:(t.x0+t.x1)/2,y:void 0!==t.ySpike?t.ySpike:(t.y0+t.y1)/2,distance:t.distance,spikeDistance:t.spikeDistance,curveNumber:t.trace.index,color:t.color,pointNumber:t.index}:null}ut();var pt={fullLayout:u,container:u._hoverlayer,event:e},dt=t._spikepoints,gt={vLinePoint:nt.vLinePoint,hLinePoint:nt.hLinePoint};t._spikepoints=gt;var vt=function(){et.sort((function(t,e){return t.distance-e.distance})),et=function(t,e){for(var r=e.charAt(0),n=[],i=[],a=[],o=0;o<t.length;o++){var s=t[o];v.traceIs(s.trace,"bar-like")||v.traceIs(s.trace,"box-violin")?a.push(s):s.trace[r+"period"]?i.push(s):n.push(s)}return n.concat(i).concat(a)}(et,C)};vt();var mt=C.charAt(0),yt=("x"===mt||"y"===mt)&&et[0]&&L[et[0].trace.type];if(y&&0!==z&&0!==et.length){var xt=ft(et.filter((function(t){return t.ya.showspikes})),z,yt);nt.hLinePoint=ht(xt);var bt=ft(et.filter((function(t){return t.xa.showspikes})),z,yt);nt.vLinePoint=ht(bt)}if(0===et.length){var _t=d.unhoverRaw(t,e);return!y||null===nt.hLinePoint&&null===nt.vLinePoint||B(dt)&&F(t,nt,pt),_t}if(y&&B(dt)&&F(t,nt,pt),m.isXYhover(J)&&0!==et[0].length&&"splom"!==et[0].trace.type){var wt=et[0],Tt=(et=E[wt.trace.type]?et.filter((function(t){return t.trace.index===wt.trace.index})):[wt]).length;ut(j("x",wt,u),j("y",wt,u));var kt,At=[],Mt={},St=0,Et=function(t){var e=E[t.trace.type]?P(t):t.trace.index;if(Mt[e]){var r=Mt[e]-1,n=At[r];r>0&&Math.abs(t.distance)<Math.abs(n.distance)&&(At[r]=t)}else St++,Mt[e]=St,At.push(t)};for(kt=0;kt<Tt;kt++)Et(et[kt]);for(kt=et.length-1;kt>Tt-1;kt--)Et(et[kt]);et=At,vt()}var Lt=t._hoverdata,Ct=[],Pt=U(t),It=V(t);for(H=0;H<et.length;H++){var Ot=et[H],zt=m.makeEventData(Ot,Ot.trace,Ot.cd);if(!1!==Ot.hovertemplate){var Dt=!1;Ot.cd[Ot.index]&&Ot.cd[Ot.index].ht&&(Dt=Ot.cd[Ot.index].ht),Ot.hovertemplate=Dt||Ot.trace.hovertemplate||!1}if(Ot.xa&&Ot.ya){var Rt=Ot.x0+Ot.xa._offset,Ft=Ot.x1+Ot.xa._offset,Bt=Ot.y0+Ot.ya._offset,Nt=Ot.y1+Ot.ya._offset,jt=Math.min(Rt,Ft),Ut=Math.max(Rt,Ft),Vt=Math.min(Bt,Nt),qt=Math.max(Bt,Nt);zt.bbox={x0:jt+It,x1:Ut+It,y0:Vt+Pt,y1:qt+Pt}}Ot.eventData=[zt],Ct.push(zt)}t._hoverdata=Ct;var Ht="y"===C&&(rt.length>1||et.length>1)||"closest"===C&&it&&et.length>1,Gt=p.combine(u.plot_bgcolor||p.background,u.paper_bgcolor),Yt=O(et,{gd:t,hovermode:C,rotateLabels:Ht,bgColor:Gt,container:u._hoverlayer,outerContainer:u._paper.node(),commonLabelOpts:u.hoverlabel,hoverdistance:u.hoverdistance});if(m.isUnifiedHover(C)||(function(t,e,r){var n,i,a,o,s,l,c,u=0,f=1,h=t.size(),p=new Array(h),d=0;function g(t){var e=t[0],r=t[t.length-1];if(i=e.pmin-e.pos-e.dp+e.size,a=r.pos+r.dp+r.size-e.pmax,i>.01){for(s=t.length-1;s>=0;s--)t[s].dp+=i;n=!1}if(!(a<.01)){if(i<-.01){for(s=t.length-1;s>=0;s--)t[s].dp-=a;n=!1}if(n){var c=0;for(o=0;o<t.length;o++)(l=t[o]).pos+l.dp+l.size>e.pmax&&c++;for(o=t.length-1;o>=0&&!(c<=0);o--)(l=t[o]).pos>e.pmax-1&&(l.del=!0,c--);for(o=0;o<t.length&&!(c<=0);o++)if((l=t[o]).pos<e.pmin+1)for(l.del=!0,c--,a=2*l.size,s=t.length-1;s>=0;s--)t[s].dp-=a;for(o=t.length-1;o>=0&&!(c<=0);o--)(l=t[o]).pos+l.dp+l.size>e.pmax&&(l.del=!0,c--)}}for(t.each((function(t){var n=t[e],i="x"===n._id.charAt(0),a=n.range;0===d&&a&&a[0]>a[1]!==i&&(f=-

1),p[d++]=[{datum:t,traceIndex:t.trace.index,dp:0,pos:t.pos,posref:t.posref,size:t.by*(i?T:1)/2,pmin:0,pmax:i?r.width:r.height}]})),p.sort((function(t,e){return t[0].posref-e[0].posref||f*(e[0].traceIndex-t[0].traceIndex)}));!n&&u<=h;){for(u++,n=!0,o=0;o<p.length-1;){var v=p[o],m=p[o+1],y=v[v.length-1],x=m[0];if((i=y.pos+y.dp+y.size-x.pos-x.dp+x.size)>.01&&y.pmin===x.pmin&&y.pmax===x.pmax){for(s=m.length-1;s>=0;s--)m[s].dp+=i;for(v.push.apply(v,m),p.splice(o+1,1),c=0,s=v.length-1;s>=0;s--)c+=v[s].dp;for(a=c/v.length,s=v.length-1;s>=0;s--)v[s].dp-=a;n=!1}else o++}p.forEach(g)}for(o=p.length-1;o>=0;o--){var b=p[o];for(s=b.length-1;s>=0;s--){var _=b[s],w=_.datum;w.offset=_.dp,w.del=_.del}}}(Yt,Ht?"xa":"ya",u),D(Yt,Ht,u._invScaleX,u._invScaleY)),s&&s.tagName){var Wt=v.getComponentMethod("annotations","hasClickToShow")(t,Ct);f(n.select(s),Wt?"pointer":"")}s&&!a&&function(t,e,r){if(!r||r.length!==t._hoverdata.length)return!0;for(var n=r.length-1;n>=0;n--){var i=r[n],a=t._hoverdata[n];if(i.curveNumber!==a.curveNumber||String(i.pointNumber)!==String(a.pointNumber)||String(i.pointNumbers)!==String(a.pointNumbers))return!0}return!1}(t,0,Lt)&&(Lt&&t.emit("plotly_unhover",{event:e,points:Lt}),t.emit("plotly_hover",{event:e,points:t._hoverdata,xaxes:_,yaxes:w,xvals:N,yvals:q}))}function P(t){return[t.trace.index,t.index,t.x0,t.y0,t.name,t.attr,t.xa?t.xa._id:"",t.ya?t.ya._id:""].join(",")}r.hover=function(t,e,r,n){t=o.getGraphDiv(t);var i=e.target;o.throttle(t._fullLayout._uid+y.HOVERID,y.HOVERMINTIME,(function(){C(t,e,r,n,i)}))},r.loneHover=function(t,e){var r=!0;Array.isArray(t)||(r=!1,t=[t]);var i=e.gd,a=U(i),o=V(i),s=O(t.map((function(t){var r=t._x0||t.x0||t.x||0,n=t._x1||t.x1||t.x||0,s=t._y0||t.y0||t.y||0,l=t._y1||t.y1||t.y||0,c=t.eventData;if(c){var u=Math.min(r,n),f=Math.max(r,n),h=Math.min(s,l),d=Math.max(s,l),g=t.trace;if(v.traceIs(g,"gl3d")){var m=i._fullLayout[g.scene]._scene.container,y=m.offsetLeft,x=m.offsetTop;u+=y,f+=y,h+=x,d+=x}c.bbox={x0:u+o,x1:f+o,y0:h+a,y1:d+a},e.inOut_bbox&&e.inOut_bbox.push(c.bbox)}else c=!1;return{color:t.color||p.defaultLine,x0:t.x0||t.x||0,x1:t.x1||t.x||0,y0:t.y0||t.y||0,y1:t.y1||t.y||0,xLabel:t.xLabel,yLabel:t.yLabel,zLabel:t.zLabel,text:t.text,name:t.name,idealAlign:t.idealAlign,borderColor:t.borderColor,fontFamily:t.fontFamily,fontSize:t.fontSize,fontColor:t.fontColor,nameLength:t.nameLength,textAlign:t.textAlign,trace:t.trace||{index:0,hoverinfo:""},xa:{_offset:0},ya:{_offset:0},index:0,hovertemplate:t.hovertemplate||!1,hovertemplateLabels:t.hovertemplateLabels||!1,eventData:c}})),{gd:i,hovermode:"closest",rotateLabels:!1,bgColor:e.bgColor||p.background,container:n.select(e.container),outerContainer:e.outerContainer||e.container}),l=0,c=0;return s.sort((function(t,e){return t.y0-e.y0})).each((function(t,r){var n=t.y0-t.by/2;t.offset=n-5<l?l-n+5:0,l=n+t.by+t.offset,r===e.anchorIndex&&(c=t.offset)})).each((function(t){t.offset-=c})),D(s,!1,i._fullLayout._invScaleX,i._fullLayout._invScaleY),r?s:s.node()};var I=/<extra>([\s\S]*)<\/extra>/;function O(t,e){var r=e.gd,i=r._fullLayout,a=e.hovermode,c=e.rotateLabels,f=e.bgColor,d=e.container,g=e.outerContainer,w=e.commonLabelOpts||{};if(0===t.length)return[[]];var T=e.fontFamily||y.HOVERFONT,k=e.fontSize||y.HOVERFONTSIZE,A=t[0],E=A.xa,L=A.ya,C=a.charAt(0),I=A[C+"Label"],O=q(r,g),D=O.top,R=O.width,F=O.height,B=void 0!==I&&A.distance<=e.hoverdistance&&("x"===a||"y"===a);if(B){var N,j,U=!0;for(N=0;N<t.length;N++)if(U&&void 0===t[N].zLabel&&(U=!1),j=t[N].hoverinfo||t[N].trace.hoverinfo){var V=Array.isArray(j)?j:j.split("+");if(-1===V.indexOf("all")&&-1===V.indexOf(a)){B=!1;break}}U&&(B=!1)}var H=d.selectAll("g.axistext").data(B?[0]:[]);if(H.enter().append("g").classed("axistext",!0),H.exit().remove(),H.each((function(){var t=n.select(this),e=o.ensureSingle(t,"path","",(function(t){t.style({"stroke-width":"1px"})})),l=o.ensureSingle(t,"text","",(function(t){t.attr("data-notex",1)}));c=w.bgcolor||p.defaultLine,f=w.bordercolor||p.contrast(c),d=p.contrast(c),g={family:w.font.family||T,size:w.font.size||k,color:w.font.color||d};e.style({fill:c,stroke:f}),l.text(I).call(h.font,g).call(u.positionText,0,0).call(u.convertToTspans,r),t.attr("transform","");var v,m,y=q(r,l.node());if("x"===a){var x="top"===E.side?"-":"";l.attr("text-anchor","middle").call(u.positionText,0,"top"===E.side?D-y.bottom-M-S:D-

y.top+M+S),v=E._offset+(A.x0+A.x1)/2,m=L._offset+("top"===E.side?0:L._length);var b=y.width/2+S;v<b?(v=b,e.attr("d","M-"+(b-M)+",0L-"+(b-2*M)+","+x+M+"H"+(S+y.width/2)+"v"+x+(2*S+y.height)+"H-"+b+"V"+x+M+"Z")):v>i.width-b?(v=i.width-b,e.attr("d","M"+(b-M)+",0L"+b+","+x+M+"v"+x+(2*S+y.height)+"H-"+b+"V"+x+M+"H"+(b-2*M)+"Z")):e.attr("d","M0,0L"+M+","+x+M+"H"+(S+y.width/2)+"v"+x+(2*S+y.height)+"H-"+(S+y.width/2)+"V"+x+M+"H-"+M+"Z")}else{var _,C,P;"right"===L.side?(_="start",C=1,P="",v=E._offset+E._length):(_="end",C=-1,P="-",v=E._offset),m=L._offset+(A.y0+A.y1)/2,l.attr("text-anchor",_),e.attr("d","M0,0L"+P+M+","+M+"V"+(S+y.height/2)+"h"+P+(2*S+y.width)+"V-"+(S+y.height/2)+"H"+P+M+"V-"+M+"Z");var O,z=y.height/2,R=D-y.top-z,F="clip"+i._uid+"commonlabel"+L._id;if(v<y.width+2*S+M){O="M-"+(M+S)+"-"+z+"h-"+(y.width-S)+"V"+z+"h"+(y.width-S)+"Z";var B=y.width-v+S;u.positionText(l,B,R),"end"===_&&l.selectAll("tspan").each((function(){var t=n.select(this),e=h.tester.append("text").text(t.text()).call(h.font,g),i=q(r,e.node());Math.round(i.width)<Math.round(y.width)&&t.attr("x",B-i.width),e.remove()}))}else u.positionText(l,C*(S+M),R),O=null;var N=i._topclips.selectAll("#"+F).data(O?[0]:[]);N.enter().append("clipPath").attr("id",F).append("path"),N.exit().remove(),N.select("path").attr("d",O),h.setClipUrl(l,O?F:null,r)}t.attr("transform",s(v,m))})),m.isUnifiedHover(a)){d.selectAll("g.hovertext").remove();var G=t.filter((function(t){return"none"!==t.hoverinfo}));if(0===G.length)return;var Y=i.hoverlabel,W=Y.font,X={showlegend:!0,legend:{title:{text:I,font:W},font:W,bgcolor:Y.bgcolor,bordercolor:Y.bordercolor,borderwidth:1,tracegroupgap:7,traceorder:i.legend?i.legend.traceorder:void 0,orientation:"v"}},Z={font:W};x(X,Z,r._fullData);var J=Z.legend;J.entries=[];for(var K=0;K<G.length;K++){var Q=G[K];if("none"!==Q.hoverinfo){var $=z(Q,!0,a,i,I),tt=$[0],et=$[1];Q.name=et,Q.text=""!==et?et+" : "+tt:tt;var rt=Q.cd[Q.index];rt&&(rt.mc&&(Q.mc=rt.mc),rt.mcc&&(Q.mc=rt.mcc),rt.mlc&&(Q.mlc=rt.mlc),rt.mlcc&&(Q.mlc=rt.mlcc),rt.mlw&&(Q.mlw=rt.mlw),rt.mrc&&(Q.mrc=rt.mrc),rt.dir&&(Q.dir=rt.dir)),Q._distinct=!0,J.entries.push([Q])}}J.entries.sort((function(t,e){return t[0].trace.index-e[0].trace.index})),J.layer=d,J._inHover=!0,J._groupTitleFont=Y.grouptitlefont,b(r,J);var nt,it,at,ot,st=d.select("g.legend"),lt=q(r,st.node()),ct=lt.width+2*S,ut=lt.height+2*S,ft=G[0],ht=(ft.x0+ft.x1)/2,pt=(ft.y0+ft.y1)/2,dt=!(v.traceIs(ft.trace,"bar-like")||v.traceIs(ft.trace,"box-violin"));"y"===C?dt?(it=pt-S,nt=pt+S):(it=Math.min.apply(null,G.map((function(t){return Math.min(t.y0,t.y1)}))),nt=Math.max.apply(null,G.map((function(t){return Math.max(t.y0,t.y1)})))):it=nt=o.mean(G.map((function(t){return(t.y0+t.y1)/2})))-ut/2,"x"===C?dt?(at=ht+S,ot=ht-S):(at=Math.max.apply(null,G.map((function(t){return Math.max(t.x0,t.x1)}))),ot=Math.min.apply(null,G.map((function(t){return Math.min(t.x0,t.x1)})))):at=ot=o.mean(G.map((function(t){return(t.x0+t.x1)/2})))-ct/2;var gt,vt,mt=E._offset,yt=L._offset;return ot+=mt-ct,it+=yt-ut,gt=(at+=mt)+ct<R&&at>=0?at:ot+ct<R&&ot>=0?ot:mt+ct<R?mt:at-ht<ht-ot+ct?R-ct:0,gt+=S,vt=(nt+=yt)+ut<F&&nt>=0?nt:it+ut<F&&it>=0?it:yt+ut<F?yt:nt-pt<pt-it+ut?F-ut:0,vt+=S,st.attr("transform",s(gt-1,vt-1)),st}var xt=d.selectAll("g.hovertext").data(t,(function(t){return P(t)}));return xt.enter().append("g").classed("hovertext",!0).each((function(){var t=n.select(this);t.append("rect").call(p.fill,p.addOpacity(f,.8)),t.append("text").classed("name",!0),t.append("path").style("stroke-width","1px"),t.append("text").classed("nums",!0).call(h.font,T,k)})),xt.exit().remove(),xt.each((function(t){var e=n.select(this).attr("transform",""),o=t.color;Array.isArray(o)&&(o=o[t.eventData[0].pointNumber]);var d=t.bgcolor||o,g=p.combine(p.opacity(d)?d:p.defaultLine,f),v=p.combine(p.opacity(o)?o:p.defaultLine,f),m=t.borderColor||p.contrast(g),y=z(t,B,a,i,I,e),x=y[0],b=y[1],w=e.select("text.nums").call(h.font,t.fontFamily||T,t.fontSize||k,t.fontColor||m).text(x).attr("data-notex",1).call(u.positionText,0,0).call(u.convertToTspans,r),A=e.select("text.name"),E=0,L=0;if(b&&b!==x){A.call(h.font,t.fontFamily||T,t.fontSize||k,v).text(b).attr("data-

notex",1).call(u.positionText,0,0).call(u.convertToTspans,r);var
C=q(r,A.node());E=C.width+2*S,L=C.height+2*S}else
A.remove(),e.select("rect").remove();e.select("path").style({fill:g,stroke:m});var
P=t.xa._offset+(t.x0+t.x1)/2,O=t.ya._offset+(t.y0+t.y1)/2,N=Math.abs(t.x1-t.x0),j=Math.abs(t.y1-
t.y0),U=q(r,w.node()),V=U.width/i._invScaleX,H=U.height/i._invScaleY;t.ty0=(D-
U.top)/i._invScaleY,t.bx=V+2*S,t.by=Math.max(H+2*S,L),t.anchor="start",t.txwidth=V,t.tx2width=E,t.offset=0;va
r G,Y,W=(V+M+S+E)*i._invScaleX;if(c)t.pos=P,G=O+j/2+W<=F,Y=O-j/2-
W>=0,"top"!==t.idealAlign&&G||!Y?G?(O+=j/2,t.anchor="start"):t.anchor="middle":(O-=j/2,t.anchor="end");else
if(t.pos=O,G=P+N/2+W<=R,Y=P-N/2-
W>=0,"left"!==t.idealAlign&&G||!Y)if(G)P+=N/2,t.anchor="start";else{t.anchor="middle";var X=W/2,Z=P+X-
R,J=P-X;Z>0&&(P-=Z),J<0&&(P+=-J)}else P-=N/2,t.anchor="end";w.attr("text-
anchor",t.anchor),E&&A.attr("text-anchor",t.anchor),e.attr("transform",s(P,O)+(c?l(_):""))})),xt}function
z(t,e,r,n,i,a){var s="",l="";void
0!==t.nameOverride&&(t.name=t.nameOverride),t.name&&(t.trace._meta&&(t.name=o.templateString(t.name,t.tra
ce._meta)),s=N(t.name,t.nameLength));var c=r.charAt(0),u="x"===c?"y":"x";void 0!==t.zLabel?(void
0!==t.xLabel&&(l+="x: "+t.xLabel+"<br>"),void 0!==t.yLabel&&(l+="y:
"+t.yLabel+"<br>"),"choropleth"!==t.trace.type&&"choroplethmapbox"!==t.trace.type&&(l+=(l?"z:
":"")+t.zLabel)):e&&t[c+"Label"]===i?l=t[u+"Label"]||"":void 0===t.xLabel?void
0!==t.yLabel&&"scattercarpet"!==t.trace.type&&(l=t.yLabel):l=void 0===t.yLabel?t.xLabel:"("+t.xLabel+",
"+t.yLabel+")",!t.text&&0!==t.text||Array.isArray(t.text)||(l+=(l?"<br>":"")+t.text),void
0!==t.extraText&&(l+=(l?"<br>":"")+t.extraText),a&&""===l&&!t.hovertemplate&&(""===s&&a.remove(),l=s);v
ar f=t.hovertemplate||!1;if(f){var
h=t.hovertemplateLabels||t;t[c+"Label"]!==i&&(h[c+"other"]=h[c+"Val"],h[c+"otherLabel"]=h[c+"Label"]),l=(l=o.
hovertemplateString(f,h,n._d3locale,t.eventData[0]||{},t.trace._meta)).replace(I,(function(e,r){return
s=N(r,t.nameLength),""}))}return[l,s]}function D(t,e,r,i){var a=function(t){return t*r},o=function(t){return
t*i};t.each((function(t){var r=n.select(this);if(t.del)return r.remove();var
i=r.select("text.nums"),s=t.anchor,l="end"===s?-1:1,c={start:1,end:-
1,middle:0}[s],f=c*(M+S),p=f+c*(t.txwidth+S),d=0,g=t.offset,v="middle"===s;v&&(f-
=t.tx2width/2,p+=t.txwidth/2+S),e&&(g*=-A,d=t.offset*k),r.select("path").attr("d",v?"M-
"+a(t.bx/2+t.tx2width/2)+","+o(g-t.by/2)+"h"+a(t.bx)+"v"+o(t.by)+"h-
"+a(t.bx)+"Z":"M0,0L"+a(l*M+d)+","+o(M+g)+"v"+o(t.by/2-M)+"h"+a(l*t.bx)+"v-
"+o(t.by)+"H"+a(l*M+d)+"V"+o(g-M)+"Z");var m=d+f,y=g+t.ty0-
t.by/2+S,x=t.textAlign||"auto";"auto"!==x&&("left"===x&&"start"!==s?(i.attr("text-anchor","start"),m=v?-t.bx/2-
t.tx2width/2+S:-t.bx-S):"right"===x&&"end"!==s&&(i.attr("text-anchor","end"),m=v?t.bx/2-t.tx2width/2-
S:t.bx+S)),i.call(u.positionText,a(m),o(y)),t.tx2width&&(r.select("text.name").call(u.positionText,a(p+c*S+d),o(g+t
.ty0-t.by/2+S)),r.select("rect").call(h.setRect,a(p+(c-1)*t.tx2width/2+d),o(g-t.by/2-
1),a(t.tx2width),o(t.by+2)))}))}function R(t,e){var r=t.index,n=t.trace||{},a=t.cd[0],s=t.cd[r]||{};function l(t){return
t||i(t)&&0===t}var c=Array.isArray(r)?function(t,e){var i=o.castOption(a,r,t);return
l(i)?i:o.extractOption({},n,"",e)}:function(t,e){return o.extractOption(s,n,t,e)};function u(e,r,n){var
i=c(r,n);l(i)&&(t[e]=i)}if(u("hoverinfo","hi","hoverinfo"),u("bgcolor","hbg","hoverlabel.bgcolor"),u("borderColor",
"hbc","hoverlabel.bordercolor"),u("fontFamily","htf","hoverlabel.font.family"),u("fontSize","hts","hoverlabel.font.si
ze"),u("fontColor","htc","hoverlabel.font.color"),u("nameLength","hnl","hoverlabel.namelength"),u("textAlign","ht
a","hoverlabel.align"),t.posref="y"===e||"closest"===e&&"h"===n.orientation?t.xa._offset+(t.x0+t.x1)/2:t.ya._offs
et+(t.y0+t.y1)/2,t.x0=o.constrain(t.x0,0,t.xa._length),t.x1=o.constrain(t.x1,0,t.xa._length),t.y0=o.constrain(t.y0,0,t.ya
._length),t.y1=o.constrain(t.y1,0,t.ya._length),void 0!==t.xLabelVal&&(t.xLabel="xLabel"in
t?t.xLabel:g.hoverLabelText(t.xa,t.xLabelVal,n.xhoverformat),t.xVal=t.xa.c2d(t.xLabelVal)),void
0!==t.yLabelVal&&(t.yLabel="yLabel"in
t?t.yLabel:g.hoverLabelText(t.ya,t.yLabelVal,n.yhoverformat),t.yVal=t.ya.c2d(t.yLabelVal)),void

0!==t.zLabelVal&&void
0===t.zLabel&&(t.zLabel=String(t.zLabelVal)),!(isNaN(t.xerr)||"log"===t.xa.type&&t.xerr<=0)){var
f=g.tickText(t.xa,t.xa.c2l(t.xerr),"hover").text;void 0!==t.xerrneg?t.xLabel+=" +"+f+" / -
"+g.tickText(t.xa,t.xa.c2l(t.xerrneg),"hover").text:t.xLabel+=" ±
"+f,"x"===e&&(t.distance+=1)}if(!(isNaN(t.yerr)||"log"===t.ya.type&&t.yerr<=0)){var
h=g.tickText(t.ya,t.ya.c2l(t.yerr),"hover").text;void 0!==t.yerrneg?t.yLabel+=" +"+h+" / -
"+g.tickText(t.ya,t.ya.c2l(t.yerrneg),"hover").text:t.yLabel+=" ± "+h,"y"===e&&(t.distance+=1)}var
p=t.hoverinfo||t.trace.hoverinfo;return p&&"all"!==p&&(-
1===(p=Array.isArray(p)?p:p.split("+")).indexOf("x")&&(t.xLabel=void 0),-
1===p.indexOf("y")&&(t.yLabel=void 0),-1===p.indexOf("z")&&(t.zLabel=void 0),-
1===p.indexOf("text")&&(t.text=void 0),-1===p.indexOf("name")&&(t.name=void 0)),t}function F(t,e,r){var
n,i,o=r.container,s=r.fullLayout,l=s._size,c=r.event,u=!!e.hLinePoint,f=!!e.vLinePoint;if(o.selectAll(".spikeline").re
move(),f||u){var d=p.combine(s.plot_bgcolor,s.paper_bgcolor);if(u){var
v,m,y=e.hLinePoint;n=y&&y.xa,"cursor"===(i=y&&y.ya).spikesnap?(v=c.pointerX,m=c.pointerY):(v=n._offset+y.
x,m=i._offset+y.y);var
x,b,_=a.readability(y.color,d)<1.5?p.contrast(d):y.color,w=i.spikemode,T=i.spikethickness,k=i.spikecolor||_,A=g.get
PxPosition(t,i);if(-1!==w.indexOf("toaxis")||-1!==w.indexOf("across")){if(-
1!==w.indexOf("toaxis")&&(x=A,b=v),-1!==w.indexOf("across")){var
M=i._counterDomainMin,S=i._counterDomainMax;"free"===i.anchor&&(M=Math.min(M,i.position),S=Math.max
(S,i.position)),x=l.l+M*l.w,b=l.l+S*l.w}o.insert("line",":first-child").attr({x1:x,x2:b,y1:m,y2:m,"stroke-
width":T,stroke:k,"stroke-
dasharray":h.dashStyle(i.spikedash,T)}).classed("spikeline",!0).classed("crisp",!0),o.insert("line",":first-
child").attr({x1:x,x2:b,y1:m,y2:m,"stroke-width":T+2,stroke:d}).classed("spikeline",!0).classed("crisp",!0)}-
1!==w.indexOf("marker")&&o.insert("circle",":first-child").attr({cx:A+("right"!==i.side?T:-
T),cy:m,r:T,fill:k}).classed("spikeline",!0)}if(f){var
E,L,C=e.vLinePoint;n=C&&C.xa,i=C&&C.ya,"cursor"===n.spikesnap?(E=c.pointerX,L=c.pointerY):(E=n._offset+
C.x,L=i._offset+C.y);var
P,I,O=a.readability(C.color,d)<1.5?p.contrast(d):C.color,z=n.spikemode,D=n.spikethickness,R=n.spikecolor||O,F=g.
getPxPosition(t,n);if(-1!==z.indexOf("toaxis")||-1!==z.indexOf("across")){if(-
1!==z.indexOf("toaxis")&&(P=F,I=L),-1!==z.indexOf("across")){var
B=n._counterDomainMin,N=n._counterDomainMax;"free"===n.anchor&&(B=Math.min(B,n.position),N=Math.ma
x(N,n.position)),P=l.t+(1-N)*l.h,I=l.t+(1-B)*l.h}o.insert("line",":first-child").attr({x1:E,x2:E,y1:P,y2:I,"stroke-
width":D,stroke:R,"stroke-
dasharray":h.dashStyle(n.spikedash,D)}).classed("spikeline",!0).classed("crisp",!0),o.insert("line",":first-
child").attr({x1:E,x2:E,y1:P,y2:I,"stroke-width":D+2,stroke:d}).classed("spikeline",!0).classed("crisp",!0)}-
1!==z.indexOf("marker")&&o.insert("circle",":first-child").attr({cx:E,cy:F-("top"!==n.side?D:-
D),r:D,fill:R}).classed("spikeline",!0)}}}function
B(t,e){return!e||e.vLinePoint!==t._spikepoints.vLinePoint||e.hLinePoint!==t._spikepoints.hLinePoint}function
N(t,e){return u.plainText(t||"",{len:e,allowedTags:["br","sub","sup","b","i","em"]})}function j(t,e,r){var
n=e[t+"a"],i=e[t+"Val"],a=e.cd[0];if("category"===n.type)i=n._categoriesMap[i];else if("date"===n.type){var
o=e.trace[t+"periodalignment"];if(o){var s=e.cd[e.index],l=s[t+"Start"];void 0===l&&(l=s[t]);var
c=s[t+"End"];void 0===c&&(c=s[t]);var u=c-l;"end"===o?i+=u:"middle"===o&&(i+=u/2)}i=n.d2c(i)}return
a&&a.t&&a.t.posLetter===n._id&&("group"!==r.boxmode&&"group"!==r.violinmode||(i+=a.t.dPos)),i}function
U(t){return t.offsetTop+t.clientTop}function V(t){return t.offsetLeft+t.clientLeft}function q(t,e){var
r=t._fullLayout,n=e.getBoundingClientRect(),i=n.x,a=n.y,s=i+n.width,l=a+n.height,c=o.apply3DTransform(r._invT
ransform)(i,a),u=o.apply3DTransform(r._invTransform)(s,l),f=c[0],h=c[1],p=u[0],d=u[1];return{x:f,y:h,width:p-
f,height:d-
h,top:Math.min(h,d),left:Math.min(f,p),right:Math.max(f,p),bottom:Math.max(h,d)}}},{"../../lib":503,"../../lib/events

":492,"../../lib/override_cursor":514,"../../lib/svg_text_utils":529,"../../plots/cartesian/axes":554,"../../registry":638,"../color":366,"../dragelement":385,"../drawing":388,"../legend/defaults":418,"../legend/draw":419,"./constants":400,"./helpers":402,"@plotly/d3":58,"fast-isnumeric":190,tinycolor2:312}],404:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../color"),a=t("./helpers").isUnifiedHover;e.exports=function(t,e,r,o){o=o||{};var s=e.legend;function l(t){o.font[t]||(o.font[t]=s?e.legend.font[t]:e.font[t])}e&&a(e.hovermode)&&(o.font||(o.font={}),l("size"),l("family"),l("color"),s?(o.bgcolor||(o.bgcolor=i.combine(e.legend.bgcolor,e.paper_bgcolor)),o.bordercolor||(o.bordercolor=e.legend.bordercolor)):o.bgcolor||(o.bgcolor=e.paper_bgcolor)),r("hoverlabel.bgcolor",o.bgcolor),r("hoverlabel.bordercolor",o.bordercolor),r("hoverlabel.namelength",o.namelength),n.coerceFont(r,"hoverlabel.font",o.font),r("hoverlabel.align",o.align)}},{"../../lib":503,"../color":366,"./helpers":402}],405:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./layout_attributes");e.exports=function(t,e){function r(r,a){return void 0!==e[r]?e[r]:n.coerce(t,e,i,r,a)}return r("clickmode"),r("hovermode")}},{"../../lib":503,"./layout_attributes":407}],406:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../lib"),a=t("../dragelement"),o=t("./helpers"),s=t("./layout_attributes"),l=t("./hover");e.exports={moduleType:"component",name:"fx",constants:t("./constants"),schema:{layout:s},attributes:t("./attributes"),layoutAttributes:s,supplyLayoutGlobalDefaults:t("./layout_global_defaults"),supplyDefaults:t("./defaults"),supplyLayoutDefaults:t("./layout_defaults"),calc:t("./calc"),getDistanceFunction:o.getDistanceFunction,getClosest:o.getClosest,inbox:o.inbox,quadrature:o.quadrature,appendArrayPointValue:o.appendArrayPointValue,castHoverOption:function(t,e,r){return i.castOption(t,e,"hoverlabel."+r)},castHoverinfo:function(t,e,r){return i.castOption(t,r,"hoverinfo",(function(r){return i.coerceHoverinfo({hoverinfo:r},{_module:t._module},e)}))},hover:l.hover,unhover:a.unhover,loneHover:l.loneHover,loneUnhover:function(t){var e=i.isD3Selection(t)?t:n.select(t);e.selectAll("g.hovertext").remove(),e.selectAll(".spikeline").remove()},click:t("./click")}},{"../../lib":503,"../dragelement":385,"./attributes":397,"./calc":398,"./click":399,"./constants":400,"./defaults":401,"./helpers":402,"./hover":403,"./layout_attributes":407,"./layout_defaults":408,"./layout_global_defaults":409,"@plotly/d3":58}],407:[function(t,e,r){"use strict";var n=t("./constants"),i=t("../../plots/font_attributes"),a=i({editType:"none"});a.family.dflt=n.HOVERFONT,a.size.dflt=n.HOVERFONTSIZE,e.exports={clickmode:{valType:"flaglist",flags:["event","select"],dflt:"event",editType:"plot",extras:["none"]},dragmode:{valType:"enumerated",values:["zoom","pan","select","lasso","drawclosedpath","drawopenpath","drawline","drawrect","drawcircle","orbit","turntable",!1],dflt:"zoom",editType:"modebar"},hovermode:{valType:"enumerated",values:["x","y","closest",!1,"x unified","y unified"],dflt:"closest",editType:"modebar"},hoverdistance:{valType:"integer",min:-1,dflt:20,editType:"none"},spikedistance:{valType:"integer",min:-1,dflt:-1,editType:"none"},hoverlabel:{bgcolor:{valType:"color",editType:"none"},bordercolor:{valType:"color",editType:"none"},font:a,grouptitlefont:i({editType:"none"}),align:{valType:"enumerated",values:["left","right","auto"],dflt:"auto",editType:"none"},namelength:{valType:"integer",min:-1,dflt:15,editType:"none"},editType:"none"},selectdirection:{valType:"enumerated",values:["h","v","d","any"],dflt:"any",editType:"none"}}},{"../../plots/font_attributes":585,"./constants":400}],408:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./layout_attributes"),a=t("./hovermode_defaults"),o=t("./hoverlabel_defaults");e.exports=function(t,e){function r(r,a){return n.coerce(t,e,i,r,a)}a(t,e)&&(r("hoverdistance"),r("spikedistance")),"select"===r("dragmode")&&r("selectdirection");var s=e._has("mapbox"),l=e._has("geo"),c=e._basePlotModules.length;"zoom"===e.dragmode&&((s||l)&&1===c||s&&l&&2===c)&&(e.dragmode="pan"),o(t,e,r),n.coerceFont(r,"hoverlabel.grouptitlefont",e.hoverlabel.font)}},{"../../lib":503,"./hoverlabel_defaults":404,"./hovermode_defaults":405,"./layout_attributes":407}],409:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./hoverlabel_defaults"),a=t("./layout_attributes");e.exports=function(t,e){i(t,e,(function(r,i){return n.coerce(t,e,a,r,i)}))}},{"../../lib":503,"./hoverlabel_defaults":404,"./layout_attributes":407}],410:[function(t,e,r){"us

e strict";var
n=t("../../lib"),i=t("../../lib/regex").counter,a=t("../../plots/domain").attributes,o=t("../../plots/cartesian/constants").idR
egex,s=t("../../plot_api/plot_template"),l={rows:{valType:"integer",min:1,editType:"plot"},roworder:{valType:"enu
merated",values:["top to bottom","bottom to top"],dflt:"top to
bottom",editType:"plot"},columns:{valType:"integer",min:1,editType:"plot"},subplots:{valType:"info_array",freeL
ength:!0,dimensions:2,items:{valType:"enumerated",values:[i("xy").toString(),""],editType:"plot"},editType:"plot"}
,xaxes:{valType:"info_array",freeLength:!0,items:{valType:"enumerated",values:[o.x.toString(),""],editType:"plot"
},editType:"plot"},yaxes:{valType:"info_array",freeLength:!0,items:{valType:"enumerated",values:[o.y.toString(),"
"],editType:"plot"},editType:"plot"},pattern:{valType:"enumerated",values:["independent","coupled"],dflt:"coupled
",editType:"plot"},xgap:{valType:"number",min:0,max:1,editType:"plot"},ygap:{valType:"number",min:0,max:1,e
ditType:"plot"},domain:a({name:"grid",editType:"plot",noGridCell:!0},{}),xside:{valType:"enumerated",values:["b
ottom","bottom plot","top plot","top"],dflt:"bottom
plot",editType:"plot"},yside:{valType:"enumerated",values:["left","left plot","right plot","right"],dflt:"left
plot",editType:"plot"},editType:"plot"};function c(t,e,r){var
n=e[r+"axes"],i=Object.keys((t._splomAxes||{})[r]||{});return Array.isArray(n)?n:i.length?i:void 0}function
u(t,e,r,n,i,a){var o=e(t+"gap",r),s=e("domain."+t);e(t+"side",n);for(var l=new Array(i),c=s[0],u=(s[1]-c)/(i-
o),f=u*(1-o),h=0;h<i;h++){var p=c+u*h;l[a?i-1-h:h]=[p,p+f]}return l}function f(t,e,r,n,i){var a,o=new
Array(r);function s(t,r){-1!==e.indexOf(r)&&void
0===n[r]?(o[t]=r,n[r]=t):o[t]=""}if(Array.isArray(t))for(a=0;a<r;a++)s(a,t[a]);else
for(s(0,i),a=1;a<r;a++)s(a,i+(a+1));return
o}e.exports={moduleType:"component",name:"grid",schema:{layout:{grid:l}},layoutAttributes:l,sizeDefaults:funct
ion(t,e){var r=t.grid||{},i=c(e,r,"x"),a=c(e,r,"y");if(t.grid||i||a){var
o,f,h=Array.isArray(r.subplots)&&Array.isArray(r.subplots[0]),p=Array.isArray(i),d=Array.isArray(a),g=p&&i!==r
.xaxes&&d&&a!==r.yaxes;h?(o=r.subplots.length,f=r.subplots[0].length):(d&&(o=a.length),p&&(f=i.length));var
v=s.newContainer(e,"grid"),m=k("rows",o),y=k("columns",f);if(m*y>1){h||p||d||"independent"===k("pattern")&&(h
=!0),v._hasSubplotGrid=h;var x,b,_="top to
bottom"===k("roworder"),w=h?.2:.1,T=h?.3:.1;g&&e._splomGridDflt&&(x=e._splomGridDflt.xside,b=e._splomG
ridDflt.yside),v._domains={x:u("x",k,w,x,y),y:u("y",k,T,b,m,_)}}else delete e.grid}function k(t,e){return
n.coerce(r,v,l,t,e)}},contentDefaults:function(t,e){var r=e.grid;if(r&&r._domains){var
n,i,a,o,s,l,u,h=t.grid||{},p=e._subplots,d=r._hasSubplotGrid,g=r.rows,v=r.columns,m="independent"===r.pattern,y=
r._axisMap={};if(d){var x=h.subplots||[];l=r.subplots=new Array(g);var b=1;for(n=0;n<g;n++){var _=l[n]=new
Array(v),w=x[n]||[];for(i=0;i<v;i++)if(m?(s=1===b?"xy":"x"+b+"y"+b,b++):s=w[i],_[i]="",-
1!==p.cartesian.indexOf(s)){if(u=s.indexOf("y"),a=s.slice(0,u),o=s.slice(u),void 0!==y[a]&&y[a]!==i||void
0!==y[o]&&y[o]!==n)continue;_[i]=s,y[a]=i,y[o]=n}}}else{var
T=c(e,h,"x"),k=c(e,h,"y");r.xaxes=f(T,p.xaxis,v,y,"x"),r.yaxes=f(k,p.yaxis,g,y,"y")}var A=r._anchors={},M="top to
bottom"===r.roworder;for(var S in y){var E,L,C,P=S.charAt(0),I=r[P+"side"];if(I.length<8)A[S]="free";else
if("x"===P){if("t"===I.charAt(0)===M?(E=0,L=1,C=g):(E=g-1,L=-1,C=-1),d){var
O=y[S];for(n=E;n!==C;n+=L)if((s=l[n][O])&&(u=s.indexOf("y"),s.slice(0,u)===S)){A[S]=s.slice(u);break}}else
for(n=E;n!==C;n+=L)if(o=r.yaxes[n],-1!==p.cartesian.indexOf(S+o)){A[S]=o;break}}else
if("l"===I.charAt(0)?(E=0,L=1,C=v):(E=v-1,L=-1,C=-1),d){var
z=y[S];for(n=E;n!==C;n+=L)if((s=l[z][n])&&(u=s.indexOf("y"),s.slice(u)===S)){A[S]=s.slice(0,u);break}}else
for(n=E;n!==C;n+=L)if(a=r.xaxes[n],-
1!==p.cartesian.indexOf(a+S)){A[S]=a;break}}}}},{"../../lib":503,"../../lib/regex":520,"../../plot_api/plot_template"
:543,"../../plots/cartesian/constants":561,"../../plots/domain":584}],411:[function(t,e,r){"use strict";var
n=t("../../plots/cartesian/constants"),i=t("../../plot_api/plot_template").templatedArray;t("../../constants/axis_placeabl
e_objects"),e.exports=i("image",{visible:{valType:"boolean",dflt:!0,editType:"arraydraw"},source:{valType:"string
",editType:"arraydraw"},layer:{valType:"enumerated",values:["below","above"],dflt:"above",editType:"arraydraw"
},sizex:{valType:"number",dflt:0,editType:"arraydraw"},sizey:{valType:"number",dflt:0,editType:"arraydraw"},sizi

ng:{valType:"enumerated",values:["fill","contain","stretch"],dflt:"contain",editType:"arraydraw"},opacity:{valType:"number",min:0,max:1,dflt:1,editType:"arraydraw"},x:{valType:"any",dflt:0,editType:"arraydraw"},y:{valType:"any",dflt:0,editType:"arraydraw"},xanchor:{valType:"enumerated",values:["left","center","right"],dflt:"left",editType:"arraydraw"},yanchor:{valType:"enumerated",values:["top","middle","bottom"],dflt:"top",editType:"arraydraw"},xref:{valType:"enumerated",values:["paper",n.idRegex.x.toString()],dflt:"paper",editType:"arraydraw"},yref:{valType:"enumerated",values:["paper",n.idRegex.y.toString()],dflt:"paper",editType:"arraydraw"},editType:"arraydraw"})},{"../../constants/axis_placeable_objects":472,"../../plot_api/plot_template":543,"../../plots/cartesian/constants":561}],412:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib/to_log_range");e.exports=function(t,e,r,a){e=e||{};var o="log"===r&&"linear"===e.type,s="linear"===r&&"log"===e.type;if(o||s)for(var l,c,u=t._fullLayout.images,f=e._id.charAt(0),h=0;h<u.length;h++)if(c="images["+h+"].",(l=u[h])[f+"ref"]===e._id){var p=l[f],d=l["size"+f],g=null,v=null;if(o){g=i(p,e.range);var m=d/Math.pow(10,g)/2;v=2*Math.log(m+Math.sqrt(1+m*m))/Math.LN10}else v=(g=Math.pow(10,p))*(Math.pow(10,d/2)-Math.pow(10,-d/2));n(g)?n(v)||(v=null):(g=null,v=null),a(c+f,g),a(c+"size"+f,v)}},{"../../lib/to_log_range":531,"fast-isnumeric":190}],413:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plots/cartesian/axes"),a=t("../../plots/array_container_defaults"),o=t("./attributes");function s(t,e,r){function a(r,i){return n.coerce(t,e,o,r,i)}var s=a("source");if(!a("visible",!!s))return e;a("layer"),a("xanchor"),a("yanchor"),a("sizex"),a("sizey"),a("sizing"),a("opacity");for(var l={_fullLayout:r},c=["x","y"],u=0;u<2;u++){var f=c[u],h=i.coerceRef(t,e,l,f,"paper",void 0);"paper"!==h&&i.getFromId(l,h)._imgIndices.push(e._index),i.coercePosition(e,l,a,h,f,0)}return e}e.exports=function(t,e){a(t,e,{name:"images",handleItemDefaults:s})}},{"../../lib":503,"../../plots/array_container_defaults":549,"../../plots/cartesian/axes":554,"./attributes":411}],414:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../drawing"),a=t("../../plots/cartesian/axes"),o=t("../../plots/cartesian/axis_ids"),s=t("../../constants/xmlns_namespaces");e.exports=function(t){var e,r,l=t._fullLayout,c=[],u={},f=[];for(r=0;r<l.images.length;r++){var h=l.images[r];if(h.visible)if("below"===h.layer&&"paper"!==h.xref&&"paper"!==h.yref){e=o.ref2id(h.xref)+o.ref2id(h.yref);var p=l._plots[e];if(!p){f.push(h);continue}p.mainplot&&(e=p.mainplot.id),u[e]||(u[e]=[]),u[e].push(h)}else"above"===h.layer?c.push(h):f.push(h)}var d={left:{sizing:"xMin",offset:0},center:{sizing:"xMid",offset:-.5},right:{sizing:"xMax",offset:-1}},g={top:{sizing:"YMin",offset:0},middle:{sizing:"YMid",offset:-.5},bottom:{sizing:"YMax",offset:-1}};function v(e){var r=n.select(this);if(this._imgSrc!==e.source)if(r.attr("xmlns",s.svg),e.source&&"data:"===e.source.slice(0,5))r.attr("xlink:href",e.source),this._imgSrc=e.source;else{var i=new Promise(function(t){var n=new Image;function i(){r.remove(),t()}this.img=n,n.setAttribute("crossOrigin","anonymous"),n.onerror=i,n.onload=function(){var e=document.createElement("canvas");e.width=this.width,e.height=this.height,e.getContext("2d",{willReadFrequently:!0}).drawImage(this,0,0);var n=e.toDataURL("image/png");r.attr("xlink:href",n),t()},r.on("error",i),n.src=e.source,this._imgSrc=e.source}.bind(this));t._promises.push(i)}}function m(e){var r,o,s=n.select(this),c=a.getFromId(t,e.xref),u=a.getFromId(t,e.yref),f="domain"===a.getRefType(e.xref),h="domain"===a.getRefType(e.yref),p=l._size;r=void 0!==c?"string"==typeof e.xref&&f?c._length*e.sizex:Math.abs(c.l2p(e.sizex)-c.l2p(0)):e.sizex*p.w,o=void 0!==u?"string"==typeof e.yref&&h?u._length*e.sizey:Math.abs(u.l2p(e.sizey)-u.l2p(0)):e.sizey*p.h;var v,m,y=r*d[e.xanchor].offset,x=o*g[e.yanchor].offset,b=d[e.xanchor].sizing+g[e.yanchor].sizing;switch(v=void 0!==c?"string"==typeof e.xref&&f?c._length*e.x+c._offset:c.r2p(e.x)+c._offset:e.x*p.w+p.l,v+=y,m=void 0!==u?"string"==typeof e.yref&&h?u._length*(1-e.y)+u._offset:u.r2p(e.y)+u._offset:p.h-e.y*p.h+p.t,m+=x,e.sizing){case"fill":b+="slice";break;case"stretch":b="none"}s.attr({x:v,y:m,width:r,height:o,preserveAspectRatio:b,opacity:e.opacity});var

_=(c&&"domain"!==a.getRefType(e.xref)?c._id:"")+(u&&"domain"!==a.getRefType(e.yref)?u._id:"");i.setClipUrl(s,_?"clip"+l._uid+_:null,t)}var y=l._imageLowerLayer.selectAll("image").data(f),x=l._imageUpperLayer.selectAll("image").data(c);y.enter().append("image"),x.enter().append("image"),y.exit().remove(),x.exit().remove(),y.each((function(t){v.bind(this)(t),m.bind(this)(t)})),x.each((function(t){v.bind(this)(t),m.bind(this)(t)}));var b=Object.keys(l._plots);for(r=0;r<b.length;r++){e=b[r];var _=l._plots[e];if(_.imagelayer){var w=_.imagelayer.selectAll("image").data(u[e]||[]);w.enter().append("image"),w.exit().remove(),w.each((function(t){v.bind(this)(t),m.bind(this)(t)}))}}},{"../../constants/xmlns_namespaces":480,"../../plots/cartesian/axes":554,"../../plots/cartesian/axis_ids":558,"../drawing":388,"@plotly/d3":58}],415:[function(t,e,r){"use strict";e.exports={moduleType:"component",name:"images",layoutAttributes:t("./attributes"),supplyLayoutDefaults:t("./defaults"),includeBasePlot:t("../../plots/cartesian/include_components")("images"),draw:t("./draw"),convertCoords:t("./convert_coords")}},{"../../plots/cartesian/include_components":567,"./attributes":411,"./convert_coords":412,"./defaults":413,"./draw":414}],416:[function(t,e,r){"use strict";var n=t("../../plots/font_attributes"),i=t("../color/attributes");e.exports={bgcolor:{valType:"color",editType:"legend"},bordercolor:{valType:"color",dflt:i.defaultLine,editType:"legend"},borderwidth:{valType:"number",min:0,dflt:0,editType:"legend"},font:n({editType:"legend"}),grouptitlefont:n({editType:"legend"}),orientation:{valType:"enumerated",values:["v","h"],dflt:"v",editType:"legend"},traceorder:{valType:"flaglist",flags:["reversed","grouped"],extras:["normal"],editType:"legend"},tracegroupgap:{valType:"number",min:0,dflt:10,editType:"legend"},itemsizing:{valType:"enumerated",values:["trace","constant"],dflt:"trace",editType:"legend"},itemwidth:{valType:"number",min:30,dflt:30,editType:"legend"},itemclick:{valType:"enumerated",values:["toggle","toggleothers",!1],dflt:"toggle",editType:"legend"},itemdoubleclick:{valType:"enumerated",values:["toggle","toggleothers",!1],dflt:"toggleothers",editType:"legend"},groupclick:{valType:"enumerated",values:["toggleitem","togglegroup"],dflt:"togglegroup",editType:"legend"},x:{valType:"number",min:-2,max:3,editType:"legend"},xanchor:{valType:"enumerated",values:["auto","left","center","right"],dflt:"left",editType:"legend"},y:{valType:"number",min:-2,max:3,editType:"legend"},yanchor:{valType:"enumerated",values:["auto","top","middle","bottom"],editType:"legend"},uirevision:{valType:"any",editType:"none"},valign:{valType:"enumerated",values:["top","middle","bottom"],dflt:"middle",editType:"legend"},title:{text:{valType:"string",dflt:"",editType:"legend"},font:n({editType:"legend"}),side:{valType:"enumerated",values:["top","left","top left"],editType:"legend"},editType:"legend"},editType:"legend"}},{"../../plots/font_attributes":585,"../color/attributes":365}],417:[function(t,e,r){"use strict";e.exports={scrollBarWidth:6,scrollBarMinHeight:20,scrollBarColor:"#808BA4",scrollBarMargin:4,scrollBarEnterAttrs:{rx:20,ry:3,width:0,height:0},titlePad:2,itemGap:5}},{}],418:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../lib"),a=t("../../plot_api/plot_template"),o=t("../../plots/attributes"),s=t("./attributes"),l=t("../../plots/layout_attributes"),c=t("./helpers");e.exports=function(t,e,r){var u,f=t.legend||{},h=a.newContainer(e,"legend");function p(t,e){return i.coerce(f,h,s,t,e)}for(var d=function(t,e){var r=u._input,n=u;return i.coerce(r,n,o,t,e)},g=e.font||{},v=i.coerceFont(p,"grouptitlefont",i.extendFlat({},g,{size:Math.round(1.1*g.size)})),m=0,y=!1,x="normal",b=0;b<r.length;b++)(u=r[b]).visible&&((u.showlegend||u._dfltShowLegend&&!(u._module&&u._module.attributes&&u._module.attributes.showlegend&&!1===u._module.attributes.showlegend.dflt))&&(m++,u.showlegend&&(y=!0,(n.traceIs(u,"pie-like")||!0===u._input.showlegend)&&m++),i.coerceFont(d,"legendgrouptitle.font",v)),(n.traceIs(u,"bar")&&"stack"===e.barmode||-1!==["tonextx","tonexty"].indexOf(u.fill))&&(x=c.isGrouped({traceorder:x})?"grouped+reversed":"reversed"),void 0!==u.legendgroup&&""!==u.legendgroup&&(x=c.isReversed({traceorder:x})?"reversed+grouped":"grouped"));var _=i.coerce(t,e,l,"showlegend",y&&m>1);if(!1===_&&(e.legend=void 0),(!1!==_||f.uirevision)&&(p("uirevision",e.uirevision),!1!==_)){p("bgcolor",e.paper_bgcolor),p("bordercolor"),p("borderwidth");var

w,T,k,A=i.coerceFont(p,"font",e.font),M="h"===p("orientation");if(M?(w=0,n.getComponentMethod("rangeslider","isVisible")(t.xaxis)?(T=1.1,k="bottom"):(T=-.1,k="top")):(w=1.02,T=1,k="auto"),p("traceorder",x),c.isGrouped(e.legend)&&p("tracegroupgap"),p("itemsizing"),p("itemwidth"),p("itemclick"),p("itemdoubleclick"),p("groupclick"),p("x",w),p("xanchor"),p("y",T),p("yanchor",k),p("valign"),i.noneOrAll(f,h,["x","y"]),p("title.text")){p("title.side",M?"left":"top");var S=i.extendFlat({},A,{size:i.bigFont(A.size)});i.coerceFont(p,"title.font",S)}}},{"../../lib":503,"../../plot_api/plot_template":543,"../../plots/attributes":550,"../../plots/layout_attributes":610,"../../registry":638,"./attributes":416,"./helpers":422}],419:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../lib"),a=t("../../plots/plots"),o=t("../../registry"),s=t("../../lib/events"),l=t("../dragelement"),c=t("../drawing"),u=t("../color"),f=t("../../lib/svg_text_utils"),h=t("./handle_click"),p=t("./constants"),d=t("../../constants/alignment"),g=d.LINE_SPACING,v=d.FROM_TL,m=d.FROM_BR,y=t("./get_legend_data"),x=t("./style"),b=t("./helpers");function _(t,e){var r,s=t._fullLayout,f="legend"+s._uid,h=e._inHover;if(h?(r=e.layer,f+="-hover"):r=s._infolayer,r){var d;if(t._legendMouseDownTime||(t._legendMouseDownTime=0),h){if(!e.entries)return;d=y(e.entries,e)}else{if(!t.calcdata)return;d=s.showlegend&&y(t.calcdata,e)}var g=s.hiddenlabels||[];if(!(h||s.showlegend&&d.length))return r.selectAll(".legend").remove(),s._topdefs.select("#"+f).remove(),a.autoMargin(t,"legend");var _=i.ensureSingle(r,"g","legend",(function(t){h||t.attr("pointer-events","all")})),k=i.ensureSingleById(s._topdefs,"clipPath",f,(function(t){t.append("rect")})),L=i.ensureSingle(_,"rect","bg",(function(t){t.attr("shape-rendering","crispEdges")}));L.call(u.stroke,e.bordercolor).call(u.fill,e.bgcolor).style("stroke-width",e.borderwidth+"px");var C=i.ensureSingle(_,"g","scrollbox"),P=e.title;if(e._titleWidth=0,e._titleHeight=0,P.text){var I=i.ensureSingle(C,"text","legendtitletext");I.attr("text-anchor","start").call(c.font,P.font).text(P.text),M(I,C,t,e,1)}else C.selectAll(".legendtitletext").remove();var O=i.ensureSingle(_,"rect","scrollbar",(function(t){t.attr(p.scrollBarEnterAttrs).call(u.fill,p.scrollBarColor)})),z=C.selectAll("g.groups").data(d);z.enter().append("g").attr("class","groups"),z.exit().remove();var D=z.selectAll("g.traces").data(i.identity);D.enter().append("g").attr("class","traces"),D.exit().remove(),D.style("opacity",(function(t){var e=t[0].trace;return o.traceIs(e,"pie-like")?-1!==g.indexOf(t[0].label)?.5:1:"legendonly"===e.visible?.5:1})).each((function(){n.select(this).call(T,t,e)})).call(x,t,e).each((function(){h||n.select(this).call(A,t)})),i.syncOrAsync([a.previousPromises,function(){return function(t,e,r,i){var a=t._fullLayout;i||(i=a.legend);var o=a._size,s=b.isVertical(i),l=b.isGrouped(i),u=i.borderwidth,f=2*u,h=p.itemGap,d=i.itemwidth+2*h,g=2*(u+h),v=E(i),m=i.y<0||0===i.y&&"top"===v,y=i.y>1||1===i.y&&"bottom"===v,x=i.tracegroupgap;i._maxHeight=Math.max(m||y?a.height/2:o.h,30);var _=0;i._width=0,i._height=0;var w=function(t){var e=0,r=0,n=t.title.side;return n&&(-1!==n.indexOf("left")&&(e=t._titleWidth),-1!==n.indexOf("top")&&(r=t._titleHeight)),[e,r]}(i);if(s)r.each((function(t){var e=t[0].height;c.setTranslate(this,u+w[0],u+w[1]+i._height+e/2+h),i._height+=e,i._width=Math.max(i._width,t[0].width)})),_=d+i._width,i._width+=h+d+f,i._height+=g,l&&(e.each((function(t,e){c.setTranslate(this,0,e*i.tracegroupgap)})),i._height+=(i._lgroupsLength-1)*i.tracegroupgap);else{var T=S(i),k=i.x<0||0===i.x&&"right"===T,A=i.x>1||1===i.x&&"left"===T,M=y||m,L=a.width/2;i._maxWidth=Math.max(k?M&&"left"===T?o.l+o.w:L:A?M&&"right"===T?o.r+o.w:L:o.w,2*d);var C=0,P=0;r.each((function(t){var e=t[0].width+d;C=Math.max(C,e),P+=e})),_=null;var I=0;if(l){var O=0,z=0,D=0;e.each((function(){var t=0,e=0;n.select(this).selectAll("g.traces").each((function(r){var n=r[0].width,i=r[0].height;c.setTranslate(this,w[0],w[1]+u+h+i/2+e),e+=i,t=Math.max(t,d+n)}));var r=t+h;z>0&&r+u+z>i._maxWidth?(I=Math.max(I,z),z=0,D+=O+x,O=e):O=Math.max(O,e),c.setTranslate(this,z,D),z+=r})),i._width=Math.max(I,z)+u,i._height=D+O+g}else{var R=r.size(),F=P+f+(R-1)*h<i._maxWidth,B=0,N=0,j=0,U=0;r.each((function(t){var e=t[0].height,r=d+t[0].width,n=(F?r:C)+h;n+u+N-h>=i._maxWidth&&(I=Math.max(I,U),N=0,j+=B,i._height+=B,B=0),c.setTranslate(this,w[0]+u+N,w[1]+u+j+e/2+

h),U=N+r+h,N+=n,B=Math.max(B,e)})),F?(i._width=N+f,i._height=B+g):(i._width=Math.max(I,U)+f,i._height+=B+g)}}i._width=Math.ceil(Math.max(i._width+w[0],i._titleWidth+2*(u+p.titlePad))),i._height=Math.ceil(Math.max(i._height+w[1],i._titleHeight+2*(u+p.itemGap))),i._effHeight=Math.min(i._height,i._maxHeight);var V=t._context.edits,q=V.legendText||V.legendPosition;r.each((function(t){var e=n.select(this).select(".legendtoggle"),r=t[0].height,i=q?d:_||d+t[0].width;s||(i+=h/2),c.setRect(e,0,-r/2,i,r)}))}(t,z,D,e)},function(){var u,d,g,y,x=s._size,b=e.borderwidth;if(!h){if(function(t){var e=t._fullLayout.legend,r=S(e),n=E(e);return a.autoMargin(t,"legend",{x:e.x,y:e.y,l:e._width*v[r],r:e._width*m[r],b:e._effHeight*m[n],t:e._effHeight*v[n]})}(t))return;var T=x.l+x.w*e.x-v[S(e)]*e._width,A=x.t+x.h*(1-e.y)-v[E(e)]*e._effHeight;if(s.margin.autoexpand){var M=T,P=A;T=i.constrain(T,0,s.width-e._width),A=i.constrain(A,0,s.height-e._effHeight),T!==M&&i.log("Constrain legend.x to make legend fit inside graph"),A!==P&&i.log("Constrain legend.y to make legend fit inside graph")}c.setTranslate(_,T,A)}if(O.on(".drag",null),_.on("wheel",null),h||e._height<=e._maxHeight||t._context.staticPlot){var I=e._effHeight;h&&(I=e._height),L.attr({width:e._width-b,height:I-b,x:b/2,y:b/2}),c.setTranslate(C,0,0),k.select("rect").attr({width:e._width-2*b,height:I-2*b,x:b,y:b}),c.setClipUrl(C,f,t),c.setRect(O,0,0,0,0),delete e._scrollY}else{var z,D,R,F=Math.max(p.scrollBarMinHeight,e._effHeight*e._effHeight/e._height),B=e._effHeight-F-2*p.scrollBarMargin,N=e._height-e._effHeight,j=B/N,U=Math.min(e._scrollY||0,N);L.attr({width:e._width-2*b+p.scrollBarWidth+p.scrollBarMargin,height:e._effHeight-b,x:b/2,y:b/2}),k.select("rect").attr({width:e._width-2*b+p.scrollBarWidth+p.scrollBarMargin,height:e._effHeight-2*b,x:b,y:b+U}),c.setClipUrl(C,f,t),H(U,F,j),_.on("wheel",(function(){H(U=i.constrain(e._scrollY+n.event.deltaY/B*N,0,N),F,j),0!==U&&U!==N&&n.event.preventDefault()}));var V=n.behavior.drag().on("dragstart",(function(){var t=n.event.sourceEvent;z="touchstart"===t.type?t.changedTouches[0].clientY:t.clientY,R=U})).on("drag",(function(){var t=n.event.sourceEvent;2===t.buttons||t.ctrlKey||(D="touchmove"===t.type?t.changedTouches[0].clientY:t.clientY,H(U=function(t,e,r){var n=(r-e)/j+t;return i.constrain(n,0,N)}(R,z,D),F,j))}));O.call(V);var q=n.behavior.drag().on("dragstart",(function(){var t=n.event.sourceEvent;"touchstart"===t.type&&(z=t.changedTouches[0].clientY,R=U)})).on("drag",(function(){var t=n.event.sourceEvent;"touchmove"===t.type&&(D=t.changedTouches[0].clientY,H(U=function(t,e,r){var n=(e-r)/j+t;return i.constrain(n,0,N)}(R,z,D),F,j))}));C.call(q)}function H(r,n,i){e._scrollY=t._fullLayout.legend._scrollY=r,c.setTranslate(C,0,-r),c.setRect(O,e._width,p.scrollBarMargin+r*i,p.scrollBarWidth,n),k.select("rect").attr("y",b+r)}t._context.edits.legendPosition&&(_.classed("cursor-move",!0),l.init({element:_.node(),gd:t,prepFn:function(){var t=c.getTranslate(_);g=t.x,y=t.y},moveFn:function(t,r){var n=g+t,i=y+r;c.setTranslate(_,n,i),u=l.align(n,0,x.l,x.l+x.w,e.xanchor),d=l.align(i,0,x.t+x.h,x.t,e.yanchor)},doneFn:function(){void 0!==u&&void 0!==d&&o.call("_guiRelayout",t,{"legend.x":u,"legend.y":d})},clickFn:function(e,n){var i=r.selectAll("g.traces").filter((function(){var t=this.getBoundingClientRect();return n.clientX>=t.left&&n.clientX<=t.right&&n.clientY>=t.top&&n.clientY<=t.bottom}));i.size()>0&&w(t,_,i,e,n)}}))}],t)}}function w(t,e,r,n,i){var a=r.data()[0][0].trace,l={event:i,node:r.node(),curveNumber:a.index,expandedIndex:a._expandedIndex,data:t.data,layout:t.layout,frames:t._transitionData._frames,config:t._context,fullData:t._fullData,fullLayout:t._fullLayout};a._group&&(l.group=a._group),o.traceIs(a,"pie-like")&&(l.label=r.datum()[0].label),!1!==s.triggerHandler(t,"plotly_legendclick",l)&&(1===n?e._clickTimeout=setTimeout((function(){t._fullLayout&&h(r,t,n)}),t._context.doubleClickDelay):2===n&&(e._clickTimeout&&clearTimeout(e._clickTimeout),t._legendMouseDownTime=0,!1!==s.triggerHandler(t,"plotly_legenddoubleclick",l)&&h(r,t,n)))}function T(t,e,r){var n,a,s=t.data()[0][0],l=s.trace,u=o.traceIs(l,"pie-like"),h=!r._inHover&&e._context.edits.legendText&&!u,d=r._maxNameLength;s.groupTitle?(n=s.groupTitle.text,

a=s.groupTitle.font):(a=r.font,r.entries?n=s.text:(n=u?s.label:l.name,l._meta&&(n=i.templateString(n,l._meta))));var g=i.ensureSingle(t,"text","legendtext");g.attr("text-anchor","start").call(c.font,a).text(h?k(n,d):n);var v=r.itemwidth+2*p.itemGap;f.positionText(g,v,0),h?g.call(f.makeEditable,{gd:e,text:n}).call(M,t,e,r).on("edit",(function(n){this.text(k(n,d)).call(M,t,e,r);var a=s.trace._fullInput||{},c={};if(o.hasTransform(a,"groupby")){var u=o.getTransformIndices(a,"groupby"),f=u[u.length-1],h=i.keyedContainer(a,"transforms["+f+"].styles","target","value.name");h.set(s.trace._group,n),c=h.constructUpdate()}else c.name=n;return o.call("_guiRestyle",e,c,l.index)})):M(g,t,e,r)}function k(t,e){var r=Math.max(4,e);if(t&&t.trim().length>=r/2)return t;for(var n=r-(t=t||"").length;n>0;n--)t+=" ";return t}function A(t,e){var r,a=e._context.doubleClickDelay,o=1,s=i.ensureSingle(t,"rect","legendtoggle",(function(t){e._context.staticPlot||t.style("cursor","pointer").attr("pointer-events","all"),t.call(u.fill,"rgba(0,0,0,0)")}));e._context.staticPlot||(s.on("mousedown",(function(){(r=(new Date).getTime())-e._legendMouseDownTime<a?o+=1:(o=1,e._legendMouseDownTime=r)})),s.on("mouseup",(function(){if(!e._dragged&&!e._editing){var r=e._fullLayout.legend;(new Date).getTime()-e._legendMouseDownTime>a&&(o=Math.max(o-1,1)),w(e,r,t,o,n.event)}})))}function M(t,e,r,n,i){n._inHover&&t.attr("data-notex",!0),f.convertToTspans(t,r,(function(){!function(t,e,r,n){var i=t.data()[0][0];if(r._inHover||!i||i.trace.showlegend){var a=t.select("g[class*=math-group]"),o=a.node();r||(r=e._fullLayout.legend);var s,l,u=r.borderwidth,h=(1===n?r.title.font:i.groupTitle?i.groupTitle.font:r.font).size*g;if(o){var d=c.bBox(o);s=d.height,l=d.width,1===n?c.setTranslate(a,u,u+.75*s):c.setTranslate(a,0,.25*s)}else{var v=t.select(1===n?".legendtitletext":".legendtext"),m=f.lineCount(v),y=v.node();if(s=h*m,l=y?c.bBox(y).width:0,1===n)"left"===r.title.side&&(l+=2*p.itemGap),f.positionText(v,u+p.titlePad,u+h);else{var x=2*p.itemGap+r.itemwidth;i.groupTitle&&(x=p.itemGap,l-=r.itemwidth),f.positionText(v,x,-h*((m-1)/2-.3))}}1===n?(r._titleWidth=l,r._titleHeight=s):(i.lineHeight=h,i.height=Math.max(s,16)+3,i.width=l)}else t.remove()}(e,r,n,i)}))}function S(t){return i.isRightAnchor(t)?"right":i.isCenterAnchor(t)?"center":"left"}function E(t){return i.isBottomAnchor(t)?"bottom":i.isMiddleAnchor(t)?"middle":"top"}e.exports=function(t,e){return e||(e=t._fullLayout.legend||{}),_(t,e)}},{"../../constants/alignment":471,"../../lib":503,"../../lib/events":492,"../../lib/svg_text_utils":529,"../../plots/plots":619,"../../registry":638,"../color":366,"../dragelement":385,"../drawing":388,"./constants":417,"./get_legend_data":420,"./handle_click":421,"./helpers":422,"./style":424,"@plotly/d3":58}],420:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("./helpers");e.exports=function(t,e){var r,a,o=e._inHover,s=i.isGrouped(e),l=i.isReversed(e),c={},u=[],f=!1,h={},p=0,d=0;function g(t,r){if(""!==t&&i.isGrouped(e))-1===u.indexOf(t)?(u.push(t),f=!0,c[t]=[r]):c[t].push(r);else{var n="~~i"+p;u.push(n),c[n]=[r],p++}}for(r=0;r<t.length;r++){var v=t[r],m=v[0],y=m.trace,x=y.legendgroup;if(o||y.visible&&y.showlegend)if(n.traceIs(y,"pie-like"))for(h[x]||(h[x]={}),a=0;a<v.length;a++){var b=v[a].label;h[x][b]||(g(x,{label:b,color:v[a].color,i:v[a].i,trace:y,pts:v[a].pts}),h[x][b]=!0,d=Math.max(d,(b||"").length))}else g(x,m),d=Math.max(d,(y.name||"").length)}if(!u.length)return[];var _=!f||!s,w=[];for(r=0;r<u.length;r++){var T=c[u[r]];_?w.push(T[0]):w.push(T)}for(_&&(w=[w]),r=0;r<w.length;r++){var k=1/0;for(a=0;a<w[r].length;a++){var A=w[r][a].trace.legendrank;k>A&&(k=A)}w[r][0]._groupMinRank=k,w[r][0]._preGroupSort=r}var M=function(t,e){return t.trace.legendrank-e.trace.legendrank||t._preSort-e._preSort};for(w.forEach((function(t,e){t[0]._preGroupSort=e})),w.sort((function(t,e){return t[0]._groupMinRank-e[0]._groupMinRank||t[0]._preGroupSort-e[0]._preGroupSort})),r=0;r<w.length;r++){w[r].forEach((function(t,e){t._preSort=e})),w[r].sort(M);var S=w[r][0].trace,E=null;for(a=0;a<w[r].length;a++){var L=w[r][a].trace.legendgrouptitle;if(L&&L.text){E=L,o&&(L.font=e._groupTitleFont);break}}if(l&&w[r].reverse(),

E){var C=!1;for(a=0;a<w[r].length;a++)if(n.traceIs(w[r][a].trace,"pie-like")){C=!0;break}w[r].unshift({i:-1,groupTitle:E,noClick:C,trace:{showlegend:S.showlegend,legendgroup:S.legendgroup,visible:"toggleitem"===e.groupclick||S.visible}})}for(a=0;a<w[r].length;a++)w[r][a]=[w[r][a]]}return e._lgroupsLength=w.length,e._maxNameLength=d,w}},{"../../registry":638,"./helpers":422}],421:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../registry"),a=!0;e.exports=function(t,e,r){var o=e._fullLayout;if(!e._dragged&&!e._editing){var s,l=o.legend.itemclick,c=o.legend.itemdoubleclick,u=o.legend.groupclick;if(1===r&&"toggle"===l&&"toggleothers"===c&&a&&e.data&&e._context.showTips?(n.notifier(n._(e,"Double-click on legend to isolate one trace"),"long"),a=!1):a=!1,1===r?s=l:2===r&&(s=c),s){var f="togglegroup"===u,h=o.hiddenlabels?o.hiddenlabels.slice():[],p=t.data()[0][0];if(!p.groupTitle||!p.noClick){var d,g,v,m,y,x=e._fullData,b=p.trace,_=b.legendgroup,w={},T=[],k=[],A=[];if(i.traceIs(b,"pie-like")){var M=p.label,S=h.indexOf(M);"toggle"===s?-1===S?h.push(M):h.splice(S,1):"toggleothers"===s&&(h=[],e.calcdata[0].forEach((function(t){M!==t.label&&h.push(t.label)})),e._fullLayout.hiddenlabels&&e._fullLayout.hiddenlabels.length===h.length&&-1===S&&(h=[])),i.call("_guiRelayout",e,"hiddenlabels",h)}else{var E,L=_&&_.length,C=[];if(L)for(d=0;d<x.length;d++)(E=x[d]).visible&&E.legendgroup===_&&C.push(d);if("toggle"===s){var P;switch(b.visible){case!0:P="legendonly";break;case!1:P=!1;break;case"legendonly":P=!0}if(L)if(f)for(d=0;d<x.length;d++)!1!==x[d].visible&&x[d].legendgroup===_&&j(x[d],P);else j(b,P);else j(b,P)}else if("toggleothers"===s){var I,O,z,D,R=!0;for(d=0;d<x.length;d++)if(I=x[d]===b,z=!0!==x[d].showlegend,!(I||z||(O=L&&x[d].legendgroup===_)||!0!==x[d].visible||i.traceIs(x[d],"notLegendIsolatable"))){R=!1;break}for(d=0;d<x.length;d++)if(!1!==x[d].visible&&!i.traceIs(x[d],"notLegendIsolatable"))switch(b.visible){case"legendonly":j(x[d],!0);break;case!0:D=!!R||"legendonly",I=x[d]===b,z=!0!==x[d].showlegend&&!x[d].legendgroup,O=I||L&&x[d].legendgroup===_,j(x[d],!(!O&&!z)||D)}}for(d=0;d<k.length;d++)if(v=k[d]){var F=v.constructUpdate(),B=Object.keys(F);for(g=0;g<B.length;g++)m=B[g],(w[m]=w[m]||[])[A[d]]=F[m]}for(y=Object.keys(w),d=0;d<y.length;d++)for(m=y[d],g=0;g<T.length;g++)w[m].hasOwnProperty(g)||(w[m][g]=void 0);i.call("_guiRestyle",e,w,T)}}}}function N(t,e,r){var n=T.indexOf(t),i=w[e];return i||(i=w[e]=[]),-1===T.indexOf(t)&&(T.push(t),n=T.length-1),i[n]=r,n}function j(t,e){if(!p.groupTitle||f){var r=t._fullInput;if(i.hasTransform(r,"groupby")){var a=k[r.index];if(!a){var o=i.getTransformIndices(r,"groupby"),s=o[o.length-1];a=n.keyedContainer(r,"transforms["+s+"].styles","target","value.visible"),k[r.index]=a}var l=a.get(t._group);void 0===l&&(l=!0),!1!==l&&a.set(t._group,e),A[r.index]=N(r.index,"visible",!1!==r.visible)}else{var c=!1!==r.visible&&e;N(r.index,"visible",c)}}}}},{"../../lib":503,"../../registry":638}],422:[function(t,e,r){"use strict";r.isGrouped=function(t){return-1!==(t.traceorder||"").indexOf("grouped")},r.isVertical=function(t){return"h"!==t.orientation},r.isReversed=function(t){return-1!==(t.traceorder||"").indexOf("reversed")}},{}],423:[function(t,e,r){"use strict";e.exports={moduleType:"component",name:"legend",layoutAttributes:t("./attributes"),supplyLayoutDefaults:t("./defaults"),draw:t("./draw"),style:t("./style")}},{"./attributes":416,"./defaults":418,"./draw":419,"./style":424}],424:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../registry"),a=t("../../lib"),o=a.strTranslate,s=t("../drawing"),l=t("../color"),c=t("../colorscale/helpers").extractOpts,u=t("../../traces/scatter/subtypes"),f=t("../../traces/pie/style_one"),h=t("../../traces/pie/helpers").castOption,p=t("./constants");function d(t,e){return(e?"radial":"horizontal")+(t?"":"reversed")}function g(t){var e=t[0].trace,r=e.contours,n=u.hasLines(e),i=u.hasMarkers(e),a=e.visible&&e.fill&&"none"!==e.fill,o=!1,s=!1;if(r){var l=r.coloring;"lines"===l?o=!0:n="none"===l||"heatmap"===l||r.showlines,"constraint"===r.type?a="="!==r._operation:"fill"!==l&&"heatmap"!==l||(s=!0)}return{showMarker:i,showLine:n,showFill:a,showGradientLine:o,showGradientFill:s,anyLine:n||o,anyFill:a||s}}function v(t,e,r){return

t&&a.isArrayOrTypedArray(t)?e:t>r?r:t}e.exports=function(t,e,r){var m=e._fullLayout;r||(r=m.legend);var y="constant"===r.itemsizing,x=r.itemwidth,b=(x+2*p.itemGap)/2,_=o(b,0),w=function(t,e,r,n){var i;if(t+1)i=t;else{if(!(e&&e.width>0))return 0;i=e.width}return y?n:Math.min(i,r)};function T(t,a,o){var u=t[0].trace,f=u.marker||{},h=f.line||{},p=o?u.visible&&u.type===o:i.traceIs(u,"bar"),d=n.select(a).select("g.legendpoints").selectAll("path.legend"+o).data(p?[t]:[]);d.enter().append("path").classed("legend"+o,!0).attr("d","M6,6H-6V-6H6Z").attr("transform",_),d.exit().remove(),d.each((function(t){var i=n.select(this),a=t[0],o=w(a.mlw,f.line,5,2);i.style("stroke-width",o+"px");var p=a.mcc;if(!r._inHover&&"mc"in a){var d=c(f),g=d.mid;void 0===g&&(g=(d.max+d.min)/2),p=s.tryColorscale(f,"")(g)}var m=p||a.mc||f.color,y=f.pattern,x=y&&s.getPatternAttr(y.shape,0,"");if(x){var b=s.getPatternAttr(y.bgcolor,0,null),_=s.getPatternAttr(y.fgcolor,0,null),T=y.fgopacity,k=v(y.size,8,10),A=v(y.solidity,.5,1),M="legend-"+u.uid;i.call(s.pattern,"legend",e,M,x,k,A,p,y.fillmode,b,_,T)}else i.call(l.fill,m);o&&l.stroke(i,a.mlc||h.color)}))}function k(t,e,r){var o=t[0],s=o.trace,l=r?s.visible&&s.type===r:i.traceIs(s,r),c=n.select(e).select("g.legendpoints").selectAll("path.legend"+r).data(l?[t]:[]);if(c.enter().append("path").classed("legend"+r,!0).attr("d","M6,6H-6V-6H6Z").attr("transform",_),c.exit().remove(),c.size()){var u=(s.marker||{}).line,p=w(h(u.width,o.pts),u,5,2),d=a.minExtend(s,{marker:{line:{width:p}}});d.marker.line.color=u.color;var g=a.minExtend(o,{trace:d});f(c,g,d)}}t.each((function(t){var e=n.select(this),i=a.ensureSingle(e,"g","layers");i.style("opacity",t[0].trace.opacity);var s=r.valign,l=t[0].lineHeight,c=t[0].height;if("middle"!==s&&l&&c){var u={top:1,bottom:-1}[s]*(.5*(l-c+3));i.attr("transform",o(0,u))}else i.attr("transform",null);i.selectAll("g.legendfill").data([t]).enter().append("g").classed("legendfill",!0),i.selectAll("g.legendlines").data([t]).enter().append("g").classed("legendlines",!0);var f=i.selectAll("g.legendsymbols").data([t]);f.enter().append("g").classed("legendsymbols",!0),f.selectAll("g.legendpoints").data([t]).enter().append("g").classed("legendpoints",!0)})).each((function(t){var r,i=t[0].trace,o=[];if(i.visible)switch(i.type){case"histogram2d":case"heatmap":o=[["M-15,-2V4H15V-2Z"]],r=!0;break;case"choropleth":case"choroplethmapbox":o=[["M-6,-6V6H6V-6Z"]],r=!0;break;case"densitymapbox":o=[["M-6,0 a6,6 0 1,0 12,0 a 6,6 0 1,0 -12,0"]],r="radial";break;case"cone":o=[["M-6,2 A2,2 0 0,0 -6,6 V6L6,4Z"],["M-6,-6 A2,2 0 0,0 -6,-2 L6,-4Z"],["M-6,-2 A2,2 0 0,0 -6,2 L6,0Z"]],r=!1;break;case"streamtube":o=[["M-6,2 A2,2 0 0,0 -6,6 H6 A2,2 0 0,1 6,2 Z"],["M-6,-6 A2,2 0 0,0 -6,-2 H6 A2,2 0 0,1 6,-6 Z"],["M-6,-2 A2,2 0 0,0 -6,2 H6 A2,2 0 0,1 6,-2 Z"]],r=!1;break;case"surface":o=[["M-6,-6 A2,3 0 0,0 -6,0 H6 A2,3 0 0,1 6,-6 Z"],["M-6,1 A2,3 0 0,1 -6,6 H6 A2,3 0 0,0 6,0 Z"]],r=!0;break;case"mesh3d":o=[["M-6,6H0L-6,-6Z"],["M6,6H0L6,-6Z"],["M-6,-6H6L0,6Z"]],r=!1;break;case"volume":o=[["M-6,6H0L-6,-6Z"],["M6,6H0L6,-6Z"],["M-6,-6H6L0,6Z"]],r=!0;break;case"isosurface":o=[["M-6,6H0L-6,-6Z"],["M6,6H0L6,-6Z"],["M-6,-6 A12,24 0 0,0 6,-6 L0,6Z"]],r=!1}var u=n.select(this).select("g.legendpoints").selectAll("path.legend3dandfriends").data(o);u.enter().append("path").classed("legend3dandfriends",!0).attr("transform",_).style("stroke-miterlimit",1),u.exit().remove(),u.each((function(t,o){var u,f=n.select(this),h=c(i),p=h.colorscale,g=h.reversescale;if(p){if(!r){var v=p.length;u=0===o?p[g?v-1:0][1]:1===o?p[g?0:v-1][1]:p[Math.floor((v-1)/2)][1]}else{var m=i.vertexcolor||i.facecolor||i.color;u=a.isArrayOrTypedArray(m)?m[o]||m[0]:m}f.attr("d",t[0]),u?f.call(l.fill,u):f.call((function(t){if(t.size()){var n="legendfill-"+i.uid;s.gradient(t,e,n,d(g,"radial"===r),p,"fill")}}))}}))})).each((function(t){var e=t[0].trace,r="waterfall"===e.type;if(t[0]._distinct&&r){var i=t[0].trace[t[0].dir].marker;return t[0].mc=i.color,t[0].mlw=i.line.width,t[0].mlc=i.line.color,T(t,this,"waterfall")}var a=[];e.visible&&r&&(a=t[0].hasTotals?[["increasing","M-6,-6V6H0Z"],["totals","M6,6H0L-6,-6H-0Z"],["decreasing","M6,6V-6H0Z"]]:[["increasing","M-6,-6V6H6Z"],["decreasing","M6,6V-6H-6Z"]]);var o=n.select(this).select("g.legendpoints").selectAll("path.legendwaterfall").data(a);o.enter().append("path").classed("l

egendwaterfall",!0).attr("transform",_).style("stroke-miterlimit",1),o.exit().remove(),o.each((function(t){var r=n.select(this),i=e[t[0]].marker,a=w(void 0,i.line,5,2);r.attr("d",t[1]).style("stroke-width",a+"px").call(l.fill,i.color),a&&r.call(l.stroke,i.line.color)})))})).each((function(t){T(t,this,"funnel")})).each((function(t){T(t,this)})).each((function(t){var r=t[0].trace,o=n.select(this).select("g.legendpoints").selectAll("path.legendbox").data(r.visible&&i.traceIs(r,"box-violin")?[t]:[]);o.enter().append("path").classed("legendbox",!0).attr("d","M6,6H-6V-6H6Z").attr("transform",_),o.exit().remove(),o.each((function(){var t=n.select(this);if("all"!==r.boxpoints&&"all"!==r.points||0!==l.opacity(r.fillcolor)||0!==l.opacity((r.line||{}).color)){var i=w(void 0,r.line,5,2);t.style("stroke-width",i+"px").call(l.fill,r.fillcolor),i&&l.stroke(t,r.line.color)}else{var c=a.minExtend(r,{marker:{size:y?12:a.constrain(r.marker.size,2,16),sizeref:1,sizemin:1,sizemode:"diameter"}});o.call(s.pointStyle,c,e)}}))})).each((function(t){k(t,this,"funnelarea")})).each((function(t){k(t,this,"pie")})).each((function(t){var r,i,o=g(t),l=o.showFill,f=o.showLine,h=o.showGradientLine,p=o.showGradientFill,v=o.anyFill,m=o.anyLine,y=t[0],b=y.trace,_=c(b),T=_.colorscale,k=_.reversescale,A=u.hasMarkers(b)||!v?"M5,0":m?"M5,-2":"M5,-3",M=n.select(this),S=M.select(".legendfill").selectAll("path").data(l||p?[t]:[]);if(S.enter().append("path").classed("js-fill",!0),S.exit().remove(),S.attr("d",A+"h"+x+"v6h-"+x+"z").call((function(t){if(t.size())if(l)s.fillGroupStyle(t,e);else{var r="legendfill-"+b.uid;s.gradient(t,e,r,d(k),T,"fill")}})),f||h){var E=w(void 0,b.line,10,5);i=a.minExtend(b,{line:{width:E}}),r=[a.minExtend(y,{trace:i})]}var L=M.select(".legendlines").selectAll("path").data(f||h?[r]:[]);L.enter().append("path").classed("js-line",!0),L.exit().remove(),L.attr("d",A+(h?"l"+x+",0.0001":"h"+x)).call(f?s.lineGroupStyle:function(t){if(t.size()){var r="legendline-"+b.uid;s.lineGroupStyle(t),s.gradient(t,e,r,d(k),T,"stroke")}})})).each((function(t){var r,i,o=g(t),l=o.anyFill,c=o.anyLine,f=o.showLine,h=o.showMarker,p=t[0],d=p.trace,v=!h&&!c&&!l&&u.hasText(d);function m(t,e,r,n){var i=a.nestedProperty(d,t).get(),o=a.isArrayOrTypedArray(i)&&e?e(i):i;if(y&&o&&void 0!==n&&(o=n),r){if(o<r[0])return r[0];if(o>r[1])return r[1]}return o}function x(t){return p._distinct&&p.index&&t[p.index]?t[p.index]:t[0]}if(h||v||f){var b={},w={};if(h){b.mc=m("marker.color",x),b.mx=m("marker.symbol",x),b.mo=m("marker.opacity",a.mean,[.2,1]),b.mlc=m("marker.line.color",x),b.mlw=m("marker.line.width",a.mean,[0,5],2),w.marker={sizeref:1,sizemin:1,sizemode:"diameter"};var T=m("marker.size",a.mean,[2,16],12);b.ms=T,w.marker.size=T}f&&(w.line={width:m("line.width",x,[0,10],5)}),v&&(b.tx="Aa",b.tp=m("textposition",x),b.ts=10,b.tc=m("textfont.color",x),b.tf=m("textfont.family",x)),r=[a.minExtend(p,b)],(i=a.minExtend(d,w)).selectedpoints=null,i.texttemplate=null}var k=n.select(this).select("g.legendpoints"),A=k.selectAll("path.scatterpts").data(h?r:[]);A.enter().insert("path",":first-child").classed("scatterpts",!0).attr("transform",_),A.exit().remove(),A.call(s.pointStyle,i,e),h&&(r[0].mrc=3);var M=k.selectAll("g.pointtext").data(v?r:[]);M.enter().append("g").classed("pointtext",!0).append("text").attr("transform",_),M.exit().remove(),M.selectAll("text").call(s.textPointStyle,i,e)})).each((function(t){var e=t[0].trace,r=n.select(this).select("g.legendpoints").selectAll("path.legendcandle").data(e.visible&&"candlestick"===e.type?[t,t]:[]);r.enter().append("path").classed("legendcandle",!0).attr("d",(function(t,e){return e?"M-15,0H-8M-8,6V-6H8Z":"M15,0H8M8,-6V6H-8Z"})).attr("transform",_).style("stroke-miterlimit",1),r.exit().remove(),r.each((function(t,r){var i=n.select(this),a=e[r?"increasing":"decreasing"],o=w(void 0,a.line,5,2);i.style("stroke-width",o+"px").call(l.fill,a.fillcolor),o&&l.stroke(i,a.line.color)})))})).each((function(t){var e=t[0].trace,r=n.select(this).select("g.legendpoints").selectAll("path.legendohlc").data(e.visible&&"ohlc"===e.type?[t,t]:[]);r.enter().append("path").classed("legendohlc",!0).attr("d",(function(t,e){return e?"M-15,0H0M-8,-6V0":"M15,0H0M8,6V0"})).attr("transform",_).style("stroke-miterlimit",1),r.exit().remove(),r.each((function(t,r){var i=n.select(this),a=e[r?"increasing":"decreasing"],o=w(void 0,a.line,5,2);i.style("fill","none").call(s.dashLine,a.line.dash,o),o&&l.stroke(i,a.line.color)}))}))}},{"../../lib":503,"../../registry":638,"../../traces/pie/helpers":906,"../../traces/pie/style_one":912,"../../traces/scatter/subtypes":952,"../color

":366,"../colorscale/helpers":377,"../drawing":388,"./constants":417,"@plotly/d3":58}],425:[function(t,e,r){"use strict";t("./constants"),e.exports={editType:"modebar",orientation:{valType:"enumerated",values:["v","h"],dflt:"h",editType:"modebar"},bgcolor:{valType:"color",editType:"modebar"},color:{valType:"color",editType:"modebar"},activecolor:{valType:"color",editType:"modebar"},uirevision:{valType:"any",editType:"none"},add:{valType:"string",arrayOk:!0,dflt:"",editType:"modebar"},remove:{valType:"string",arrayOk:!0,dflt:"",editType:"modebar"}}},{"./constants":427}],426:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../plots/plots"),a=t("../../plots/cartesian/axis_ids"),o=t("../../fonts/ploticon"),s=t("../shapes/draw").eraseActiveShape,l=t("../../lib"),c=l._,u=e.exports={};function f(t,e){var r,i,o=e.currentTarget,s=o.getAttribute("data-attr"),l=o.getAttribute("data-val")||!0,c=t._fullLayout,u={},f=a.list(t,null,!0),h=c._cartesianSpikesEnabled;if("zoom"===s){var p,d="in"===l?.5:2,g=(1+d)/2,v=(1-d)/2;for(i=0;i<f.length;i++)if(!(r=f[i]).fixedrange)if(p=r._name,"auto"===l)u[p+".autorange"]=!0;else if("reset"===l){if(void 0===r._rangeInitial)u[p+".autorange"]=!0;else{var m=r._rangeInitial.slice();u[p+".range[0]"]=m[0],u[p+".range[1]"]=m[1]}void 0!==r._showSpikeInitial&&(u[p+".showspikes"]=r._showSpikeInitial,"on"!==h||r._showSpikeInitial||(h="off"))}else{var y=[r.r2l(r.range[0]),r.r2l(r.range[1])],x=[g*y[0]+v*y[1],g*y[1]+v*y[0]];u[p+".range[0]"]=r.l2r(x[0]),u[p+".range[1]"]=r.l2r(x[1])}}else"hovermode"!==s||"x"!==l&&"y"!==l||(l=c._isHoriz?"y":"x",o.setAttribute("data-val",l)),u[s]=l;c._cartesianSpikesEnabled=h,n.call("_guiRelayout",t,u)}function h(t,e){for(var r=e.currentTarget,i=r.getAttribute("data-attr"),a=r.getAttribute("data-val")||!0,o=t._fullLayout._subplots.gl3d||[],s={},l=i.split("."),c=0;c<o.length;c++)s[o[c]+"."+l[1]]=a;var u="pan"===a?a:"zoom";s.dragmode=u,n.call("_guiRelayout",t,s)}function p(t,e){for(var r=e.currentTarget.getAttribute("data-attr"),i="resetLastSave"===r,a="resetDefault"===r,o=t._fullLayout,s=o._subplots.gl3d||[],l={},c=0;c<s.length;c++){var u,f=s[c],h=f+".camera",p=f+".aspectratio",d=f+".aspectmode",g=o[f]._scene;i?(l[h+".up"]=g.viewInitial.up,l[h+".eye"]=g.viewInitial.eye,l[h+".center"]=g.viewInitial.center,u=!0):a&&(l[h+".up"]=null,l[h+".eye"]=null,l[h+".center"]=null,u=!0),u&&(l[p+".x"]=g.viewInitial.aspectratio.x,l[p+".y"]=g.viewInitial.aspectratio.y,l[p+".z"]=g.viewInitial.aspectratio.z,l[d]=g.viewInitial.aspectmode)}n.call("_guiRelayout",t,l)}function d(t,e){var r=e.currentTarget,n=r._previousVal,i=t._fullLayout,a=i._subplots.gl3d||[],o=["xaxis","yaxis","zaxis"],s={},l={};if(n)l=n,r._previousVal=null;else{for(var c=0;c<a.length;c++){var u=a[c],f=i[u],h=u+".hovermode";s[h]=f.hovermode,l[h]=!1;for(var p=0;p<3;p++){var d=o[p],g=u+"."+d+".showspikes";l[g]=!1,s[g]=f[d].showspikes}}r._previousVal=s}return l}function g(t,e){for(var r=e.currentTarget,i=r.getAttribute("data-attr"),a=r.getAttribute("data-val")||!0,o=t._fullLayout,s=o._subplots.geo||[],l=0;l<s.length;l++){var c=s[l],u=o[c];if("zoom"===i){var f=u.projection.scale,h="in"===a?2*f:.5*f;n.call("_guiRelayout",t,c+".projection.scale",h)}}"reset"===i&&x(t,"geo")}function v(t){var e=t._fullLayout;return!e.hovermode&&(e._has("cartesian")?e._isHoriz?"y":"x":"closest")}function m(t){var e=v(t);n.call("_guiRelayout",t,"hovermode",e)}function y(t,e){for(var r=e.currentTarget.getAttribute("data-val"),i=t._fullLayout,a=i._subplots.mapbox||[],o={},s=0;s<a.length;s++){var l=a[s],c=i[l].zoom,u="in"===r?1.05*c:c/1.05;o[l+".zoom"]=u}n.call("_guiRelayout",t,o)}function x(t,e){for(var r=t._fullLayout,i=r._subplots[e]||[],a={},o=0;o<i.length;o++)for(var s=i[o],l=r[s]._subplot.viewInitial,c=Object.keys(l),u=0;u<c.length;u++){var f=c[u];a[s+"."+f]=l[f]}n.call("_guiRelayout",t,a)}u.toImage={name:"toImage",title:function(t){var e=(t._context.toImageButtonOptions||{}).format||"png";return c(t,"png"===e?"Download plot as a png":"Download plot")},icon:o.camera,click:function(t){var e=t._context.toImageButtonOptions,r={format:e.format||"png"};l.notifier(c(t,"Taking snapshot - this may take a few seconds"),"long"),"svg"!==r.format&&l.isIE()&&(l.notifier(c(t,"IE only supports svg. Changing format to

svg."),"long"),r.format="svg"),["filename","width","height","scale"].forEach((function(t){t in e&&(r[t]=e[t])})),n.call("downloadImage",t,r).then((function(e){l.notifier(c(t,"Snapshot succeeded")+" - "+e,"long")})).catch((function(){l.notifier(c(t,"Sorry, there was a problem downloading your snapshot!"),"long")}))}},u.sendDataToCloud={name:"sendDataToCloud",title:function(t){return c(t,"Edit in Chart Studio")},icon:o.disk,click:function(t){i.sendDataToCloud(t)}},u.editInChartStudio={name:"editInChartStudio",title:function(t){return c(t,"Edit in Chart Studio")},icon:o.pencil,click:function(t){i.sendDataToCloud(t)}},u.zoom2d={name:"zoom2d",_cat:"zoom",title:function(t){return c(t,"Zoom")},attr:"dragmode",val:"zoom",icon:o.zoombox,click:f},u.pan2d={name:"pan2d",_cat:"pan",title:function(t){return c(t,"Pan")},attr:"dragmode",val:"pan",icon:o.pan,click:f},u.select2d={name:"select2d",_cat:"select",title:function(t){return c(t,"Box Select")},attr:"dragmode",val:"select",icon:o.selectbox,click:f},u.lasso2d={name:"lasso2d",_cat:"lasso",title:function(t){return c(t,"Lasso Select")},attr:"dragmode",val:"lasso",icon:o.lasso,click:f},u.drawclosedpath={name:"drawclosedpath",title:function(t){return c(t,"Draw closed freeform")},attr:"dragmode",val:"drawclosedpath",icon:o.drawclosedpath,click:f},u.drawopenpath={name:"drawopenpath",title:function(t){return c(t,"Draw open freeform")},attr:"dragmode",val:"drawopenpath",icon:o.drawopenpath,click:f},u.drawline={name:"drawline",title:function(t){return c(t,"Draw line")},attr:"dragmode",val:"drawline",icon:o.drawline,click:f},u.drawrect={name:"drawrect",title:function(t){return c(t,"Draw rectangle")},attr:"dragmode",val:"drawrect",icon:o.drawrect,click:f},u.drawcircle={name:"drawcircle",title:function(t){return c(t,"Draw circle")},attr:"dragmode",val:"drawcircle",icon:o.drawcircle,click:f},u.eraseshape={name:"eraseshape",title:function(t){return c(t,"Erase active shape")},icon:o.eraseshape,click:s},u.zoomIn2d={name:"zoomIn2d",_cat:"zoomin",title:function(t){return c(t,"Zoom in")},attr:"zoom",val:"in",icon:o.zoom_plus,click:f},u.zoomOut2d={name:"zoomOut2d",_cat:"zoomout",title:function(t){return c(t,"Zoom out")},attr:"zoom",val:"out",icon:o.zoom_minus,click:f},u.autoScale2d={name:"autoScale2d",_cat:"autoscale",title:function(t){return c(t,"Autoscale")},attr:"zoom",val:"auto",icon:o.autoscale,click:f},u.resetScale2d={name:"resetScale2d",_cat:"resetscale",title:function(t){return c(t,"Reset axes")},attr:"zoom",val:"reset",icon:o.home,click:f},u.hoverClosestCartesian={name:"hoverClosestCartesian",_cat:"hoverclosest",title:function(t){return c(t,"Show closest data on hover")},attr:"hovermode",val:"closest",icon:o.tooltip_basic,gravity:"ne",click:f},u.hoverCompareCartesian={name:"hoverCompareCartesian",_cat:"hoverCompare",title:function(t){return c(t,"Compare data on hover")},attr:"hovermode",val:function(t){return t._fullLayout._isHoriz?"y":"x"},icon:o.tooltip_compare,gravity:"ne",click:f},u.zoom3d={name:"zoom3d",_cat:"zoom",title:function(t){return c(t,"Zoom")},attr:"scene.dragmode",val:"zoom",icon:o.zoombox,click:h},u.pan3d={name:"pan3d",_cat:"pan",title:function(t){return c(t,"Pan")},attr:"scene.dragmode",val:"pan",icon:o.pan,click:h},u.orbitRotation={name:"orbitRotation",title:function(t){return c(t,"Orbital rotation")},attr:"scene.dragmode",val:"orbit",icon:o["3d_rotate"],click:h},u.tableRotation={name:"tableRotation",title:function(t){return c(t,"Turntable rotation")},attr:"scene.dragmode",val:"turntable",icon:o["z-axis"],click:h},u.resetCameraDefault3d={name:"resetCameraDefault3d",_cat:"resetCameraDefault",title:function(t)

{return c(t,"Reset camera to
default")},attr:"resetDefault",icon:o.home,click:p},u.resetCameraLastSave3d={name:"resetCameraLastSave3d",_cat
:"resetCameraLastSave",title:function(t){return c(t,"Reset camera to last
save")},attr:"resetLastSave",icon:o.movie,click:p},u.hoverClosest3d={name:"hoverClosest3d",_cat:"hoverclosest",ti
tle:function(t){return c(t,"Toggle show closest data on
hover")},attr:"hovermode",val:null,toggle:!0,icon:o.tooltip_basic,gravity:"ne",click:function(t,e){var
r=d(t,e);n.call("_guiRelayout",t,r)}},u.zoomInGeo={name:"zoomInGeo",_cat:"zoomin",title:function(t){return
c(t,"Zoom
in")},attr:"zoom",val:"in",icon:o.zoom_plus,click:g},u.zoomOutGeo={name:"zoomOutGeo",_cat:"zoomout",title:fu
nction(t){return c(t,"Zoom
out")},attr:"zoom",val:"out",icon:o.zoom_minus,click:g},u.resetGeo={name:"resetGeo",_cat:"reset",title:function(t)
{return
c(t,"Reset")},attr:"reset",val:null,icon:o.autoscale,click:g},u.hoverClosestGeo={name:"hoverClosestGeo",_cat:"hov
erclosest",title:function(t){return c(t,"Toggle show closest data on
hover")},attr:"hovermode",val:null,toggle:!0,icon:o.tooltip_basic,gravity:"ne",click:m},u.hoverClosestGl2d={name:
"hoverClosestGl2d",_cat:"hoverclosest",title:function(t){return c(t,"Toggle show closest data on
hover")},attr:"hovermode",val:null,toggle:!0,icon:o.tooltip_basic,gravity:"ne",click:m},u.hoverClosestPie={name:"h
overClosestPie",_cat:"hoverclosest",title:function(t){return c(t,"Toggle show closest data on
hover")},attr:"hovermode",val:"closest",icon:o.tooltip_basic,gravity:"ne",click:m},u.resetViewSankey={name:"reset
SankeyGroup",title:function(t){return c(t,"Reset view")},icon:o.home,click:function(t){for(var
e={"node.groups":[],"node.x":[],"node.y":[]},r=0;r<t._fullData.length;r++){var
i=t._fullData[r]._viewInitial;e["node.groups"].push(i.node.groups.slice()),e["node.x"].push(i.node.x.slice()),e["node.
y"].push(i.node.y.slice())}n.call("restyle",t,e)}},u.toggleHover={name:"toggleHover",title:function(t){return
c(t,"Toggle show closest data on
hover")},attr:"hovermode",val:null,toggle:!0,icon:o.tooltip_basic,gravity:"ne",click:function(t,e){var
r=d(t,e);r.hovermode=v(t),n.call("_guiRelayout",t,r)}},u.resetViews={name:"resetViews",title:function(t){return
c(t,"Reset views")},icon:o.home,click:function(t,e){var r=e.currentTarget;r.setAttribute("data-
attr","zoom"),r.setAttribute("data-val","reset"),f(t,e),r.setAttribute("data-
attr","resetLastSave"),p(t,e),x(t,"geo"),x(t,"mapbox")}},u.toggleSpikelines={name:"toggleSpikelines",title:function(
t){return c(t,"Toggle Spike Lines")},icon:o.spikeline,attr:"_cartesianSpikesEnabled",val:"on",click:function(t){var
e=t._fullLayout,r=e._cartesianSpikesEnabled;e._cartesianSpikesEnabled="on"===r?"off":"on",n.call("_guiRelayout
",t,function(t){for(var
e="on"===t._fullLayout._cartesianSpikesEnabled,r=a.list(t,null,!0),n={},i=0;i<r.length;i++){var
o=r[i];n[o._name+".showspikes"]=!!e||o._showSpikeInitial}return
n}(t))}},u.resetViewMapbox={name:"resetViewMapbox",_cat:"resetView",title:function(t){return c(t,"Reset
view")},attr:"reset",icon:o.home,click:function(t){x(t,"mapbox")}},u.zoomInMapbox={name:"zoomInMapbox",_ca
t:"zoomin",title:function(t){return c(t,"Zoom
in")},attr:"zoom",val:"in",icon:o.zoom_plus,click:y},u.zoomOutMapbox={name:"zoomOutMapbox",_cat:"zoomout
",title:function(t){return c(t,"Zoom
out")},attr:"zoom",val:"out",icon:o.zoom_minus,click:y}},{"../../fonts/ploticon":482,"../../lib":503,"../../plots/cartesia
n/axis_ids":558,"../../plots/plots":619,"../../registry":638,"../shapes/draw":450}],427:[function(t,e,r){"use strict";var
n=t("./buttons"),i=Object.keys(n),a=["drawline","drawopenpath","drawclosedpath","drawcircle","drawrect","erasesh
ape"],o=["v1hovermode","hoverclosest","hovercompare","togglehover","togglespikelines"].concat(a),s=[];i.forEach
((function(t){!function(t){if(-1===o.indexOf(t._cat||t.name)){var e=t.name,r=(t._cat||t.name).toLowerCase();-
1===s.indexOf(e)&&s.push(e),-
1===s.indexOf(r)&&s.push(r)}}(n[t])})),s.sort(),e.exports={DRAW_MODES:a,backButtons:o,foreButtons:s}},{"./
buttons":426}],428:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("../color"),a=t("../../plot_api/plot_template"),o=t("./attributes");e.exports=function(t,e){var

r=t.modebar||{},s=a.newContainer(e,"modebar");function l(t,e){return
n.coerce(r,s,o,t,e)}l("orientation"),l("bgcolor",i.addOpacity(e.paper_bgcolor,.5));var
c=i.contrast(i.rgb(e.modebar.bgcolor));l("color",i.addOpacity(c,.3)),l("activecolor",i.addOpacity(c,.7)),l("uirevision"
,e.uirevision),l("add"),l("remove")}},{"../../lib":503,"../../plot_api/plot_template":543,"../color":366,"./attributes":42
5}],429:[function(t,e,r){"use
strict";e.exports={moduleType:"component",name:"modebar",layoutAttributes:t("./attributes"),supplyLayoutDefault
s:t("./defaults"),manage:t("./manage")}},{"./attributes":425,"./defaults":428,"./manage":430}],430:[function(t,e,r){"
use strict";var
n=t("../../plots/cartesian/axis_ids"),i=t("../../traces/scatter/subtypes"),a=t("../../registry"),o=t("../fx/helpers").isUnified
Hover,s=t("./modebar"),l=t("./buttons"),c=t("./constants").DRAW_MODES,u=t("../../lib").extendDeep;function
f(t){var e=t._fullLayout,r=t._fullData,s=t._context;function u(t,e){if("string"==typeof
e){if(e.toLowerCase()===t.toLowerCase())return!0}else{var
r=e.name,n=e._cat||e.name;if(r===t||n===t.toLowerCase())return!0}return!1}var f=e.modebar.add;"string"==typeof
f&&(f=[f]);var h=e.modebar.remove;"string"==typeof h&&(h=[h]);var
p=s.modeBarButtonsToAdd.concat(f.filter((function(t){for(var
e=0;e<s.modeBarButtonsToRemove.length;e++)if(u(t,s.modeBarButtonsToRemove[e]))return!1;return!0}))),d=s.m
odeBarButtonsToRemove.concat(h.filter((function(t){for(var
e=0;e<s.modeBarButtonsToAdd.length;e++)if(u(t,s.modeBarButtonsToAdd[e]))return!1;return!0}))),g=e._has("cart
esian"),v=e._has("gl3d"),m=e._has("geo"),y=e._has("pie"),x=e._has("funnelarea"),b=e._has("gl2d"),_=e._has("terna
ry"),w=e._has("mapbox"),T=e._has("polar"),k=e._has("smith"),A=e._has("sankey"),M=function(t){for(var
e=n.list({_fullLayout:t},null,!0),r=0;r<e.length;r++)if(!e[r].fixedrange)return!1;return!0}(e),S=o(e.hovermode),E=[]
;function L(t){if(t.length){for(var e=[],r=0;r<t.length;r++){for(var
n=t[r],i=l[n],a=i.name.toLowerCase(),o=(i._cat||i.name).toLowerCase(),s=!1,c=0;c<d.length;c++){var
u=d[c].toLowerCase();if(u===a||u===o){s=!0;break}}s||e.push(l[n])}E.push(e)}}var
C=["toImage"];s.showEditInChartStudio?C.push("editInChartStudio"):s.showSendToCloud&&C.push("sendDataTo
Cloud"),L(C);var
P=[],I=[],O=[],z=[];(g||b||y||x||_)+m+v+w+T+k>1?(I=["toggleHover"],O=["resetViews"]):m?(P=["zoomInGeo","zoo
mOutGeo"],I=["hoverClosestGeo"],O=["resetGeo"]):v?(I=["hoverClosest3d"],O=["resetCameraDefault3d","resetCa
meraLastSave3d"]):w?(P=["zoomInMapbox","zoomOutMapbox"],I=["toggleHover"],O=["resetViewMapbox"]):b?I
=["hoverClosestGl2d"]:y?I=["hoverClosestPie"]:A?(I=["hoverClosestCartesian","hoverCompareCartesian"],O=["res
etViewSankey"]):I=["toggleHover"],g&&(I=["toggleSpikelines","hoverClosestCartesian","hoverCompareCartesian"
]),(function(t){for(var
e=0;e<t.length;e++)if(!a.traceIs(t[e],"noHover"))return!1;return!0}(r)||S)&&(I=[]),!g&&!b||M||(P=["zoomIn2d","zoo
mOut2d","autoScale2d"],"resetViews"!==O[0]&&(O=["resetScale2d"])),v?z=["zoom3d","pan3d","orbitRotation","t
ableRotation"]:(g||b)&&!M||_?z=["zoom2d","pan2d"]:w||m?z=["pan2d"]:T&&(z=["zoom2d"]),function(t){for(var
e=!1,r=0;r<t.length&&!e;r++){var n=t[r];n._module&&n._module.selectPoints&&(a.traceIs(n,"scatter-
like")?(i.hasMarkers(n)||i.hasText(n))&&(e=!0):a.traceIs(n,"box-
violin")&&"all"!==n.boxpoints&&"all"!==n.points||(e=!0))}return e}(r)&&z.push("select2d","lasso2d");var
D=[],R=function(t){-1===D.indexOf(t)&&-1==I.indexOf(t)&&D.push(t)};if(Array.isArray(p)){for(var
F=[],B=0;B<p.length;B++){var N=p[B];"string"==typeof N?(N=N.toLowerCase(),-
1!==c.indexOf(N)?(e._has("mapbox")||e._has("cartesian"))&&z.push(N):"togglespikelines"===N?R("toggleSpikeli
nes"):"togglehover"===N?R("toggleHover"):"hovercompare"===N?R("hoverCompareCartesian"):"hoverclosest"==
=N?(R("hoverClosestCartesian"),R("hoverClosestGeo"),R("hoverClosest3d"),R("hoverClosestGl2d"),R("hoverClos
estPie")):"v1hovermode"===N&&(R("toggleHover"),R("hoverClosestCartesian"),R("hoverCompareCartesian"),R("
hoverClosestGeo"),R("hoverClosest3d"),R("hoverClosestGl2d"),R("hoverClosestPie"))):F.push(N)}p=F}return
L(z),L(P.concat(O)),L(D),function(t,e){if(e.length)if(Array.isArray(e[0]))for(var
r=0;r<e.length;r++)t.push(e[r]);else t.push(e);return t}(E,p)}e.exports=function(t){var
e=t._fullLayout,r=t._context,n=e._modeBar;if(r.displayModeBar||r.watermark){if(!Array.isArray(r.modeBarButtons

ToRemove))throw new Error(["*modeBarButtonsToRemove* configuration options","must be an array."].join(" "));if(!Array.isArray(r.modeBarButtonsToAdd))throw new Error(["*modeBarButtonsToAdd* configuration options","must be an array."].join(" "));var i,a=r.modeBarButtons;i=Array.isArray(a)&&a.length?function(t){for(var e=u([],t),r=0;r<e.length;r++)for(var n=e[r],i=0;i<n.length;i++){var a=n[i];if("string"==typeof a){if(void 0===l[a])throw new Error(["*modeBarButtons* configuration options","invalid button name"].join(" "));e[r][i]=l[a]}}return e}(a):!r.displayModeBar&&r.watermark?[]:f(t),n?n.update(t,i):e._modeBar=s(t,i)}else n&&(n.destroy(),delete e._modeBar)}},{"../../lib":503,"../../plots/cartesian/axis_ids":558,"../../registry":638,"../../traces/scatter/subtypes":952,"../fx/helpers":402,"./buttons":426,"./constants":427,"./modebar":431}],431:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("fast-isnumeric"),a=t("../../lib"),o=t("../../fonts/ploticon"),s=t("../../version").version,l=new DOMParser;function c(t){this.container=t.container,this.element=document.createElement("div"),this.update(t.graphInfo,t.buttons),this.container.appendChild(this.element)}var u=c.prototype;u.update=function(t,e){this.graphInfo=t;var r=this.graphInfo._context,n=this.graphInfo._fullLayout,i="modebar-"+n._uid;this.element.setAttribute("id",i),this._uid=i,this.element.className="modebar","hover"===r.displayModeBar&&(this.element.className+=" modebar--hover ease-bg"),"v"===n.modebar.orientation&&(this.element.className+=" vertical",e=e.reverse());var o=n.modebar,s="hover"===r.displayModeBar?".js-plotly-plot .plotly:hover ":"";a.deleteRelatedStyleRule(i),a.addRelatedStyleRule(i,s+"#"+i+" .modebar-group","background-color: "+o.bgcolor),a.addRelatedStyleRule(i,"#"+i+" .modebar-btn .icon path","fill: "+o.color),a.addRelatedStyleRule(i,"#"+i+" .modebar-btn:hover .icon path","fill: "+o.activecolor),a.addRelatedStyleRule(i,"#"+i+" .modebar-btn.active .icon path","fill: "+o.activecolor);var l=!this.hasButtons(e),c=this.hasLogo!==r.displaylogo,u=this.locale!==r.locale;if(this.locale=r.locale,(l||c||u)&&(this.removeAllButtons(),this.updateButtons(e),r.watermark||r.displaylogo)){var f=this.getLogo();r.watermark&&(f.className=f.className+" watermark"),"v"===n.modebar.orientation?this.element.insertBefore(f,this.element.childNodes[0]):this.element.appendChild(f),this.hasLogo=!0}this.updateActiveButton()},u.updateButtons=function(t){var e=this;this.buttons=t,this.buttonElements=[],this.buttonsNames=[],this.buttons.forEach((function(t){var r=e.createGroup();t.forEach((function(t){var n=t.name;if(!n)throw new Error("must provide button 'name' in button config");if(-1!==e.buttonsNames.indexOf(n))throw new Error("button name '"+n+"' is taken");e.buttonsNames.push(n);var i=e.createButton(t);e.buttonElements.push(i),r.appendChild(i)})),e.element.appendChild(r)}))},u.createGroup=function(){var t=document.createElement("div");return t.className="modebar-group",t},u.createButton=function(t){var e=this,r=document.createElement("a");r.setAttribute("rel","tooltip"),r.className="modebar-btn";var i=t.title;void 0===i?i=t.name:"function"==typeof i&&(i=i(this.graphInfo)),(i||0===i)&&r.setAttribute("data-title",i),void 0!==t.attr&&r.setAttribute("data-attr",t.attr);var a=t.val;if(void 0!==a&&("function"==typeof a&&(a=a(this.graphInfo)),r.setAttribute("data-val",a)),"function"!=typeof t.click)throw new Error("must provide button 'click' function in button config");r.addEventListener("click",(function(r){t.click(e.graphInfo,r),e.updateActiveButton(r.currentTarget)})),r.setAttribute("data-toggle",t.toggle||!1),t.toggle&&n.select(r).classed("active",!0);var s=t.icon;return"function"==typeof s?r.appendChild(s()):r.appendChild(this.createIcon(s||o.question)),r.setAttribute("data-gravity",t.gravity||"n"),r},u.createIcon=function(t){var e,r=i(t.height)?Number(t.height):t.ascent-t.descent,n="http://www.w3.org/2000/svg";if(t.path){(e=document.createElementNS(n,"svg")).setAttribute("viewBox",[0,0,t.width,r].join(" ")),e.setAttribute("class","icon");var a=document.createElementNS(n,"path");a.setAttribute("d",t.path),t.transform?a.setAttribute("transform",t.transform):void 0!==t.ascent&&a.setAttribute("transform","matrix(1 0 0 -1 0 "+t.ascent+")"),e.appendChild(a)}return t.svg&&(e=l.parseFromString(t.svg,"application/xml").childNodes[0]),e.setAttribute("height","1em"),e.setAttribute(

"width","1em"),e},u.updateActiveButton=function(t){var e=this.graphInfo._fullLayout,r=void 0!==t?t.getAttribute("data-attr"):null;this.buttonElements.forEach((function(t){var i=t.getAttribute("data-val")||!0,o=t.getAttribute("data-attr"),s="true"===t.getAttribute("data-toggle"),l=n.select(t);if(s)o===r&&l.classed("active",!l.classed("active"));else{var c=null===o?o:a.nestedProperty(e,o).get();l.classed("active",c===i)}}))},u.hasButtons=function(t){var e=this.buttons;if(!e)return!1;if(t.length!==e.length)return!1;for(var r=0;r<t.length;++r){if(t[r].length!==e[r].length)return!1;for(var n=0;n<t[r].length;n++)if(t[r][n].name!==e[r][n].name)return!1}return!0},u.getLogo=function(){var t=this.createGroup(),e=document.createElement("a");return e.href="https://plotly.com/",e.target="_blank",e.setAttribute("data-title",a._(this.graphInfo,"Produced with Plotly.js")+" (v"+s+")"),e.className="modebar-btn plotlyjsicon modebar-btn--logo",e.appendChild(this.createIcon(o.newplotlylogo)),t.appendChild(e),t},u.removeAllButtons=function(){for(;this.element.firstChild;)this.element.removeChild(this.element.firstChild);this.hasLogo=!1},u.destroy=function(){a.removeElement(this.container.querySelector(".modebar")),a.deleteRelatedStyleRule(this._uid)},e.exports=function(t,e){var r=t._fullLayout,i=new c({graphInfo:t,container:r._modebardiv.node(),buttons:e});return r._privateplot&&n.select(i.element).append("span").classed("badge-private float--left",!0).text("PRIVATE"),i}},{"../../fonts/ploticon":482,"../../lib":503,"../../version":1123,"@plotly/d3":58,"fast-isnumeric":190}],432:[function(t,e,r){"use strict";var n=t("../../plots/font_attributes"),i=t("../color/attributes"),a=(0,t("../../plot_api/plot_template").templatedArray)("button",{visible:{valType:"boolean",dflt:!0,editType:"plot"},step:{valType:"enumerated",values:["month","year","day","hour","minute","second","all"],dflt:"month",editType:"plot"},stepmode:{valType:"enumerated",values:["backward","todate"],dflt:"backward",editType:"plot"},count:{valType:"number",min:0,dflt:1,editType:"plot"},label:{valType:"string",editType:"plot"},editType:"plot"});e.exports={visible:{valType:"boolean",editType:"plot"},buttons:a,x:{valType:"number",min:-2,max:3,editType:"plot"},xanchor:{valType:"enumerated",values:["auto","left","center","right"],dflt:"left",editType:"plot"},y:{valType:"number",min:-2,max:3,editType:"plot"},yanchor:{valType:"enumerated",values:["auto","top","middle","bottom"],dflt:"bottom",editType:"plot"},font:n({editType:"plot"}),bgcolor:{valType:"color",dflt:i.lightLine,editType:"plot"},activecolor:{valType:"color",editType:"plot"},bordercolor:{valType:"color",dflt:i.defaultLine,editType:"plot"},borderwidth:{valType:"number",min:0,dflt:0,editType:"plot"},editType:"plot"}},{"../../plot_api/plot_template":543,"../../plots/font_attributes":585,"../color/attributes":365}],433:[function(t,e,r){"use strict";e.exports={yPad:.02,minButtonWidth:30,rx:3,ry:3,lightAmount:25,darkAmount:10}},{}],434:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../color"),a=t("../../plot_api/plot_template"),o=t("../../plots/array_container_defaults"),s=t("./attributes"),l=t("./constants");function c(t,e,r,i){var a=i.calendar;function o(r,i){return n.coerce(t,e,s.buttons,r,i)}if(o("visible")){var l=o("step");"all"!==l&&(!a||"gregorian"===a||"month"!==l&&"year"!==l?o("stepmode"):e.stepmode="backward",o("count")),o("label")}}e.exports=function(t,e,r,u,f){var h=t.rangeselector||{},p=a.newContainer(e,"rangeselector");function d(t,e){return n.coerce(h,p,s,t,e)}if(d("visible",o(h,p,{name:"buttons",handleItemDefaults:c,calendar:f}).length>0)){var g=function(t,e,r){for(var n=r.filter((function(r){return e[r].anchor===t._id})),i=0,a=0;a<n.length;a++){var o=e[n[a]].domain;o&&(i=Math.max(o[1],i))}return[t.domain[0],i+l.yPad]}(e,r,u);d("x",g[0]),d("y",g[1]),n.noneOrAll(t,e,["x","y"]),d("xanchor"),d("yanchor"),n.coerceFont(d,"font",r.font);var v=d("bgcolor");d("activecolor",i.contrast(v,l.lightAmount,l.darkAmount)),d("bordercolor"),d("borderwidth")}}},{"../../lib":503,"../../plot_api/plot_template":543,"../../plots/array_container_defaults":549,"../color":366,"./attributes":432,"./constants":433}],435:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../registry"),a=t("../../plots/plots"),o=t("../color"),s=t("../drawing"),l=t("../../lib"),c=l.strTranslate,u=t("../../lib/svg_text_utils"),f=t("../../plots/cartesian/axis_ids"),h=t("../../constants/alignment"),p=h.LINE_SPA

CING,d=h.FROM_TL,g=h.FROM_BR,v=t("./constants"),m=t("./get_update_object");function y(t){return t._id}function x(t,e,r){var n=l.ensureSingle(t,"rect","selector-rect",(function(t){t.attr("shape-rendering","crispEdges")}));n.attr({rx:v.rx,ry:v.ry}),n.call(o.stroke,e.bordercolor).call(o.fill,function(t,e){return e._isActive||e._isHovered?t.activecolor:t.bgcolor}(e,r)).style("stroke-width",e.borderwidth+"px")}function b(t,e,r,n){var i,a;l.ensureSingle(t,"text","selector-text",(function(t){t.attr("text-anchor","middle")})).call(s.font,e.font).text((i=r,a=n._fullLayout._meta,i.label?a?l.templateString(i.label,a):i.label:"all"===i.step?"all":i.count+i.step.charAt(0))).call((function(t){u.convertToTspans(t,n)}))}e.exports=function(t){var e=t._fullLayout._infolayer.selectAll(".rangeselector").data(function(t){for(var e=f.list(t,"x",!0),r=[],n=0;n<e.length;n++){var i=e[n];i.rangeselector&&i.rangeselector.visible&&r.push(i)}return r}(t),y);e.enter().append("g").classed("rangeselector",!0),e.exit().remove(),e.style({cursor:"pointer","pointer-events":"all"}),e.each((function(e){var r=n.select(this),o=e,f=o.rangeselector,h=r.selectAll("g.button").data(l.filterVisible(f.buttons));h.enter().append("g").classed("button",!0),h.exit().remove(),h.each((function(e){var r=n.select(this),a=m(o,e);e._isActive=function(t,e,r){if("all"===e.step)return!0===t.autorange;var n=Object.keys(r);return t.range[0]===r[n[0]]&&t.range[1]===r[n[1]]}(o,e,a),r.call(x,f,e),r.call(b,f,e,t),r.on("click",(function(){t._dragged||i.call("_guiRelayout",t,a)})),r.on("mouseover",(function(){e._isHovered=!0,r.call(x,f,e)})),r.on("mouseout",(function(){e._isHovered=!1,r.call(x,f,e)}))})),function(t,e,r,i,o){var f=0,h=0,m=r.borderwidth;e.each((function(){var t=n.select(this).select(".selector-text"),e=r.font.size*p,i=Math.max(e*u.lineCount(t),16)+3;h=Math.max(h,i)})),e.each((function(){var t=n.select(this),e=t.select(".selector-rect"),i=t.select(".selector-text"),a=i.node()&&s.bBox(i.node()).width,o=r.font.size*p,l=u.lineCount(i),d=Math.max(a+10,v.minButtonWidth);t.attr("transform",c(m+f,m)),e.attr({x:0,y:0,width:d,height:h}),u.positionText(i,d/2,h/2-(l-1)*o/2+3),f+=d+5}));var y=t._fullLayout._size,x=y.l+y.w*r.x,b=y.t+y.h*(1-r.y),_="left";l.isRightAnchor(r)&&(x-=f,_="right"),l.isCenterAnchor(r)&&(x-=f/2,_="center");var w="top";l.isBottomAnchor(r)&&(b-=h,w="bottom"),l.isMiddleAnchor(r)&&(b-=h/2,w="middle"),f=Math.ceil(f),h=Math.ceil(h),x=Math.round(x),b=Math.round(b),a.autoMargin(t,i+"-range-selector",{x:r.x,y:r.y,l:f*d[_],r:f*g[_],b:h*g[w],t:h*d[w]}),o.attr("transform",c(x,b))}(t,h,f,o._name,r)}))}},{"../../constants/alignment":471,"../../lib":503,"../../lib/svg_text_utils":529,"../../plots/cartesian/axis_ids":558,"../../plots/plots":619,"../../registry":638,"../color":366,"../drawing":388,"./constants":433,"./get_update_object":436,"@plotly/d3":58}],436:[function(t,e,r){"use strict";var n=t("d3-time"),i=t("../../lib").titleCase;e.exports=function(t,e){var r=t._name,a={};if("all"===e.step)a[r+".autorange"]=!0;else{var o=function(t,e){var r,a=t.range,o=new Date(t.r2l(a[1])),s=e.step,l=n["utc"+i(s)],c=e.count;switch(e.stepmode){case"backward":r=t.l2r(+l.offset(o,-c));break;case"todate":var u=l.offset(o,-c);r=t.l2r(+l.ceil(u))}return[r,a[1]]}(t,e);a[r+".range[0]"]=o[0],a[r+".range[1]"]=o[1]}return a}},{"../../lib":503,"d3-time":122}],437:[function(t,e,r){"use strict";e.exports={moduleType:"component",name:"rangeselector",schema:{subplots:{xaxis:{rangeselector:t("./attributes")}}},layoutAttributes:t("./attributes"),handleDefaults:t("./defaults"),draw:t("./draw")}},{"./attributes":432,"./defaults":434,"./draw":435}],438:[function(t,e,r){"use strict";var n=t("../color/attributes");e.exports={bgcolor:{valType:"color",dflt:n.background,editType:"plot"},bordercolor:{valType:"color",dflt:n.defaultLine,editType:"plot"},borderwidth:{valType:"integer",dflt:0,min:0,editType:"plot"},autorange:{valType:"boolean",dflt:!0,editType:"calc",impliedEdits:{"range[0]":void 0,"range[1]":void 0}},range:{valType:"info_array",items:[{valType:"any",editType:"calc",impliedEdits:{"^autorange":!1}},{valType:"any",editType:"calc",impliedEdits:{"^autorange":!1}}],editType:"calc",impliedEdits:{autorange:!1}},thickness:{valType:"number",dflt:.15,min:0,max:1,editType:"plot"},visible:{valType:"boolean",dflt:!0,editType:"calc"},editType:"calc"}},{"../color/attributes":365}],439:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axis_ids").list,i=t("../../plots/cartesian/autorange").getAutoRange,a=t("./constants");e.exports=function(t){for(var e=n(t,"x",!0),r=0;r<e.length;r++){var

o=e[r],s=o[a.name];s&&s.visible&&s.autorange&&(s._input.autorange=!0,s._input.range=s.range=i(t,o))}},{"../../plots/cartesian/autorange":553,"../../plots/cartesian/axis_ids":558,"./constants":440}],440:[function(t,e,r){"use strict";e.exports={name:"rangeslider",containerClassName:"rangeslider-container",bgClassName:"rangeslider-bg",rangePlotClassName:"rangeslider-rangeplot",maskMinClassName:"rangeslider-mask-min",maskMaxClassName:"rangeslider-mask-max",slideBoxClassName:"rangeslider-slidebox",grabberMinClassName:"rangeslider-grabber-min",grabAreaMinClassName:"rangeslider-grabarea-min",handleMinClassName:"rangeslider-handle-min",grabberMaxClassName:"rangeslider-grabber-max",grabAreaMaxClassName:"rangeslider-grabarea-max",handleMaxClassName:"rangeslider-handle-max",maskMinOppAxisClassName:"rangeslider-mask-min-opp-axis",maskMaxOppAxisClassName:"rangeslider-mask-max-opp-axis",maskColor:"rgba(0,0,0,0.4)",maskOppAxisColor:"rgba(0,0,0,0.2)",slideBoxFill:"transparent",slideBoxCursor:"ew-resize",grabAreaFill:"transparent",grabAreaCursor:"col-resize",grabAreaWidth:10,handleWidth:4,handleRadius:1,handleStrokeWidth:1,extraPad:15}},{}],441:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plot_api/plot_template"),a=t("../../plots/cartesian/axis_ids"),o=t("./attributes"),s=t("./oppaxis_attributes");e.exports=function(t,e,r){var l=t[r],c=e[r];if(l.rangeslider||e._requestRangeslider[c._id]){n.isPlainObject(l.rangeslider)||(l.rangeslider={});var u,f,h=l.rangeslider,p=i.newContainer(c,"rangeslider");if(_("visible")){_("bgcolor",e.plot_bgcolor),_("bordercolor"),_("borderwidth"),_("thickness"),_("autorange",!c.isValidRange(h.range)),_("range");var d=e._subplots;if(d)for(var g=d.cartesian.filter((function(t){return t.substr(0,t.indexOf("y"))===a.name2id(r)})).map((function(t){return t.substr(t.indexOf("y"),t.length)})),v=n.simpleMap(g,a.id2name),m=0;m<v.length;m++){var y=v[m];u=h[y]||{},f=i.newContainer(p,y,"yaxis");var x,b=e[y];u.range&&b.isValidRange(u.range)&&(x="fixed"),"match"!==w("rangemode",x)&&w("range",b.range.slice())}p._input=h}}function _(t,e){return n.coerce(h,p,o,t,e)}function w(t,e){return n.coerce(u,f,s,t,e)}}},{"../../lib":503,"../../plot_api/plot_template":543,"../../plots/cartesian/axis_ids":558,"./attributes":438,"./oppaxis_attributes":445}],442:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../registry"),a=t("../../plots/plots"),o=t("../../lib"),s=o.strTranslate,l=t("../drawing"),c=t("../color"),u=t("../titles"),f=t("../../plots/cartesian"),h=t("../../plots/cartesian/axis_ids"),p=t("../dragelement"),d=t("../../lib/setcursor"),g=t("./constants");function v(t,e,r,a){if(!e._context.staticPlot){var s=t.select("rect."+g.slideBoxClassName).node(),l=t.select("rect."+g.grabAreaMinClassName).node(),c=t.select("rect."+g.grabAreaMaxClassName).node();t.on("mousedown",u),t.on("touchstart",u)}function u(){var u=n.event,f=u.target,h=u.clientX||u.touches[0].clientX,g=h-t.node().getBoundingClientRect().left,v=a.d2p(r._rl[0]),m=a.d2p(r._rl[1]),y=p.coverSlip();function x(t){var u,p,x,b=+(t.clientX||t.touches[0].clientX)-h;switch(f){case s:x="ew-resize",u=v+b,p=m+b;break;case l:x="col-resize",u=v+b,p=m;break;case c:x="col-resize",u=v,p=m+b;break;default:x="ew-resize",u=g,p=g+b}if(p<u){var _=p;p=u,u=_}a._pixelMin=u,a._pixelMax=p,d(n.select(y),x),function(t,e,r,n){function a(t){return r.l2r(o.constrain(t,n._rl[0],n._rl[1]))}var s=a(n.p2d(n._pixelMin)),l=a(n.p2d(n._pixelMax));window.requestAnimationFrame((function(){i.call("_guiRelayout",e,r._name+".range",[s,l])}))}(0,e,r,a)}function b(){y.removeEventListener("mousemove",x),y.removeEventListener("mouseup",b),this.removeEventListener("touchmove",x),this.removeEventListener("touchend",b),o.removeElement(y)}this.addEventListener("touchmove",x),this.addEventListener("touchend",b),y.addEventListener("mousemove",x),y.addEventListener("mouseup",b)}}function m(t,e,r,n){var i=o.ensureSingle(t,"rect",g.bgClassName,(function(t){t.attr({x:0,y:0,"shape-rendering":"crispEdges"})})),a=n.borderwidth%2==0?n.borderwidth:n.borderwidth-1,c=-n._offsetShift,u=l.crispRound(e,n.borderwidth);i.attr({width:n._width+a,height:n._height+a,transform:s(c,c),fill:n.bgcolor,stroke:n.bordercolor,"stroke-width":u})}function y(t,e,r,n){var i=e._fullLayout;o.ensureSingleById(i._topdefs,"clipPath",n._clipId,(function(t){t.append("rect").attr({x:0,y:0})})).select("rect").attr({width:n._width,height:n._height})}function x(t,e,r,i){var

s,c=e.calcdata,u=t.selectAll("g."+g.rangePlotClassName).data(r._subplotsWith,o.identity);u.enter().append("g").attr("class",(function(t){return g.rangePlotClassName+"
"+t})).call(l.setClipUrl,i._clipId,e),u.order(),u.exit().remove(),u.each((function(t,o){var l=n.select(this),u=0===o,p=h.getFromId(e,t,"y"),d=p._name,g=i[d],v={data:[],layout:{xaxis:{type:r.type,domain:[0,1],range:i.range.slice(),calendar:r.calendar},width:i._width,height:i._height,margin:{t:0,b:0,l:0,r:0}},_context:e._context};r.rangebreaks&&(v.layout.xaxis.rangebreaks=r.rangebreaks),v.layout[d]={type:p.type,domain:[0,1],range:"match"!==g.rangemode?g.range.slice():p.range.slice(),calendar:p.calendar},p.rangebreaks&&(v.layout[d].rangebreaks=p.rangebreaks),a.supplyDefaults(v);var m=v._fullLayout.xaxis,y=v._fullLayout[d];m.clearCalc(),m.setScale(),y.clearCalc(),y.setScale();var x={id:t,plotgroup:l,xaxis:m,yaxis:y,isRangePlot:!0};u?s=x:(x.mainplot="xy",x.mainplotinfo=s),f.rangePlot(e,x,function(t,e){for(var r=[],n=0;n<t.length;n++){var i=t[n],a=i[0].trace;a.xaxis+a.yaxis===e&&r.push(i)}return r}(c,t))}))}function b(t,e,r,n,i){o.ensureSingle(t,"rect",g.maskMinClassName,(function(t){t.attr({x:0,y:0,"shape-rendering":"crispEdges"})})).attr("height",n._height).call(c.fill,g.maskColor),o.ensureSingle(t,"rect",g.maskMaxClassName,(function(t){t.attr({y:0,"shape-rendering":"crispEdges"})})).attr("height",n._height).call(c.fill,g.maskColor),"match"!==i.rangemode&&(o.ensureSingle(t,"rect",g.maskMinOppAxisClassName,(function(t){t.attr({y:0,"shape-rendering":"crispEdges"})})).attr("width",n._width).call(c.fill,g.maskOppAxisColor),o.ensureSingle(t,"rect",g.maskMaxOppAxisClassName,(function(t){t.attr({y:0,"shape-rendering":"crispEdges"})})).attr("width",n._width).style("border-top",g.maskOppBorder).call(c.fill,g.maskOppAxisColor))}function _(t,e,r,n){e._context.staticPlot||o.ensureSingle(t,"rect",g.slideBoxClassName,(function(t){t.attr({y:0,cursor:g.slideBoxCursor,"shape-rendering":"crispEdges"})})).attr({height:n._height,fill:g.slideBoxFill})}function w(t,e,r,n){var i=o.ensureSingle(t,"g",g.grabberMinClassName),a=o.ensureSingle(t,"g",g.grabberMaxClassName),s={x:0,width:g.handleWidth,rx:g.handleRadius,fill:c.background,stroke:c.defaultLine,"stroke-width":g.handleStrokeWidth,"shape-rendering":"crispEdges"},l={y:Math.round(n._height/4),height:Math.round(n._height/2)};o.ensureSingle(i,"rect",g.handleMinClassName,(function(t){t.attr(s)})).attr(l),o.ensureSingle(a,"rect",g.handleMaxClassName,(function(t){t.attr(s)})).attr(l);var u={width:g.grabAreaWidth,x:0,y:0,fill:g.grabAreaFill,cursor:e._context.staticPlot?void 0:g.grabAreaCursor};o.ensureSingle(i,"rect",g.grabAreaMinClassName,(function(t){t.attr(u)})).attr("height",n._height),o.ensureSingle(a,"rect",g.grabAreaMaxClassName,(function(t){t.attr(u)})).attr("height",n._height)}e.exports=function(t){for(var e=t._fullLayout,r=e._rangeSliderData,i=0;i<r.length;i++){var a=r[i][g.name];a._clipId=a._id+"-"+e._uid}var l=e._infolayer.selectAll("g."+g.containerClassName).data(r,(function(t){return t._name}));l.exit().each((function(t){var r=t[g.name];e._topdefs.select("#"+r._clipId).remove()})).remove(),0!==r.length&&(l.enter().append("g").classed(g.containerClassName,!0).attr("pointer-events","all"),l.each((function(r){var i=n.select(this),a=r[g.name],l=e[h.id2name(r.anchor)],c=a[h.id2name(r.anchor)];if(a.range){var f,p=o.simpleMap(a.range,r.r2l),d=o.simpleMap(r.range,r.r2l);f=d[0]<d[1]?[Math.min(p[0],d[0]),Math.max(p[1],d[1])]:[Math.max(p[0],d[0]),Math.min(p[1],d[1])],a.range=a._input.range=o.simpleMap(f,r.l2r)}r.cleanRange("rangeslider.range");var T=e._size,k=r.domain;a._width=T.w*(k[1]-k[0]);var A=Math.round(T.l+T.w*k[0]),M=Math.round(T.t+T.h*(1-r._counterDomainMin)+("bottom"===r.side?r._depth:0)+a._offsetShift+g.extraPad);i.attr("transform",s(A,M)),a._rl=o.simpleMap(a.range,r.r2l);var S=a._rl[0],E=a._rl[1],L=E-S;if(a.p2d=function(t){return t/a._width*L+S},a.d2p=function(t){return(t-S)/L*a._width},r.rangebreaks){var C=r.locateBreaks(S,E);if(C.length){var P,I,O=0;for(P=0;P<C.length;P++)O+=(I=C[P]).max-I.min;var z=a._width/(E-S-O),D=[-z*S];for(P=0;P<C.length;P++)I=C[P],D.push(D[D.length-1]-z*(I.max-I.min));for(a.d2p=function(t){for(var e=D[0],r=0;r<C.length;r++){var n=C[r];if(t>=n.max)e=D[r+1];else if(t<n.min)break}return e+z*t},P=0;P<C.length;P++)(I=C[P]).pmin=a.d2p(I.min),I.pmax=a.d2p(I.max);a.p2d=function(t){for(var e=D[0],r=0;r<C.length;r++){var n=C[r];if(t>=n.pmax)e=D[r+1];else if(t<n.pmin)break}return(t-

e)/z}}}if("match"!==c.rangemode){var R=l.r2l(c.range[0]),F=l.r2l(c.range[1])-
R;a.d2pOppAxis=function(t){return(t-
R)/F*a._height}}i.call(m,t,r,a).call(y,t,r,a).call(x,t,r,a).call(b,t,r,a,c).call(_,t,r,a).call(w,t,r,a),v(i,t,r,a),function(t,e,r,n,i
,a){var l=g.handleWidth/2;function c(t){return o.constrain(t,0,n._width)}function u(t){return
o.constrain(t,0,n._height)}function f(t){return o.constrain(t,-l,n._width+l)}var
h=c(n.d2p(r._rl[0])),p=c(n.d2p(r._rl[1]));if(t.select("rect."+g.slideBoxClassName).attr("x",h).attr("width",p-
h),t.select("rect."+g.maskMinClassName).attr("width",h),t.select("rect."+g.maskMaxClassName).attr("x",p).attr("wi
dth",n._width-p),"match"!==a.rangemode){var d=n._height-u(n.d2pOppAxis(i._rl[1])),v=n._height-
u(n.d2pOppAxis(i._rl[0]));t.select("rect."+g.maskMinOppAxisClassName).attr("x",h).attr("height",d).attr("width",p-
h),t.select("rect."+g.maskMaxOppAxisClassName).attr("x",h).attr("y",v).attr("height",n._height-v).attr("width",p-
h),t.select("rect."+g.slideBoxClassName).attr("y",d).attr("height",v-d)}var m=.5,y=Math.round(f(h-l))-
m,x=Math.round(f(p-
l))+m;t.select("g."+g.grabberMinClassName).attr("transform",s(y,m)),t.select("g."+g.grabberMaxClassName).attr("t
ransform",s(x,m))}(i,0,r,a,l,c),"bottom"===r.side&&u.draw(t,r._id+"title",{propContainer:r,propName:r._name+".tit
le",placeholder:e._dfltTitle.x,attributes:{x:r._offset+r._length/2,y:M+a._height+a._offsetShift+10+1.5*r.title.font.siz
e,"text-
anchor":"middle"}})))))}},{"../../lib":503,"../../lib/setcursor":524,"../../plots/cartesian":568,"../../plots/cartesian/axis_
ids":558,"../../plots/plots":619,"../../registry":638,"../color":366,"../dragelement":385,"../drawing":388,"../titles":464,"
./constants":440,"@plotly/d3":58}],443:[function(t,e,r){"use strict";var
n=t("../../plots/cartesian/axis_ids"),i=t("../../lib/svg_text_utils"),a=t("./constants"),o=t("../../constants/alignment").LI
NE_SPACING,s=a.name;function l(t){var e=t&&t[s];return e&&e.visible}r.isVisible=l,r.makeData=function(t){var
e=n.list({_fullLayout:t},"x",!0),r=t.margin,i=[];if(!t._has("gl2d"))for(var a=0;a<e.length;a++){var
o=e[a];if(l(o)){i.push(o);var c=o[s];c._id=s+o._id,c._height=(t.height-r.b-
r.t)*c.thickness,c._offsetShift=Math.floor(c.borderwidth/2)}}t._rangeSliderData=i},r.autoMarginOpts=function(t,e)
{var
r=t._fullLayout,n=e[s],l=e._id.charAt(0),c=0,u=0;return"bottom"===e.side&&(c=e._depth,e.title.text!==r._dfltTitle[
l]&&(u=1.5*e.title.font.size+10+n._offsetShift,u+=(e.title.text.match(i.BR_TAG_ALL)||[]).length*e.title.font.size*
o)),{x:0,y:e._counterDomainMin,l:0,r:0,t:0,b:n._height+c+Math.max(r.margin.b,u),pad:a.extraPad+2*n._offsetShift
}}},{"../../constants/alignment":471,"../../lib/svg_text_utils":529,"../../plots/cartesian/axis_ids":558,"./constants":440
}],444:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("./attributes"),a=t("./oppaxis_attributes"),o=t("./helpers");e.exports={moduleType:"component",na
me:"rangeslider",schema:{subplots:{xaxis:{rangeslider:n.extendFlat({},i,{yaxis:a})}}},layoutAttributes:t("./attribut
es"),handleDefaults:t("./defaults"),calcAutorange:t("./calc_autorange"),draw:t("./draw"),isVisible:o.isVisible,makeD
ata:o.makeData,autoMarginOpts:o.autoMarginOpts}},{"../../lib":503,"./attributes":438,"./calc_autorange":439,"./def
aults":441,"./draw":442,"./helpers":443,"./oppaxis_attributes":445}],445:[function(t,e,r){"use
strict";e.exports={_isSubplotObj:!0,rangemode:{valType:"enumerated",values:["auto","fixed","match"],dflt:"match
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plot"}],editType:"plot"},editType:"calc"}},{}],446:[function(t,e,r){"use strict";var
n=t("../annotations/attributes"),i=t("../../traces/scatter/attributes").line,a=t("../drawing/attributes").dash,o=t("../../lib/e
xtend").extendFlat,s=t("../../plot_api/plot_template").templatedArray;t("../../constants/axis_placeable_objects"),e.exp
orts=s("shape",{visible:{valType:"boolean",dflt:!0,editType:"calc+arraydraw"},type:{valType:"enumerated",values:
["circle","rect","path","line"],editType:"calc+arraydraw"},layer:{valType:"enumerated",values:["below","above"],d
flt:"above",editType:"arraydraw"},xref:o({},n.xref,{}),xsizemode:{valType:"enumerated",values:["scaled","pixel"],
dflt:"scaled",editType:"calc+arraydraw"},xanchor:{valType:"any",editType:"calc+arraydraw"},x0:{valType:"any",e
ditType:"calc+arraydraw"},x1:{valType:"any",editType:"calc+arraydraw"},yref:o({},n.yref,{}),ysizemode:{valTyp
e:"enumerated",values:["scaled","pixel"],dflt:"scaled",editType:"calc+arraydraw"},yanchor:{valType:"any",editTyp
e:"calc+arraydraw"},y0:{valType:"any",editType:"calc+arraydraw"},y1:{valType:"any",editType:"calc+arraydraw"
},path:{valType:"string",editType:"calc+arraydraw"},opacity:{valType:"number",min:0,max:1,dflt:1,editType:"arra

ydraw"},line:{color:o({},i.color,{editType:"arraydraw"}),width:o({},i.width,{editType:"calc+arraydraw"}),dash:o({},a,{editType:"arraydraw"}),editType:"calc+arraydraw"},fillcolor:{valType:"color",dflt:"rgba(0,0,0,0)",editType:"arraydraw"},fillrule:{valType:"enumerated",values:["evenodd","nonzero"],dflt:"evenodd",editType:"arraydraw"},editable:{valType:"boolean",dflt:!1,editType:"calc+arraydraw"},editType:"arraydraw"})},{"../../constants/axis_placeable_objects":472,"../../lib/extend":493,"../../plot_api/plot_template":543,"../../traces/scatter/attributes":927,"../annotations/attributes":349,"../drawing/attributes":387}],447:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plots/cartesian/axes"),a=t("./constants"),o=t("./helpers");function s(t){return c(t.line.width,t.xsizemode,t.x0,t.x1,t.path,!1)}function l(t){return c(t.line.width,t.ysizemode,t.y0,t.y1,t.path,!0)}function c(t,e,r,i,s,l){var c=t/2,u=l;if("pixel"===e){var f=s?o.extractPathCoords(s,l?a.paramIsY:a.paramIsX):[r,i],h=n.aggNums(Math.max,null,f),p=n.aggNums(Math.min,null,f),d=p<0?Math.abs(p)+c:c,g=h>0?h+c:c;return{ppad:c,ppadplus:u?d:g,ppadminus:u?g:d}}return{ppad:c}}function u(t,e,r,n,i){var s="category"===t.type||"multicategory"===t.type?t.r2c:t.d2c;if(void 0!==e)return[s(e),s(r)];if(n){var l,c,u,f,h=1/0,p=-1/0,d=n.match(a.segmentRE);for("date"===t.type&&(s=o.decodeDate(s)),l=0;l<d.length;l++)void 0!==(c=i[d[l].charAt(0)].drawn)&&(!(u=d[l].substr(1).match(a.paramRE))||u.length<c||((f=s(u[c]))<h&&(h=f),f>p&&(p=f)));return p>=h?[h,p]:void 0}}e.exports=function(t){var e=t._fullLayout,r=n.filterVisible(e.shapes);if(r.length&&t._fullData.length)for(var o=0;o<r.length;o++){var c,f,h=r[o];h._extremes={};var p=i.getRefType(h.xref),d=i.getRefType(h.yref);if("paper"!==h.xref&&"domain"!==p){var g="pixel"===h.xsizemode?h.xanchor:h.x0,v="pixel"===h.xsizemode?h.xanchor:h.x1;(f=u(c=i.getFromId(t,h.xref),g,v,h.path,a.paramIsX))&&(h._extremes[c._id]=i.findExtremes(c,f,s(h)))}if("paper"!==h.yref&&"domain"!==d){var m="pixel"===h.ysizemode?h.yanchor:h.y0,y="pixel"===h.ysizemode?h.yanchor:h.y1;(f=u(c=i.getFromId(t,h.yref),m,y,h.path,a.paramIsY))&&(h._extremes[c._id]=i.findExtremes(c,f,l(h)))}}},{"../../lib":503,"../../plots/cartesian/axes":554,"./constants":448,"./helpers":457}],448:[function(t,e,r){"use strict";e.exports={segmentRE:/[MLHVQCTSZ][^MLHVQCTSZ]*/g,paramRE:/[^\s,]+/g,paramIsX:{M:{0:!0,drawn:0},L:{0:!0,drawn:0},H:{0:!0,drawn:0},V:{},Q:{0:!0,2:!0,drawn:2},C:{0:!0,2:!0,4:!0,drawn:4},T:{0:!0,drawn:0},S:{0:!0,2:!0,drawn:2},Z:{}},paramIsY:{M:{1:!0,drawn:1},L:{1:!0,drawn:1},H:{},V:{0:!0,drawn:0},Q:{1:!0,3:!0,drawn:3},C:{1:!0,3:!0,5:!0,drawn:5},T:{1:!0,drawn:1},S:{1:!0,3:!0,drawn:5},Z:{}},numParams:{M:2,L:2,H:1,V:1,Q:4,C:6,T:2,S:4,Z:0}}},{}],449:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plots/cartesian/axes"),a=t("../../plots/array_container_defaults"),o=t("./attributes"),s=t("./helpers");function l(t,e,r){function a(r,i){return n.coerce(t,e,o,r,i)}if(a("visible")){var l=a("path"),c=a("type",l?"path":"rect");"path"!==e.type&&delete e.path,a("editable"),a("layer"),a("opacity"),a("fillcolor"),a("fillrule"),a("line.width")&&(a("line.color"),a("line.dash"));for(var u=a("xsizemode"),f=a("ysizemode"),h=["x","y"],p=0;p<2;p++){var d,g,v,m=h[p],y=m+"anchor",x="x"===m?u:f,b={_fullLayout:r},_=i.coerceRef(t,e,b,m,void 0,"paper");if("range"===i.getRefType(_)?((d=i.getFromId(b,_))._shapeIndices.push(e._index),v=s.rangeToShapePosition(d),g=s.shapePositionToRange(d)):g=v=n.identity,"path"!==c){var w=m+"0",T=m+"1",k=t[w],A=t[T];t[w]=g(t[w],!0),t[T]=g(t[T],!0),"pixel"===x?(a(w,0),a(T,10)):(i.coercePosition(e,b,a,_,w,.25),i.coercePosition(e,b,a,_,T,.75)),e[w]=v(e[w]),e[T]=v(e[T]),t[w]=k,t[T]=A}if("pixel"===x){var M=t[y];t[y]=g(t[y],!0),i.coercePosition(e,b,a,_,y,.25),e[y]=v(e[y]),t[y]=M}}"path"===c?a("path"):n.noneOrAll(t,e,["x0","x1","y0","y1"])}}e.exports=function(t,e){a(t,e,{name:"shapes",handleItemDefaults:l})}},{"../../lib":503,"../../plots/array_container_defaults":549,"../../plots/cartesian/axes":554,"./attributes":446,"./helpers":457}],450:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../lib"),a=t("../../plots/cartesian/axes"),o=t("./draw_newshape/helpers").readPaths,s=t("./draw_newshape/display_outlines"),l=t("../../plots/cartesian/handle_outline").clearOutlineControllers,c=t("../color"),u=t("../drawing"),f=t("../../plot_api/plot_template").arrayEditor,h=t("../dragelement"),p=t("../../lib/setcursor"),d=t("./constants"),g=t("./helpers");function v(t){var e=t._fullLayout;for(var r in e._shapeUpperLayer.selectAll("path").remove(),e._shapeLowerLayer.selectAll("path").remove(),e._plots){var

n=e._plots[r].shapelayer;n&&n.selectAll("path").remove()}for(var i=0;i<e.shapes.length;i++)e.shapes[i].visible&&x(t,i)}function m(t){return!!t._fullLayout._drawing}function y(t){return!t._context.edits.shapePosition}function x(t,e){t._fullLayout._paperdiv.selectAll('.shapelayer [data-index="'+e+'"]').remove();var r=g.makeOptionsAndPlotinfo(t,e),l=r.options,x=r.plotinfo;function k(r){var k=_(t,l),A={"data-index":e,"fill-rule":l.fillrule,d:k},M=l.opacity,S=l.fillcolor,E=l.line.width?l.line.color:"rgba(0,0,0,0)",L=l.line.width,C=l.line.dash;L||!0!==l.editable||(L=5,C="solid");var P="Z"!==k[k.length-1],I=y(t)&&l.editable&&t._fullLayout._activeShapeIndex===e;I&&(S=P?"rgba(0,0,0,0)":t._fullLayout.activeshape.fillcolor,M=t._fullLayout.activeshape.opacity);var O,z=r.append("path").attr(A).style("opacity",M).call(c.stroke,E).call(c.fill,S).call(u.dashLine,C,L);if(b(z,t,l),(I||t._context.edits.shapePosition)&&(O=f(t.layout,"shapes",l)),I){z.style({cursor:"move"});var D={element:z.node(),plotinfo:x,gd:t,editHelpers:O,isActiveShape:!0},R=o(k,t);s(R,z,D)}else t._context.edits.shapePosition?function(t,e,r,o,s,l){var c,f,v,y,x,T,k,A,M,S,E,L,C,P,I,O,z=10,D=10,R="pixel"===r.xsizemode,F="pixel"===r.ysizemode,B="line"===r.type,N="path"===r.type,j=l.modifyItem,U=a.getFromId(t,r.xref),V=a.getRefType(r.xref),q=a.getFromId(t,r.yref),H=a.getRefType(r.yref),G=g.getDataToPixel(t,U,!1,V),Y=g.getDataToPixel(t,q,!0,H),W=g.getPixelToData(t,U,!1,V),X=g.getPixelToData(t,q,!0,H),Z=K(),J={element:Z.node(),gd:t,prepFn:tt,doneFn:et,clickFn:rt};function K(){return B?Q():e}function Q(){var t=10,n=Math.max(r.line.width,t),i=s.append("g").attr("data-index",o);i.append("path").attr("d",e.attr("d")).style({cursor:"move","stroke-width":n,"stroke-opacity":"0"});var a={"fill-opacity":"0"},l=Math.max(n/2,t);return i.append("circle").attr({"data-line-point":"start-point",cx:R?G(r.xanchor)+r.x0:G(r.x0),cy:F?Y(r.yanchor)-r.y0:Y(r.y0),r:l}).style(a).classed("cursor-grab",!0),i.append("circle").attr({"data-line-point":"end-point",cx:R?G(r.xanchor)+r.x1:G(r.x1),cy:F?Y(r.yanchor)-r.y1:Y(r.y1),r:l}).style(a).classed("cursor-grab",!0),i}function $(r){if(m(t))O=null;else if(B)O="path"===r.target.tagName?"move":"start-point"===r.target.attributes["data-line-point"].value?"resize-over-start-point":"resize-over-end-point";else{var n=J.element.getBoundingClientRect(),i=n.right-n.left,a=n.bottom-n.top,o=r.clientX-n.left,s=r.clientY-n.top,l=!N&&i>z&&a>D&&!r.shiftKey?h.getCursor(o/i,1-s/a):"move";p(e,l),O=l.split("-")[0]}}function tt(n){m(t)||(R&&(x=G(r.xanchor)),F&&(T=Y(r.yanchor)),"path"===r.type?I=r.path:(c=R?r.x0:G(r.x0),f=F?r.y0:Y(r.y0),v=R?r.x1:G(r.x1),y=F?r.y1:Y(r.y1)),c<v?(M=c,C="x0",S=v,P="x1"):(M=v,C="x1",S=c,P="x0"),!F&&f<y||F&&f>y?(k=f,E="y0",A=y,L="y1"):(k=y,E="y1",A=f,L="y0"),$(n),at(s,r),st(e,r,t),J.moveFn="move"===O?nt:it,J.altKey=n.altKey)}function et(){m(t)||(p(e),ot(s),b(e,t,r),n.call("_guiRelayout",t,l.getUpdateObj()))}function rt(){m(t)||ot(s)}function nt(n,i){if("path"===r.type){var a=function(t){return t},o=a,l=a;R?j("xanchor",r.xanchor=W(x+n)):(o=function(t){return W(G(t)+n)},U&&"date"===U.type&&(o=g.encodeDate(o))),F?j("yanchor",r.yanchor=X(T+i)):(l=function(t){return X(Y(t)+i)},q&&"date"===q.type&&(l=g.encodeDate(l))),j("path",r.path=w(I,o,l))}else R?j("xanchor",r.xanchor=W(x+n)):(j("x0",r.x0=W(c+n)),j("x1",r.x1=W(v+n))),F?j("yanchor",r.yanchor=X(T+i)):(j("y0",r.y0=X(f+i)),j("y1",r.y1=X(y+i)));e.attr("d",_(t,r)),at(s,r)}function it(n,i){if(N){var a=function(t){return t},o=a,l=a;R?j("xanchor",r.xanchor=W(x+n)):(o=function(t){return W(G(t)+n)},U&&"date"===U.type&&(o=g.encodeDate(o))),F?j("yanchor",r.yanchor=X(T+i)):(l=function(t){return X(Y(t)+i)},q&&"date"===q.type&&(l=g.encodeDate(l))),j("path",r.path=w(I,o,l))}else if(B){if("resize-over-start-point"===O){var u=c+n,h=F?f-i:f+i;j("x0",r.x0=R?u:W(u)),j("y0",r.y0=F?h:X(h))}else if("resize-over-end-point"===O){var p=v+n,d=F?y-i:y+i;j("x1",r.x1=R?p:W(p)),j("y1",r.y1=F?d:X(d))}}else{var m=function(t){return-1!==O.indexOf(t)},b=m("n"),V=m("s"),H=m("w"),Z=m("e"),J=b?k+i:k,K=V?A+i:A,Q=H?M+n:M,$=Z?S+n:S;F&&(b&&(J=k-i),V&&(K=A-i)),(!F&&K-J>D||F&&J-K>D)&&(j(E,r[E]=F?J:X(J)),j(L,r[L]=F?K:X(K))),$-Q>z&&(j(C,r[C]=R?Q:W(Q)),j(P,r[P]=R?$:W($)))}e.attr("d",_(t,r)),at(s,r)}function at(t,e){function r(){var r="path"!==e.type,n=t.selectAll(".visual-cue").data([0]),a=1;n.enter().append("path").attr({fill:"#fff","fill-rule":"evenodd",stroke:"#000","stroke-width":a}).classed("visual-cue",!0);var o=G(R?e.xanchor:i.midRange(r?[e.x0,e.x1]:g.extractPathCoords(e.path,d.paramIsX))),s=Y(F?e.yanchor:i.midRange

(r?[e.y0,e.y1]:g.extractPathCoords(e.path,d.paramIsY)));if(o=g.roundPositionForSharpStrokeRendering(o,a),s=g.roundPositionForSharpStrokeRendering(s,a),R&&F){var l="M"+(o-1-a)+","+(s-1-a)+"h-8v2h8 v8h2v-8 h8v-2h-8 v-8h-2 Z";n.attr("d",l)}else if(R){var c="M"+(o-1-a)+","+(s-9-a)+"v18 h2 v-18 Z";n.attr("d",c)}else{var u="M"+(o-9-a)+","+(s-1-a)+"h18 v2 h-18 Z";n.attr("d",u)}}(R||F)&&r()}function ot(t){t.selectAll(".visual-cue").remove()}function st(t,e,r){var n=e.xref,i=e.yref,o=a.getFromId(r,n),s=a.getFromId(r,i),l="";"paper"===n||o.autorange||(l+=n),"paper"===i||s.autorange||(l+=i),u.setClipUrl(t,l?"clip"+r._fullLayout._uid+l:null,r)}h.init(J),Z.node().onmousemove=$}(t,z,l,e,r,O):!0===l.editable&&z.style("pointer-events",P||c.opacity(S)*M<=.5?"stroke":"all");z.node().addEventListener("click",(function(){return function(t,e){if(y(t)){var r=+e.node().getAttribute("data-index");if(r>=0){if(r===t._fullLayout._activeShapeIndex)return void T(t);t._fullLayout._activeShapeIndex=r,t._fullLayout._deactivateShape=T,v(t)}}}(t,z)}))}l._input&&!1!==l.visible&&("below"!==l.layer?k(t._fullLayout._shapeUpperLayer):"paper"===l.xref||"paper"===l.yref?k(t._fullLayout._shapeLowerLayer):x._hadPlotinfo?k((x.mainplotinfo||x).shapelayer):k(t._fullLayout._shapeLowerLayer))}function b(t,e,r){var n=(r.xref+r.yref).replace(/paper/g,"").replace(/[xyz][1-9]*/g,"");u.setClipUrl(t,n?"clip"+e._fullLayout._uid+n:null,e)}function _(t,e){var r,n,o,s,l,c,u,f,h=e.type,p=a.getRefType(e.xref),v=a.getRefType(e.yref),m=a.getFromId(t,e.xref),y=a.getFromId(t,e.yref),x=t._fullLayout._size;if(m?"domain"===p?n=function(t){return m._offset+m._length*t}:(r=g.shapePositionToRange(m),n=function(t){return m._offset+m.r2p(r(t,!0))}):n=function(t){return x.l+x.w*t},y?"domain"===v?s=function(t){return y._offset+y._length*(1-t)}:(o=g.shapePositionToRange(y),s=function(t){return y._offset+y.r2p(o(t,!0))}):s=function(t){return x.t+x.h*(1-t)},"path"===h)return m&&"date"===m.type&&(n=g.decodeDate(n)),y&&"date"===y.type&&(s=g.decodeDate(s)),function(t,e,r){var n=t.path,a=t.xsizemode,o=t.ysizemode,s=t.xanchor,l=t.yanchor;return n.replace(d.segmentRE,(function(t){var n=0,c=t.charAt(0),u=d.paramIsX[c],f=d.paramIsY[c],h=d.numParams[c],p=t.substr(1).replace(d.paramRE,(function(t){return u[n]?t="pixel"===a?e(s)+Number(t):e(t):f[n]&&(t="pixel"===o?r(l)-Number(t):r(t)),++n>h&&(t="X"),t}));return n>h&&(p=p.replace(/[\s,]*X.*/,""),i.log("Ignoring extra params in segment "+t)),c+p}))}(e,n,s);if("pixel"===e.xsizemode){var b=n(e.xanchor);l=b+e.x0,c=b+e.x1}else l=n(e.x0),c=n(e.x1);if("pixel"===e.ysizemode){var _=s(e.yanchor);u=_-e.y0,f=_-e.y1}else u=s(e.y0),f=s(e.y1);if("line"===h)return"M"+l+","+u+"L"+c+","+f;if("rect"===h)return"M"+l+","+u+"H"+c+"V"+f+"H"+l+"Z";var w=(l+c)/2,T=(u+f)/2,k=Math.abs(w-l),A=Math.abs(T-u),M="A"+k+","+A,S=w+k+","+T;return"M"+S+M+" 0 1,1 "+w+","+(T-A)+M+" 0 0,1 "+S+"Z"}function w(t,e,r){return t.replace(d.segmentRE,(function(t){var n=0,i=t.charAt(0),a=d.paramIsX[i],o=d.paramIsY[i],s=d.numParams[i];return i+t.substr(1).replace(d.paramRE,(function(t){return n>=s||(a[n]?t=e(t):o[n]&&(t=r(t)),n++),t}))}))}function T(t){y(t)&&t._fullLayout._activeShapeIndex>=0&&(l(t),delete t._fullLayout._activeShapeIndex,v(t))}e.exports={draw:v,drawOne:x,eraseActiveShape:function(t){if(y(t)){l(t);var e=t._fullLayout._activeShapeIndex,r=(t.layout||{}).shapes||[];if(e<r.length){for(var i=[],a=0;a<r.length;a++)a!==e&&i.push(r[a]);delete t._fullLayout._activeShapeIndex,n.call("_guiRelayout",t,{shapes:i})}}}},{"../../lib":503,"../../lib/setcursor":524,"../../plot_api/plot_template":543,"../../plots/cartesian/axes":554,"../../plots/cartesian/handle_outline":565,"../../registry":638,"../color":366,"../dragelement":385,"../drawing":388,"./constants":448,"./draw_newshape/display_outlines":454,"./draw_newshape/helpers":455,"./helpers":457}],451:[function(t,e,r){"use strict";var n=t("../../drawing/attributes").dash,i=t("../../../lib/extend").extendFlat;e.exports={newshape:{line:{color:{valType:"color",editType:"none"},width:{valType:"number",min:0,dflt:4,editType:"none"},dash:i({},n,{dflt:"solid",editType:"none"}),editType:"none"},fillcolor:{valType:"color",dflt:"rgba(0,0,0,0)",editType:"none"},fillrule:{valType:"enumerated",values:["evenodd","nonzero"],dflt:"evenodd",editType:"none"},opacity:{valType:"number",min:0,max:1,dflt:1,editType:"none"},layer:{valType:"enumerated",values:["below","above"],dflt:"above",editType:"none"},drawdire

ction:{valType:"enumerated",values:["ortho","horizontal","vertical","diagonal"],dflt:"diagonal",editType:"none"},editType:"none"},activeshape:{fillcolor:{valType:"color",dflt:"rgb(255,0,255)",editType:"none"},opacity:{valType:"number",min:0,max:1,dflt:.5,editType:"none"},editType:"none"}}},{"../../../lib/extend":493,"../../drawing/attributes":387}],452:[function(t,e,r){"use strict";e.exports={CIRCLE_SIDES:32,i000:0,i090:8,i180:16,i270:24,cos45:Math.cos(Math.PI/4),sin45:Math.sin(Math.PI/4),SQRT2:Math.sqrt(2)}},{}],453:[function(t,e,r){"use strict";var n=t("../../color");e.exports=function(t,e,r){if(r("newshape.drawdirection"),r("newshape.layer"),r("newshape.fillcolor"),r("newshape.fillrule"),r("newshape.opacity"),r("newshape.line.width")){var i=(t||{}).plot_bgcolor||"#FFF";r("newshape.line.color",n.contrast(i)),r("newshape.line.dash")}r("activeshape.fillcolor"),r("activeshape.opacity")}},{"../../color":366}],454:[function(t,e,r){"use strict";var n=t("../../dragelement"),i=t("../../dragelement/helpers").drawMode,a=t("../../../registry"),o=t("./constants"),s=o.i000,l=o.i090,c=o.i180,u=o.i270,f=t("../../../plots/cartesian/handle_outline").clearOutlineControllers,h=t("./helpers"),p=h.pointsShapeRectangle,d=h.pointsShapeEllipse,g=h.writePaths,v=t("./newshapes");e.exports=function t(e,r,o,h){h||(h=0);var m=o.gd;function y(){t(e,r,o,h++),d(e[0])&&x({redrawing:!0})}function x(t){o.isActiveShape=!1;var e=v(r,o);Object.keys(e).length&&a.call((t||{}).redrawing?"relayout":"_guiRelayout",m,e)}var b,_,w,T,k,A=o.isActiveShape,M=m._fullLayout._zoomlayer,S=o.dragmode;function E(t){w=+t.srcElement.getAttribute("data-i"),T=+t.srcElement.getAttribute("data-j"),b[w][T].moveFn=L}function L(t,r){if(e.length){var n=k[w][T][1],i=k[w][T][2],a=e[w],o=a.length;if(p(a)){for(var s=0;s<o;s++)if(s!==T){var l=a[s];l[1]===a[T][1]&&(l[1]=n+t),l[2]===a[T][2]&&(l[2]=i+r)}if(a[T][1]=n+t,a[T][2]=i+r,!p(a))for(var c=0;c<o;c++)for(var u=0;u<a[c].length;u++)a[c][u]=k[w][c][u]}else a[T][1]=n+t,a[T][2]=i+r;y()}}function C(){x()}function P(t,r){if(2===t){w=+r.srcElement.getAttribute("data-i"),T=+r.srcElement.getAttribute("data-j");var n=e[w];p(n)||d(n)||function(){if(e.length&&e[w]&&e[w].length){for(var t=[],r=0;r<e[w].length;r++)r!==T&&t.push(e[w][r]);t.length>1&&(2!==t.length||"Z"!==t[1][0])&&(0===T&&(t[0][0]="M"),e[w]=t,y(),x())}}()}}function I(t,r){(function(t,r){if(e.length)for(var n=0;n<e.length;n++)for(var i=0;i<e[n].length;i++)for(var a=0;a+2<e[n][i].length;a+=2)e[n][i][a+1]=k[n][i][a+1]+t,e[n][i][a+2]=k[n][i][a+2]+r})(t,r),y()}function O(t){(w=+t.srcElement.getAttribute("data-i"))||(w=0),_[w].moveFn=I}function z(){x()}i(S)?m._fullLayout._drawing=!0:m._fullLayout._activeShapeIndex>=0&&f(m),r.attr("d",g(e)),A&&!h&&(k=function(t,e){for(var r=0;r<e.length;r++){var n=e[r];t[r]=[];for(var i=0;i<n.length;i++){t[r][i]=[];for(var a=0;a<n[i].length;a++)t[r][i][a]=n[i][a]}}return t}([],e),function(t){b=[];for(var r=0;r<e.length;r++){var i=e[r],a=!p(i)&&d(i);b[r]=[];for(var o=0;o<i.length;o++)if("Z"!==i[o][0]&&(!a||o===s||o===l||o===c||o===u)){var f=i[o][1],h=i[o][2],g=t.append("circle").classed("cursor-grab",!0).attr("data-i",r).attr("data-j",o).attr("cx",f).attr("cy",h).attr("r",4).style({"mix-blend-mode":"luminosity",fill:"black",stroke:"white","stroke-width":1});b[r][o]={element:g.node(),gd:m,prepFn:E,doneFn:C,clickFn:P},n.init(b[r][o])}}}(M.append("g").attr("class","outline-controllers")),_=[],e.length&&(_[0]={element:r[0][0],gd:m,prepFn:O,doneFn:z},n.init(_[0]))}},{"../../../plots/cartesian/handle_outline":565,"../../../registry":638,"../../dragelement":385,"../../dragelement/helpers":384,"./constants":452,"./helpers":455,"./newshapes":456}],455:[function(t,e,r){"use strict";var n=t("parse-svg-path"),i=t("./constants"),a=i.CIRCLE_SIDES,o=i.SQRT2,s=t("../../../plots/cartesian/helpers"),l=s.p2r,c=s.r2p,u=[0,3,4,5,6,1,2],f=[0,3,4,1,2];function h(t,e){return Math.abs(t-e)<=1e-6}function p(t,e){var r=e[1]-t[1],n=e[2]-t[2];return Math.sqrt(r*r+n*n)}r.writePaths=function(t){var e=t.length;if(!e)return"M0,0Z";for(var r="",n=0;n<e;n++)for(var i=t[n].length,a=0;a<i;a++){var o=t[n][a][0];if("Z"===o)r+="Z";else for(var s=t[n][a].length,l=0;l<s;l++){var c=l;"Q"===o||"S"===o?c=f[l]:"C"===o&&(c=u[l]),r+=t[n][a][c],l>0&&l<s-1&&(r+=",")}}return r},r.readPaths=function(t,e,r,i){var o,s,u,f=n(t),h=[],p=-1,d=0,g=0,v=function(){s=d,u=g};v();for(var m=0;m<f.length;m++){var y,x,b,_,w=[],T=f[m][0],k=T;switch(T){case"M":p++,h[p]=[],d=+f[m][1],g=+f[m][2],w.push([k,d,g]),v();break;case"Q":case"S":y=+f[m][1],b=+f[m][2],d=+f[m][3],g=+f[m][4],w.push([k,d,g,y,b]);break;case"C":y=+f[m][1],b=+f[m][

2],x=+f[m][3],_=+f[m][4],d=+f[m][5],g=+f[m][6],w.push([k,d,g,y,b,x,_]);break;case"T":case"L":d=+f[m][1],g=+f[m][2],w.push([k,d,g]);break;case"H":k="L",d=+f[m][1],w.push([k,d,g]);break;case"V":k="L",g=+f[m][1],w.push([k,d,g]);break;case"A":k="L";var A=+f[m][1],M=+f[m][2];+f[m][4]||(A=-A,M=-M);var S=d-A,E=g;for(o=1;o<=a/2;o++){var L=2*Math.PI*o/a;w.push([k,S+A*Math.cos(L),E+M*Math.sin(L)])}break;case"Z":d===s&&g===u||(d=s,g=u,w.push([k,d,g]))}for(var C=(r||{}).domain,P=e._fullLayout._size,I=r&&"pixel"===r.xsizemode,O=r&&"pixel"===r.ysizemode,z=!1===i,D=0;D<w.length;D++){for(o=0;o+2<7;o+=2){var R=w[D][o+1],F=w[D][o+2];void 0!==R&&void 0!==F&&(d=R,g=F,r&&(r.xaxis&&r.xaxis.p2r?(z&&(R-=r.xaxis._offset),R=I?c(r.xaxis,r.xanchor)+R:l(r.xaxis,R)):(z&&(R-=P.l),C?R=C.x[0]+R/P.w:R/=P.w),r.yaxis&&r.yaxis.p2r?(z&&(F-=r.yaxis._offset),F=O?c(r.yaxis,r.yanchor)-F:l(r.yaxis,F)):(z&&(F-=P.t),F=C?C.y[1]-F/P.h:1-F/P.h)),w[D][o+1]=R,w[D][o+2]=F)}h[p].push(w[D].slice())}}return h},r.pointsShapeRectangle=function(t){if(5!==t.length)return!1;for(var e=1;e<3;e++){if(!h(t[0][e]-t[1][e],t[3][e]-t[2][e]))return!1;if(!h(t[0][e]-t[3][e],t[1][e]-t[2][e]))return!1}return!(!h(t[0][1],t[1][1])&&!h(t[0][1],t[3][1])||!(p(t[0],t[1])*p(t[0],t[3])))},r.pointsShapeEllipse=function(t){var e=t.length;if(e!==a+1)return!1;e=a;for(var r=0;r<e;r++){var n=(2*e-r)%e,i=(e/2+n)%e,o=(e/2+r)%e;if(!h(p(t[r],t[o]),p(t[n],t[i])))return!1}return!0},r.handleEllipse=function(t,e,n){if(!t)return[e,n];var i=r.ellipseOver({x0:e[0],y0:e[1],x1:n[0],y1:n[1]}),s=(i.x1+i.x0)/2,l=(i.y1+i.y0)/2,c=(i.x1-i.x0)/2,u=(i.y1-i.y0)/2;c||(c=u/=o),u||(u=c/=o);for(var f=[],h=0;h<a;h++){var p=2*h*Math.PI/a;f.push([s+c*Math.cos(p),l+u*Math.sin(p)])}return f},r.ellipseOver=function(t){var e=t.x0,r=t.y0,n=t.x1,i=t.y1,a=n-e,s=i-r,l=((e-=a)+n)/2,c=((r-=s)+i)/2;return{x0:l-(a*=o),y0:c-(s*=o),x1:l+a,y1:c+s}}},{"../../../plots/cartesian/helpers":566,"./constants":452,"parse-svg-path":250}],456:[function(t,e,r){"use strict";var n=t("../../dragelement/helpers"),i=n.drawMode,a=n.openMode,o=t("./constants"),s=o.i000,l=o.i090,c=o.i180,u=o.i270,f=o.cos45,h=o.sin45,p=t("../../../plots/cartesian/helpers"),d=p.p2r,g=p.r2p,v=t("../../../plots/cartesian/handle_outline").clearSelect,m=t("./helpers"),y=m.readPaths,x=m.writePaths,b=m.ellipseOver;e.exports=function(t,e){if(t.length){var r=t[0][0];if(r){var n=r.getAttribute("d"),o=e.gd,p=o._fullLayout.newshape,m=e.plotinfo,_=m.xaxis,w=m.yaxis,T=!!m.domain||!m.xaxis,k=!!m.domain||!m.yaxis,A=e.isActiveShape,M=e.dragmode,S=(o.layout||{}).shapes||[];if(!i(M)&&void 0!==A){var E=o._fullLayout._activeShapeIndex;if(E<S.length)switch(o._fullLayout.shapes[E].type){case"rect":M="drawrect";break;case"circle":M="drawcircle";break;case"line":M="drawline";break;case"path":var L=S[E].path||"";M="Z"===L[L.length-1]?"drawclosedpath":"drawopenpath"}}var C,P=a(M),I=y(n,o,m,A),O={editable:!0,xref:T?"paper":_._id,yref:k?"paper":w._id,layer:p.layer,opacity:p.opacity,line:{color:p.line.color,width:p.line.width,dash:p.line.dash}};if(P||(O.fillcolor=p.fillcolor,O.fillrule=p.fillrule),1===I.length&&(C=I[0]),C&&"drawrect"===M)O.type="rect",O.x0=C[0][1],O.y0=C[0][2],O.x1=C[2][1],O.y1=C[2][2];else if(C&&"drawline"===M)O.type="line",O.x0=C[0][1],O.y0=C[0][2],O.x1=C[1][1],O.y1=C[1][2];else if(C&&"drawcircle"===M){O.type="circle";var z=C[s][1],D=C[l][1],R=C[c][1],F=C[u][1],B=C[s][2],N=C[l][2],j=C[c][2],U=C[u][2],V=m.xaxis&&("date"===m.xaxis.type||"log"===m.xaxis.type),q=m.yaxis&&("date"===m.yaxis.type||"log"===m.yaxis.type);V&&(z=g(m.xaxis,z),D=g(m.xaxis,D),R=g(m.xaxis,R),F=g(m.xaxis,F)),q&&(B=g(m.yaxis,B),N=g(m.yaxis,N),j=g(m.yaxis,j),U=g(m.yaxis,U));var H=(D+F)/2,G=(B+j)/2,Y=b({x0:H,y0:G,x1:H+(F-D+R-z)/2*f,y1:G+(U-N+j-B)/2*h});V&&(Y.x0=d(m.xaxis,Y.x0),Y.x1=d(m.xaxis,Y.x1)),q&&(Y.y0=d(m.yaxis,Y.y0),Y.y1=d(m.yaxis,Y.y1)),O.x0=Y.x0,O.y0=Y.y0,O.x1=Y.x1,O.y1=Y.y1}else O.type="path",_&&w&&function(t,e,r){var n="date"===e.type,i="date"===r.type;if(!n&&!i)return t;for(var a=0;a<t.length;a++)for(var o=0;o<t[a].length;o++)for(var s=0;s+2<t[a][o].length;s+=2)n&&(t[a][o][s+1]=t[a][o][s+1].replace(" ","_")),i&&(t[a][o][s+2]=t[a][o][s+2].replace(" ","_"))}(I,_,w),O.path=x(I),C=null;v(o);for(var

W=e.editHelpers,X=(W||{}).modifyItem,Z=[],J=0;J<S.length;J++){var K=o._fullLayout.shapes[J];if(Z[J]=K._input,void 0!==A&&J===o._fullLayout._activeShapeIndex){var Q=O;switch(K.type){case"line":case"rect":case"circle":X("x0",Q.x0),X("x1",Q.x1),X("y0",Q.y0),X("y1",Q.y1);break;case"path":X("path",Q.path)}}}return void 0===A?(Z.push(O),Z):W?W.getUpdateObj():{}}}},{"../../../plots/cartesian/handle_outline":565,"../../../plots/cartesian/helpers":566,"../../dragelement/helpers":384,"./constants":452,"./helpers":455}],457:[function(t,e,r){"use strict";var n=t("./constants"),i=t("../../lib");r.rangeToShapePosition=function(t){return"log"===t.type?t.r2d:function(t){return t}},r.shapePositionToRange=function(t){return"log"===t.type?t.d2r:function(t){return t}},r.decodeDate=function(t){return function(e){return e.replace&&(e=e.replace("_"," ")),t(e)}},r.encodeDate=function(t){return function(e){return t(e).replace(" ","_")}},r.extractPathCoords=function(t,e){var r=[];return t.match(n.segmentRE).forEach((function(t){var a=e[t.charAt(0)].drawn;if(void 0!==a){var o=t.substr(1).match(n.paramRE);!o||o.length<a||r.push(i.cleanNumber(o[a]))}})),r},r.getDataToPixel=function(t,e,n,i){var a,o=t._fullLayout._size;if(e)if("domain"===i)a=function(t){return e._length*(n?1-t:t)+e._offset};else{var s=r.shapePositionToRange(e);a=function(t){return e._offset+e.r2p(s(t,!0))},"date"===e.type&&(a=r.decodeDate(a))}else a=n?function(t){return o.t+o.h*(1-t)}:function(t){return o.l+o.w*t};return a},r.getPixelToData=function(t,e,n,i){var a,o=t._fullLayout._size;if(e)if("domain"===i)a=function(t){var r=(t-e._offset)/e._length;return n?1-r:r};else{var s=r.rangeToShapePosition(e);a=function(t){return s(e.p2r(t-e._offset))}}else a=n?function(t){return 1-(t-o.t)/o.h}:function(t){return(t-o.l)/o.w};return a},r.roundPositionForSharpStrokeRendering=function(t,e){var r=1===Math.round(e%2),n=Math.round(t);return r?n+.5:n},r.makeOptionsAndPlotinfo=function(t,e){var r=t._fullLayout.shapes[e]||{},n=t._fullLayout._plots[r.xref+r.yref];return n?n._hadPlotinfo=!0:(n={},r.xref&&"paper"!==r.xref&&(n.xaxis=t._fullLayout[r.xref+"axis"]),r.yref&&"paper"!==r.yref&&(n.yaxis=t._fullLayout[r.yref+"axis"])),n.xsizemode=r.xsizemode,n.ysizemode=r.ysizemode,n.xanchor=r.xanchor,n.yanchor=r.yanchor,{options:r,plotinfo:n}}},{"../../lib":503,"./constants":448}],458:[function(t,e,r){"use strict";var n=t("./draw");e.exports={moduleType:"component",name:"shapes",layoutAttributes:t("./attributes"),supplyLayoutDefaults:t("./defaults"),supplyDrawNewShapeDefaults:t("./draw_newshape/defaults"),includeBasePlot:t("../../plots/cartesian/include_components")("shapes"),calcAutorange:t("./calc_autorange"),draw:n.draw,drawOne:n.drawOne}},{"../../plots/cartesian/include_components":567,"./attributes":446,"./calc_autorange":447,"./defaults":449,"./draw":450,"./draw_newshape/defaults":453}],459:[function(t,e,r){"use strict";var n=t("../../plots/font_attributes"),i=t("../../plots/pad_attributes"),a=t("../../lib/extend").extendDeepAll,o=t("../../plot_api/edit_types").overrideAll,s=t("../../plots/animation_attributes"),l=t("../../plot_api/plot_template").templatedArray,c=t("./constants"),u=l("step",{visible:{valType:"boolean",dflt:!0},method:{valType:"enumerated",values:["restyle","relayout","animate","update","skip"],dflt:"restyle"},args:{valType:"info_array",freeLength:!0,items:[{valType:"any"},{valType:"any"},{valType:"any"}]},label:{valType:"string"},value:{valType:"string"},execute:{valType:"boolean",dflt:!0}});e.exports=o(l("slider",{visible:{valType:"boolean",dflt:!0},active:{valType:"number",min:0,dflt:0},steps:u,lenmode:{valType:"enumerated",values:["fraction","pixels"],dflt:"fraction"},len:{valType:"number",min:0,dflt:1},x:{valType:"number",min:-2,max:3,dflt:0},pad:a(i({editType:"arraydraw"}),{},{t:{dflt:20}}),xanchor:{valType:"enumerated",values:["auto","left","center","right"],dflt:"left"},y:{valType:"number",min:-2,max:3,dflt:0},yanchor:{valType:"enumerated",values:["auto","top","middle","bottom"],dflt:"top"},transition:{duration:{valType:"number",min:0,dflt:150},easing:{valType:"enumerated",values:s.transition.easing.values,dflt:"cubic-in-out"}},currentvalue:{visible:{valType:"boolean",dflt:!0},xanchor:{valType:"enumerated",values:["left","center","right"],dflt:"left"},offset:{valType:"number",dflt:10},prefix:{valType:"string"},suffix:{valType:"string"},font:n({})},font:n({}),activebgcolor:{valType:"color",dflt:c.gripBgActiveColor},bgcolor:{valType:"color",dflt:c.railBgColor},

bordercolor:{valType:"color",dflt:c.railBorderColor},borderwidth:{valType:"number",min:0,dflt:c.railBorderWidth},ticklen:{valType:"number",min:0,dflt:c.tickLength},tickcolor:{valType:"color",dflt:c.tickColor},tickwidth:{valType:"number",min:0,dflt:1},minorticklen:{valType:"number",min:0,dflt:c.minorTickLength}}),"arraydraw","fromroot")},{"../../lib/extend":493,"../../plot_api/edit_types":536,"../../plot_api/plot_template":543,"../../plots/animation_attributes":548,"../../plots/font_attributes":585,"../../plots/pad_attributes":618,"./constants":460}],460:[function(t,e,r){"use strict";e.exports={name:"sliders",containerClassName:"slider-container",groupClassName:"slider-group",inputAreaClass:"slider-input-area",railRectClass:"slider-rail-rect",railTouchRectClass:"slider-rail-touch-rect",gripRectClass:"slider-grip-rect",tickRectClass:"slider-tick-rect",inputProxyClass:"slider-input-proxy",labelsClass:"slider-labels",labelGroupClass:"slider-label-group",labelClass:"slider-label",currentValueClass:"slider-current-value",railHeight:5,menuIndexAttrName:"slider-active-index",autoMarginIdRoot:"slider-",minWidth:30,minHeight:30,textPadX:40,arrowOffsetX:4,railRadius:2,railWidth:5,railBorder:4,railBorderWidth:1,railBorderColor:"#bec8d9",railBgColor:"#f8fafc",railInset:8,stepInset:10,gripRadius:10,gripWidth:20,gripHeight:20,gripBorder:20,gripBorderWidth:1,gripBorderColor:"#bec8d9",gripBgColor:"#f6f8fa",gripBgActiveColor:"#dbdde0",labelPadding:8,labelOffset:0,tickWidth:1,tickColor:"#333",tickOffset:25,tickLength:7,minorTickOffset:25,minorTickColor:"#333",minorTickLength:4,currentValuePadding:8,currentValueInset:0}},{}],461:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plots/array_container_defaults"),a=t("./attributes"),o=t("./constants").name,s=a.steps;function l(t,e,r){function o(r,i){return n.coerce(t,e,a,r,i)}for(var s=i(t,e,{name:"steps",handleItemDefaults:c}),l=0,u=0;u<s.length;u++)s[u].visible&&l++;if(l<2?e.visible=!1:o("visible")){e._stepCount=l;var f=e._visibleSteps=n.filterVisible(s);(s[o("active")]||{}).visible||(e.active=f[0]._index),o("x"),o("y"),n.noneOrAll(t,e,["x","y"]),o("xanchor"),o("yanchor"),o("len"),o("lenmode"),o("pad.t"),o("pad.r"),o("pad.b"),o("pad.l"),n.coerceFont(o,"font",r.font),o("currentvalue.visible")&&(o("currentvalue.xanchor"),o("currentvalue.prefix"),o("currentvalue.suffix"),o("currentvalue.offset"),n.coerceFont(o,"currentvalue.font",e.font)),o("transition.duration"),o("transition.easing"),o("bgcolor"),o("activebgcolor"),o("bordercolor"),o("borderwidth"),o("ticklen"),o("tickwidth"),o("tickcolor"),o("minorticklen")}}function c(t,e){function r(r,i){return n.coerce(t,e,s,r,i)}if("skip"===t.method||Array.isArray(t.args)?r("visible"):e.visible=!1){r("method"),r("args");var i=r("label","step-"+e._index);r("value",i),r("execute")}}e.exports=function(t,e){i(t,e,{name:o,handleItemDefaults:l})}},{"../../lib":503,"../../plots/array_container_defaults":549,"./attributes":459,"./constants":460}],462:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../plots/plots"),a=t("../color"),o=t("../drawing"),s=t("../../lib"),l=s.strTranslate,c=t("../../lib/svg_text_utils"),u=t("../../plot_api/plot_template").arrayEditor,f=t("./constants"),h=t("../../constants/alignment"),p=h.LINE_SPACING,d=h.FROM_TL,g=h.FROM_BR;function v(t){return f.autoMarginIdRoot+t._index}function m(t){return t._index}function y(t,e){var r=o.tester.selectAll("g."+f.labelGroupClass).data(e._visibleSteps);r.enter().append("g").classed(f.labelGroupClass,!0);var a=0,l=0;r.each((function(t){var r=_(n.select(this),{step:t},e).node();if(r){var i=o.bBox(r);l=Math.max(l,i.height),a=Math.max(a,i.width)}})),r.remove();var u=e._dims={};u.inputAreaWidth=Math.max(f.railWidth,f.gripHeight);var h=t._fullLayout._size;u.lx=h.l+h.w*e.x,u.ly=h.t+h.h*(1-e.y),"fraction"===e.lenmode?u.outerLength=Math.round(h.w*e.len):u.outerLength=e.len,u.inputAreaStart=0,u.inputAreaLength=Math.round(u.outerLength-e.pad.l-e.pad.r);var p=(u.inputAreaLength-2*f.stepInset)/(e._stepCount-1),m=a+f.labelPadding;if(u.labelStride=Math.max(1,Math.ceil(m/p)),u.labelHeight=l,u.currentValueMaxWidth=0,u.currentValueHeight=0,u.currentValueTotalHeight=0,u.currentValueMaxLines=1,e.currentvalue.visible){var y=o.tester.append("g");r.each((function(t){var r=x(y,e,t.label),n=r.node()&&o.bBox(r.node())||{width:0,height:0},i=c.lineCount(r);u.currentValueMaxWidth=Math.max(u.currentValueMaxWidth,Math.ceil(n.width)),u.currentValueHeight=Math.max(u.currentValueHeight,Math.ceil(n.height)),u.currentValueMaxLines=Math.max(u.currentValueMaxLines,i)})),u.currentValueTotalHeight=u.curr

entValueHeight+e.currentvalue.offset,y.remove()}u.height=u.currentValueTotalHeight+f.tickOffset+e.ticklen+f.labelOffset+u.labelHeight+e.pad.t+e.pad.b;var b="left";s.isRightAnchor(e)&&(u.lx-=u.outerLength,b="right"),s.isCenterAnchor(e)&&(u.lx-=u.outerLength/2,b="center");var w="top";s.isBottomAnchor(e)&&(u.ly-=u.height,w="bottom"),s.isMiddleAnchor(e)&&(u.ly-=u.height/2,w="middle"),u.outerLength=Math.ceil(u.outerLength),u.height=Math.ceil(u.height),u.lx=Math.round(u.lx),u.ly=Math.round(u.ly);var T={y:e.y,b:u.height*g[w],t:u.height*d[w]};"fraction"===e.lenmode?(T.l=0,T.xl=e.x-e.len*d[b],T.r=0,T.xr=e.x+e.len*g[b]):(T.x=e.x,T.l=u.outerLength*d[b],T.r=u.outerLength*g[b]),i.autoMargin(t,v(e),T)}function x(t,e,r){if(e.currentvalue.visible){var n,i,a=e._dims;switch(e.currentvalue.xanchor){case"right":n=a.inputAreaLength-f.currentValueInset-a.currentValueMaxWidth,i="left";break;case"center":n=.5*a.inputAreaLength,i="middle";break;default:n=f.currentValueInset,i="left"}var l=s.ensureSingle(t,"text",f.labelClass,(function(t){t.attr({"text-anchor":i,"data-notex":1})})),u=e.currentvalue.prefix?e.currentvalue.prefix:"";if("string"==typeof r)u+=r;else{var h=e.steps[e.active].label,d=e._gd._fullLayout._meta;d&&(h=s.templateString(h,d)),u+=h}e.currentvalue.suffix&&(u+=e.currentvalue.suffix),l.call(o.font,e.currentvalue.font).text(u).call(c.convertToTspans,e._gd);var g=c.lineCount(l),v=(a.currentValueMaxLines+1-g)*e.currentvalue.font.size*p;return c.positionText(l,n,v),l}}function b(t,e,r){s.ensureSingle(t,"rect",f.gripRectClass,(function(n){n.call(A,e,t,r).style("pointer-events","all")})).attr({width:f.gripWidth,height:f.gripHeight,rx:f.gripRadius,ry:f.gripRadius}).call(a.stroke,r.bordercolor).call(a.fill,r.bgcolor).style("stroke-width",r.borderwidth+"px")}function _(t,e,r){var n=s.ensureSingle(t,"text",f.labelClass,(function(t){t.attr({"text-anchor":"middle","data-notex":1})})),i=e.step.label,a=r._gd._fullLayout._meta;return a&&(i=s.templateString(i,a)),n.call(o.font,r.font).text(i).call(c.convertToTspans,r._gd),n}function w(t,e){var r=s.ensureSingle(t,"g",f.labelsClass),i=e._dims,a=r.selectAll("g."+f.labelGroupClass).data(i.labelSteps);a.enter().append("g").classed(f.labelGroupClass,!0),a.exit().remove(),a.each((function(t){var r=n.select(this);r.call(_,t,e),o.setTranslate(r,E(e,t.fraction),f.tickOffset+e.ticklen+e.font.size*p+f.labelOffset+i.currentValueTotalHeight)}))}function T(t,e,r,n,i){var a=Math.round(n*(r._stepCount-1)),o=r._visibleSteps[a]._index;o!==r.active&&k(t,e,r,o,!0,i)}function k(t,e,r,n,a,o){var s=r.active;r.active=n,u(t.layout,f.name,r).applyUpdate("active",n);var l=r.steps[r.active];e.call(S,r,o),e.call(x,r),t.emit("plotly_sliderchange",{slider:r,step:r.steps[r.active],interaction:a,previousActive:s}),l&&l.method&&a&&(e._nextMethod?(e._nextMethod.step=l,e._nextMethod.doCallback=a,e._nextMethod.doTransition=o):(e._nextMethod={step:l,doCallback:a,doTransition:o},e._nextMethodRaf=window.requestAnimationFrame((function(){var r=e._nextMethod.step;r.method&&(r.execute&&i.executeAPICommand(t,r.method,r.args),e._nextMethod=null,e._nextMethodRaf=null)}))))}function A(t,e,r){var i=r.node(),o=n.select(e);function s(){return r.data()[0]}function l(){var t=s();e.emit("plotly_sliderstart",{slider:t});var l=r.select("."+f.gripRectClass);n.event.stopPropagation(),n.event.preventDefault(),l.call(a.fill,t.activebgcolor);var c=L(t,n.mouse(i)[0]);function u(){var t=s(),a=L(t,n.mouse(i)[0]);T(e,r,t,a,!1)}function h(){var t=s();t._dragging=!1,l.call(a.fill,t.bgcolor),o.on("mouseup",null),o.on("mousemove",null),o.on("touchend",null),o.on("touchmove",null),e.emit("plotly_sliderend",{slider:t,step:t.steps[t.active]})}T(e,r,t,c,!0),t._dragging=!0,o.on("mousemove",u),o.on("touchmove",u),o.on("mouseup",h),o.on("touchend",h)}t.on("mousedown",l),t.on("touchstart",l)}function M(t,e){var r=t.selectAll("rect."+f.tickRectClass).data(e._visibleSteps),i=e._dims;r.enter().append("rect").classed(f.tickRectClass,!0),r.exit().remove(),r.attr({width:e.tickwidth+"px","shape-rendering":"crispEdges"}),r.each((function(t,r){var s=r%i.labelStride==0,l=n.select(this);l.attr({height:s?e.ticklen:e.minorticklen}).call(a.fill,e.tickcolor),o.setTranslate(l,E(e,r/(e._stepCount-1))-.5*e.tickwidth,(s?f.tickOffset:f.minorTickOffset)+i.currentValueTotalHeight)}))}function S(t,e,r){for(var n=t.select("rect."+f.gripRectClass),i=0,a=0;a<e._stepCount;a++)if(e._visibleSteps[a]._index===e.active){i=a;break}var o=E(e,i/(e._stepCount-1));if(!e._invokingCommand){var

s=n;r&&e.transition.duration>0&&(s=s.transition().duration(e.transition.duration).ease(e.transition.easing)),s.attr("transform",l(o-.5*f.gripWidth,e._dims.currentValueTotalHeight))}}function E(t,e){var r=t._dims;return r.inputAreaStart+f.stepInset+(r.inputAreaLength-2*f.stepInset)*Math.min(1,Math.max(0,e))}function L(t,e){var r=t._dims;return Math.min(1,Math.max(0,(e-f.stepInset-r.inputAreaStart)/(r.inputAreaLength-2*f.stepInset-2*r.inputAreaStart)))}function C(t,e,r){var n=r._dims,i=s.ensureSingle(t,"rect",f.railTouchRectClass,(function(n){n.call(A,e,t,r).style("pointer-events","all")}));i.attr({width:n.inputAreaLength,height:Math.max(n.inputAreaWidth,f.tickOffset+r.ticklen+n.labelHeight)}).call(a.fill,r.bgcolor).attr("opacity",0),o.setTranslate(i,0,n.currentValueTotalHeight)}function P(t,e){var r=e._dims,n=r.inputAreaLength-2*f.railInset,i=s.ensureSingle(t,"rect",f.railRectClass);i.attr({width:n,height:f.railWidth,rx:f.railRadius,ry:f.railRadius,"shape-rendering":"crispEdges"}).call(a.stroke,e.bordercolor).call(a.fill,e.bgcolor).style("stroke-width",e.borderwidth+"px"),o.setTranslate(i,f.railInset,.5*(r.inputAreaWidth-f.railWidth)+r.currentValueTotalHeight)}e.exports=function(t){var e=t._fullLayout,r=function(t,e){for(var r=t[f.name],n=[],i=0;i<r.length;i++){var a=r[i];a.visible&&(a._gd=e,n.push(a))}return n}(e,t),a=e._infolayer.selectAll("g."+f.containerClassName).data(r.length>0?[0]:[]);function s(e){e._commandObserver&&(e._commandObserver.remove(),delete e._commandObserver),i.autoMargin(t,v(e))}if(a.enter().append("g").classed(f.containerClassName,!0).style("cursor","ew-resize"),a.exit().each((function(){n.select(this).selectAll("g."+f.groupClassName).each(s)})).remove(),0!==r.length){var l=a.selectAll("g."+f.groupClassName).data(r,m);l.enter().append("g").classed(f.groupClassName,!0),l.exit().each(s).remove();for(var c=0;c<r.length;c++){var u=r[c];y(t,u)}l.each((function(e){var r=n.select(this);(function(t){var e=t._dims;e.labelSteps=[];for(var r=t._stepCount,n=0;n<r;n+=e.labelStride)e.labelSteps.push({fraction:n/(r-1),step:t._visibleSteps[n]})})(e),i.manageCommandObserver(t,e,e._visibleSteps,(function(e){var n=r.data()[0];n.active!==e.index&&(n._dragging||k(t,r,n,e.index,!1,!0))})),function(t,e,r){(r.steps[r.active]||{}).visible||(r.active=r._visibleSteps[0]._index),e.call(x,r).call(P,r).call(w,r).call(M,r).call(C,t,r).call(b,t,r);var n=r._dims;o.setTranslate(e,n.lx+r.pad.l,n.ly+r.pad.t),e.call(S,r,!1),e.call(x,r)}(t,n.select(this),e)}))}},{"../../constants/alignment":471,"../../lib":503,"../../lib/svg_text_utils":529,"../../plot_api/plot_template":543,"../../plots/plots":619,"../color":366,"../drawing":388,"./constants":460,"@plotly/d3":58}],463:[function(t,e,r){"use strict";var n=t("./constants");e.exports={moduleType:"component",name:n.name,layoutAttributes:t("./attributes"),supplyLayoutDefaults:t("./defaults"),draw:t("./draw")}},{"./attributes":459,"./constants":460,"./defaults":461,"./draw":462}],464:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("fast-isnumeric"),a=t("../../plots/plots"),o=t("../../registry"),s=t("../../lib"),l=s.strTranslate,c=t("../drawing"),u=t("../color"),f=t("../../lib/svg_text_utils"),h=t("../../constants/interactions"),p=t("../../constants/alignment").OPPOSITE_SIDE,d=/[XY][0-9]* /;e.exports={draw:function(t,e,r){var g,v=r.propContainer,m=r.propName,y=r.placeholder,x=r.traceIndex,b=r.avoid||{},_=r.attributes,w=r.transform,T=r.containerGroup,k=t._fullLayout,A=1,M=!1,S=v.title,E=(S&&S.text?S.text:"").trim(),L=S&&S.font?S.font:{},C=L.family,P=L.size,I=L.color;"title.text"===m?g="titleText":-1!==m.indexOf("axis")?g="axisTitleText":m.indexOf(!0)&&(g="colorbarTitleText");var O=t._context.edits[g];""===E?A=0:E.replace(d," % ")===y.replace(d," % ")&&(A=.2,M=!0,O||(E="")),r._meta?E=s.templateString(E,r._meta):k._meta&&(E=s.templateString(E,k._meta));var z,D=E||O;T||(T=s.ensureSingle(k._infolayer,"g","g-"+e),z=k._hColorbarMoveTitle);var R=T.selectAll("text").data(D?[0]:[]);if(R.enter().append("text"),R.text(E).attr("class",e),R.exit().remove(),!D)return T;function F(t){s.syncOrAsync([B,N],t)}function B(e){var r;return!w&&!z&&(w={}),w?(r="",w.rotate&&(r+="rotate("+[w.rotate,_.x,_.y]+")"),(w.offset||z)&&(r+=l(0,(w.offset||0)-(z||0)))):r=null,e.attr("transform",r),e.style({"font-family":C,"font-size":n.round(P,2)+"px",fill:u.rgb(I),opacity:A*u.opacity(I),"font-weight":a.fontWeight}).attr(_).call(f.convertToTspans,t),a.previousPromises(t)}function N(t){var

e=n.select(t.node().parentNode);if(b&&b.selection&&b.side&&E){e.attr("transform",null);var r=p[b.side],a="left"===b.side||"top"===b.side?-1:1,o=i(b.pad)?b.pad:2,u=c.bBox(e.node()),f={left:0,top:0,right:k.width,bottom:k.height},h=b.maxShift||a*(f[b.side]-u[b.side]),d=0;if(h<0)d=h;else{var g=b.offsetLeft||0,v=b.offsetTop||0;u.left-=g,u.right-=g,u.top-=v,u.bottom-=v,b.selection.each((function(){var t=c.bBox(this);s.bBoxIntersect(u,t,o)&&(d=Math.max(d,a*(t[b.side]-u[r])+o))})),d=Math.min(h,d)}if(d>0||h<0){var m={left:[-d,0],right:[d,0],top:[0,-d],bottom:[0,d]}[b.side];e.attr("transform",l(m[0],m[1]))}}}return R.call(F),O&&(E?R.on(".opacity",null):(A=0,M=!0,R.text(y).on("mouseover.opacity",(function(){n.select(this).transition().duration(h.SHOW_PLACEHOLDER).style("opacity",1)})).on("mouseout.opacity",(function(){n.select(this).transition().duration(h.HIDE_PLACEHOLDER).style("opacity",0)}))),R.call(f.makeEditable,{gd:t}).on("edit",(function(e){void 0!==x?o.call("_guiRestyle",t,m,e,x):o.call("_guiRelayout",t,m,e)})).on("cancel",(function(){this.text(this.attr("data-unformatted")).call(F)})).on("input",(function(t){this.text(t||" ").call(f.positionText,_.x,_.y)}))),R.classed("js-placeholder",M),T)}},{"../../constants/alignment":471,"../../constants/interactions":478,"../../lib":503,"../../lib/svg_text_utils":529,"../../plots/plots":619,"../../registry":638,"../color":366,"../drawing":388,"@plotly/d3":58,"fast-isnumeric":190}],465:[function(t,e,r){"use strict";var n=t("../../plots/font_attributes"),i=t("../color/attributes"),a=t("../../lib/extend").extendFlat,o=t("../../plot_api/edit_types").overrideAll,s=t("../../plots/pad_attributes"),l=t("../../plot_api/plot_template").templatedArray,c=l("button",{visible:{valType:"boolean"},method:{valType:"enumerated",values:["restyle","relayout","animate","update","skip"],dflt:"restyle"},args:{valType:"info_array",freeLength:!0,items:[{valType:"any"},{valType:"any"},{valType:"any"}]},args2:{valType:"info_array",freeLength:!0,items:[{valType:"any"},{valType:"any"},{valType:"any"}]},label:{valType:"string",dflt:""},execute:{valType:"boolean",dflt:!0}});e.exports=o(l("updatemenu",{_arrayAttrRegexps:[/^updatemenus\[(0|[1-9][0-9]+)\]\.buttons/],visible:{valType:"boolean"},type:{valType:"enumerated",values:["dropdown","buttons"],dflt:"dropdown"},direction:{valType:"enumerated",values:["left","right","up","down"],dflt:"down"},active:{valType:"integer",min:-1,dflt:0},showactive:{valType:"boolean",dflt:!0},buttons:c,x:{valType:"number",min:-2,max:3,dflt:-.05},xanchor:{valType:"enumerated",values:["auto","left","center","right"],dflt:"right"},y:{valType:"number",min:-2,max:3,dflt:1},yanchor:{valType:"enumerated",values:["auto","top","middle","bottom"],dflt:"top"},pad:a(s({editType:"arraydraw"}),{}),font:n({}),bgcolor:{valType:"color"},bordercolor:{valType:"color",dflt:i.borderLine},borderwidth:{valType:"number",min:0,dflt:1,editType:"arraydraw"}}),"arraydraw","from-root")},{"../../lib/extend":493,"../../plot_api/edit_types":536,"../../plot_api/plot_template":543,"../../plots/font_attributes":585,"../../plots/pad_attributes":618,"../color/attributes":365}],466:[function(t,e,r){"use strict";e.exports={name:"updatemenus",containerClassName:"updatemenu-container",headerGroupClassName:"updatemenu-header-group",headerClassName:"updatemenu-header",headerArrowClassName:"updatemenu-header-arrow",dropdownButtonGroupClassName:"updatemenu-dropdown-button-group",dropdownButtonClassName:"updatemenu-dropdown-button",buttonClassName:"updatemenu-button",itemRectClassName:"updatemenu-item-rect",itemTextClassName:"updatemenu-item-text",menuIndexAttrName:"updatemenu-active-index",autoMarginIdRoot:"updatemenu-",blankHeaderOpts:{label:"
"},minWidth:30,minHeight:30,textPadX:24,arrowPadX:16,rx:2,ry:2,textOffsetX:12,textOffsetY:3,arrowOffsetX:4,gapButtonHeader:5,gapButton:2,activeColor:"#F4FAFF",hoverColor:"#F4FAFF",arrowSymbol:{left:"",right:"",up:"",down:""}}},{}],467:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plots/array_container_defaults"),a=t("./attributes"),o=t("./constants").name,s=a.buttons;function l(t,e,r){function o(r,i){return n.coerce(t,e,a,r,i)}o("visible",i(t,e,{name:"buttons",handleItemDefaults:c}).length>0)&&(o("active"),o("direction"),o("type"),o("showactive"),o("x"),o("y"),n.noneOrAll(t,e,["x","y"]),o("xanchor"),o("yanchor"),o("pad.t"),o("pad.r"),o("pad.b"),o("pad.l"),n.coerceFont(o,"font",r.font),o("bgcolor",r.paper_bgcolor),o("bordercolor"),o("borderwidth"))}function c(t,e){function r(r,i){return

n.coerce(t,e,s,r,i)}r("visible","skip"===t.method||Array.isArray(t.args))&&(r("method"),r("args"),r("args2"),r("label"),r("execute"))}e.exports=function(t,e){i(t,e,{name:o,handleItemDefaults:l})}},{"../../lib":503,"../../plots/array_container_defaults":549,"./attributes":465,"./constants":466}],468:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../plots/plots"),a=t("../color"),o=t("../drawing"),s=t("../../lib"),l=t("../../lib/svg_text_utils"),c=t("../../plot_api/plot_template").arrayEditor,u=t("../../constants/alignment").LINE_SPACING,f=t("./constants"),h=t("./scrollbox");function p(t){return t._index}function d(t,e){return+t.attr(f.menuIndexAttrName)===e._index}function g(t,e,r,n,i,a,o,s){e.active=o,c(t.layout,f.name,e).applyUpdate("active",o),"buttons"===e.type?m(t,n,null,null,e):"dropdown"===e.type&&(i.attr(f.menuIndexAttrName,"-1"),v(t,n,i,a,e),s||m(t,n,i,a,e))}function v(t,e,r,n,i){var a=s.ensureSingle(e,"g",f.headerClassName,(function(t){t.style("pointer-events","all")})),l=i._dims,c=i.active,u=i.buttons[c]||f.blankHeaderOpts,h={y:i.pad.t,yPad:0,x:i.pad.l,xPad:0,index:0},p={width:l.headerWidth,height:l.headerHeight};a.call(y,i,u,t).call(M,i,h,p),s.ensureSingle(e,"text",f.headerArrowClassName,(function(t){t.attr("text-anchor","end").call(o.font,i.font).text(f.arrowSymbol[i.direction])})).attr({x:l.headerWidth-f.arrowOffsetX+i.pad.l,y:l.headerHeight/2+f.textOffsetY+i.pad.t}),a.on("click",(function(){r.call(S,String(d(r,i)?-1:i._index)),m(t,e,r,n,i)})),a.on("mouseover",(function(){a.call(w)})),a.on("mouseout",(function(){a.call(T,i)})),o.setTranslate(e,l.lx,l.ly)}function m(t,e,r,a,o){r||(r=e).attr("pointer-events","all");var l=function(t){return-1==+t.attr(f.menuIndexAttrName)}(r)&&"buttons"!==o.type?[]:o.buttons,c="dropdown"===o.type?f.dropdownButtonClassName:f.buttonClassName,u=r.selectAll("g."+c).data(s.filterVisible(l)),h=u.enter().append("g").classed(c,!0),p=u.exit();"dropdown"===o.type?(h.attr("opacity","0").transition().attr("opacity","1"),p.transition().attr("opacity","0").remove()):p.remove();var d=0,v=0,m=o._dims,x=-1!==["up","down"].indexOf(o.direction);"dropdown"===o.type&&(x?v=m.headerHeight+f.gapButtonHeader:d=m.headerWidth+f.gapButtonHeader),"dropdown"===o.type&&"up"===o.direction&&(v=-f.gapButtonHeader+f.gapButton-m.openHeight),"dropdown"===o.type&&"left"===o.direction&&(d=-f.gapButtonHeader+f.gapButton-m.openWidth);var b={x:m.lx+d+o.pad.l,y:m.ly+v+o.pad.t,yPad:f.gapButton,xPad:f.gapButton,index:0},k={l:b.x+o.borderwidth,t:b.y+o.borderwidth};u.each((function(s,l){var c=n.select(this);c.call(y,o,s,t).call(M,o,b),c.on("click",(function(){n.event.defaultPrevented||(s.execute&&(s.args2&&o.active===l?(g(t,o,0,e,r,a,-1),i.executeAPICommand(t,s.method,s.args2)):(g(t,o,0,e,r,a,l),i.executeAPICommand(t,s.method,s.args))),t.emit("plotly_buttonclicked",{menu:o,button:s,active:o.active}))})),c.on("mouseover",(function(){c.call(w)})),c.on("mouseout",(function(){c.call(T,o),u.call(_,o)}))})),u.call(_,o),x?(k.w=Math.max(m.openWidth,m.headerWidth),k.h=b.y-k.t):(k.w=b.x-k.l,k.h=Math.max(m.openHeight,m.headerHeight)),k.direction=o.direction,a&&(u.size()?function(t,e,r,n,i,a){var o,s,l,c=i.direction,u="up"===c||"down"===c,h=i._dims,p=i.active;if(u)for(s=0,l=0;l<p;l++)s+=h.heights[l]+f.gapButton;else for(o=0,l=0;l<p;l++)o+=h.widths[l]+f.gapButton;n.enable(a,o,s),n.hbar&&n.hbar.attr("opacity","0").transition().attr("opacity","1"),n.vbar&&n.vbar.attr("opacity","0").transition().attr("opacity","1")}(0,0,0,a,o,k):function(t){var e=!!t.hbar,r=!!t.vbar;e&&t.hbar.transition().attr("opacity","0").each("end",(function(){e=!1,r||t.disable()})),r&&t.vbar.transition().attr("opacity","0").each("end",(function(){r=!1,e||t.disable()}))}(a))}function y(t,e,r,n){t.call(x,e).call(b,e,r,n)}function x(t,e){s.ensureSingle(t,"rect",f.itemRectClassName,(function(t){t.attr({rx:f.rx,ry:f.ry,"shape-rendering":"crispEdges"})})).call(a.stroke,e.bordercolor).call(a.fill,e.bgcolor).style("stroke-width",e.borderwidth+"px")}function b(t,e,r,n){var i=s.ensureSingle(t,"text",f.itemTextClassName,(function(t){t.attr({"text-anchor":"start","data-notex":1})})),a=r.label,c=n._fullLayout._meta;c&&(a=s.templateString(a,c)),i.call(o.font,e.font).text(a).call(l.convertToTspans,n)}function _(t,e){var r=e.active;t.each((function(t,i){var o=n.select(this);i===r&&e.showactive&&o.select("rect."+f.itemRectClassName).call(a.fill,f.activeColor)}))}functi

on w(t){t.select("rect."+f.itemRectClassName).call(a.fill,f.hoverColor)}function T(t,e){t.select("rect."+f.itemRectClassName).call(a.fill,e.bgcolor)}function k(t,e){var r=e._dims={width1:0,height1:0,heights:[],widths:[],totalWidth:0,totalHeight:0,openWidth:0,openHeight:0,lx:0,ly:0},a=o.tester.selectAll("g."+f.dropdownButtonClassName).data(s.filterVisible(e.buttons));a.enter().append("g").classed(f.dropdownButtonClassName,!0);var c=-1!==["up","down"].indexOf(e.direction);a.each((function(i,a){var s=n.select(this);s.call(y,e,i,t);var h=s.select("."+f.itemTextClassName),p=h.node()&&o.bBox(h.node()).width,d=Math.max(p+f.textPadX,f.minWidth),g=e.font.size*u,v=l.lineCount(h),m=Math.max(g*v,f.minHeight)+f.textOffsetY;m=Math.ceil(m),d=Math.ceil(d),r.widths[a]=d,r.heights[a]=m,r.height1=Math.max(r.height1,m),r.width1=Math.max(r.width1,d),c?(r.totalWidth=Math.max(r.totalWidth,d),r.openWidth=r.totalWidth,r.totalHeight+=m+f.gapButton,r.openHeight+=m+f.gapButton):(r.totalWidth+=d+f.gapButton,r.openWidth+=d+f.gapButton,r.totalHeight=Math.max(r.totalHeight,m),r.openHeight=r.totalHeight)})),c?r.totalHeight-=f.gapButton:r.totalWidth-=f.gapButton,r.headerWidth=r.width1+f.arrowPadX,r.headerHeight=r.height1,"dropdown"===e.type&&(c?(r.width1+=f.arrowPadX,r.totalHeight=r.height1):r.totalWidth=r.width1,r.totalWidth+=f.arrowPadX),a.remove();var h=r.totalWidth+e.pad.l+e.pad.r,p=r.totalHeight+e.pad.t+e.pad.b,d=t._fullLayout._size;r.lx=d.l+d.w*e.x,r.ly=d.t+d.h*(1-e.y);var g="left";s.isRightAnchor(e)&&(r.lx-=h,g="right"),s.isCenterAnchor(e)&&(r.lx-=h/2,g="center");var v="top";s.isBottomAnchor(e)&&(r.ly-=p,v="bottom"),s.isMiddleAnchor(e)&&(r.ly-=p/2,v="middle"),r.totalWidth=Math.ceil(r.totalWidth),r.totalHeight=Math.ceil(r.totalHeight),r.lx=Math.round(r.lx),r.ly=Math.round(r.ly),i.autoMargin(t,A(e),{x:e.x,y:e.y,l:h*({right:1,center:.5}[g]||0),r:h*({left:1,center:.5}[g]||0),b:p*({top:1,middle:.5}[v]||0),t:p*({bottom:1,middle:.5}[v]||0)})}function A(t){return f.autoMarginIdRoot+t._index}function M(t,e,r,n){n=n||{};var i=t.select("."+f.itemRectClassName),a=t.select("."+f.itemTextClassName),s=e.borderwidth,c=r.index,h=e._dims;o.setTranslate(t,s+r.x,s+r.y);var p=-1!==["up","down"].indexOf(e.direction),d=n.height||(p?h.heights[c]:h.height1);i.attr({x:0,y:0,width:n.width||(p?h.width1:h.widths[c]),height:d});var g=e.font.size*u,v=(l.lineCount(a)-1)*g/2;l.positionText(a,f.textOffsetX,d/2-v+f.textOffsetY),p?r.y+=h.heights[c]+r.yPad:r.x+=h.widths[c]+r.xPad,r.index++}function S(t,e){t.attr(f.menuIndexAttrName,e||"-1").selectAll("g."+f.dropdownButtonClassName).remove()}e.exports=function(t){var e=t._fullLayout,r=s.filterVisible(e[f.name]);function a(e){i.autoMargin(t,A(e))}var o=e._menulayer.selectAll("g."+f.containerClassName).data(r.length>0?[0]:[]);if(o.enter().append("g").classed(f.containerClassName,!0).style("cursor","pointer"),o.exit().each((function(){n.select(this).selectAll("g."+f.headerGroupClassName).each(a)})).remove(),0!==r.length){var l=o.selectAll("g."+f.headerGroupClassName).data(r,p);l.enter().append("g").classed(f.headerGroupClassName,!0);for(var c=s.ensureSingle(o,"g",f.dropdownButtonGroupClassName,(function(t){t.style("pointer-events","all")})),u=0;u<r.length;u++){var y=r[u];k(t,y)}var x="updatemenus"+e._uid,b=new h(t,c,x);l.enter().size()&&(c.node().parentNode.appendChild(c.node()),c.call(S)),l.exit().each((function(t){c.call(S),a(t)})).remove(),l.each((function(e){var r=n.select(this),a="dropdown"===e.type?c:null;i.manageCommandObserver(t,e,e.buttons,(function(n){g(t,e,e.buttons[n.index],r,a,b,n.index,!0)})),"dropdown"===e.type?(v(t,r,c,b,e),d(c,e)&&m(t,r,c,b,e)):m(t,r,null,null,e)}))}}},{"../../constants/alignment":471,"../../lib":503,"../../lib/svg_text_utils":529,"../../plot_api/plot_template":543,"../../plots/plots":619,"../color":366,"../drawing":388,"./constants":466,"./scrollbox":470,"@plotly/d3":58}],469:[function(t,e,r){arguments[4][463][0].apply(r,arguments)},{"./attributes":465,"./constants":466,"./defaults":467,"./draw":468,dup:463}],470:[function(t,e,r){"use strict";e.exports=s;var n=t("@plotly/d3"),i=t("../color"),a=t("../drawing"),o=t("../../lib");function s(t,e,r){this.gd=t,this.container=e,this.id=r,this.position=null,this.translateX=null,this.translateY=null,this.hbar=null,this.vbar=null,this.bg=this.container.selectAll("rect.scrollbox-bg").data([0]),this.bg.exit().on(".drag",null).on("wheel",null).remove(),this.bg.enter().append("rect").classed("scrollbox-bg",!0).style("pointer-

events","all").attr({opacity:0,x:0,y:0,width:0,height:0})}s.barWidth=2,s.barLength=20,s.barRadius=2,s.barPad=1,s.barColor="#808BA4",s.prototype.enable=function(t,e,r){var o=this.gd._fullLayout,l=o.width,c=o.height;this.position=t;var u,f,h,p,d=this.position.l,g=this.position.w,v=this.position.t,m=this.position.h,y=this.position.direction,x="down"===y,b="left"===y,_="up"===y,w=g,T=m;x||b||"right"===y||_||(this.position.direction="down",x=!0),x||_?(f=(u=d)+w,x?(h=v,T=(p=Math.min(h+T,c))-h):T=(p=v+T)-(h=Math.max(p-T,0))):(p=(h=v)+T,b?w=(f=d+w)-(u=Math.max(f-w,0)):(u=d,w=(f=Math.min(u+w,l))-u)),this._box={l:u,t:h,w,h:T};var k=g>w,A=s.barLength+2*s.barPad,M=s.barWidth+2*s.barPad,S=d,E=v+m;E+M>c&&(E=c-M);var L=this.container.selectAll("rect.scrollbar-horizontal").data(k?[0]:[]);L.exit().on(".drag",null).remove(),L.enter().append("rect").classed("scrollbar-horizontal",!0).call(i.fill,s.barColor),k?(this.hbar=L.attr({rx:s.barRadius,ry:s.barRadius,x:S,y:E,width:A,height:M}),this._hbarXMin=S+A/2,this._hbarTranslateMax=w-A):(delete this.hbar,delete this._hbarXMin,delete this._hbarTranslateMax);var C=m>T,P=s.barWidth+2*s.barPad,I=s.barLength+2*s.barPad,O=d+g,z=v;O+P>l&&(O=l-P);var D=this.container.selectAll("rect.scrollbar-vertical").data(C?[0]:[]);D.exit().on(".drag",null).remove(),D.enter().append("rect").classed("scrollbar-vertical",!0).call(i.fill,s.barColor),C?(this.vbar=D.attr({rx:s.barRadius,ry:s.barRadius,x:O,y:z,width:P,height:I}),this._vbarYMin=z+I/2,this._vbarTranslateMax=T-I):(delete this.vbar,delete this._vbarYMin,delete this._vbarTranslateMax);var R=this.id,F=u-.5,B=C?f+P+.5:f+.5,N=h-.5,j=k?p+M+.5:p+.5,U=o._topdefs.selectAll("#"+R).data(k||C?[0]:[]);if(U.exit().remove(),U.enter().append("clipPath").attr("id",R).append("rect"),k||C?(this._clipRect=U.select("rect").attr({x:Math.floor(F),y:Math.floor(N),width:Math.ceil(B)-Math.floor(F),height:Math.ceil(j)-Math.floor(N)}),this.container.call(a.setClipUrl,R,this.gd),this.bg.attr({x:d,y:v,width:g,height:m})):(this.bg.attr({width:0,height:0}),this.container.on("wheel",null).on(".drag",null).call(a.setClipUrl,null),delete this._clipRect),k||C){var V=n.behavior.drag().on("dragstart",(function(){n.event.sourceEvent.preventDefault()})).on("drag",this._onBoxDrag.bind(this));this.container.on("wheel",null).on("wheel",this._onBoxWheel.bind(this)).on(".drag",null).call(V);var q=n.behavior.drag().on("dragstart",(function(){n.event.sourceEvent.preventDefault(),n.event.sourceEvent.stopPropagation()})).on("drag",this._onBarDrag.bind(this));k&&this.hbar.on(".drag",null).call(q),C&&this.vbar.on(".drag",null).call(q)}this.setTranslate(e,r)},s.prototype.disable=function(){(this.hbar||this.vbar)&&(this.bg.attr({width:0,height:0}),this.container.on("wheel",null).on(".drag",null).call(a.setClipUrl,null),delete this._clipRect),this.hbar&&(this.hbar.on(".drag",null),this.hbar.remove(),delete this.hbar,delete this._hbarXMin,delete this._hbarTranslateMax),this.vbar&&(this.vbar.on(".drag",null),this.vbar.remove(),delete this.vbar,delete this._vbarYMin,delete this._vbarTranslateMax)},s.prototype._onBoxDrag=function(){var t=this.translateX,e=this.translateY;this.hbar&&(t-=n.event.dx),this.vbar&&(e-=n.event.dy),this.setTranslate(t,e)},s.prototype._onBoxWheel=function(){var t=this.translateX,e=this.translateY;this.hbar&&(t+=n.event.deltaY),this.vbar&&(e+=n.event.deltaY),this.setTranslate(t,e)},s.prototype._onBarDrag=function(){var t=this.translateX,e=this.translateY;if(this.hbar){var r=t+this._hbarXMin,i=r+this._hbarTranslateMax;t=(o.constrain(n.event.x,r,i)-r)/(i-r)*(this.position.w-this._box.w)}if(this.vbar){var a=e+this._vbarYMin,s=a+this._vbarTranslateMax;e=(o.constrain(n.event.y,a,s)-a)/(s-a)*(this.position.h-this._box.h)}this.setTranslate(t,e)},s.prototype.setTranslate=function(t,e){var r=this.position.w-this._box.w,n=this.position.h-this._box.h;if(t=o.constrain(t||0,0,r),e=o.constrain(e||0,0,n),this.translateX=t,this.translateY=e,this.container.call(a.setTranslate,this._box.l-this.position.l-t,this._box.t-this.position.t-e),this._clipRect&&this._clipRect.attr({x:Math.floor(this.position.l+t-.5),y:Math.floor(this.position.t+e-.5)}),this.hbar){var i=t/r;this.hbar.call(a.setTranslate,t+i*this._hbarTranslateMax,e)}if(this.vbar){var s=e/n;this.vbar.call(a.setTranslate,t,e+s*this._vbarTranslateMax)}},{"../../lib":503,"../color":366,"../drawing":388,"@plotly/d3":58}],471:[function(t,e,r){"use

strict";e.exports={FROM_BL:{left:0,center:.5,right:1,bottom:0,middle:.5,top:1},FROM_TL:{left:0,center:.5,right:1,bottom:1,middle:.5,top:0},FROM_BR:{left:1,center:.5,right:0,bottom:0,middle:.5,top:1},LINE_SPACING:1.3,CAP_SHIFT:.7,MID_SHIFT:.35,OPPOSITE_SIDE:{left:"right",right:"left",top:"bottom",bottom:"top"}}},{}],472:[function(t,e,r){"use strict";e.exports={axisRefDescription:function(t,e,r){return["If set to a",t,"axis id (e.g. *"+t+"* or","*"+t+"2*), the `"+t+"` position refers to a",t,"coordinate. If set to *paper*, the `"+t+"`","position refers to the distance from the",e,"of the plotting","area in normalized coordinates where *0* (*1*) corresponds to the",e,"("+r+"). If set to a",t,"axis ID followed by","*domain* (separated by a space), the position behaves like for","*paper*, but refers to the distance in fractions of the domain","length from the",e,"of the domain of that axis: e.g.,","*"+t+"2 domain* refers to the domain of the second",t," axis and a",t,"position of 0.5 refers to the","point between the",e,"and the",r,"of the domain of the","second",t,"axis."].join(" ")}}},{}],473:[function(t,e,r){"use strict";e.exports={INCREASING:{COLOR:"#3D9970",SYMBOL:""},DECREASING:{COLOR:"#FF4136",SYMBOL:""}}},{}],474:[function(t,e,r){"use strict";e.exports={FORMAT_LINK:"https://github.com/d3/d3-format/tree/v1.4.5#d3-format",DATE_FORMAT_LINK:"https://github.com/d3/d3-time-format/tree/v2.2.3#locale_format"}},{}],475:[function(t,e,r){"use strict";e.exports={COMPARISON_OPS:["=","!=","<",">=",">","<="],COMPARISON_OPS2:["=","<",">=",">","<="],INTERVAL_OPS:["[]","()","[)","(]","][",")(","](",")["],SET_OPS:["{}","}{"],CONSTRAINT_REDUCTION:{"=":"=","<":"<","<=":"<",">":">",">=":">","[]":"[]","()":"[]","[)":"[]","(]":"[]","][":"[]",")(":"[]","](":"[]",")[":"[]"}}},{}],476:[function(t,e,r){"use strict";e.exports={solid:[[],0],dot:[[.5,1],200],dash:[[.5,1],50],longdash:[[.5,1],10],dashdot:[[.5,.625,.875,1],50],longdashdot:[[.5,.7,.8,1],10]}},{}],477:[function(t,e,r){"use strict";e.exports={circle:"","circle-open":"",square:"","square-open":"",diamond:"","diamond-open":"",cross:"+",x:""}},{}],478:[function(t,e,r){"use strict";e.exports={SHOW_PLACEHOLDER:100,HIDE_PLACEHOLDER:1e3,DESELECTDIM:.2}},{}],479:[function(t,e,r){"use strict";e.exports={BADNUM:void 0,FP_SAFE:1e-4*Number.MAX_VALUE,ONEMAXYEAR:316224e5,ONEAVGYEAR:315576e5,ONEMINYEAR:31536e6,ONEMAXQUARTER:79488e5,ONEAVGQUARTER:78894e5,ONEMINQUARTER:76896e5,ONEMAXMONTH:26784e5,ONEAVGMONTH:26298e5,ONEMINMONTH:24192e5,ONEWEEK:6048e5,ONEDAY:864e5,ONEHOUR:36e5,ONEMIN:6e4,ONESEC:1e3,EPOCHJD:2440587.5,ALMOST_EQUAL:.999999,LOG_CLIP:10,MINUS_SIGN:""}},{}],480:[function(t,e,r){"use strict";r.xmlns="http://www.w3.org/2000/xmlns/",r.svg="http://www.w3.org/2000/svg",r.xlink="http://www.w3.org/1999/xlink",r.svgAttrs={xmlns:r.svg,"xmlns:xlink":r.xlink}},{}],481:[function(t,e,r){"use strict";r.version=t("./version").version,t("native-promise-only"),t("../build/plotcss");for(var n=t("./registry"),i=r.register=n.register,a=t("./plot_api"),o=Object.keys(a),s=0;s<o.length;s++){var l=o[s];"_"!==l.charAt(0)&&(r[l]=a[l]),i({moduleType:"apiMethod",name:l,fn:a[l]})}i(t("./traces/scatter")),i([t("./components/legend"),t("./components/fx"),t("./components/annotations"),t("./components/annotations3d"),t("./components/shapes"),t("./components/images"),t("./components/updatemenus"),t("./components/sliders"),t("./components/rangeslider"),t("./components/rangeselector"),t("./components/grid"),t("./components/errorbars"),t("./components/colorscale"),t("./components/colorbar"),t("./components/modebar")]),i([t("./locale-en"),t("./locale-en-us")]),window.PlotlyLocales&&Array.isArray(window.PlotlyLocales)&&(i(window.PlotlyLocales),delete window.PlotlyLocales),r.Icons=t("./fonts/ploticon");var c=t("./components/fx"),u=t("./plots/plots");r.Plots={resize:u.resize,graphJson:u.graphJson,sendDataToCloud:u.sendDataToCloud},r.Fx={hover:c.hover,unhover:c.unhover,loneHover:c.loneHover,loneUnhover:c.loneUnhover},r.Snapshot=t("./snapshot"),r.PlotSchema=t("./plot_api/plot_schema")},{"../build/plotcss":1,"./components/annotations":357,"./components/annotations3d":362,"./components/colorbar":372,"./components/colorscale":378,"./components/errorbars":394,"./components/fx":406,"./components/grid":410,"./components/images":415,"./components/legend":423,"./components/modebar":429,"./components/rangeselector":437,"./components/rangeslider":444,"./components/shapes":458,"./components/sliders":463,"./components/updatemenus":469,"./fonts/ploticon":482,"./locale-en":534,"./locale-en-us":533,"./plot_api":538,"./plot_api/plot_schema":542,"./plots/plots":619,"./registry":638,"./snapshot":643,"./traces/s

catter":939,"./version":1123,"native-promise-only":245}],482:[function(t,e,r){"use strict";e.exports={undo:{width:857.1,height:1e3,path:"m857 350q0-87-34-166t-91-137-137-92-166-34q-96 0-183 41t-147 114q-4 6-4 13t5 11l76 77q6 5 14 5 9-1 13-7 41-53 100-82t126-29q58 0 110 23t92 61 61 91 22 111-22 111-61 91-92 61-110 23q-55 0-105-20t-90-57l77-77q17-16 8-38-10-23-33-23h-250q-15 0-25 11t-11 25v250q0 24 22 33 22 10 39-8l72-72q60 57 137 88t159 31q87 0 166-34t137-92 91-137 34-166z",transform:"matrix(1 0 0 -1 0 850)"},home:{width:928.6,height:1e3,path:"m786 296v-267q0-15-11-26t-25-10h-214v214h-143v-214h-214q-15 0-25 10t-11 26v267q0 1 0 2t0 2l321 264 321-264q1-1 1-4z m124 39l-34-41q-5-5-12-6h-2q-7 0-12 3l-386 322-386-322q-7-4-13-4-7 2-12 7l-35 41q-4 5-3 13t6 12l401 334q18 15 42 15t43-15l136-114v109q0 8 5 13t13 5h107q8 0 13-5t5-13v-227l122-102q5-5 6-12t-4-13z",transform:"matrix(1 0 0 -1 0 850)"},"camera-retro":{width:1e3,height:1e3,path:"m518 386q0 8-5 13t-13 5q-37 0-63-27t-26-63q0-8 5-13t13-5 12 5 5 13q0 23 16 38t38 16q8 0 13 5t5 13z m125-73q0-59-42-101t-101-42-101 42-42 101 42 101 101 42 101-42 42-101z m-572-320h858v71h-858v-71z m643 320q0 89-62 152t-152 62-151-62-63-152 63-151 151-63 152 63 62 151z m-571 358h214v72h-214v-72z m-72-107h858v143h-462l-36-71h-360v-72z m929 143v-714q0-30-21-51t-50-21h-858q-29 0-50 21t-21 51v714q0 30 21 51t50 21h858q29 0 50-21t21-51z",transform:"matrix(1 0 0 -1 0 850)"},zoombox:{width:1e3,height:1e3,path:"m1000-25l-250 251c40 63 63 138 63 218 0 224-182 406-407 406-224 0-406-182-406-406s183-406 407-406c80 0 155 22 218 62l250-250 125 125z m-812 250l0 438 437 0 0-438-437 0z m62 375l313 0 0-312-313 0 0 312z",transform:"matrix(1 0 0 -1 0 850)"},pan:{width:1e3,height:1e3,path:"m1000 350l-187 188 0-125-250 0 0 250 125 0-188 187-187-187 125 0 0-250-250 0 0 125-188-188 186-187 0 125 252 0 0-250-125 0 187-188 188 188-125 0 0 250 250 0 0-126 187 188z",transform:"matrix(1 0 0 -1 0 850)"},zoom_plus:{width:875,height:1e3,path:"m1 787l0-875 875 0 0 875-875 0z m687-500l-187 0 0-187-125 0 0 187-188 0 0 125 188 0 0 187 125 0 0-187 187 0 0-125z",transform:"matrix(1 0 0 -1 0 850)"},zoom_minus:{width:875,height:1e3,path:"m0 788l0-876 875 0 0 876-875 0z m688-500l-500 0 0 125 500 0 0-125z",transform:"matrix(1 0 0 -1 0 850)"},autoscale:{width:1e3,height:1e3,path:"m250 850l-187 0-63 0 0-62 0-188 63 0 0 188 187 0 0 62z m688 0l-188 0 0-62 188 0 0-188 62 0 0 188 0 62-62 0z m-875-938l0 188-63 0 0-188 0-62 63 0 187 0 0 62-187 0z m875 188l0-188-188 0 0-62 188 0 62 0 0 62 0 188-62 0z m-125 188l-1 0-93-94-156 156 156 156 92-93 2 0 0 250-250 0 0-2 93-92-156-156-156 156 94 92 0 2-250 0 0-250 0 0 93 93 157-156-157-156-93 94 0 0 0-250 250 0 0 0-94 93 156 157 156-157-93-93 0 0 250 0 0 250z",transform:"matrix(1 0 0 -1 0 850)"},tooltip_basic:{width:1500,height:1e3,path:"m375 725l0 0-375-375 375-374 0-1 1125 0 0 750-1125 0z",transform:"matrix(1 0 0 -1 0 850)"},tooltip_compare:{width:1125,height:1e3,path:"m187 786l0 2-187-188 188-187 0 0 937 0 0 373-938 0z m0-499l0 1-187-188 188-188 0 0 937 0 0 376-938-1z",transform:"matrix(1 0 0 -1 0 850)"},plotlylogo:{width:1542,height:1e3,path:"m0-10h182v-140h-182v140z m228 146h183v-286h-183v286z m225 714h182v-1000h-182v1000z m225-285h182v-715h-182v715z m225 142h183v-857h-183v857z m231-428h182v-429h-182v429z m225-291h183v-138h-183v138z",transform:"matrix(1 0 0 -1 0 850)"},"z-axis":{width:1e3,height:1e3,path:"m833 5l-17 108v41l-130-65 130-66c0 0 0 38 0 39 0-1 36-14 39-25 4-15-6-22-16-30-15-12-39-16-56-20-90-22-187-23-279-23-261 0-341 34-353 59 3 60 228 110 228 110-140-8-351-35-351-116 0-120 293-142 474-142 155 0 477 22 477 142 0 50-74 79-163 96z m-374 94c-58-5-99-21-99-40 0-24 65-43 144-43 79 0 143 19 143 43 0 19-42 34-98 40v216h87l-132 135-133-135h88v-216z m167 515h-136v1c16 16 31 34 46 52l84 109v54h-230v-71h124v-1c-16-17-28-32-44-51l-89-114v-51h245v72z",transform:"matrix(1 0 0 -1 0 850)"},"3d_rotate":{width:1e3,height:1e3,path:"m922 660c-5 4-9 7-14 11-359 263-580-31-580-31l-102 28 58-400c0 1 1 1 2 2 118 108 351 249 351 249s-62 27-100 42c88 83 222 183 347 122 16-8 30-17 44-27-2 1-4 2-6 4z m36-329c0 0 64 229-88 296-62 27-124 14-175-11 157-78 225-208 249-266 8-19 11-31 11-31 2 5 6 15 11 32-5-13-8-20-8-20z m-775-239c70-31 117-50 198-32-121 80-199 346-199 346l-96-15-58-12c0 0 55-226 155-287z m603 133l-317-139c0 0 4-4 19-14 7-5 24-15 24-15s-177-147-389 4c235-287 536-112 536-112l31-22 100 299-4-1z m-298-153c6-4 14-9 24-15 0 0-17 10-24 15z",transform:"matrix(1 0 0 -1 0 850)"},camera:{width:1e3,height:1e3,path:"m500 450c-83 0-150-67-150-150 0-83 67-150 150-150 83 0 150 67 150 150 0 83-67 150-150 150z m400 150h-120c-16 0-34 13-39 29l-31 93c-6 15-23 28-40 28h-340c-16 0-34-13-39-28l-31-94c-6-15-23-28-40-28h-120c-55 0-100-45-100-100v-450c0-55 45-100 100-100h800c55 0 100 45 100 100v450c0 55-45 100-100 100z m-400-550c-138 0-250 112-250 250 0 138 112 250 250 250 138 0 250-112 250-",

250 0-138-112-250-250-250z m365 380c-19 0-35 16-35 35 0 19 16 35 35 35 19 0 35-16 35-35 0-19-16-35-35-35z",transform:"matrix(1 0 0 -1 0 850)"},movie:{width:1e3,height:1e3,path:"m938 413l-188-125c0 37-17 71-44 94 64 38 107 107 107 187 0 121-98 219-219 219-121 0-219-98-219-219 0-61 25-117 66-156h-115c30 33 49 76 49 125 0 103-84 187-187 187s-188-84-188-187c0-57 26-107 65-141-38-22-65-62-65-109v-250c0-70 56-126 125-126h500c69 0 125 56 125 126l188-126c34 0 62 28 62 63v375c0 35-28 63-62 63z m-750 0c-69 0-125 56-125 125s56 125 125 125 125-56 125-125-56-125-125-125z m406-1c-87 0-157 70-157 157 0 86 70 156 157 156s156-70 156-156-70-157-156-157z",transform:"matrix(1 0 0 -1 0 850)"},question:{width:857.1,height:1e3,path:"m500 82v107q0 8-5 13t-13 5h-107q-8 0-13-5t-5-13v-107q0-8 5-13t13-5h107q8 0 13 5t5 13z m143 375q0 49-31 91t-77 65-95 23q-136 0-207-119-9-14 4-24l74-55q4-4 10-4 9 0 14 7 30 38 48 51 19 14 48 14 27 0 48-15t21-33q0-21-11-34t-38-25q-35-16-65-48t-29-70v-20q0-8 5-13t13-5h107q8 0 13 5t5 13q0 10 12 27t30 28q18 10 28 16t25 19 25 27 16 34 7 45z m214-107q0-117-57-215t-156-156-215-58-216 58-155 156-58 215 58 215 155 156 216 58 215-58 156-156 57-215z",transform:"matrix(1 0 0 -1 0 850)"},disk:{width:857.1,height:1e3,path:"m214-7h429v214h-429v-214z m500 0h72v500q0 8-6 21t-11 20l-157 156q-5 6-19 12t-22 5v-232q0-22-15-38t-38-16h-322q-22 0-37 16t-16 38v232h-72v-714h72v232q0 22 16 38t37 16h465q22 0 38-16t15-38v-232z m-214 518v178q0 8-5 13t-13 5h-107q-8 0-13-5t-5-13v-178q0-8 5-13t13-5h107q7 0 13 5t5 13z m357-18v-518q0-22-15-38t-38-16h-750q-23 0-38 16t-16 38v750q0 22 16 38t38 16h517q23 0 50-12t42-26l156-157q16-15 27-42t11-49z",transform:"matrix(1 0 0 -1 0 850)"},drawopenpath:{width:70,height:70,path:"M33.21,85.65a7.31,7.31,0,0,1-2.59-.48c-8.16-3.11-9.27-19.8-9.88-41.3-.1-3.58-.19-6.68-.35-9-.15-2.1-.67-3.48-1.43-3.79-2.13-.88-7.91,2.32-12,5.86L3,32.38c1.87-1.64,11.55-9.66,18.27-
6.9,2.13.87,4.75,3.14,5.17,9,.17,2.43.26,5.59.36,9.25a224.17,224.17,0,0,0,1.5,23.4c1.54,10.76,4,12.22,4.48,12.4.84.32,2.79-.46,5.76-3.59L43,80.07C41.53,81.57,37.68,85.64,33.21,85.65ZM74.81,69a11.34,11.34,0,0,0,6.09-6.72L87.26,44.5,74.72,32,56.9,38.35c-2.37.86-5.57,3.42-
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15)"},drawclosedpath:{width:90,height:90,path:"M88.41,21.12a26.56,26.56,0,0,0-36.18,0l-2.07,2-2.07-2a26.57,26.57,0,0,0-36.18,0,23.74,23.74,0,0,0,0,34.8L48,90.12a3.22,3.22,0,0,0,4.42,0l36-34.21a23.73,23.73,0,0,0,0-34.79ZM84,51.24,50.16,83.35,16.35,51.25a17.28,17.28,0,0,1,0-25.47,20,20,0,0,1,27.3,0l4.29,4.07a3.23,3.23,0,0,0,4.44,0l4.29-4.07a20,20,0,0,1,27.3,0,17.27,17.27,0,0,1,0,25.46ZM66.76,47.68h-33v6.91h33ZM53.35,35H46.44V68h6.91Z",transform:"matrix(1 0 0 1 -5 -
5)"},lasso:{width:1031,height:1e3,path:"m1018 538c-36 207-290 336-568 286-277-48-473-256-436-463 10-57 36-108 76-151-13-66 11-137 68-183 34-28 75-41 114-42l-55-70 0 0c-2-1-3-2-4-3-10-14-8-34 5-45 14-11 34-8 45 4 1 1 2 3 2 5l0 0 113 140c16 11 31 24 45 40 4 3 6 7 8 11 48-3 100 0 151 9 278 48 473 255 436 462z m-624-379c-80 14-149 48-197 96 42 42 109 47 156 9 33-26 47-66 41-105z m-187-74c-19 16-33 37-39 60 50-32 109-55 174-68-42-25-95-24-135 8z m360 75c-34-7-69-9-102-8 8 62-16 128-68 170-73 59-175 54-244-5-9 20-16 40-20 61-28 159 121 317 333 354s407-60 434-217c28-159-121-318-333-355z",transform:"matrix(1 0 0 -1 0 850)"},selectbox:{width:1e3,height:1e3,path:"m0 850l0-143 143 0 0 143-143 0z m286 0l0-143 143 0 0 143-143 0z m285 0l0-143 143 0 0 143-143 0z m286 0l0-143 143 0 0 143-143 0z m-857-286l0-143 143 0 0 143-143 0z m857 0l0-143 143 0 0 143-143 0z m-857-285l0-143 143 0 0 143-143 0z m857 0l0-143 143 0 0 143-143 0z m-857-286l0-143 143 0 0 143-143 0z m286 0l0-143 143 0 0 143-143 0z m285 0l0-143 143 0 0 143-143 0z m286 0l0-143 143 0 0 143-143 0z",transform:"matrix(1 0 0 -1 0 850)"},drawline:{width:70,height:70,path:"M60.64,62.3a11.29,11.29,0,0,0,6.09-6.72l6.35-17.72L60.54,25.31l-17.82,6.4c-2.36.86-5.57,3.41-6.6,6L24.48,65.5l8.42,8.42ZM40.79,39.63a7.89,7.89,0,0,1,3.65-3.17l14.79-5.31,8,8L61.94,54l-.06.19a6.44,6.44,0,0,1-3,3.43L34.07,68l-3.62-3.63Zm16.57,7.81a6.9,6.9,0,1,0-

6.89,6.9A6.9,6.9,0,0,0,57.36,47.44Zm-4,0a2.86,2.86,0,1,1-2.85-2.85A2.86,2.86,0,0,1,53.32,47.44Zm-4.13,5.22L46.33,49.8,30.08,66.05l2.86,2.86ZM83.65,29,70,15.34,61.4,23.9,75.09,37.59ZM70,21.06l8,8-2.84,2.85-8-8ZM87,80.49H10.67V87H87Z",transform:"matrix(1 0 0 1 -15 -15)"},drawrect:{width:80,height:80,path:"M78,22V79H21V22H78m9-9H12V88H87V13ZM68,46.22H31V54H68ZM53,32H45.22V69H53Z",transform:"matrix(1 0 0 1 -10 -10)"},drawcircle:{width:80,height:80,path:"M50,84.72C26.84,84.72,8,69.28,8,50.3S26.84,15.87,50,15.87,92,31.31,92,50.3,73.16,84.72,50,84.72Zm0-60.59c-18.6,0-33.74,11.74-33.74,26.17S31.4,76.46,50,76.46,83.74,64.72,83.74,50.3,68.6,24.13,50,24.13Zm17.15,22h-34v7.11h34Zm-13.8-13H46.24v34h7.11Z",transform:"matrix(1 0 0 1 -10 -10)"},eraseshape:{width:80,height:80,path:"M82.77,78H31.85L6,49.57,31.85,21.14H82.77a8.72,8.72,0,0,1,8.65,8.77V69.24A8.72,8.72,0,0,1,82.77,78ZM35.46,69.84H82.77a.57.57,0,0,0,.49-.6V29.91a.57.57,0,0,0-.49-.61H35.46L17,49.57Zm32.68-34.7-24,24,5,5,24-24Zm-19,.53-5,5,24,24,5-5Z",transform:"matrix(1 0 0 1 -10 -10)"},spikeline:{width:1e3,height:1e3,path:"M512 409c0-57-46-104-103-104-57 0-104 47-104 104 0 57 47 103 104 103 57 0 103-46 103-103z m-327-39l92 0 0 92-92 0z m-185 0l92 0 0 92-92 0z m370-186l92 0 0 93-92 0z m0-184l92 0 0 92-92 0z",transform:"matrix(1.5 0 0 -1.5 0 850)"},pencil:{width:1792,height:1792,path:"M491 1536l91-91-235-235-91 91v107h128v128h107zm523-928q0-22-22-22-10 0-17 7l-542 542q-7 7-7 17 0 22 22 22 10 0 17-7l542-542q7-7 7-17zm-54-192l416 416-832 832h-416v-416zm683 96q0 53-37 90l-166 166-416-416 166-165q36-38 90-38 53 0 91 38l235 234q37 39 37 91z",transform:"matrix(1 0 0 1 0 1)"},newplotlylogo:{name:"newplotlylogo",svg:"<svg xmlns='http://www.w3.org/2000/svg' viewBox='0 0 132 132'><defs><style>.cls-1 {fill: #3f4f75;} .cls-2 {fill: #80cfbe;} .cls-3 {fill: #fff;}</style></defs><title>plotly-logomark</title><g id='symbol'><rect class='cls-1' width='132' height='132' rx='6' ry='6'/><circle class='cls-2' cx='78' cy='54' r='6'/><circle class='cls-2' cx='102' cy='30' r='6'/><circle class='cls-2' cx='78' cy='30' r='6'/><circle class='cls-2' cx='54' cy='30' r='6'/><circle class='cls-2' cx='30' cy='30' r='6'/><circle class='cls-2' cx='30' cy='54' r='6'/><path class='cls-3' d='M30,72a6,6,0,0,0-6,6v24a6,6,0,0,0,12,0V78A6,6,0,0,0,30,72Z'/><path class='cls-3' d='M78,72a6,6,0,0,0-6,6v24a6,6,0,0,0,12,0V78A6,6,0,0,0,78,72Z'/><path class='cls-3' d='M54,48a6,6,0,0,0-6,6v48a6,6,0,0,0,12,0V54A6,6,0,0,0,54,48Z'/><path class='cls-3' d='M102,48a6,6,0,0,0-6,6v48a6,6,0,0,0,12,0V54A6,6,0,0,0,102,48Z'/></g></svg>"}}},{}],483:[function(t,e,r){"use strict";r.isLeftAnchor=function(t){return"left"===t.xanchor||"auto"===t.xanchor&&t.x<=1/3},r.isCenterAnchor=function(t){return"center"===t.xanchor||"auto"===t.xanchor&&t.x>1/3&&t.x<2/3},r.isRightAnchor=function(t){return"right"===t.xanchor||"auto"===t.xanchor&&t.x>=2/3},r.isTopAnchor=function(t){return"top"===t.yanchor||"auto"===t.yanchor&&t.y>=2/3},r.isMiddleAnchor=function(t){return"middle"===t.yanchor||"auto"===t.yanchor&&t.y>1/3&&t.y<2/3},r.isBottomAnchor=function(t){return"bottom"===t.yanchor||"auto"===t.yanchor&&t.y<=1/3}},{}],484:[function(t,e,r){"use strict";var n=t("./mod"),i=n.mod,a=n.modHalf,o=Math.PI,s=2*o;function l(t){return Math.abs(t[1]-t[0])>s-1e-14}function c(t,e){return a(e-t,s)}function u(t,e){if(l(e))return!0;var r,n;e[0]<e[1]?(r=e[0],n=e[1]):(r=e[1],n=e[0]),(r=i(r,s))>(n=i(n,s))&&(n+=s);var a=i(t,s),o=a+s;return a>=r&&a<=n||o>=r&&o<=n}function f(t,e,r,n,i,a,c){i=i||0,a=a||0;var u,f,h,p,d,g=l([r,n]);function v(t,e){return[t*Math.cos(e)+i,a-t*Math.sin(e)]}g?(u=0,f=o,h=s):r<n?(u=r,h=n):(u=n,h=r),t<e?(p=t,d=e):(p=e,d=t);var m,y=Math.abs(h-u)<=o?0:1;function x(t,e,r){return"A"+[t,t]+" "+[0,y,r]+" "+v(t,e)}return g?m=null===p?"M"+v(d,u)+x(d,f,0)+x(d,h,0)+"Z":"M"+v(p,u)+x(p,f,0)+x(p,h,0)+"ZM"+v(d,u)+x(d,f,1)+x(d,h,1)+"Z":null===p?(m="M"+v(d,u)+x(d,h,0),c&&(m+="L0,0Z")):m="M"+v(p,u)+"L"+v(d,u)+x(d,h,0)+"L"+v(p,h)+x(p,u,1)+"Z",m}e.exports={deg2rad:function(t){return t/180*o},rad2deg:function(t){return t/o*180},angleDelta:c,angleDist:function(t,e){return Math.abs(c(t,e))},isFullCircle:l,isAngleInsideSector:u,isPtInsideSector:function(t,e,r,n){return!!u(e,n)&&(r[0]<r[1]?(i=r[0],a=r[1]):(i=r[1],a=r[0]),t>=i&&t<=a);var i,a},pathArc:function(t,e,r,n,i){return f(null,t,e,r,n,i,0)},pathSector:function(t,e,r,n,i){return f(null,t,e,r,n,i,1)},pathAnnulus:function(t,e,r,n,i,a){return f(t,e,r,n,i,a,1)}}},{"./mod":510}],485:[function(t,e,r){"use strict";var n=Array.isArray,i=ArrayBuffer,a=DataView;function o(t){return i.isView(t)&&!(t instanceof a)}function

s(t){return n(t)||o(t)}function l(t,e,r){if(s(t)){if(s(t[0])){for(var n=r,i=0;i<t.length;i++)n=e(n,t[i].length);return n}return t.length}return 0}r.isTypedArray=o,r.isArrayOrTypedArray=s,r.isArray1D=function(t){return!s(t[0])},r.ensureArray=function(t,e){return n(t)||(t=[]),t.length=e,t},r.concat=function(){var t,e,r,i,a,o,s,l,c=[],u=!0,f=0;for(r=0;r<arguments.length;r++)(o=(i=arguments[r]).length)&&(e?c.push(i):(e=i,a=o),n(i)?t=!1:(u=!1,f?t!==i.constructor&&(t=!1):t=i.constructor),f+=o);if(!f)return[];if(!c.length)return e;if(u)return e.concat.apply(e,c);if(t){for((s=new t(f)).set(e),r=0;r<c.length;r++)i=c[r],s.set(i,a),a+=i.length;return s}for(s=new Array(f),l=0;l<e.length;l++)s[l]=e[l];for(r=0;r<c.length;r++){for(i=c[r],l=0;l<i.length;l++)s[a+l]=i[l];a+=l}return s},r.maxRowLength=function(t){return l(t,Math.max,0)},r.minRowLength=function(t){return l(t,Math.min,1/0)}},{}],486:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../constants/numerical").BADNUM,a=/^['"%,$#\s']+|[,]|['"%,$#\s']+$/g;e.exports=function(t){return"string"==typeof t&&(t=t.replace(a,"")),n(t)?Number(t):i}},{"../constants/numerical":479,"fast-isnumeric":190}],487:[function(t,e,r){"use strict";e.exports=function(t){var e=t._fullLayout;e._glcanvas&&e._glcanvas.size()&&e._glcanvas.each((function(t){t.regl&&t.regl.clear({color:!0,depth:!0})}))}},{}],488:[function(t,e,r){"use strict";e.exports=function(t){t._responsiveChartHandler&&(window.removeEventListener("resize",t._responsiveChartHandler),delete t._responsiveChartHandler)}},{}],489:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("tinycolor2"),a=t("../plots/attributes"),o=t("../components/colorscale/scales"),s=t("../components/color"),l=t("../constants/interactions").DESELECTDIM,c=t("./nested_property"),u=t("./regex").counter,f=t("./mod").modHalf,h=t("./array").isArrayOrTypedArray;function p(t,e){var n=r.valObjectMeta[e.valType];if(e.arrayOk&&h(t))return!0;if(n.validateFunction)return n.validateFunction(t,e);var i={},a=i,o={set:function(t){a=t}};return n.coerceFunction(t,o,i,e),a!==i}r.valObjectMeta={data_array:{coerceFunction:function(t,e,r){h(t)?e.set(t):void 0!==r&&e.set(r)}},enumerated:{coerceFunction:function(t,e,r,n){n.coerceNumber&&(t=+t),-1===n.values.indexOf(t)?e.set(r):e.set(t)},validateFunction:function(t,e){e.coerceNumber&&(t=+t);for(var r=e.values,n=0;n<r.length;n++){var i=String(r[n]);if("/"===i.charAt(0)&&"/"===i.charAt(i.length-1)){if(new RegExp(i.substr(1,i.length-2)).test(t))return!0}else if(t===r[n])return!0}return!1}},boolean:{coerceFunction:function(t,e,r){!0===t||!1===t?e.set(t):e.set(r)}},number:{coerceFunction:function(t,e,r,i){!n(t)||void 0!==i.min&&t<i.min||void 0!==i.max&&t>i.max?e.set(r):e.set(+t)}},integer:{coerceFunction:function(t,e,r,i){t%1||!n(t)||void 0!==i.min&&t<i.min||void 0!==i.max&&t>i.max?e.set(r):e.set(+t)}},string:{coerceFunction:function(t,e,r,n){if("string"!=typeof t){var i="number"==typeof t;!0!==n.strict&&i?e.set(String(t)):e.set(r)}else n.noBlank&&!t?e.set(r):e.set(t)}},color:{coerceFunction:function(t,e,r){i(t).isValid()?e.set(t):e.set(r)}},colorlist:{coerceFunction:function(t,e,r){Array.isArray(t)&&t.length&&t.every((function(t){return i(t).isValid()}))?e.set(t):e.set(r)}},colorscale:{coerceFunction:function(t,e,r){e.set(o.get(t,r))}},angle:{coerceFunction:function(t,e,r){"auto"===t?e.set("auto"):n(t)?e.set(f(+t,360)):e.set(r)}},subplotid:{coerceFunction:function(t,e,r,n){var i=n.regex||u(r);"string"==typeof t&&i.test(t)?e.set(t):e.set(r)},validateFunction:function(t,e){var r=e.dflt;return t===r||"string"==typeof t&&!!u(r).test(t)}},flaglist:{coerceFunction:function(t,e,r,n){if("string"==typeof t)if(-1===(n.extras||[]).indexOf(t)){for(var i=t.split("+"),a=0;a<i.length;){var o=i[a];-1===n.flags.indexOf(o)||i.indexOf(o)<a?i.splice(a,1):a++}i.length?e.set(i.join("+")):e.set(r)}else e.set(t);else e.set(r)}},any:{coerceFunction:function(t,e,r){void 0===t?e.set(r):e.set(t)}},info_array:{coerceFunction:function(t,e,n,i){function a(t,e,n){var i,a={set:function(t){i=t}};return void 0===n&&(n=e.dflt),r.valObjectMeta[e.valType].coerceFunction(t,a,n,e),i}var o=2===i.dimensions||"1-2"===i.dimensions&&Array.isArray(t)&&Array.isArray(t[0]);if(Array.isArray(t)){var s,l,c,u,f,h,p=i.items,d=[],g=Array.isArray(p),v=g&&o&&Array.isArray(p[0]),m=o&&g&&!v,y=g&&!m?p.length:t.length;if(n=Array.isArray(n)?n:[],o)for(s=0;s<y;s++)for(d[s]=[],c=Array.isArray(t[s])?t[s]:[],f=m?p.length:g?p[s].le

ngth:c.length,l=0;l<f;l++)u=m?p[l]:g?p[s][l]:p,void 0!==(h=a(c[l],u,(n[s]||[])[l]))&&(d[s][l]=h);else
for(s=0;s<y;s++)void 0!==(h=a(t[s],g?p[s]:p,n[s]))&&(d[s]=h);e.set(d)}else
e.set(n)},validateFunction:function(t,e){if(!Array.isArray(t))return!1;var
r=e.items,n=Array.isArray(r),i=2===e.dimensions;if(!e.freeLength&&t.length!==r.length)return!1;for(var
a=0;a<t.length;a++)if(i){if(!Array.isArray(t[a])||!e.freeLength&&t[a].length!==r[a].length)return!1;for(var
o=0;o<t[a].length;o++)if(!p(t[a][o],n?r[a][o]:r))return!1}else
if(!p(t[a],n?r[a]:r))return!1;return!0}}},r.coerce=function(t,e,n,i,a){var
o=c(n,i).get(),s=c(t,i),l=c(e,i),u=s.get(),f=e._template;if(void 0===u&&f&&(u=c(f,i).get(),f=0),void
0===a&&(a=o.dflt),o.arrayOk&&h(u))return l.set(u),u;var
d=r.valObjectMeta[o.valType].coerceFunction;d(u,l,a,o);var g=l.get();return
f&&g===a&&!p(u,o)&&(d(u=c(f,i).get(),l,a,o),g=l.get()),g},r.coerce2=function(t,e,n,i,a){var
o=c(t,i),s=r.coerce(t,e,n,i,a);return null!=o.get()&&s},r.coerceFont=function(t,e,r){var n={};return
r=r||{},n.family=t(e+".family",r.family),n.size=t(e+".size",r.size),n.color=t(e+".color",r.color),n},r.coercePattern=fu
nction(t,e,r,n){if(t(e+".shape")){t(e+".solidity"),t(e+".size");var i="overlay"===t(e+".fillmode");if(!n){var
a=t(e+".bgcolor",i?r:void
0);t(e+".fgcolor",i?s.contrast(a):r)}t(e+".fgopacity",i?.5:1)}},r.coerceHoverinfo=function(t,e,n){var
i,o=e._module.attributes,s=o.hoverinfo?o:a,l=s.hoverinfo;if(1===n._dataLength){var
c="all"===l.dflt?l.flags.slice():l.dflt.split("+");c.splice(c.indexOf("name"),1),i=c.join("+")}return
r.coerce(t,e,s,"hoverinfo",i)},r.coerceSelectionMarkerOpacity=function(t,e){if(t.marker){var
r,n,i=t.marker.opacity;void
0!==i&&(h(i)||t.selected||t.unselected||(r=i,n=l*i),e("selected.marker.opacity",r),e("unselected.marker.opacity",n))}},
r.validate=p},{"../components/color":366,"../components/colorscale/scales":381,"../constants/interactions":478,"../pl
ots/attributes":550,"./array":485,"./mod":510,"./nested_property":511,"./regex":520,"fast-
isnumeric":190,tinycolor2:312}],490:[function(t,e,r){"use strict";var n,i,a=t("d3-time-
format").timeFormat,o=t("fast-
isnumeric"),s=t("./loggers"),l=t("./mod").mod,c=t("../constants/numerical"),u=c.BADNUM,f=c.ONEDAY,h=c.ONE
HOUR,p=c.ONEMIN,d=c.ONESEC,g=c.EPOCHJD,v=t("../registry"),m=t("d3-time-format").utcFormat,y=/^\s*(-
?\d\d\d\d|\d\d)(-(\d?\d)(-(\d?\d)([Tt]([01]?\d|2[0-3])(:([0-5]\d)(:([0-5]\d(\.\d+)?))?(Z|z|[+\-
]\d\d(:?\d\d)?)?)?)?)?)?\s*$/m,x=/^\s*(-?\d\d\d\d|\d\d)(-(\d?\di?)(-(\d?\d)([Tt]([01]?\d|2[0-3])(:([0-5]\d)(:([0-
5]\d(\.\d+)?))?(Z|z|[+\-]\d\d(:?\d\d)?)?)?)?)?\s*$/m,b=(new Date).getFullYear()-70;function _(t){return
t&&v.componentsRegistry.calendars&&"string"==typeof t&&"gregorian"!==t}function w(t,e){return
String(t+Math.pow(10,e)).substr(1)}r.dateTick0=function(t,e){var n=function(t,e){return
_(t)?e?v.getComponentMethod("calendars","CANONICAL_SUNDAY")[t]:v.getComponentMethod("calendars","C
ANONICAL_TICK")[t]:e?"2000-01-02":"2000-01-01"}(t,!!e);if(e<2)return n;var i=r.dateTime2ms(n,t);return
i+=f*(e-1),r.ms2DateTime(i,0,t)},r.dfltRange=function(t){return
_(t)?v.getComponentMethod("calendars","DFLTRANGE")[t]:["2000-01-01","2001-01-
01"]},r.isJSDate=function(t){return"object"==typeof t&&null!==t&&"function"==typeof
t.getTime},r.dateTime2ms=function(t,e){if(r.isJSDate(t)){var a=t.getTimezoneOffset()*p,o=(t.getUTCMinutes()-
t.getMinutes())*p+(t.getUTCSeconds()-t.getSeconds())*d+(t.getUTCMilliseconds()-t.getMilliseconds());if(o){var
s=3*p;a=a-s/2+l(o-a+s/2,s)}return(t=Number(t)-a)>=n&&t<=i?t:u}if("string"!=typeof t&&"number"!=typeof
t)return u;t=String(t);var c=_(e),m=t.charAt(0);!c||"G"!==m&&"g"!==m||(t=t.substr(1),e="");var
w=c&&"chinese"===e.substr(0,7),T=t.match(w?x:y);if(!T)return u;var
k=T[1],A=T[3]||"1",M=Number(T[5]||1),S=Number(T[7]||0),E=Number(T[9]||0),L=Number(T[11]||0);if(c){if(2===
k.length)return u;var C;k=Number(k);try{var P=v.getComponentMethod("calendars","getCal")(e);if(w){var
I="i"===A.charAt(A.length-1);A=parseInt(A,10),C=P.newDate(k,P.toMonthIndex(k,A,I),M)}else
C=P.newDate(k,Number(A),M)}catch(t){return u}return C?(C.toJD()-
g)*f+S*h+E*p+L*d:u}k=2===k.length?(Number(k)+2e3-b)%100+b:Number(k),A-=1;var O=new
Date(Date.UTC(2e3,A,M,S,E));return

O.setUTCFullYear(k),O.getUTCMonth()!==A||O.getUTCDate()!==M?u:O.getTime()+L*d},n=r.MIN_MS=r.dateTime2ms("-9999"),i=r.MAX_MS=r.dateTime2ms("9999-12-31 23:59:59.9999"),r.isDateTime=function(t,e){return r.dateTime2ms(t,e)!==u};var T=90*f,k=3*h,A=5*p;function M(t,e,r,n,i){if((e||r||n||i)&&(t+=" "+w(e,2)+":"+w(r,2),(n||i)&&(t+=":"+w(n,2),i))){for(var a=4;i%10==0;)a-=1,i/=10;t+="."+w(i,a)}return t}r.ms2DateTime=function(t,e,r){if("number"!=typeof t||!(t>=n&&t<=i))return u;e||(e=0);var a,o,s,c,y,x,b=Math.floor(10*l(t+.05,1)),w=Math.round(t-b/10);if(_(r)){var S=Math.floor(w/f)+g,E=Math.floor(l(t,f));try{a=v.getComponentMethod("calendars","getCal")(r).fromJD(S).formatDate("yyyy-mm-dd")}catch(t){a=m("G%Y-%m-%d")(new Date(w))}if("-"===a.charAt(0))for(;a.length<11;)a="-0"+a.substr(1);else for(;a.length<10;)a="0"+a;o=e<T?Math.floor(E/h):0,s=e<T?Math.floor(E%h/p):0,c=e<k?Math.floor(E%p/d):0,y=e<A?E%d*10+b:0}else x=new Date(w),a=m("%Y-%m-%d")(x),o=e<T?x.getUTCHours():0,s=e<T?x.getUTCMinutes():0,c=e<k?x.getUTCSeconds():0,y=e<A?10*x.getUTCMilliseconds()+b:0;return M(a,o,s,c,y)},r.ms2DateTimeLocal=function(t){if(!(t>=n+f&&t<=i-f))return u;var e=Math.floor(10*l(t+.05,1)),r=new Date(Math.round(t-e/10));return M(a("%Y-%m-%d")(r),r.getHours(),r.getMinutes(),r.getSeconds(),10*r.getUTCMilliseconds()+e)},r.cleanDate=function(t,e,n){if(t===u)return e;if(r.isJSDate(t)||"number"==typeof t&&isFinite(t)){if(_(n))return s.error("JS Dates and milliseconds are incompatible with world calendars",t),e;if(!(t=r.ms2DateTimeLocal(+t))&&void 0!==e)return e}else if(!r.isDateTime(t,n))return s.error("unrecognized date",t),e;return t};var S=/%\d?f/g,E=/%h/g,L={1:"1",2:"1",3:"2",4:"2"};function C(t,e,r,n){t=t.replace(S,(function(t){var r=Math.min(+t.charAt(1)||6,6);return(e/1e3%1+2).toFixed(r).substr(2).replace(/0+$/,"")||"0"}));var i=new Date(Math.floor(e+.05));if(t=t.replace(E,(function(){return L[r("%q")(i)]})),_(n))try{t=v.getComponentMethod("calendars","worldCalFmt")(t,e,n)}catch(t){return"Invalid"}return r(t)(i)}var P=[59,59.9,59.99,59.999,59.9999];r.formatDate=function(t,e,r,n,i,a){if(i=_(i)&&i,!e)if("y"===r)e=a.year;else if("m"===r)e=a.month;else{if("d"!==r)return function(t,e){var r=l(t+.05,f),n=w(Math.floor(r/h),2)+":"+w(l(Math.floor(r/p),60),2);if("M"!==e){o(e)||(e=0);var i=(100+Math.min(l(t/d,60),P[e])).toFixed(e).substr(1);e>0&&(i=i.replace(/0+$/,"").replace(/[\.]$/,"")),n+=":"+i}return n}(t,r)+"\n"+C(a.dayMonthYear,t,n,i);e=a.dayMonth+"\n"+a.year}return C(e,t,n,i)};var I=3*f;r.incrementMonth=function(t,e,r){r=_(r)&&r;var n=l(t,f);if(t=Math.round(t-n),r)try{var i=Math.round(t/f)+g,a=v.getComponentMethod("calendars","getCal")(r),o=a.fromJD(i);return e%12?a.add(o,e,"m"):a.add(o,e/12,"y"),(o.toJD()-g)*f+n}catch(e){s.error("invalid ms "+t+" in calendar "+r)}var c=new Date(t+I);return c.setUTCMonth(c.getUTCMonth()+e)+n-I},r.findExactDates=function(t,e){for(var r,n,i=0,a=0,s=0,l=0,c=_(e)&&v.getComponentMethod("calendars","getCal")(e),u=0;u<t.length;u++)if(n=t[u],o(n)){if(!(n%f))if(c)try{1===(r=c.fromJD(n/f+g)).day()?1===r.month()?i++:a++:s++}catch(t){}else 1===(r=new Date(n)).getUTCDate()?0===r.getUTCMonth()?i++:a++:s++}else l++;s+=a+=i;var h=t.length-l;return{exactYears:i/h,exactMonths:a/h,exactDays:s/h}}},{"../constants/numerical":479,"../registry":638,"./loggers":507,"./mod":510,"d3-time-format":120,"fast-isnumeric":190}],491:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("./loggers"),a=t("./matrix"),o=t("gl-mat4");function s(t){var e=t&&t.parentNode;e&&e.removeChild(t)}function l(t,e,r){var n="plotly.js-style-"+t,a=document.getElementById(n);a||((a=document.createElement("style")).setAttribute("id",n),a.appendChild(document.createTextNode("")),document.head.appendChild(a));var o=a.sheet;o.insertRule?o.insertRule(e+"{"+r+"}",0):o.addRule?o.addRule(e,r,0):i.warn("addStyleRule failed")}function c(t){var e=window.getComputedStyle(t,null),r=e.getPropertyValue("-webkit-transform")||e.getPropertyValue("-moz-transform")||e.getPropertyValue("-ms-transform")||e.getPropertyValue("-o-transform")||e.getPropertyValue("transform");return"none"===r?null:r.replace("matrix","").replace("3d","").slice(1,-1).split(",").map((function(t){return+t}))}function u(t){for(var e=[];f(t);)e.push(t),t=t.parentNode;return e}function f(t){return t&&(t instanceof Element||t instanceof HTMLElement)}e.exports={getGraphDiv:function(t){var e;if("string"==typeof t){if(null===(e=document.getElementById(t)))throw new Error("No DOM element with id

"'+t+'" exists on the page.");return e}if(null==t)throw new Error("DOM element provided is null or undefined");return t},isPlotDiv:function(t){var e=n.select(t);return e.node()instanceof HTMLElement&&e.size()&&e.classed("js-plotly-plot")},removeElement:s,addStyleRule:function(t,e){l("global",t,e)},addRelatedStyleRule:l,deleteRelatedStyleRule:function(t){var e="plotly.js-style-"+t,r=document.getElementById(e);r&&s(r)},getFullTransformMatrix:function(t){var e=u(t),r=[1,0,0,0,0,1,0,0,0,0,1,0,0,0,0,1];return e.forEach((function(t){var e=c(t);if(e){var n=a.convertCssMatrix(e);r=o.multiply(r,r,n)}})),r},getElementTransformMatrix:c,getElementAndAncestors:u,equalDomRects:function(t,e){return t&&e&&t.x===e.x&&t.y===e.y&&t.top===e.top&&t.left===e.left&&t.right===e.right&&t.bottom===e.bottom}},{"./loggers":507,"./matrix":509,"@plotly/d3":58,"gl-mat4":210}],492:[function(t,e,r){"use strict";var n=t("events").EventEmitter,i={init:function(t){if(t._ev instanceof n)return t;var e=new n,r=new n;return t._ev=e,t._internalEv=r,t.on=e.on.bind(e),t.once=e.once.bind(e),t.removeListener=e.removeListener.bind(e),t.removeAllListeners=e.removeAllListeners.bind(e),t._internalOn=r.on.bind(r),t._internalOnce=r.once.bind(r),t._removeInternalListener=r.removeListener.bind(r),t._removeAllInternalListeners=r.removeAllListeners.bind(r),t.emit=function(n,i){"undefined"!=typeof jQuery&&jQuery(t).trigger(n,i),e.emit(n,i),r.emit(n,i)},t},triggerHandler:function(t,e,r){var n,i;"undefined"!=typeof jQuery&&(n=jQuery(t).triggerHandler(e,r));var a=t._ev;if(!a)return n;var o,s=a._events[e];if(!s)return n;function l(t){return t.listener?(a.removeListener(e,t.listener),t.fired?void 0:(t.fired=!0,t.listener.apply(a,[r]))):t.apply(a,[r])}for(s=Array.isArray(s)?s:[s],o=0;o<s.length-1;o++)l(s[o]);return i=l(s[o]),void 0!==n?n:i},purge:function(t){return delete t._ev,delete t.on,delete t.once,delete t.removeListener,delete t.removeAllListeners,delete t.emit,delete t._ev,delete t._internalEv,delete t._internalOn,delete t._internalOnce,delete t._removeInternalListener,delete t._removeAllInternalListeners,t}};e.exports=i},{events:84}],493:[function(t,e,r){"use strict";var n=t("./is_plain_object.js"),i=Array.isArray;function a(t,e,r,o){var s,l,c,u,f,h,p=t[0],d=t.length;if(2===d&&i(p)&&i(t[1])&&0===p.length){if(function(t,e){var r,n;for(r=0;r<t.length;r++){if(null!==(n=t[r])&&"object"==typeof n)return!1;void 0!==n&&(e[r]=n)}return!0}(t[1],p))return p;p.splice(0,p.length)}for(var g=1;g<d;g++)for(l in s=t[g])c=p[l],u=s[l],o&&i(u)?p[l]=u:e&&u&&(n(u)||(f=i(u)))?(f?(f=!1,h=c&&i(c)?c:[]):h=c&&n(c)?c:{},p[l]=a([h,u],e,r,o)):(void 0!==u||r)&&(p[l]=u);return p}r.extendFlat=function(){return a(arguments,!1,!1,!1)},r.extendDeep=function(){return a(arguments,!0,!1,!1)},r.extendDeepAll=function(){return a(arguments,!0,!0,!1)},r.extendDeepNoArrays=function(){return a(arguments,!0,!1,!0)}},{"./is_plain_object.js":504}],494:[function(t,e,r){"use strict";e.exports=function(t){for(var e={},r=[],n=0,i=0;i<t.length;i++){var a=t[i];1!==e[a]&&(e[a]=1,r[n++]=a)}return r}},{}],495:[function(t,e,r){"use strict";function n(t){return!0===t.visible}function i(t){var e=t[0].trace;return!0===e.visible&&0!==e._length}e.exports=function(t){for(var e=(s=t,Array.isArray(s)&&Array.isArray(s[0])&&s[0][0]&&s[0][0].trace?i:n),r=[],a=0;a<t.length;a++){var o=t[a];e(o)&&r.push(o)}var s;return r}},{}],496:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("country-regex"),a=t("@turf/area"),o=t("@turf/centroid"),s=t("@turf/bbox"),l=t("./identity"),c=t("./loggers"),u=t("./is_plain_object"),f=t("./nested_property"),h=t("./polygon"),p=Object.keys(i),d={"ISO-3":l,"USA-states":l,"country names":function(t){for(var e=0;e<p.length;e++){var r=p[e];if(new RegExp(i[r]).test(t.trim().toLowerCase()))return r}return c.log("Unrecognized country name: "+t+"."),!1}};function g(t){var e=t.geojson,r=window.PlotlyGeoAssets||{},n="string"==typeof e?r[e]:e;return u(n)?n:(c.error("Oops ... something went wrong when fetching "+e),!1)}e.exports={locationToFeature:function(t,e,r){if(!e||"string"!=typeof e)return!1;var n,i,a,o=d[t](e);if(o){if("USA-states"===t)for(n=[],a=0;a<r.length;a++)(i=r[a]).properties&&i.properties.gu&&"USA"===i.properties.gu&&n.push(i);else n=r;for(a=0;a<n.length;a++)if((i=n[a]).id===o)return i;c.log(["Location with id",o,"does not have a matching topojson feature at this resolution."].join(" "))}return!1},feature2polygons:function(t){var

e,r,n,i,a=t.geometry,o=a.coordinates,s=t.id,l=[];function c(t){for(var e=0;e<t.length-1;e++)if(t[e][0]>0&&t[e+1][0]<0)return e;return null}switch(e="RUS"===s||"FJI"===s?function(t){var e;if(null===c(t))e=t;else for(e=new Array(t.length),i=0;i<t.length;i++)e[i]=[t[i][0]<0?t[i][0]+360:t[i][0],t[i][1]];l.push(h.tester(e))}:"ATA"===s?function(t){var e=c(t);if(null===e)return l.push(h.tester(t));var r=new Array(t.length+1),n=0;for(i=0;i<t.length;i++)i>e?r[n++]=[t[i][0]+360,t[i][1]]:i===e?(r[n++]=t[i],r[n++]=[t[i][0],-90]):r[n++]=t[i];var a=h.tester(r);a.pts.pop(),l.push(a)}:function(t){l.push(h.tester(t))},a.type){case"MultiPolygon":for(r=0;r<o.length;r++)for(n=0;n<o[r].length;n++)e(o[r][n]);break;case"Polygon":for(r=0;r<o.length;r++)e(o[r])}return l},getTraceGeojson:g,extractTraceFeature:function(t){var e=t[0].trace,r=g(e);if(!r)return!1;var n,i={},s=[];for(n=0;n<e._length;n++){var l=t[n];(l.loc||0===l.loc)&&(i[l.loc]=l)}function u(t){var r=f(t,e.featureidkey||"id").get(),n=i[r];if(n){var l=t.geometry;if("Polygon"===l.type||"MultiPolygon"===l.type){var u={type:"Feature",id:r,geometry:l,properties:{}};u.properties.ct=function(t){var e,r=t.geometry;if("MultiPolygon"===r.type)for(var n=r.coordinates,i=0,s=0;s<n.length;s++){var l={type:"Polygon",coordinates:n[s]},c=a.default(l);c>i&&(i=c,e=l)}else e=r;return o.default(e).geometry.coordinates}(u),n.fIn=t,n.fOut=u,s.push(u)}else c.log(["Location",n.loc,"does not have a valid GeoJSON geometry.","Traces with locationmode *geojson-id* only support","*Polygon* and *MultiPolygon* geometries."].join(" "))}delete i[r]}switch(r.type){case"FeatureCollection":var h=r.features;for(n=0;n<h.length;n++)u(h[n]);break;case"Feature":u(r);break;default:return c.warn(["Invalid GeoJSON type",(r.type||"none")+".","Traces with locationmode *geojson-id* only support","*FeatureCollection* and *Feature* types."].join(" ")),!1}for(var p in i)c.log(["Location *"+p+"*","does not have a matching feature with id-key","*"+e.featureidkey+"*."].join(" "));return s},fetchTraceGeoData:function(t){var e=window.PlotlyGeoAssets||{},r=[];function i(t){return new Promise((function(r,i){n.json(t,(function(n,a){if(n){delete e[t];var o=404===n.status?'GeoJSON at URL "'+t+'" does not exist.':"Unexpected error while fetching from "+t;return i(new Error(o))}return e[t]=a,r(a)}))}))}function a(t){return new Promise((function(r,n){var i=0,a=setInterval((function(){return e[t]&&"pending"!==e[t]?(clearInterval(a),r(e[t])):i>100?(clearInterval(a),n("Unexpected error while fetching from "+t)):void i++}),50)}))}for(var o=0;o<t.length;o++){var s=t[o][0].trace.geojson;"string"==typeof s&&(e[s]?"pending"===e[s]&&r.push(a(s)):(e[s]="pending",r.push(i(s))))}return r},computeBbox:function(t){return s.default(t)}}},{"./identity":501,"./is_plain_object":504,"./loggers":507,"./nested_property":511,"./polygon":515,"@plotly/d3":58,"@turf/area":61,"@turf/bbox":64,"@turf/centroid":67,"country-regex":94}],497:[function(t,e,r){"use strict";var n=t("../constants/numerical").BADNUM;r.calcTraceToLineCoords=function(t){for(var e=t[0].trace.connectgaps,r=[],i=[],a=0;a<t.length;a++){var o=t[a].lonlat;o[0]!==n?i.push(o):!e&&i.length>0&&(r.push(i),i=[])}return i.length>0&&r.push(i),r},r.makeLine=function(t){return 1===t.length?{type:"LineString",coordinates:t[0]}:{type:"MultiLineString",coordinates:t}},r.makePolygon=function(t){if(1===t.length)return{type:"Polygon",coordinates:t};for(var e=new Array(t.length),r=0;r<t.length;r++)e[r]=[t[r]];return{type:"MultiPolygon",coordinates:e}},r.makeBlank=function(){return{type:"Point",coordinates:[]}}},{"../constants/numerical":479}],498:[function(t,e,r){"use strict";var n,i,a,o=t("./mod").mod;function s(t,e,r,n,i,a,o,s){var l=r-t,c=i-t,u=o-i,f=n-e,h=a-e,p=s-a,d=l*p-u*f;if(0===d)return null;var g=(c*p-u*h)/d,v=(c*f-l*h)/d;return v<0||v>1||g<0||g>1?null:{x:t+l*g,y:e+f*g}}function l(t,e,r,n,i){var a=n*t+i*e;if(a<0)return n*n+i*i;if(a>r){var o=n-t,s=i-e;return o*o+s*s}var l=n*e-i*t;return l*l/r}r.segmentsIntersect=s,r.segmentDistance=function(t,e,r,n,i,a,o,c){if(s(t,e,r,n,i,a,o,c))return 0;var u=r-t,f=n-e,h=o-i,p=c-a,d=u*u+f*f,g=h*h+p*p,v=Math.min(l(u,f,d,i-t,a-e),l(u,f,d,o-t,c-e),l(h,p,g,t-i,e-a),l(h,p,g,r-i,n-a));return Math.sqrt(v)},r.getTextLocation=function(t,e,r,s){if(t===i&&s===a||(n={},i=t,a=s),n[r])return n[r];var l=t.getPointAtLength(o(r-s/2,e)),c=t.getPointAtLength(o(r+s/2,e)),u=Math.atan((c.y-l.y)/(c.x-l.x)),f=t.getPointAtLength(o(r,e)),h={x:(4*f.x+l.x+c.x)/6,y:(4*f.y+l.y+c.y)/6,theta:u};return

n[r]=h,h},r.clearLocationCache=function(){i=null},r.getVisibleSegment=function(t,e,r){var n,i,a=e.left,o=e.right,s=e.top,l=e.bottom,c=0,u=t.getTotalLength(),f=u;function h(e){var r=t.getPointAtLength(e);0===e?n=r:e===u&&(i=r);var c=r.x<a?a-r.x:r.x>o?r.x-o:0,f=r.y<s?s-r.y:r.y>l?r.y-l:0;return Math.sqrt(c*c+f*f)}for(var p=h(c);p;){if((c+=p+r)>f)return;p=h(c)}for(p=h(f);p;){if(c>(f-=p+r))return;p=h(f)}return{min:c,max:f,len:f-c,total:u,isClosed:0===c&&f===u&&Math.abs(n.x-i.x)<.1&&Math.abs(n.y-i.y)<.1}},r.findPointOnPath=function(t,e,r,n){for(var i,a,o,s=(n=n||{}).pathLength||t.getTotalLength(),l=n.tolerance||.001,c=n.iterationLimit||30,u=t.getPointAtLength(0)[r]>t.getPointAtLength(s)[r]?-1:1,f=0,h=0,p=s;f<c;){if(i=(h+p)/2,o=(a=t.getPointAtLength(i))[r]-e,Math.abs(o)<l)return a;u*o>0?p=i:h=i,f++}return a}},{"./mod":510}],499:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("tinycolor2"),a=t("color-normalize"),o=t("../components/colorscale"),s=t("../components/color/attributes").defaultLine,l=t("./array").isArrayOrTypedArray,c=a(s);function u(t,e){var r=t;return r[3]*=e,r}function f(t){if(n(t))return c;var e=a(t);return e.length?e:c}function h(t){return n(t)?t:1}e.exports={formatColor:function(t,e,r){var n,i,s,p,d,g=t.color,v=l(g),m=l(e),y=o.extractOpts(t),x=[];if(n=void 0!==y.colorscale?o.makeColorScaleFuncFromTrace(t):f,i=v?function(t,e){return void 0===t[e]?c:a(n(t[e]))}:f,s=m?function(t,e){return void 0===t[e]?1:h(t[e])}:h,v||m)for(var b=0;b<r;b++)p=i(g,b),d=s(e,b),x[b]=u(p,d);else x=u(a(g),e);return x},parseColorScale:function(t){var e=o.extractOpts(t),r=e.colorscale;return e.reversescale&&(r=o.flipScale(e.colorscale)),r.map((function(t){var e=t[0],r=i(t[1]).toRgb();return{index:e,rgb:[r.r,r.g,r.b,r.a]}}))}}},{"../components/color/attributes":365,"../components/colorscale":378,"./array":485,"color-normalize":89,"fast-isnumeric":190,tinycolor2:312}],500:[function(t,e,r){"use strict";var n=t("./identity");function i(t){return[t]}e.exports={keyFun:function(t){return t.key},repeat:i,descend:n,wrap:i,unwrap:function(t){return t[0]}}},{"./identity":501}],501:[function(t,e,r){"use strict";e.exports=function(t){return t}},{}],502:[function(t,e,r){"use strict";e.exports=function(t,e){if(!e)return t;var r=1/Math.abs(e),n=r>1?(r*t+r*e)/r:t+e,i=String(n).length;if(i>16){var a=String(e).length;if(i>=String(t).length+a){var o=parseFloat(n).toPrecision(12);-1===o.indexOf("e+")&&(n=+o)}return n}},{}],503:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("d3-time-format").utcFormat,a=t("d3-format").format,o=t("fast-isnumeric"),s=t("../constants/numerical"),l=s.FP_SAFE,c=-l,u=s.BADNUM,f=e.exports={};f.adjustFormat=function(t){return!t||/^\d[.]\df/.test(t)||/[.]\d%/.test(t)?t:"0.f"===t?"~f":/^\d%/.test(t)?"~%":/^\ds/.test(t)?"~s":!/^[~,.0$]/.test(t)&&/[&fps]/.test(t)?"~"+t:t};var h={};f.warnBadFormat=function(t){var e=String(t);h[e]||(h[e]=1,f.warn('encountered bad format: "'+e+'"'))},f.noFormat=function(t){return String(t)},f.numberFormat=function(t){var e;try{e=a(f.adjustFormat(t))}catch(e){return f.warnBadFormat(t),f.noFormat}return e},f.nestedProperty=t("./nested_property"),f.keyedContainer=t("./keyed_container"),f.relativeAttr=t("./relative_attr"),f.isPlainObject=t("./is_plain_object"),f.toLogRange=t("./to_log_range"),f.relinkPrivateKeys=t("./relink_private");var p=t("./array");f.isTypedArray=p.isTypedArray,f.isArrayOrTypedArray=p.isArrayOrTypedArray,f.isArray1D=p.isArray1D,f.ensureArray=p.ensureArray,f.concat=p.concat,f.maxRowLength=p.maxRowLength,f.minRowLength=p.minRowLength;var d=t("./mod");f.mod=d.mod,f.modHalf=d.modHalf;var g=t("./coerce");f.valObjectMeta=g.valObjectMeta,f.coerce=g.coerce,f.coerce2=g.coerce2,f.coerceFont=g.coerceFont,f.coercePattern=g.coercePattern,f.coerceHoverinfo=g.coerceHoverinfo,f.coerceSelectionMarkerOpacity=g.coerceSelectionMarkerOpacity,f.validate=g.validate;var v=t("./dates");f.dateTime2ms=v.dateTime2ms,f.isDateTime=v.isDateTime,f.ms2DateTime=v.ms2DateTime,f.ms2DateTimeLocal=v.ms2DateTimeLocal,f.cleanDate=v.cleanDate,f.isJSDate=v.isJSDate,f.formatDate=v.formatDate,f.incrementMonth=v.incrementMonth,f.dateTick0=v.dateTick0,f.dfltRange=v.dfltRange,f.findExactDates=v.findExactDates,f.MIN_MS=v.MIN_MS,f.MAX_MS=v.MAX_MS;var m=t("./search");f.findBin=m.findBin,f.sorterAsc=m.sorterAsc,f.sorterDes=m.sorterDes,f.distinctVals=m.distinctVal

s,f.roundUp=m.roundUp,f.sort=m.sort,f.findIndexOfMin=m.findIndexOfMin,f.sortObjectKeys=t("./sort_object_keys");var
y=t("./stats");f.aggNums=y.aggNums,f.len=y.len,f.mean=y.mean,f.median=y.median,f.midRange=y.midRange,f.variance=y.variance,f.stdev=y.stdev,f.interp=y.interp;var
x=t("./matrix");f.init2dArray=x.init2dArray,f.transposeRagged=x.transposeRagged,f.dot=x.dot,f.translationMatrix=x.translationMatrix,f.rotationMatrix=x.rotationMatrix,f.rotationXYMatrix=x.rotationXYMatrix,f.apply3DTransform=x.apply3DTransform,f.apply2DTransform=x.apply2DTransform,f.apply2DTransform2=x.apply2DTransform2,f.convertCssMatrix=x.convertCssMatrix,f.inverseTransformMatrix=x.inverseTransformMatrix;var
b=t("./angles");f.deg2rad=b.deg2rad,f.rad2deg=b.rad2deg,f.angleDelta=b.angleDelta,f.angleDist=b.angleDist,f.isFullCircle=b.isFullCircle,f.isAngleInsideSector=b.isAngleInsideSector,f.isPtInsideSector=b.isPtInsideSector,f.pathArc=b.pathArc,f.pathSector=b.pathSector,f.pathAnnulus=b.pathAnnulus;var
_=t("./anchor_utils");f.isLeftAnchor=_.isLeftAnchor,f.isCenterAnchor=_.isCenterAnchor,f.isRightAnchor=_.isRightAnchor,f.isTopAnchor=_.isTopAnchor,f.isMiddleAnchor=_.isMiddleAnchor,f.isBottomAnchor=_.isBottomAnchor;var
w=t("./geometry2d");f.segmentsIntersect=w.segmentsIntersect,f.segmentDistance=w.segmentDistance,f.getTextLocation=w.getTextLocation,f.clearLocationCache=w.clearLocationCache,f.getVisibleSegment=w.getVisibleSegment,f.findPointOnPath=w.findPointOnPath;var
T=t("./extend");f.extendFlat=T.extendFlat,f.extendDeep=T.extendDeep,f.extendDeepAll=T.extendDeepAll,f.extendDeepNoArrays=T.extendDeepNoArrays;var k=t("./loggers");f.log=k.log,f.warn=k.warn,f.error=k.error;var
A=t("./regex");f.counterRegex=A.counter;var
M=t("./throttle");f.throttle=M.throttle,f.throttleDone=M.done,f.clearThrottle=M.clear;var S=t("./dom");function
E(t){var e={};for(var r in t)for(var n=t[r],i=0;i<n.length;i++)e[n[i]]=+r;return
e}f.getGraphDiv=S.getGraphDiv,f.isPlotDiv=S.isPlotDiv,f.removeElement=S.removeElement,f.addStyleRule=S.addStyleRule,f.addRelatedStyleRule=S.addRelatedStyleRule,f.deleteRelatedStyleRule=S.deleteRelatedStyleRule,f.getFullTransformMatrix=S.getFullTransformMatrix,f.getElementTransformMatrix=S.getElementTransformMatrix,f.getElementAndAncestors=S.getElementAndAncestors,f.equalDomRects=S.equalDomRects,f.clearResponsive=t("./clear_responsive"),f.preserveDrawingBuffer=t("./preserve_drawing_buffer"),f.makeTraceGroups=t("./make_trace_groups"),f._=t("./localize"),f.notifier=t("./notifier"),f.filterUnique=t("./filter_unique"),f.filterVisible=t("./filter_visible"),f.pushUnique=t("./push_unique"),f.increment=t("./increment"),f.cleanNumber=t("./clean_number"),f.ensureNumber=function(t){return o(t)?(t=Number(t))>l||t<c?u:t:u},f.isIndex=function(t,e){return!(void
0!==e&&t>=e)&&o(t)&&t>=0&&t%1==0},f.noop=t("./noop"),f.identity=t("./identity"),f.repeat=function(t,e){for(var r=new Array(e),n=0;n<e;n++)r[n]=t;return r},f.swapAttrs=function(t,e,r,n){r||(r="x"),n||(n="y");for(var
i=0;i<e.length;i++){var
a=e[i],o=f.nestedProperty(t,a.replace("?",r)),s=f.nestedProperty(t,a.replace("?",n)),l=o.get();o.set(s.get()),s.set(l)}},f.raiseToTop=function(t){t.parentNode.appendChild(t)},f.cancelTransition=function(t){return
t.transition().duration(0)},f.constrain=function(t,e,r){return
e>r?Math.max(r,Math.min(e,t)):Math.max(e,Math.min(r,t))},f.bBoxIntersect=function(t,e,r){return
r=r||0,t.left<=e.right+r&&e.left<=t.right+r&&t.top<=e.bottom+r&&e.top<=t.bottom+r},f.simpleMap=function(t,e,r,n,i){for(var a=t.length,o=new Array(a),s=0;s<a;s++)o[s]=e(t[s],r,n,i);return o},f.randstr=function
t(e,r,n,i){if(n||(n=16),void 0===r&&(r=24),r<=0)return"0";var
a,o,s=Math.log(Math.pow(2,r))/Math.log(n),l="";for(a=2;s===1/0;a*=2)s=Math.log(Math.pow(2,r/a))/Math.log(n)*a;var c=s-
Math.floor(s);for(a=0;a<Math.floor(s);a++)l=Math.floor(Math.random()*n).toString(n)+l;c&&(o=Math.pow(n,c),l=Math.floor(Math.random()*o).toString(n)+l);var u=parseInt(l,n);return
e&&e[l]||u!==1/0&&u>=Math.pow(2,r)?i>10?(f.warn("randstr failed
uniqueness"),l):t(e,r,n,(i||0)+1):l},f.OptionControl=function(t,e){t||(t={}),e||(e="opt");var
r={optionList:[],_newoption:function(n){n[e]=t,r[n.name]=n,r.optionList.push(n)}};return
r["_"+e]=t,r},f.smooth=function(t,e){if((e=Math.round(e)||0)<2)return t;var r,n,i,a,o=t.length,s=2*o,l=2*e-1,c=new

Array(l),u=new Array(o);for(r=0;r<l;r++)c[r]=(1-
Math.cos(Math.PI*(r+1)/e))/(2*e);for(r=0;r<o;r++){for(a=0,n=0;n<l;n++)(i=r+n+1-e)<-o?i-
=s*Math.round(i/s):i>=s&&(i-=s*Math.floor(i/s)),i<0?i=-1-i:i>=o&&(i=s-1-i),a+=t[i]*c[n];u[r]=a}return
u},f.syncOrAsync=function(t,e,r){var n;function i(){return
f.syncOrAsync(t,e,r)}for(;t.length;)if((n=(0,t.splice(0,1)[0])(e))&&n.then)return n.then(i);return
r&&r(e)},f.stripTrailingSlash=function(t){return"/"===t.substr(-1)?t.substr(0,t.length-
1):t},f.noneOrAll=function(t,e,r){if(t){var
n,i=!1,a=!0;for(n=0;n<r.length;n++)null!=t[r[n]]?i=!0:a=!1;if(i&&!a)for(n=0;n<r.length;n++)t[r[n]]=e[r[n]]}},f.mer
geArray=function(t,e,r,n){var i="function"==typeof n;if(f.isArrayOrTypedArray(t))for(var
a=Math.min(t.length,e.length),o=0;o<a;o++){var
s=t[o];e[o][r]=i?n(s):s}},f.mergeArrayCastPositive=function(t,e,r){return f.mergeArray(t,e,r,(function(t){var
e=+t;return
isFinite(e)&&e>0?e:0}))},f.fillArray=function(t,e,r,n){if(n=n||f.identity,f.isArrayOrTypedArray(t))for(var
i=0;i<e.length;i++)e[i][r]=n(t[i])},f.castOption=function(t,e,r,n){n=n||f.identity;var
i=f.nestedProperty(t,r).get();return
f.isArrayOrTypedArray(i)?Array.isArray(e)&&f.isArrayOrTypedArray(i[e[0]])?n(i[e[0]][e[1]]):n(i[e]):i},f.extractO
ption=function(t,e,r,n){if(r in t)return t[r];var i=f.nestedProperty(e,n).get();return Array.isArray(i)?void
0:i},f.tagSelected=function(t,e,r){var n,i,a=e.selectedpoints,o=e._indexToPoints;o&&(n=E(o));for(var
s=0;s<a.length;s++){var l=a[s];if(f.isIndex(l)||f.isArrayOrTypedArray(l)&&f.isIndex(l[0])&&f.isIndex(l[1])){var
c=n?n[l]:l,u=r?r[c]:c;void 0!==(i=u)&&i<t.length&&(t[u].selected=1)}}},f.selIndices2selPoints=function(t){var
e=t.selectedpoints,r=t._indexToPoints;if(r){for(var n=E(r),i=[],a=0;a<e.length;a++){var o=e[a];if(f.isIndex(o)){var
s=n[o];f.isIndex(s)&&i.push(s)}}return i}return e},f.getTargetArray=function(t,e){var
r=e.target;if("string"==typeof r&&r){var
n=f.nestedProperty(t,r).get();return!!Array.isArray(n)&&n}return!!Array.isArray(r)&&r},f.minExtend=function(t,e)
{var r={};"object"!=typeof e&&(e={});var
n,i,a,o=Object.keys(t);for(n=0;n<o.length;n++)a=t[i=o[n]],"_"!==i.charAt(0)&&"function"!=typeof
a&&("module"===i?r[i]=a:Array.isArray(a)?r[i]="colorscale"===i?a.slice():a.slice(0,3):f.isTypedArray(a)?r[i]=a.su
barray(0,3):r[i]=a&&"object"==typeof
a?f.minExtend(t[i],e[i]):a);for(o=Object.keys(e),n=0;n<o.length;n++)"object"==typeof(a=e[i=o[n]])&&i in
r&&"object"==typeof r[i]||(r[i]=a);return r},f.titleCase=function(t){return
t.charAt(0).toUpperCase()+t.substr(1)},f.containsAny=function(t,e){for(var r=0;r<e.length;r++)if(-
1!==t.indexOf(e[r]))return!0;return!1},f.isIE=function(){return void 0!==window.navigator.msSaveBlob};var
L=/Version\/[\d\.]+.*Safari/;f.isSafari=function(){return L.test(window.navigator.userAgent)};var
C=/iPad|iPhone|iPod/;f.isIOS=function(){return C.test(window.navigator.userAgent)};var
P=/Firefox\/(\d+)\.\d+/;f.getFirefoxVersion=function(){var
t=P.exec(window.navigator.userAgent);if(t&&2===t.length){var e=parseInt(t[1]);if(!isNaN(e))return e}return
null},f.isD3Selection=function(t){return t instanceof n.selection},f.ensureSingle=function(t,e,r,n){var
i=t.select(e+(r?"."+r:""));if(i.size())return i;var a=t.append(e);return
r&&a.classed(r,!0),n&&a.call(n),a},f.ensureSingleById=function(t,e,r,n){var i=t.select(e+"#"+r);if(i.size())return
i;var a=t.append(e).attr("id",r);return n&&a.call(n),a},f.objectFromPath=function(t,e){for(var
r,n=t.split("."),i=r={},a=0;a<n.length;a++){var o=n[a],s=null,l=n[a].match(/(.*)\[([0-
9]+)\]/);l?(o=l[1],s=l[2],r=r[o]=[],a===n.length-1?r[s]=e:r[s]={},r=r[s]):(a===n.length-
1?r[o]=e:r[o]={},r=r[o])}return i};var I=/^([^\[\.]+)\.(.+)?/,O=/^([^\.]+)\[([0-
9]+)\](\.)?(.+)?/;f.expandObjectPaths=function(t){var e,r,n,i,a,o,s;if("object"==typeof t&&!Array.isArray(t))for(r in
t)t.hasOwnProperty(r)&&((e=r.match(I))?(i=t[r],n=e[1],delete
t[r],t[n]=f.extendDeepNoArrays(t[n]||{},f.objectFromPath(r,f.expandObjectPaths(i))[n])):(e=r.match(O))?(i=t[r],n=e
[1],a=parseInt(e[2]),delete
t[r],t[n]=t[n]||[],"."===e[3]?(s=e[4],o=t[n][a]=t[n][a]||{},f.extendDeepNoArrays(o,f.objectFromPath(s,f.expandObjec

tPaths(i)))):t[n][a]=f.expandObjectPaths(i)):t[r]=f.expandObjectPaths(t[r]));return
t},f.numSeparate=function(t,e,r){if(r||(r=!1),"string"!=typeof e||0===e.length)throw new Error("Separator string
required for formatting!");"number"==typeof t&&(t=String(t));var
n=/(\d+)(\d{3})/,i=e.charAt(0),a=e.charAt(1),o=t.split("."),s=o[0],l=o.length>1?i+o[1]:"";if(a&&(o.length>1||s.lengt
h>4||r))for(;n.test(s);)s=s.replace(n,"$1"+a+"$2");return
s+l},f.TEMPLATE_STRING_REGEX=/%{([^\s%{}:]*)([:|\|][^}]*)?}/g;var
z=/^\w*$/;f.templateString=function(t,e){var r={};return
t.replace(f.TEMPLATE_STRING_REGEX,(function(t,n){var i;return
z.test(n)?i=e[n]:(r[n]=r[n]||f.nestedProperty(e,n).get,i=r[n]()),f.isValidTextValue(i)?i:""}))};var
D={max:10,count:0,name:"hovertemplate"};f.hovertemplateString=function(){return B.apply(D,arguments)};var
R={max:10,count:0,name:"texttemplate"};f.texttemplateString=function(){return B.apply(R,arguments)};var
F=/^[:|\|]/;function B(t,e,r){var n=this,a=arguments;e||(e={});var o={};return
t.replace(f.TEMPLATE_STRING_REGEX,(function(t,s,l){var
c,u,h,p="_xother"===s||"_yother"===s,d="_xother_"===s||"_yother_"===s,g="xother_"===s||"yother_"===s,v="xot
her"===s||"yother"===s||p||g||d,m=s;if((p||d)&&(m=m.substring(1)),(g||d)&&(m=m.substring(0,m.length-
1)),v){if(void 0===(c=e[m]))return""}else
for(h=3;h<a.length;h++)if(u=a[h]){if(u.hasOwnProperty(m)){c=u[m];break}if(z.test(m)||(c=f.nestedProperty(u,m).g
et(),(c=o[m]||f.nestedProperty(u,m).get())&&(o[m]=c)),void 0!==c)break}if(void 0===c&&n)return
n.count<n.max&&(f.warn("Variable '"+m+"' in "+n.name+" could not be
found!"),c=t),n.count===n.max&&f.warn("Too many "+n.name+" warnings - additional warnings will be
suppressed"),n.count++,t;if(l){var
y;if(":"===l[0]&&(c=(y=r?r.numberFormat:f.numberFormat)(l.replace(F,""))(c)),"|"===l[0]){y=r?r.timeFormat:i;va
r x=f.dateTime2ms(c);c=f.formatDate(x,l.replace(F,""),!1,y)}}else{var
b=m+"Label";e.hasOwnProperty(b)&&(c=e[b])}return v&&(c="("+c+")",(p||d)&&(c=" "+c),(g||d)&&(c+="
")),c}))}f.subplotSort=function(t,e){for(var r=Math.min(t.length,e.length)+1,n=0,i=0,a=0;a<r;a++){var
o=t.charCodeAt(a)||0,s=e.charCodeAt(a)||0,l=o>=48&&o<=57,c=s>=48&&s<=57;if(l&&(n=10*n+o-
48),c&&(i=10*i+s-48),!l||!c){if(n!==i)return n-i;if(o!==s)return o-s}}return i-n};var
N=2e9;f.seedPseudoRandom=function(){N=2e9},f.pseudoRandom=function(){var t=N;return
N=(69069*N+1)%4294967296,Math.abs(N-
t)<429496729?f.pseudoRandom():N/4294967296},f.fillText=function(t,e,r){var
n=Array.isArray(r)?function(t){r.push(t)}:function(t){r.text=t},i=f.extractOption(t,e,"htx","hovertext");if(f.isValidT
extValue(i))return n(i);var a=f.extractOption(t,e,"tx","text");return f.isValidTextValue(a)?n(a):void
0},f.isValidTextValue=function(t){return t||0===t},f.formatPercent=function(t,e){e=e||0;for(var
r=(Math.round(100*t*Math.pow(10,e))*Math.pow(.1,e)).toFixed(e)+"%",n=0;n<e;n++)-
1!==r.indexOf(".")&&(r=(r=r.replace("0%","%")).replace(".%","%"));return r},f.isHidden=function(t){var
e=window.getComputedStyle(t).display;return!e||"none"===e},f.strTranslate=function(t,e){return
t||e?"translate("+t+","+e+")":""},f.strRotate=function(t){return t?"rotate("+t+")":""},f.strScale=function(t){return
1!==t?"scale("+t+")":""},f.getTextTransform=function(t){var
e=t.noCenter,r=t.textX,n=t.textY,i=t.targetX,a=t.targetY,o=t.anchorX||0,s=t.anchorY||0,l=t.rotate,c=t.scale;return
c?c>1&&(c=1):c=0,f.strTranslate(i-c*(r+o),a-c*(n+s))+f.strScale(c)+(l?"rotate("+l+(e?"":" "+r+"
"+n)+")":"")},f.ensureUniformFontSize=function(t,e){var r=f.extendFlat({},e);return
r.size=Math.max(e.size,t._fullLayout.uniformtext.minsize||0),r},f.join2=function(t,e,r){var n=t.length;return
n>1?t.slice(0,-1).join(e)+r+t[n-1]:t.join(e)},f.bigFont=function(t){return Math.round(1.2*t)};var
j=f.getFirefoxVersion(),U=null!==j&&j<86;f.getPositionFromD3Event=function(){return
U?[n.event.layerX,n.event.layerY]:[n.event.offsetX,n.event.offsetY]}},{"../constants/numerical":479,"./anchor_utils
":483,"./angles":484,"./array":485,"./clean_number":486,"./clear_responsive":488,"./coerce":489,"./dates":490,"./do
m":491,"./extend":493,"./filter_unique":494,"./filter_visible":495,"./geometry2d":498,"./identity":501,"./increment":
502,"./is_plain_object":504,"./keyed_container":505,"./localize":506,"./loggers":507,"./make_trace_groups":508,"./

matrix":509,"./mod":510,"./nested_property":511,"./noop":512,"./notifier":513,"./preserve_drawing_buffer":517,"./push_unique":518,"./regex":520,"./relative_attr":521,"./relink_private":522,"./search":523,"./sort_object_keys":526,"./stats":527,"./throttle":530,"./to_log_range":531,"@plotly/d3":58,"d3-format":112,"d3-time-format":120,"fast-isnumeric":190}],504:[function(t,e,r){"use strict";e.exports=function(t){return window&&window.process&&window.process.versions?"[object Object]"===Object.prototype.toString.call(t):"[object Object]"===Object.prototype.toString.call(t)&&Object.getPrototypeOf(t).hasOwnProperty("hasOwnProperty")}},{}],505:[function(t,e,r){"use strict";var n=t("./nested_property"),i=/^\w*$/;e.exports=function(t,e,r,a){var o,s,l;r=r||"name",a=a||"value";var c={};e&&e.length?(l=n(t,e),s=l.get()):s=t,e=e||"";var u={};if(s)for(o=0;o<s.length;o++)u[s[o][r]]=o;var f=i.test(a),h={set:function(t,e){var i=null===e?4:0;if(!s){if(!l||4===i)return;s=[],l.set(s)}var o=u[t];if(void 0===o){if(4===i)return;i=3,o=s.length,u[t]=o}else e!==(f?s[o][a]:n(s[o],a).get())&&(i|=2);var p=s[o]=s[o]||{};return p[r]=t,f?p[a]=e:n(p,a).set(e),null!==e&&(i&=-5),c[o]=c[o]|i,h},get:function(t){if(s){var e=u[t];return void 0===e?void 0:f?s[e][a]:n(s[e],a).get()}},rename:function(t,e){var n=u[t];return void 0===n||(c[n]=1|c[n],u[e]=n,delete u[t],s[n][r]=e),h},remove:function(t){var e=u[t];if(void 0===e)return h;var i=s[e];if(Object.keys(i).length>2)return c[e]=2|c[e],h.set(t,null);if(f){for(o=e;o<s.length;o++)c[o]=3|c[o];for(o=e;o<s.length;o++)u[s[o][r]]--;s.splice(e,1),delete u[t]}else n(i,a).set(null),c[e]=6|c[e];return h},constructUpdate:function(){for(var t,i,o={},l=Object.keys(c),u=0;u<l.length;u++)i=l[u],t=e+"["+i+"]",s[i]?(1&c[i]&&(o[t+"."+r]=s[i][r]),2&c[i]&&(o[t+"."+a]=f?4&c[i]?null:s[i][a]:4&c[i]?null:n(s[i],a).get())):o[t]=null;return o}};return h}},{"./nested_property":511}],506:[function(t,e,r){"use strict";var n=t("../registry");e.exports=function(t,e){for(var r=t._context.locale,i=0;i<2;i++){for(var a=t._context.locales,o=0;o<2;o++){var s=(a[r]||{}).dictionary;if(s){var l=s[e];if(l)return l}a=n.localeRegistry}var c=r.split("-")[0];if(c===r)break;r=c}return e}},{"../registry":638}],507:[function(t,e,r){"use strict";var n=t("../plot_api/plot_config").dfltConfig,i=t("./notifier"),a=e.exports={};a.log=function(){var t;if(n.logging>1){var e=["LOG:"];for(t=0;t<arguments.length;t++)e.push(arguments[t]);console.trace.apply(console,e)}if(n.notifyOnLogging>1){var r=[];for(t=0;t<arguments.length;t++)r.push(arguments[t]);i(r.join("<br>"),"long")}},a.warn=function(){var t;if(n.logging>0){var e=["WARN:"];for(t=0;t<arguments.length;t++)e.push(arguments[t]);console.trace.apply(console,e)}if(n.notifyOnLogging>0){var r=[];for(t=0;t<arguments.length;t++)r.push(arguments[t]);i(r.join("<br>"),"stick")}},a.error=function(){var t;if(n.logging>0){var e=["ERROR:"];for(t=0;t<arguments.length;t++)e.push(arguments[t]);console.error.apply(console,e)}if(n.notifyOnLogging>0){var r=[];for(t=0;t<arguments.length;t++)r.push(arguments[t]);i(r.join("<br>"),"stick")}}},{"../plot_api/plot_config":541,"./notifier":513}],508:[function(t,e,r){"use strict";var n=t("@plotly/d3");e.exports=function(t,e,r){var i=t.selectAll("g."+r.replace(/\s/g,".")).data(e,(function(t){return t[0].trace.uid}));i.exit().remove(),i.enter().append("g").attr("class",r),i.order();var a=t.classed("rangeplot")?"nodeRangePlot3":"node3";return i.each((function(t){t[0][a]=n.select(this)})),i}},{"@plotly/d3":58}],509:[function(t,e,r){"use strict";var n=t("gl-mat4");r.init2dArray=function(t,e){for(var r=new Array(t),n=0;n<t;n++)r[n]=new Array(e);return r},r.transposeRagged=function(t){var e,r,n=0,i=t.length;for(e=0;e<i;e++)n=Math.max(n,t[e].length);var a=new Array(n);for(e=0;e<n;e++)for(a[e]=new Array(i),r=0;r<i;r++)a[e][r]=t[r][e];return a},r.dot=function(t,e){if(!t.length||!e.length||t.length!==e.length)return null;var n,i,a=t.length;if(t[0].length)for(n=new Array(a),i=0;i<a;i++)n[i]=r.dot(t[i],e);else if(e[0].length){var o=r.transposeRagged(e);for(n=new Array(o.length),i=0;i<o.length;i++)n[i]=r.dot(t,o[i])}else for(n=0,i=0;i<a;i++)n+=t[i]*e[i];return

n},r.translationMatrix=function(t,e){return[[1,0,t],[0,1,e],[0,0,1]]},r.rotationMatrix=function(t){var e=t*Math.PI/180;return[[Math.cos(e),-Math.sin(e),0],[Math.sin(e),Math.cos(e),0],[0,0,1]]},r.rotationXYMatrix=function(t,e,n){return r.dot(r.dot(r.translationMatrix(e,n),r.rotationMatrix(t)),r.translationMatrix(-e,-n))},r.apply3DTransform=function(t){return function(){var e=arguments,n=1===arguments.length?e[0]:[e[0],e[1],e[2]||0];return r.dot(t,[n[0],n[1],n[2],1]).slice(0,3)}},r.apply2DTransform=function(t){return function(){var e=arguments;3===e.length&&(e=e[0]);var n=1===arguments.length?e[0]:[e[0],e[1]];return r.dot(t,[n[0],n[1],1]).slice(0,2)}},r.apply2DTransform2=function(t){var e=r.apply2DTransform(t);return function(t){return e(t.slice(0,2)).concat(e(t.slice(2,4)))}},r.convertCssMatrix=function(t){if(t){var e=t.length;if(16===e)return t;if(6===e)return[t[0],t[1],0,0,t[2],t[3],0,0,0,0,1,0,t[4],t[5],0,1]}return[1,0,0,0,0,1,0,0,0,0,1,0,0,0,0,1]},r.inverseTransformMatrix=function(t){var e=[];return n.invert(e,t),[[e[0],e[1],e[2],e[3]],[e[4],e[5],e[6],e[7]],[e[8],e[9],e[10],e[11]],[e[12],e[13],e[14],e[15]]]}},{"gl-mat4":210}],510:[function(t,e,r){"use strict";e.exports={mod:function(t,e){var r=t%e;return r<0?r+e:r},modHalf:function(t,e){return Math.abs(t)>e/2?t-Math.round(t/e)*e:t}}},{}],511:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("./array").isArrayOrTypedArray;function a(t,e){return function(){var r,n,o,s,l,c=t;for(s=0;s<e.length-1;s++){if(-1===(r=e[s])){for(n=!0,o=[],l=0;l<c.length;l++)o[l]=a(c[l],e.slice(s+1))(),o[l]!==o[0]&&(n=!1);return n?o[0]:o}if("number"==typeof r&&!i(c))return;if("object"!=typeof(c=c[r])||null===c)return}if("object"==typeof c&&null!==c&&null!==(o=c[e[s]]))return o}}e.exports=function(t,e){if(n(e))e=String(e);else if("string"!=typeof e||"[-1]"===e.substr(e.length-4))throw"bad property string";for(var r,i,o,s=0,c=e.split(".");s<c.length;){if(r=String(c[s]).match(/^([^\[\]]*)((\[\-?[0-9]*\])+)$/)){if(r[1])c[s]=r[1];else{if(0!==s)throw"bad property string";c.splice(0,1)}for(i=r[2].substr(1,r[2].length-2).split("]["),o=0;o<i.length;o++)s++,c.splice(s,0,Number(i[o]))}s++}return"object"!=typeof t?function(t,e,r){return{set:function(){throw"bad container"},get:function(){},astr:e,parts:r,obj:t}}(t,e,c):{set:l(t,c,e),get:a(t,c),astr:e,parts:c,obj:t}};var o=/(^|\.)args\[/;function s(t,e){return void 0===t||null===t&&!e.match(o)}function l(t,e,r){return function(n){var a,o,l=t,h="",p=[[t,h]],d=s(n,r);for(o=0;o<e.length-1;o++){if("number"==typeof(a=e[o])&&!i(l))throw"array index but container is not an array";if(-1===a){if(d=!u(l,e.slice(o+1),n,r))break;return}if(!f(l,a,e[o+1],d))break;if("object"!=typeof(l=l[a])||null===l)throw"container is not an object";h=c(h,a),p.push([l,h])}if(d){if(o===e.length-1&&(delete l[e[o]],Array.isArray(l)&&+e[o]==l.length-1))for(;l.length&&void 0===l[l.length-1];)l.pop()}else l[e[o]]=n}}function c(t,e){var r=e;return n(e)?r="["+e+"]":t&&(r="."+e),t+r}function u(t,e,r,n){var a,o=i(r),c=!0,u=r,h=n.replace("-1",0),p=!o&&s(r,h),d=e[0];for(a=0;a<t.length;a++)h=n.replace("-1",a),o&&(p=s(u=r[a%r.length],h)),p&&(c=!1),f(t,a,d,p)&&l(t[a],e,n.replace("-1",a))(u);return c}function f(t,e,r,n){if(void 0===t[e]){if(n)return!1;t[e]="number"==typeof r?[]:{}}return!0}},{"./array":485,"fast-isnumeric":190}],512:[function(t,e,r){"use strict";e.exports=function(){}},{}],513:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("fast-isnumeric"),a=[];e.exports=function(t,e){if(-1===a.indexOf(t)){a.push(t);var r=1e3;i(e)?r=e:"long"===e&&(r=3e3);var o=n.select("body").selectAll(".plotly-notifier").data([0]);o.enter().append("div").classed("plotly-notifier",!0),o.selectAll(".notifier-note").data(a).enter().append("div").classed("notifier-note",!0).style("opacity",0).each((function(t){var i=n.select(this);i.append("button").classed("notifier-close",!0).html("×").on("click",(function(){i.transition().call(s)}));for(var a=i.append("p"),o=t.split(/<br\s*\/?>/g),l=0;l<o.length;l++)l&&a.append("br"),a.append("span").text(o[l]);"stick"===e?i.transition().duration(350).style("opacity",1):i.transition().duration(700).style("opacity",1).transition().delay(r).call(s)}))}function s(t){t.duration(700).style("opacity",0).each("end",(function(t){var e=a.indexOf(t);-1!==e&&a.splice(e,1),n.select(this).remove()}))}}},{"@plotly/d3":58,"fast-

isnumeric":190}],514:[function(t,e,r){"use strict";var n=t("./setcursor"),i="data-savedcursor";e.exports=function(t,e){var r=t.attr(i);if(e){if(!r){for(var a=(t.attr("class")||"").split(" "),o=0;o<a.length;o++){var s=a[o];0===s.indexOf("cursor-")&&t.attr(i,s.substr(7)).classed(s,!1)}t.attr(i)||t.attr(i,"!!")}n(t,e)}else r&&(t.attr(i,null),"!!"===r?n(t):n(t,r))}},{"./setcursor":524}],515:[function(t,e,r){"use strict";var n=t("./matrix").dot,i=t("../constants/numerical").BADNUM,a=e.exports={};a.tester=function(t){var e,r=t.slice(),n=r[0][0],a=n,o=r[0][1],s=o;for(r.push(r[0]),e=1;e<r.length;e++)n=Math.min(n,r[e][0]),a=Math.max(a,r[e][0]),o=Math.min(o,r[e][1]),s=Math.max(s,r[e][1]);var l,c=!1;5===r.length&&(r[0][0]===r[1][0]?r[2][0]===r[3][0]&&r[0][1]===r[3][1]&&r[1][1]===r[2][1]&&(c=!0,l=function(t){return t[0]===r[0][0]}):r[0][1]===r[1][1]&&r[2][1]===r[3][1]&&r[0][0]===r[3][0]&&r[1][0]===r[2][0]&&(c=!0,l=function(t){return t[1]===r[0][1]}));var u=!0,f=r[0];for(e=1;e<r.length;e++)if(f[0]!==r[e][0]||f[1]!==r[e][1]){u=!1;break}return{xmin:n,xmax:a,ymin:o,ymax:s,pts:r,contains:c?function(t,e){var r=t[0],c=t[1];return!(r===i||r<n||r>a||c===i||c<o||c>s||e&&l(t))}:function(t,e){var l=t[0],c=t[1];if(l===i||l<n||l>a||c===i||c<o||c>s)return!1;var u,f,h,p,d,g=r.length,v=r[0][0],m=r[0][1],y=0;for(u=1;u<g;u++)if(f=v,h=m,v=r[u][0],m=r[u][1],!(l<(p=Math.min(f,v))||l>Math.max(f,v)||c>Math.max(h,m)))if(c<Math.min(h,m))l!==p&&y++;else{if(c===(d=v===f?c:h+(l-f)*(m-h)/(v-f)))return 1!==u||!e;c<=d&&l!==p&&y++}return y%2==1},isRect:c,degenerate:u}},a.isSegmentBent=function(t,e,r,i){var a,o,s,l=t[e],c=[t[r][0]-l[0],t[r][1]-l[1]],u=n(c,c),f=Math.sqrt(u),h=[-c[1]/f,c[0]/f];for(a=e+1;a<r;a++)if(o=[t[a][0]-l[0],t[a][1]-l[1]],(s=n(o,c))<0||s>u||Math.abs(n(o,h))>i)return!0;return!1},a.filter=function(t,e){var r=[t[0]],n=0,i=0;function o(o){t.push(o);var s=r.length,l=n;r.splice(i+1);for(var c=l+1;c<t.length;c++)(c===t.length-1||a.isSegmentBent(t,l,c+1,e))&&(r.push(t[c]),r.length<s-2&&(n=c,i=r.length-1),l=c)}return t.length>1&&o(t.pop()),{addPt:o,raw:t,filtered:r}}},{"../constants/numerical":479,"./matrix":509}],516:[function(t,e,n){(function(r){(function(){"use strict";var n=t("./show_no_webgl_msg"),i=t("regl");e.exports=function(t,e,a){var o=t._fullLayout,s=!0;return o._glcanvas.each((function(n){if(n.regl)n.regl.preloadCachedCode(a);else if(!n.pick||o._has("parcoords")){try{n.regl=i({canvas:this,attributes:{antialias:!n.pick,preserveDrawingBuffer:!0},pixelRatio:t._context.plotGlPixelRatio||r.devicePixelRatio,extensions:e||[],cachedCode:a||{}})}catch(t){s=!1}n.regl||(s=!1),s&&this.addEventListener("webglcontextlost",(function(e){t&&t.emit&&t.emit("plotly_webglcontextlost",{event:e,layer:n.key})}),!1)}})),s||n({container:o._glcontainer.node()}),s}}).call(this)}).call(this,void 0!==r.g?r.g:"undefined"!=typeof self?self:"undefined"!=typeof window?window:{})},{"./show_no_webgl_msg":525,regl:283}],517:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("is-mobile");e.exports=function(t){var e;if("string"!=typeof(e=t&&t.hasOwnProperty("userAgent")?t.userAgent:function(){var t;return"undefined"!=typeof navigator&&(t=navigator.userAgent),t&&t.headers&&"string"==typeof t.headers["user-agent"]&&(t=t.headers["user-agent"]),t}())return!0;var r=i({ua:{headers:{"user-agent":e}},tablet:!0,featureDetect:!1});if(!r)for(var a=e.split(" "),o=1;o<a.length;o++)if(-1!==a[o].indexOf("Safari"))for(var s=o-1;s>-1;s--){var l=a[s];if("Version/"===l.substr(0,8)){var c=l.substr(8).split(".")[0];if(n(c)&&(c=+c),c>=13)return!0}}return r}},{"fast-isnumeric":190,"is-mobile":234}],518:[function(t,e,r){"use strict";e.exports=function(t,e){if(e instanceof RegExp){for(var r=e.toString(),n=0;n<t.length;n++)if(t[n]instanceof RegExp&&t[n].toString()===r)return t;t.push(e)}else!e&&0!==e||-1!==t.indexOf(e)||t.push(e);return t}},{}],519:[function(t,e,r){"use strict";var n=t("../lib"),i=t("../plot_api/plot_config").dfltConfig,a={add:function(t,e,r,n,a){var o,s;t.undoQueue=t.undoQueue||{index:0,queue:[],sequence:!1},s=t.undoQueue.index,t.autoplay?t.undoQueue.inSequence||(t.autoplay=!1):(!t.undoQueue.sequence||t.undoQueue.beginSequence?(o={undo:{calls:[],args:[]},redo:{calls:[],args:[]}},t.undoQueue.queue.splice(s,t.undoQueue.queue.length-s,o),t.undoQueue.index+=1):o=t.undoQueue.queue[s-

1],t.undoQueue.beginSequence=!1,o&&(o.undo.calls.unshift(e),o.undo.args.unshift(r),o.redo.calls.push(n),o.redo.args.push(a)),t.undoQueue.queue.length>i.queueLength&&(t.undoQueue.queue.shift(),t.undoQueue.index--))},startSequence:function(t){t.undoQueue=t.undoQueue||{index:0,queue:[],sequence:!1},t.undoQueue.sequence=!0,t.undoQueue.beginSequence=!0},stopSequence:function(t){t.undoQueue=t.undoQueue||{index:0,queue:[],sequence:!1},t.undoQueue.sequence=!1,t.undoQueue.beginSequence=!1},undo:function(t){var e,r;if(!(void 0===t.undoQueue||isNaN(t.undoQueue.index)||t.undoQueue.index<=0)){for(t.undoQueue.index--,e=t.undoQueue.queue[t.undoQueue.index],t.undoQueue.inSequence=!0,r=0;r<e.undo.calls.length;r++)a.plotDo(t,e.undo.calls[r],e.undo.args[r]);t.undoQueue.inSequence=!1,t.autoplay=!1}},redo:function(t){var e,r;if(!(void 0===t.undoQueue||isNaN(t.undoQueue.index)||t.undoQueue.index>=t.undoQueue.queue.length)){for(e=t.undoQueue.queue[t.undoQueue.index],t.undoQueue.inSequence=!0,r=0;r<e.redo.calls.length;r++)a.plotDo(t,e.redo.calls[r],e.redo.args[r]);t.undoQueue.inSequence=!1,t.autoplay=!1,t.undoQueue.index++}},plotDo:function(t,e,r){t.autoplay=!0,r=function(t,e){for(var r,i=[],a=0;a<e.length;a++)r=e[a],i[a]=r===t?r:"object"==typeof r?Array.isArray(r)?n.extendDeep([],r):n.extendDeepAll({},r):r;return i}(t,r),e.apply(null,r)}};e.exports=a},{"../lib":503,"../plot_api/plot_config":541}],520:[function(t,e,r){"use strict";r.counter=function(t,e,r,n){var i=(e||"")+(r?"":"$"),a=!1===n?"":"^";return"xy"===t?new RegExp(a+"x([2-9]|[1-9][0-9]+)?y([2-9]|[1-9][0-9]+)?"+i):new RegExp(a+t+"([2-9]|[1-9][0-9]+)?"+i)},{}],521:[function(t,e,r){"use strict";var n=/^(.*)(\.[^\.\[\]]+|\[\d\])$/,i=/^[^\.\[\]]+$/;e.exports=function(t,e){for(;e;){var r=t.match(n);if(r)t=r[1];else{if(!t.match(i))throw new Error("bad relativeAttr call:"+[t,e]);t=""}if("^"!==e.charAt(0))break;e=e.slice(1)}return t&&"["!==e.charAt(0)?t+"."+e:t+e}},{}],522:[function(t,e,r){"use strict";var n=t("./array").isArrayOrTypedArray,i=t("./is_plain_object");e.exports=function t(e,r){for(var a in r){var o=r[a],s=e[a];if(s!==o)if("_"===a.charAt(0)||"function"==typeof o){if(a in e)continue;e[a]=o}else if(n(o)&&n(s)&&i(o[0])){if("customdata"===a||"ids"===a)continue;for(var l=Math.min(o.length,s.length),c=0;c<l;c++)s[c]!==o[c]&&i(o[c])&&i(s[c])&&t(s[c],o[c])}else i(o)&&i(s)&&(t(s,o),Object.keys(s).length||delete e[a])}}},{"./array":485,"./is_plain_object":504}],523:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("./loggers"),a=t("./identity"),o=t("../constants/numerical").BADNUM,s=1e-9;function l(t,e){return t<e}function c(t,e){return t<=e}function u(t,e){return t>e}function f(t,e){return t>=e}r.findBin=function(t,e,r){if(n(e.start))return r?Math.ceil((t-e.start)/e.size-s)-1:Math.floor((t-e.start)/e.size+s);var a,o,h=0,p=e.length,d=0,g=p>1?(e[p-1]-e[0])/(p-1):1;for(o=g>=0?r?l:c:r?f:u,t+=g*s*(r?-1:1)*(g>=0?1:-1);h<p&&d++<100;)o(e[a=Math.floor((h+p)/2)],t)?h=a+1:p=a;return d>90&&i.log("Long binary search..."),h-1},r.sorterAsc=function(t,e){return t-e},r.sorterDes=function(t,e){return e-t},r.distinctVals=function(t){var e,n=t.slice();for(n.sort(r.sorterAsc),e=n.length-1;e>-1&&n[e]===o;e--);for(var i,a=n[e]-n[0]||1,s=a/(e||1)/1e4,l=[],c=0;c<=e;c++){var u=n[c],f=u-i;void 0===i?(l.push(u),i=u):f>s&&(a=Math.min(a,f),l.push(u),i=u)}return{vals:l,minDiff:a}},r.roundUp=function(t,e,r){for(var n,i=0,a=e.length-1,o=0,s=r?0:1,l=r?1:0,c=r?Math.ceil:Math.floor;i<a&&o++<100;)e[n=c((i+a)/2)]<=t?i=n+s:a=n-l;return e[i]},r.sort=function(t,e){for(var r=0,n=0,i=1;i<t.length;i++){var a=e(t[i],t[i-1]);if(a<0?r=1:a>0&&(n=1),r&&n)return t.sort(e)}return n?t:t.reverse()},r.findIndexOfMin=function(t,e){e=e||a;for(var r,n=1/0,i=0;i<t.length;i++){var o=e(t[i]);o<n&&(n=o,r=i)}return r}},{"../constants/numerical":479,"./identity":501,"./loggers":507,"fast-isnumeric":190}],524:[function(t,e,r){"use strict";e.exports=function(t,e){(t.attr("class")||"").split(" ").forEach((function(e){0===e.indexOf("cursor-")&&t.classed(e,!1)})),e&&t.classed("cursor-"+e,!0)}},{}],525:[function(t,e,r){"use strict";var n=t("../components/color"),i=function(){};e.exports=function(t){for(var e in t)"function"==typeof t[e]&&(t[e]=i);t.destroy=function(){t.container.parentNode.removeChild(t.container)};var r=document.createElement("div");r.className="no-webgl",r.style.cursor="pointer",r.style.fontSize="24px",r.style.color=n.defaults[0],r.style.position="absolute",r.style.

left=r.style.top="0px",r.style.width=r.style.height="100%",r.style["background-color"]=n.lightLine,r.style["z-index"]=30;var a=document.createElement("p");return a.textContent="WebGL is not supported by your browser - visit https://get.webgl.org for more info",a.style.position="relative",a.style.top="50%",a.style.left="50%",a.style.height="30%",a.style.width="50%",a.style.margin="-15% 0 0 -25%",r.appendChild(a),t.container.appendChild(r),t.container.style.background="#FFFFFF",t.container.onclick=function(){window.open("https://get.webgl.org")},!1}},{"../components/color":366}],526:[function(t,e,r){"use strict";e.exports=function(t){return Object.keys(t).sort()}},{}],527:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("./array").isArrayOrTypedArray;r.aggNums=function(t,e,a,o){var s,l;if((!o||o>a.length)&&(o=a.length),n(e)||(e=!1),i(a[0])){for(l=new Array(o),s=0;s<o;s++)l[s]=r.aggNums(t,e,a[s]);a=l}for(s=0;s<o;s++)n(e)?n(a[s])&&(e=t(+e,+a[s])):e=a[s];return e},r.len=function(t){return r.aggNums((function(t){return t+1}),0,t)},r.mean=function(t,e){return e||(e=r.len(t)),r.aggNums((function(t,e){return t+e}),0,t)/e},r.midRange=function(t){if(void 0!==t&&0!==t.length)return(r.aggNums(Math.max,null,t)+r.aggNums(Math.min,null,t))/2},r.variance=function(t,e,i){return e||(e=r.len(t)),n(i)||(i=r.mean(t,e)),r.aggNums((function(t,e){return t+Math.pow(e-i,2)}),0,t)/e},r.stdev=function(t,e,n){return Math.sqrt(r.variance(t,e,n))},r.median=function(t){var e=t.slice().sort();return r.interp(e,.5)},r.interp=function(t,e){if(!n(e))throw"n should be a finite number";if((e=e*t.length-.5)<0)return t[0];if(e>t.length-1)return t[t.length-1];var r=e%1;return r*t[Math.ceil(e)]+(1-r)*t[Math.floor(e)]}},{"./array":485,"fast-isnumeric":190}],528:[function(t,e,r){"use strict";var n=t("color-normalize");e.exports=function(t){return t?n(t):[0,0,0,1]}},{"color-normalize":89}],529:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../lib"),a=i.strTranslate,o=t("../constants/xmlns_namespaces"),s=t("../constants/alignment").LINE_SPACING,l=/([^$]*)([$]+[^$]*[$]+)([^$]*)/;r.convertToTspans=function(t,e,v){var S=t.text(),E=!t.attr("data-notex")&&e&&e._context.typesetMath&&"undefined"!=typeof MathJax&&S.match(l),P=n.select(t.node().parentNode);if(!P.empty()){var I=t.attr("class")?t.attr("class").split(" ")[0]:"text";return I+="-math",P.selectAll("svg."+I).remove(),P.selectAll("g."+I+"-group").remove(),t.style("display",null).attr({"data-unformatted":S,"data-math":"N"}),E?(e&&e._promises||[]).push(new Promise((function(e){t.style("display","none");var r=parseInt(t.node().style.fontSize,10),o={fontSize:r};!function(t,e,r){var a=parseInt((MathJax.version||"").split(".")[0]);if(2===a||3===a){var o,s,l,h,p=function(){return s=i.extendDeepAll({},MathJax.Hub.config),l=MathJax.Hub.processSectionDelay,void 0!==MathJax.Hub.processSectionDelay&&(MathJax.Hub.processSectionDelay=0),MathJax.Hub.Config({messageStyle:"none",tex2jax:{inlineMath:f},displayAlign:"left"})},d=function(){s=i.extendDeepAll({},MathJax.config),MathJax.config.tex||(MathJax.config.tex={}),MathJax.config.tex.inlineMath=f},g=function(){if("SVG"!==(o=MathJax.Hub.config.menuSettings.renderer))return MathJax.Hub.setRenderer("SVG")},v=function(){"svg"!==(o=MathJax.config.startup.output)&&(MathJax.config.startup.output="svg")},m=function(){var r,o="math-output-"+i.randstr({},64),s=(h=n.select("body").append("div").attr({id:o}).style({visibility:"hidden",position:"absolute","font-size":e.fontSize+"px"}).text((r=t,r.replace(c,"\\lt ").replace(u,"\\gt "))))).node();return 2===a?MathJax.Hub.Typeset(s):MathJax.typeset([s])},y=function(){var e=h.select(2===a?".MathJax_SVG":".MathJax"),o=!e.empty()&&h.select("svg").node();if(o){var s,l=o.getBoundingClientRect();s=2===a?n.select("body").select("#MathJax_SVG_glyphs"):e.select("defs"),r(e,s,l)}else i.log("There was an error in the tex syntax.",t),r();h.remove()},x=function(){if("SVG"!==o)return MathJax.Hub.setRenderer(o)},b=function(){"svg"!==o&&(MathJax.config.startup.output=o)},_=function(){return void 0!==l&&(MathJax.Hub.processSectionDelay=l),MathJax.Hub.Config(s)},w=function(){MathJax.config=s};2===a?MathJax.Hub.Queue(p,g,m,y,x,_):3===a&&(d(),v(),MathJax.startup.defaultReady(),MathJax.startup.promise.then((function(){m(),y(),b(),w()})))}else i.warn("No MathJax

version:",MathJax.version)}(E[2],o,(function(n,i,o){P.selectAll("svg."+I).remove(),P.selectAll("g."+I+"-group").remove();var s=n&&n.select("svg");if(!s||!s.node())return O(),void e();var l=P.append("g").classed(I+"-group",!0).attr({"pointer-events":"none","data-unformatted":S,"data-math":"Y"});l.node().appendChild(s.node()),i&&i.node()&&s.node().insertBefore(i.node().cloneNode(!0),s.node().firstChild);var c=o.width,u=o.height;s.attr({class:I,height:u,preserveAspectRatio:"xMinYMin meet"}).style({overflow:"visible","pointer-events":"none"});var f=t.node().style.fill||"black",h=s.select("g");h.attr({fill:f,stroke:f});var p=h.node().getBoundingClientRect(),d=p.width,g=p.height;(d>c||g>u)&&(s.style("overflow","hidden"),d=(p=s.node().getBoundingClientRect()).width,g=p.height);var m=+t.attr("x"),y=+t.attr("y"),x=-(r||t.node().getBoundingClientRect().height)/4;if("y"===I[0])l.attr({transform:"rotate("+[-90,m,y]+")"+a(-d/2,x-g/2)});else if("l"===I[0])y=x-g/2;else if("a"===I[0]&&0!==I.indexOf("atitle"))m=0,y=x;else{var b=t.attr("text-anchor");m-=d*("middle"===b?.5:"end"===b?1:0),y=y+x-g/2}s.attr({x:m,y}),v&&v.call(t,l),e(l)})))):O(),t}function O(){P.empty()||(I=t.attr("class")+"-math",P.select("svg."+I).remove()),t.text("").style("white-space","pre"),function(t,e){e=e.replace(m," ");var r,a=!1,l=[],c=-1;function u(){c++;var e=document.createElementNS(o.svg,"tspan");n.select(e).attr({class:"line",dy:c*s+"em"}),t.appendChild(e),r=e;var i=l;if(l=[{node:e}],i.length>1)for(var a=1;a<i.length;a++)f(i[a])}function f(t){var e,i=t.type,a={};if("a"===i){e="a";var s=t.target,c=t.href,u=t.popup;c&&(a={"xlink:xlink:show":"_blank"===s||"_"!==s.charAt(0)?"new":"replace",target:s,"xlink:xlink:href":c},u&&(a.onclick='window.open(this.href.baseVal,this.target.baseVal,"'+u+'");return false;'))}else e="tspan";t.style&&(a.style=t.style);var f=document.createElementNS(o.svg,e);if("sup"===i||"sub"===i){v(r,g),r.appendChild(f);var h=document.createElementNS(o.svg,"tspan");v(h,g),n.select(h).attr("dy",d[i]),a.dy=p[i],r.appendChild(f),r.appendChild(h)}else r.appendChild(f);n.select(f).attr(a),r=t.node=f,l.push(t)}function v(t,e){t.appendChild(document.createTextNode(e))}function S(t){if(1!==l.length){var n=l.pop();t!==n.type&&i.log("Start tag <"+n.type+"> doesnt match end tag <"+t+">. Pretending it did match.",e),r=l[l.length-1].node}else i.log("Ignoring unexpected end tag </"+t+">.",e)}b.test(e)?u():(r=t,l=[{node:t}]);for(var E=e.split(y),P=0;P<E.length;P++){var I=E[P],O=I.match(x),z=O&&O[2].toLowerCase(),D=h[z];if("br"===z)u();else if(void 0===D)v(r,L(I));else if(O[1])S(z);else{var R=O[4],F={type:z},B=A(R,_);if(B?(B=B.replace(M,"$1 fill:"),D&&(B+=";"+D)):D&&(B=D),B&&(F.style=B),"a"===z){a=!0;var N=A(R,w);if(N){var j=C(N);j&&(F.href=j,F.target=A(R,T)||"_blank",F.popup=A(R,k))}}f(F)}}return a}(t.node(),S)&&t.style("pointer-events","all"),r.positionText(t),v&&v.call(t)}};var c=/(<|<|<)/g,u=/(>|>|>)/g,f=[["$","$"],["\\(","\\)"]],h={sup:"font-size:70%",sub:"font-size:70%",b:"font-weight:bold",i:"font-style:italic",a:"cursor:pointer",span:"",em:"font-style:italic;font-weight:bold"},p={sub:"0.3em",sup:"-0.6em"},d={sub:"-0.21em",sup:"0.42em"},g="",v=["http:","https:","mailto:","",void 0,":"],m=r.NEWLINES=/(\r\n?|\n)/g,y=/(<[^<>]*>)/,x=/<(\/?)([^>]*)(\s+(.*))?>/i,b=/<br(\s+.*)?>/i;r.BR_TAG_ALL=/<br(\s+.*)?>/gi;var _=/(^|[\s"'])style\s*=\s*("([^"]*);?"|'([^']*);?')/i,w=/(^|[\s"'])href\s*=\s*("([^"]*)"|'([^']*)')/i,T=/(^|[\s"'])target\s*=\s*("([^"\s]*)"|'([^'\s]*)')/i,k=/(^|[\s"'])popup\s*=\s*("([\w=,]*)"|'([\w=,]*)')/i;function A(t,e){if(!t)return null;var r=t.match(e),n=r&&(r[3]||r[4]);return n&&L(n)}var M=/(^|;)\s*color:/;r.plainText=function(t,e){for(var r=void 0!==(e=e||{}).len&&-1!==e.len?e.len:1/0,n=void 0!==e.allowedTags?e.allowedTags:["br"],i="...".length,a=t.split(y),o=[],s="",l=0,c=0;c<a.length;c++){var u=a[c],f=u.match(x),h=f&&f[2].toLowerCase();if(h)-1!==n.indexOf(h)&&(o.push(u),s=h);else{var p=u.length;if(l+p<r)o.push(u),l+=p;else if(l<r){var d=r-l;s&&("br"!==s||d<=i||p<=i)&&o.pop(),r>i?o.push(u.substr(0,d-i)+"..."):o.push(u.substr(0,d));break}s=""}}return o.join("")};var S={mu:"",amp:"&",lt:"<",gt:">",nbsp:" ",times:"×",plusmn:"±",deg:"°"},E=/&(#\d+|#x[\da-fA-F]+|[a-z]+);/g;function L(t){return

t.replace(E,(function(t,e){return("#"===e.charAt(0)?function(t){if(!(t>1114111)){var e=String.fromCodePoint;if(e)return e(t);var r=String.fromCharCode;return t<=65535?r(t):r(55232+(t>>10),t%1024+56320)}}("x"===e.charAt(1)?parseInt(e.substr(2),16):parseInt(e.substr(1),10)):S[e])||t}))}function C(t){var e=encodeURI(decodeURI(t)),r=document.createElement("a"),n=document.createElement("a");r.href=t,n.href=e;var i=r.protocol,a=n.protocol;return-1!==v.indexOf(i)&&-1!==v.indexOf(a)?e:""}function P(t,e,r){var n,a,o,s=r.horizontalAlign,l=r.verticalAlign||"top",c=t.node().getBoundingClientRect(),u=e.node().getBoundingClientRect();return a="bottom"===l?function(){return c.bottom-n.height}:"middle"===l?function(){return c.top+(c.height-n.height)/2}:function(){return c.top},o="right"===s?function(){return c.right-n.width}:"center"===s?function(){return c.left+(c.width-n.width)/2}:function(){return c.left},function(){n=this.node().getBoundingClientRect();var t=o()-u.left,e=a()-u.top,s=r.gd||{};if(r.gd){s._fullLayout._calcInverseTransform(s);var l=i.apply3DTransform(s._fullLayout._invTransform)(t,e);t=l[0],e=l[1]}return this.style({top:e+"px",left:t+"px","z-index":1e3}),this}}r.convertEntities=L,r.sanitizeHTML=function(t){t=t.replace(m," ");for(var e=document.createElement("p"),r=e,i=[],a=t.split(y),o=0;o<a.length;o++){var s=a[o],l=s.match(x),c=l&&l[2].toLowerCase();if(c in h)if(l[1])i.length&&(r=i.pop());else{var u=l[4],f=A(u,_),p=f?{style:f}:{};if("a"===c){var d=A(u,w);if(d){var g=C(d);if(g){p.href=g;var v=A(u,T);v&&(p.target=v)}}}var b=document.createElement(c);r.appendChild(b),n.select(b).attr(p),r=b,i.push(b)}else r.appendChild(document.createTextNode(L(s)))}return e.innerHTML},r.lineCount=function(t){return t.selectAll("tspan.line").size()||1},r.positionText=function(t,e,r){return t.each((function(){var t=n.select(this);function i(e,r){return void 0===r?null===(r=t.attr(e))&&(t.attr(e,0),r=0):t.attr(e,r),r}var a=i("x",e),o=i("y",r);"text"===this.nodeName&&t.selectAll("tspan.line").attr({x:a,y:o})}))};var I="1px ";r.makeTextShadow=function(t){return"1px 1px 1px "+t+", -1px -"+I+I+t+", 1px -"+I+I+t+", -"+I+I+I+t},r.makeEditable=function(t,e){var r=e.gd,i=e.delegate,a=n.dispatch("edit","input","cancel"),o=i||t;if(t.style({"pointer-events":i?"none":"all"}),1!==t.size())throw new Error("boo");function s(){var i,s,c,u,f;i=n.select(r).select(".svg-container"),s=i.append("div"),c=t.node().style,u=parseFloat(c.fontSize||12),void 0===(f=e.text)&&(f=t.attr("data-unformatted")),s.classed("plugin-editable editable",!0).style({position:"absolute","font-family":c.fontFamily||"Arial","font-size":u,color:e.fill||c.fill||"black",opacity:1,"background-color":e.background||"transparent",outline:"#ffffff33 1px solid",margin:[-u/8+1,0,0,-1].join("px ")+"px",padding:"0","box-sizing":"border-box"}).attr({contenteditable:!0}).text(f).call(P(t,i,e)).on("blur",(function(){r._editing=!1,t.text(this.textContent).style({opacity:1});var e,i=n.select(this).attr("class");(e=i?"."+i.split(" ")[0]+"-math-group":"[class*=-math-group]")&&n.select(t.node().parentNode).select(e).style({opacity:0});var o=this.textContent;n.select(this).transition().duration(0).remove(),n.select(document).on("mouseup",null),a.edit.call(t,o)})).on("focus",(function(){var t=this;r._editing=!0,n.select(document).on("mouseup",(function(){if(n.event.target===t)return!1;document.activeElement===s.node()&&s.node().blur()}))})).on("keyup",(function(){27===n.event.which?(r._editing=!1,t.style({opacity:1}),n.select(this).style({opacity:0}).on("blur",(function(){return!1})).transition().remove(),a.cancel.call(t,this.textContent)):(a.input.call(t,this.textContent),n.select(this).call(P(t,i,e)))})).on("keydown",(function(){13===n.event.which&&this.blur()})).call(l),t.style({opacity:0});var h,p=o.attr("class");(h=p?"."+p.split(" ")[0]+"-math-group":"[class*=-math-group]")&&n.select(t.node().parentNode).select(h).style({opacity:0})}function l(t){var e=t.node(),r=document.createRange();r.selectNodeContents(e);var n=window.getSelection();n.removeAllRanges(),n.addRange(r),e.focus()}return e.immediate?s():o.on("click",s),n.rebind(t,a,"on")}},{"../constants/alignment":471,"../constants/xmlns_namespaces":480,"../lib":503,"@plotly/d3":58}],530:[function(t,e,r){"use strict";var n={};function i(t){t&&null!==t.timer&&(clearTimeout(t.timer),t.timer=null)}r.throttle=function(t,e,r){var

a=n[t],o=Date.now();if(!a){for(var s in n)n[s].ts<o-6e4&&delete n[s];a=n[t]={ts:0,timer:null}}function l(){r(),a.ts=Date.now(),a.onDone&&(a.onDone(),a.onDone=null)}i(a),o>a.ts+e?l():a.timer=setTimeout((function(){l(),a.timer=null}),e)},r.done=function(t){var e=n[t];return e&&e.timer?new Promise((function(t){var r=e.onDone;e.onDone=function(){r&&r(),t(),e.onDone=null}})):Promise.resolve()},r.clear=function(t){if(t)i(n[t]),delete n[t];else for(var e in n)r.clear(e)}},{}],531:[function(t,e,r){"use strict";var n=t("fast-isnumeric");e.exports=function(t,e){if(t>0)return Math.log(t)/Math.LN10;var r=Math.log(Math.min(e[0],e[1]))/Math.LN10;return n(r)||(r=Math.log(Math.max(e[0],e[1]))/Math.LN10-6),r}},{"fast-isnumeric":190}],532:[function(t,e,r){"use strict";var n=e.exports={},i=t("../plots/geo/constants").locationmodeToLayer,a=t("topojson-client").feature;n.getTopojsonName=function(t){return[t.scope.replace(/ /g,"-"),"_",t.resolution.toString(),"m"].join("")},n.getTopojsonPath=function(t,e){return t+e+".json"},n.getTopojsonFeatures=function(t,e){var r=i[t.locationmode],n=e.objects[r];return a(e,n).features}},{"../plots/geo/constants":587,"topojson-client":315}],533:[function(t,e,r){"use strict";e.exports={moduleType:"locale",name:"en-US",dictionary:{"Click to enter Colorscale title":"Click to enter Colorscale title"},format:{date:"%m/%d/%Y"}}},{}],534:[function(t,e,r){"use strict";e.exports={moduleType:"locale",name:"en",dictionary:{"Click to enter Colorscale title":"Click to enter Colourscale title"},format:{days:["Sunday","Monday","Tuesday","Wednesday","Thursday","Friday","Saturday"],shortDays:["Sun","Mon","Tue","Wed","Thu","Fri","Sat"],months:["January","February","March","April","May","June","July","August","September","October","November","December"],shortMonths:["Jan","Feb","Mar","Apr","May","Jun","Jul","Aug","Sep","Oct","Nov","Dec"],periods:["AM","PM"],dateTime:"%a %b %e %X %Y",date:"%d/%m/%Y",time:"%H:%M:%S",decimal:".",thousands:",",grouping:[3],currency:["$",""],year:"%Y",month:"%b %Y",dayMonth:"%b %-d",dayMonthYear:"%b %-d, %Y"}}},{}],535:[function(t,e,r){"use strict";var n=t("../registry");e.exports=function(t){for(var e,r,i=n.layoutArrayContainers,a=n.layoutArrayRegexes,o=t.split("[")[0],s=0;s<a.length;s++)if((r=t.match(a[s]))&&0===r.index){e=r[0];break}if(e||(e=i[i.indexOf(o)]),!e)return!1;var l=t.substr(e.length);return l?!!(r=l.match(/^\[(0|[1-9][0-9]*)\](\.(.+))?$/))&&{array:e,index:Number(r[1]),property:r[3]||""}:{array:e,index:"",property:""}}},{"../registry":638}],536:[function(t,e,r){"use strict";var n=t("../lib"),i=n.extendFlat,a=n.isPlainObject,o={valType:"flaglist",extras:["none"],flags:["calc","clearAxisTypes","plot","style","markerSize","colorbars"]},s={valType:"flaglist",extras:["none"],flags:["calc","plot","legend","ticks","axrange","layoutstyle","modebar","camera","arraydraw","colorbars"]},l=o.flags.slice().concat(["fullReplot"]),c=s.flags.slice().concat("layoutReplot");function u(t){for(var e={},r=0;r<t.length;r++)e[t[r]]=!1;return e}function f(t,e,r){var n=i({},t);for(var o in n){var s=n[o];a(s)&&(n[o]=h(s,e,0,o))}return"from-root"===r&&(n.editType=e),n}function h(t,e,r,n){if(t.valType){var a=i({},t);if(a.editType=e,Array.isArray(t.items)){a.items=new Array(t.items.length);for(var o=0;o<t.items.length;o++)a.items[o]=h(t.items[o],e)}return a}return f(t,e,"_"===n.charAt(0)?"nested":"from-root")}e.exports={traces:o,layout:s,traceFlags:function(){return u(l)},layoutFlags:function(){return u(c)},update:function(t,e){var r=e.editType;if(r&&"none"!==r)for(var n=r.split("+"),i=0;i<n.length;i++)t[n[i]]=!0},overrideAll:f}},{"../lib":503}],537:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("gl-mat4/fromQuat"),a=t("../registry"),o=t("../lib"),s=t("../plots/plots"),l=t("../plots/cartesian/axis_ids"),c=t("../components/color"),u=l.cleanId,f=l.getFromTrace,h=a.traceIs;function p(t,e){var r=t[e],n=e.charAt(0);r&&"paper"!==r&&(t[e]=u(r,n,!0))}function d(t){function e(e,r){var n=t[e],i=t.title&&t.title[r];n&&!i&&(t.title||(t.title={}),t.title[r]=t[e],delete t[e])}t&&("string"!=typeof t.title&&"number"!=typeof t.title||(t.title={text:t.title}),e("titlefont","font"),e("titleposition","position"),e("titleside","side"),e("titleoffset","offset"))}function g(t){if(!o.isPlainObject(t))return!1;var e=t.name;return delete t.name,delete

t.showlegend,("string"==typeof e||"number"==typeof e)&&String(e)}function v(t,e,r,n){if(r&&!n)return t;if(n&&!r)return e;if(!t.trim())return e;if(!e.trim())return t;var i,a=Math.min(t.length,e.length);for(i=0;i<a&&t.charAt(i)===e.charAt(i);i++);return t.substr(0,i).trim()}function m(t){var e="middle",r="center";return"string"==typeof t&&(-1!==t.indexOf("top")?e="top":-1!==t.indexOf("bottom")&&(e="bottom"),-1!==t.indexOf("left")?r="left":-1!==t.indexOf("right")&&(r="right")),e+" "+r}function y(t,e){return e in t&&"object"==typeof t[e]&&0===Object.keys(t[e]).length}r.clearPromiseQueue=function(t){Array.isArray(t._promises)&&t._promises.length>0&&o.log("Clearing previous rejected promises from queue."),t._promises=[]},r.cleanLayout=function(t){var e,n;t||(t={}),t.xaxis1&&(t.xaxis||(t.xaxis=t.xaxis1),delete t.xaxis1),t.yaxis1&&(t.yaxis||(t.yaxis=t.yaxis1),delete t.yaxis1),t.scene1&&(t.scene||(t.scene=t.scene1),delete t.scene1);var a=(s.subplotsRegistry.cartesian||{}).attrRegex,l=(s.subplotsRegistry.polar||{}).attrRegex,f=(s.subplotsRegistry.ternary||{}).attrRegex,h=(s.subplotsRegistry.gl3d||{}).attrRegex,g=Object.keys(t);for(e=0;e<g.length;e++){var v=g[e];if(a&&a.test(v)){var m=t[v];m.anchor&&"free"!==m.anchor&&(m.anchor=u(m.anchor)),m.overlaying&&(m.overlaying=u(m.overlaying)),m.type||(m.isdate?m.type="date":m.islog?m.type="log":!1===m.isdate&&!1===m.islog&&(m.type="linear")),"withzero"!==m.autorange&&"tozero"!==m.autorange||(m.autorange=!0,m.rangemode="tozero"),delete m.islog,delete m.isdate,delete m.categories,y(m,"domain")&&delete m.domain,void 0!==m.autotick&&(void 0===m.tickmode&&(m.tickmode=m.autotick?"auto":"linear"),delete m.autotick),d(m)}else if(l&&l.test(v))d(t[v].radialaxis);else if(f&&f.test(v)){var x=t[v];d(x.aaxis),d(x.baxis),d(x.caxis)}else if(h&&h.test(v)){var b=t[v],_=b.cameraposition;if(Array.isArray(_)&&4===_[0].length){var w=_[0],T=_[1],k=_[2],A=i([],w),M=[];for(n=0;n<3;++n)M[n]=T[n]+k*A[2+4*n];b.camera={eye:{x:M[0],y:M[1],z:M[2]},center:{x:T[0],y:T[1],z:T[2]},up:{x:0,y:0,z:1}},delete b.cameraposition}d(b.xaxis),d(b.yaxis),d(b.zaxis)}}var S=Array.isArray(t.annotations)?t.annotations.length:0;for(e=0;e<S;e++){var E=t.annotations[e];o.isPlainObject(E)&&(E.ref&&("paper"===E.ref?(E.xref="paper",E.yref="paper"):"data"===E.ref&&(E.xref="x",E.yref="y"),delete E.ref),p(E,"xref"),p(E,"yref"))}var L=Array.isArray(t.shapes)?t.shapes.length:0;for(e=0;e<L;e++){var C=t.shapes[e];o.isPlainObject(C)&&(p(C,"xref"),p(C,"yref"))}var P=Array.isArray(t.images)?t.images.length:0;for(e=0;e<P;e++){var I=t.images[e];o.isPlainObject(I)&&(p(I,"xref"),p(I,"yref"))}var O=t.legend;return O&&(O.x>3?(O.x=1.02,O.xanchor="left"):O.x<-2&&(O.x=-.02,O.xanchor="right"),O.y>3?(O.y=1.02,O.yanchor="bottom"):O.y<-2&&(O.y=-.02,O.yanchor="top")),d(t),"rotate"===t.dragmode&&(t.dragmode="orbit"),c.clean(t),t.template&&t.template.layout&&r.cleanLayout(t.template.layout),t},r.cleanData=function(t){for(var e=0;e<t.length;e++){var n,i=t[e];if("histogramy"===i.type&&"xbins"in i&&!("ybins"in i)&&(i.ybins=i.xbins,delete i.xbins),i.error_y&&"opacity"in i.error_y){var l=c.defaults,f=i.error_y.color||(h(i,"bar")?c.defaultLine:l[e%l.length]);i.error_y.color=c.addOpacity(c.rgb(f),c.opacity(f)*i.error_y.opacity),delete i.error_y.opacity}if("bardir"in i&&("h"!==i.bardir||!h(i,"bar")&&"histogram"!==i.type.substr(0,9))||(i.orientation="h",r.swapXYData(i)),delete i.bardir),"histogramy"===i.type&&r.swapXYData(i),"histogramx"!==i.type&&"histogramy"!==i.type||(i.type="histogram"),"scl"in i&&!("colorscale"in i)&&(i.colorscale=i.scl,delete i.scl),"reversescl"in i&&!("reversescale"in i)&&(i.reversescale=i.reversescl,delete i.reversescl),i.xaxis&&(i.xaxis=u(i.xaxis,"x")),i.yaxis&&(i.yaxis=u(i.yaxis,"y")),h(i,"gl3d")&&i.scene&&(i.scene=s.subplotsRegistry.gl3d.cleanId(i.scene)),!h(i,"pie-like")&&!h(i,"bar-like"))if(Array.isArray(i.textposition))for(n=0;n<i.textposition.length;n++)i.textposition[n]=m(i.textposition[n]);else i.textposition&&(i.textposition=m(i.textposition));var p=a.getModule(i);if(p&&p.colorbar){var x=p.colorbar.container,b=x?i[x]:i;b&&b.colorscale&&("YIGnBu"===b.colorscale&&(b.colorscale="YlGnBu"),"YI

OrRd"===b.colorscale&&(b.colorscale="YlOrRd"))}if("surface"===i.type&&o.isPlainObject(i.contours)){var _=["x","y","z"];for(n=0;n<_.length;n++){var w=i.contours[_[n]];o.isPlainObject(w)&&(w.highlightColor&&(w.highlightcolor=w.highlightColor,delete w.highlightColor),w.highlightWidth&&(w.highlightwidth=w.highlightWidth,delete w.highlightWidth))}}if("candlestick"===i.type||"ohlc"===i.type){var T=!1!==(i.increasing||{}).showlegend,k=!1!==(i.decreasing||{}).showlegend,A=g(i.increasing),M=g(i.decreasing);if(!1!==A&&!1!==M){var S=v(A,M,T,k);S&&(i.name=S)}else!A&&!M||i.name||(i.name=A||M)}if(Array.isArray(i.transforms)){var E=i.transforms;for(n=0;n<E.length;n++){var L=E[n];if(o.isPlainObject(L))switch(L.type){case"filter":L.filtersrc&&(L.target=L.filtersrc,delete L.filtersrc),L.calendar&&(L.valuecalendar||(L.valuecalendar=L.calendar),delete L.calendar);break;case"groupby":if(L.styles=L.styles||L.style,L.styles&&!Array.isArray(L.styles)){var C=L.styles,P=Object.keys(C);L.styles=[];for(var I=0;I<P.length;I++)L.styles.push({target:P[I],value:C[P[I]]})}}}}y(i,"line")&&delete i.line,"marker"in i&&(y(i.marker,"line")&&delete i.marker.line,y(i,"marker")&&delete i.marker),c.clean(i),i.autobinx&&(delete i.autobinx,delete i.xbins),i.autobiny&&(delete i.autobiny,delete i.ybins),d(i),i.colorbar&&d(i.colorbar),i.marker&&i.marker.colorbar&&d(i.marker.colorbar),i.line&&i.line.colorbar&&d(i.line.colorbar),i.aaxis&&d(i.aaxis),i.baxis&&d(i.baxis)}},r.swapXYData=function(t){var e;if(o.swapAttrs(t,["?","?0","d?","?bins","nbins?","autobin?","?src","error_?"]),Array.isArray(t.z)&&Array.isArray(t.z[0])&&(t.transpose?delete t.transpose:t.transpose=!0),t.error_x&&t.error_y){var r=t.error_y,n="copy_ystyle"in r?r.copy_ystyle:!(r.color||r.thickness||r.width);o.swapAttrs(t,["error_?.copy_ystyle"]),n&&o.swapAttrs(t,["error_?.color","error_?.thickness","error_?.width"])}if("string"==typeof t.hoverinfo){var i=t.hoverinfo.split("+");for(e=0;e<i.length;e++)"x"===i[e]?i[e]="y":"y"===i[e]&&(i[e]="x");t.hoverinfo=i.join("+")}},r.coerceTraceIndices=function(t,e){if(n(e))return[e];if(!Array.isArray(e)||!e.length)return t.data.map((function(t,e){return e}));if(Array.isArray(e)){for(var r=[],i=0;i<e.length;i++)o.isIndex(e[i],t.data.length)?r.push(e[i]):o.warn("trace index (",e[i],") is not a number or is out of bounds");return r}return e},r.manageArrayContainers=function(t,e,r){var i=t.obj,a=t.parts,s=a.length,l=a[s-1],c=n(l);if(c&&null===e){var u=a.slice(0,s-1).join(".");o.nestedProperty(i,u).get().splice(l,1)}else c&&void 0===t.get()?(void 0===t.get()&&(r[t.astr]=null),t.set(e)):t.set(e)};var x=/(\.[^\[\]\.]+|\[[^\[\]\.]+\])$/;function b(t){var e=t.search(x);if(e>0)return t.substr(0,e)}r.hasParent=function(t,e){for(var r=b(e);r;){if(r in t)return!0;r=b(r)}return!1};var _=["x","y","z"];r.clearAxisTypes=function(t,e,r){for(var n=0;n<e.length;n++)for(var i=t._fullData[n],a=0;a<3;a++){var s=f(t,i,_[a]);if(s&&"log"!==s.type){var l=s._name,c=s._id.substr(1);if("scene"===c.substr(0,5)){if(void 0!==r[c])continue;l=c+"."+l}var u=l+".type";void 0===r[l]&&void 0===r[u]&&o.nestedProperty(t.layout,u).set(null)}}}},{"../components/color":366,"../lib":503,"../plots/cartesian/axis_ids":558,"../plots/plots":619,"../registry":638,"fast-isnumeric":190,"gl-mat4/fromQuat":200}],538:[function(t,e,r){"use strict";var n=t("./plot_api");r._doPlot=n._doPlot,r.newPlot=n.newPlot,r.restyle=n.restyle,r.relayout=n.relayout,r.redraw=n.redraw,r.update=n.update,r._guiRestyle=n._guiRestyle,r._guiRelayout=n._guiRelayout,r._guiUpdate=n._guiUpdate,r._storeDirectGUIEdit=n._storeDirectGUIEdit,r.react=n.react,r.extendTraces=n.extendTraces,r.prependTraces=n.prependTraces,r.addTraces=n.addTraces,r.deleteTraces=n.deleteTraces,r.moveTraces=n.moveTraces,r.purge=n.purge,r.addFrames=n.addFrames,r.deleteFrames=n.deleteFrames,r.animate=n.animate,r.setPlotConfig=n.setPlotConfig,r.toImage=t("./to_image"),r.validate=t("./validate"),r.downloadImage=t("../snapshot/download");var i=t("./template_api");r.makeTemplate=i.makeTemplate,r.validateTemplate=i.validateTemplate},{"../snapshot/download":640,"./plot_api":540,"./template_api":545,"./to_image":546,"./validate":547}],539:[function(t,e,r){"use strict";var n=t("../lib/is_plain_object"),i=t("../lib/noop"),a=t("../lib/loggers"),o=t("../lib/search").sorterAsc,s=t("../registry");r.containerArrayMatch=t("./container_array_match");var

l=r.isAddVal=function(t){return"add"===t||n(t)},c=r.isRemoveVal=function(t){return null===t||"remove"===t};r.applyContainerArrayChanges=function(t,e,r,n,u){var f=e.astr,h=s.getComponentMethod(f,"supplyLayoutDefaults"),p=s.getComponentMethod(f,"draw"),d=s.getComponentMethod(f,"drawOne"),g=n.replot||n.recalc||h===i||p===i,v=t.layout,m=t._fullLayout;if(r[""]){Object.keys(r).length>1&&a.warn("Full array edits are incompatible with other edits",f);var y=r[""][""];if(c(y))e.set(null);else{if(!Array.isArray(y))return a.warn("Unrecognized full array edit value",f,y),!0;e.set(y)}return!g&&(h(v,m),p(t),!0)}var x,b,_,w,T,k,A,M,S=Object.keys(r).map(Number).sort(o),E=e.get(),L=E||[],C=u(m,f).get(),P=[],I=-1,O=L.length;for(x=0;x<S.length;x++)if(w=r[_=S[x]],T=Object.keys(w),k=w[""],A=l(k),_<0||_>L.length-(A?0:1))a.warn("index out of range",f,_);else if(void 0!==k)T.length>1&&a.warn("Insertion & removal are incompatible with edits to the same index.",f,_),c(k)?P.push(_):A?("add"===k&&(k={}),L.splice(_,0,k),C&&C.splice(_,0,{})):a.warn("Unrecognized full object edit value",f,_,k),-1===I&&(I=_);else for(b=0;b<T.length;b++)M=f+"["+_+"].",u(L[_],T[b],M).set(w[T[b]]);for(x=P.length-1;x>=0;x--)L.splice(P[x],1),C&&C.splice(P[x],1);if(L.length?E||e.set(L):e.set(null),g)return!1;if(h(v,m),d!==i){var z;if(-1===I)z=S;else{for(O=Math.max(L.length,O),z=[],x=0;x<S.length&&!((_=S[x])>=I);x++)z.push(_);for(x=I;x<O;x++)z.push(x)}for(x=0;x<z.length;x++)d(t,z[x])}else p(t);return!0}},{"../lib/is_plain_object":504,"../lib/loggers":507,"../lib/noop":512,"../lib/search":523,"../registry":638,"./container_array_match":535}],540:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("fast-isnumeric"),a=t("has-hover"),o=t("../lib"),s=o.nestedProperty,l=t("../lib/events"),c=t("../lib/queue"),u=t("../registry"),f=t("./plot_schema"),h=t("../plots/plots"),p=t("../plots/cartesian/axes"),d=t("../components/drawing"),g=t("../components/color"),v=t("../plots/cartesian/graph_interact").initInteractions,m=t("../constants/xmlns_namespaces"),y=t("../plots/cartesian/select").clearSelect,x=t("./plot_config").dfltConfig,b=t("./manage_arrays"),_=t("./helpers"),w=t("./subroutines"),T=t("./edit_types"),k=t("../plots/cartesian/constants").AX_NAME_PATTERN,A=0;function M(t){var e=t._fullLayout;e._redrawFromAutoMarginCount?e._redrawFromAutoMarginCount--:t.emit("plotly_afterplot")}function S(t,e){try{t._fullLayout._paper.style("background",e)}catch(t){o.error(t)}}function E(t,e){S(t,g.combine(e,"white"))}function L(t,e){if(!t._context){t._context=o.extendDeep({},x);var r=n.select("base");t._context._baseUrl=r.size()&&r.attr("href")?window.location.href.split("#")[0]:""}var i,s,l,c=t._context;if(e){for(s=Object.keys(e),i=0;i<s.length;i++)"editable"!==(l=s[i])&&"edits"!==l&&l in c&&("setBackground"===l&&"opaque"===e[l]?c[l]=E:c[l]=e[l]);e.plot3dPixelRatio&&!c.plotGlPixelRatio&&(c.plotGlPixelRatio=c.plot3dPixelRatio);var u=e.editable;if(void 0!==u)for(c.editable=u,s=Object.keys(c.edits),i=0;i<s.length;i++)c.edits[s[i]]=u;if(e.edits)for(s=Object.keys(e.edits),i=0;i<s.length;i++)(l=s[i])in c.edits&&(c.edits[l]=e.edits[l]);c._exportedPlot=e._exportedPlot}c.staticPlot&&(c.editable=!1,c.edits={},c.autosizable=!1,c.scrollZoom=!1,c.doubleClick=!1,c.showTips=!1,c.showLink=!1,c.displayModeBar=!1),"hover"!==c.displayModeBar||a||(c.displayModeBar=!0),"transparent"!==c.setBackground&&"function"==typeof c.setBackground||(c.setBackground=S),c._hasZeroHeight=c._hasZeroHeight||0===t.clientHeight,c._hasZeroWidth=c._hasZeroWidth||0===t.clientWidth;var f=c.scrollZoom,h=c._scrollZoom={};if(!0===f)h.cartesian=1,h.gl3d=1,h.geo=1,h.mapbox=1;else if("string"==typeof f){var p=f.split("+");for(i=0;i<p.length;i++)h[p[i]]=1}else!1!==f&&(h.gl3d=1,h.geo=1,h.mapbox=1)}function C(t,e){var r,n,i=e+1,a=[];for(r=0;r<t.length;r++)(n=t[r])<0?a.push(i+n):a.push(n);return a}function P(t,e,r){var n,i;for(n=0;n<e.length;n++){if((i=e[n])!==parseInt(i,10))throw new Error("all values in "+r+" must be integers");if(i>=t.data.length||i<-t.data.length)throw new Error(r+" must be valid indices for gd.data.");if(e.indexOf(i,n+1)>-1||i>=0&&e.indexOf(-t.data.length+i)>-1||i<0&&e.indexOf(t.data.length+i)>-1)throw new Error("each index in "+r+" must be unique.")}}function I(t,e,r){if(!Array.isArray(t.data))throw new

Error("gd.data must be an array.");if(void 0===e)throw new Error("currentIndices is a required argument.");if(Array.isArray(e)||(e=[e]),P(t,e,"currentIndices"),void 0===r||Array.isArray(r)||(r=[r]),void 0!==r&&P(t,r,"newIndices"),void 0!==r&&e.length!==r.length)throw new Error("current and new indices must be of equal length.")}function O(t,e,r,n,a){!function(t,e,r,n){var i=o.isPlainObject(n);if(!Array.isArray(t.data))throw new Error("gd.data must be an array");if(!o.isPlainObject(e))throw new Error("update must be a key:value object");if(void 0===r)throw new Error("indices must be an integer or array of integers");for(var a in P(t,r,"indices"),e){if(!Array.isArray(e[a])||e[a].length!==r.length)throw new Error("attribute "+a+" must be an array of length equal to indices array length");if(i&&(!(a in n)||!Array.isArray(n[a])||n[a].length!==e[a].length))throw new Error("when maxPoints is set as a key:value object it must contain a 1:1 corrispondence with the keys and number of traces in the update object")}}(t,e,r,n);for(var l=function(t,e,r,n){var a,l,c,u,f,h=o.isPlainObject(n),p=[];for(var d in Array.isArray(r)||(r=[r]),r=C(r,t.data.length-1),e)for(var g=0;g<r.length;g++){if(a=t.data[r[g]],l=(c=s(a,d)).get(),u=e[d][g],!o.isArrayOrTypedArray(u))throw new Error("attribute: "+d+" index: "+g+" must be an array");if(!o.isArrayOrTypedArray(l))throw new Error("cannot extend missing or non-array attribute: "+d);if(l.constructor!==u.constructor)throw new Error("cannot extend array with an array of a different type: "+d);f=h?n[d][g]:n,i(f)||(f=-1),p.push({prop:c,target:l,insert:u,maxp:Math.floor(f)})}return p}(t,e,r,n),c={},u={},f=0;f<l.length;f++){var h=l[f].prop,p=l[f].maxp,d=a(l[f].target,l[f].insert,p);h.set(d[0]),Array.isArray(c[h.astr])||(c[h.astr]=[]),c[h.astr].push(d[1]),Array.isArray(u[h.astr])||(u[h.astr]=[]),u[h.astr].push(l[f].target.length)}return{update:c,maxPoints:u}}function z(t,e){var r=new t.constructor(t.length+e.length);return r.set(t),r.set(e,t.length),r}function D(t,e,n,i){t=o.getGraphDiv(t),_.clearPromiseQueue(t);var a={};if("string"==typeof e)a[e]=n;else{if(!o.isPlainObject(e))return o.warn("Restyle fail.",e,n,i),Promise.reject();a=o.extendFlat({},e),void 0===i&&(i=n)}Object.keys(a).length&&(t.changed=!0);var s=_.coerceTraceIndices(t,i),l=N(t,a,s),u=l.flags;u.calc&&(t.calcdata=void 0),u.clearAxisTypes&&_.clearAxisTypes(t,s,{});var f=[];u.fullReplot?f.push(r._doPlot):(f.push(h.previousPromises),h.supplyDefaults(t),u.markerSize&&(h.doCalcdata(t),q(f)),u.style&&f.push(w.doTraceStyle),u.colorbars&&f.push(w.doColorBars),f.push(M)),f.push(h.rehover,h.redrag),c.add(t,D,[t,l.undoit,l.traces],D,[t,l.redoit,l.traces]);var p=o.syncOrAsync(f,t);return p&&p.then||(p=Promise.resolve()),p.then((function(){return t.emit("plotly_restyle",l.eventData),t}))}function R(t){return void 0===t?null:t}function F(t,e){return e?function(e,r,n){var i=s(e,r),a=i.set;return i.set=function(e){B((n||"")+r,i.get(),e,t),a(e)},i}:s}function B(t,e,r,n){if(Array.isArray(e)||Array.isArray(r))for(var i=Array.isArray(e)?e:[],a=Array.isArray(r)?r:[],s=Math.max(i.length,a.length),l=0;l<s;l++)B(t+"["+l+"]",i[l],a[l],n);else if(o.isPlainObject(e)||o.isPlainObject(r)){var c=o.isPlainObject(e)?e:{},u=o.isPlainObject(r)?r:{},f=o.extendFlat({},c,u);for(var h in f)B(t+"."+h,c[h],u[h],n)}else void 0===n[t]&&(n[t]=R(e))}function N(t,e,r){var n,i=t._fullLayout,a=t._fullData,l=t.data,c=i._guiEditing,d=F(i._preGUI,c),g=o.extendDeepAll({},e);j(e);var v,m=T.traceFlags(),y={},x={};function b(){return r.map((function(){}))}function w(t){var e=p.id2name(t);-1===v.indexOf(e)&&v.push(e)}function k(t){return"LAYOUT"+t+".autorange"}function A(t){return"LAYOUT"+t+".range"}function M(t){for(var e=t;e<a.length;e++)if(a[e]._input===l[t])return a[e]}function S(n,a,o){if(Array.isArray(n))n.forEach((function(t){S(t,a,o)}));else if(!(n in e)&&!_.hasParent(e,n)){var s;if("LAYOUT"===n.substr(0,6))s=d(t.layout,n.replace("LAYOUT",""));else{var u=r[o];s=F(i._tracePreGUI[M(u)._fullInput.uid],c)(l[u],n)}n in x||(x[n]=b()),void 0===x[n][o]&&(x[n][o]=R(s.get())),void 0!==a&&s.set(a)}}function E(t){return function(e){return a[e][t]}}function L(t){return function(e,n){return!1===e?a[r[n]][t]:null}}for(var C in e){if(_.hasParent(e,C))throw new Error("cannot set "+C+" and a parent attribute simultaneously");var P,I,O,z,D,B,N=e[C];if("autobinx"!==C&&"autobiny"!==C||(C=C.charAt(C.length-1)+"bins",N=Array.isArray(N)?N.map(L(C)):!1===N?r.map(E(C)):null),y[C]=N,"LAYOUT"!==C.substr(0,6)){for(x[C]=b(),n=0;n<r.length;n++)if(P=l[r[n]],I=M(r[n]),z=(O=F(i._tracePreGUI[I._fullInput.uid],c)(P,C)).get(),void 0!==(D=Array.isArray(N)?N[n%N.length]:N)){var U=O.parts[O.parts.length-1],V=C.substr(0,C.length-U.length-

1),q=V?V+".":"",H=V?s(I,V).get():I;if((B=f.getTraceValObject(I,O.parts))&&B.impliedEdits&&null!==D)for(var G in B.impliedEdits)S(o.relativeAttr(C,G),B.impliedEdits[G],n);else if("thicknessmode"!==U&&"lenmode"!==U||z===D||"fraction"!==D&&"pixels"!==D||!H){if("type"===C&&("pie"===D!=("pie"===z)||"funnelarea"===D!=("funnelarea"===z))){var Y="x",W="y";"bar"!==D&&"bar"!==z||"h"!==P.orientation||(Y="y",W="x"),o.swapAttrs(P,["?","?src"],"labels",Y),o.swapAttrs(P,["d?","?0"],"label",Y),o.swapAttrs(P,["?","?src"],"values",W),"pie"===z||"funnelarea"===z?(s(P,"marker.color").set(s(P,"marker.colors").get()),i._pielayer.selectAll("g.trace").remove()):u.traceIs(P,"cartesian")&&s(P,"marker.colors").set(s(P,"marker.color").get())}}else{var X=i._size,Z=H.orient,J="top"===Z||"bottom"===Z;if("thicknessmode"===U){var K=J?X.h:X.w;S(q+"thickness",H.thickness*("fraction"===D?1/K:K),n)}else{var Q=J?X.w:X.h;S(q+"len",H.len*("fraction"===D?1/Q:Q),n)}}if(x[C][n]=R(z),-1!==["swapxy","swapxyaxes","orientation","orientationaxes"].indexOf(C)){if("orientation"===C){O.set(D);var $=P.x&&!P.y?"h":"v";if((O.get()||$)===I.orientation)continue}else"orientationaxes"===C&&(P.orientation={v:"h",h:"v"}[I.orientation]);_.swapXYData(P),m.calc=m.clearAxisTypes=!0}else-1!==h.dataArrayContainers.indexOf(O.parts[0])?(_.manageArrayContainers(O,D,x),m.calc=!0):(B?B.arrayOk&&!u.traceIs(I,"regl")&&(o.isArrayOrTypedArray(D)||o.isArrayOrTypedArray(z))?m.calc=!0:T.update(m,B):m.calc=!0,O.set(D))}if(-1!==["swapxyaxes","orientationaxes"].indexOf(C)&&p.swap(t,r),"orientationaxes"===C){var tt=s(t.layout,"hovermode"),et=tt.get();"x"===et?tt.set("y"):"y"===et?tt.set("x"):"x unified"===et?tt.set("y unified"):"y unified"===et&&tt.set("x unified")}if(-1!==["orientation","type"].indexOf(C)){for(v=[],n=0;n<r.length;n++){var rt=l[r[n]];u.traceIs(rt,"cartesian")&&(w(rt.xaxis||"x"),w(rt.yaxis||"y"))}S(v.map(k),!0,0),S(v.map(A),[0,1],0)}}else O=d(t.layout,C.replace("LAYOUT","")),x[C]=[R(O.get())],O.set(Array.isArray(N)?N[0]:N),m.calc=!0}return(m.calc||m.plot)&&(m.fullReplot=!0),{flags:m,undoit:x,redoit:y,traces:r,eventData:o.extendDeepNoArrays([],[g,r])}}function j(t){var e,r,n,i=o.counterRegex("axis",".title",!1,!1),a=/colorbar\.title$/,s=Object.keys(t);for(e=0;e<s.length;e++)r=s[e],n=t[r],"title"!==r&&!i.test(r)&&!a.test(r)||"string"!=typeof n&&"number"!=typeof n?r.indexOf("titlefont")>-1&&-1===r.indexOf("grouptitlefont")?l(r,r.replace("titlefont","title.font")):r.indexOf("titleposition")>-1?l(r,r.replace("titleposition","title.position")):r.indexOf("titleside")>-1?l(r,r.replace("titleside","title.side")):r.indexOf("titleoffset")>-1&&l(r,r.replace("titleoffset","title.offset")):l(r,r.replace("title","title.text"));function l(e,r){t[r]=t[e],delete t[e]}}function U(t,e,r){t=o.getGraphDiv(t),_.clearPromiseQueue(t);var n={};if("string"==typeof e)n[e]=r;else{if(!o.isPlainObject(e))return o.warn("Relayout fail.",e,r),Promise.reject();n=o.extendFlat({},e)}Object.keys(n).length&&(t.changed=!0);var i=W(t,n),a=i.flags;a.calc&&(t.calcdata=void 0);var s=[h.previousPromises];a.layoutReplot?s.push(w.layoutReplot):Object.keys(n).length&&(V(t,a,i)||h.supplyDefaults(t),a.legend&&s.push(w.doLegend),a.layoutstyle&&s.push(w.layoutStyles),a.axrange&&q(s,i.rangesAltered),a.ticks&&s.push(w.doTicksRelayout),a.modebar&&s.push(w.doModeBar),a.camera&&s.push(w.doCamera),a.colorbars&&s.push(w.doColorBars),s.push(M)),s.push(h.rehover,h.redrag),c.add(t,U,[t,i.undoit],U,[t,i.redoit]);var l=o.syncOrAsync(s,t);return l&&l.then||(l=Promise.resolve(t)),l.then((function(){return t.emit("plotly_relayout",i.eventData),t}))}function V(t,e,r){var n=t._fullLayout;if(!e.axrange)return!1;for(var i in e)if("axrange"!==i&&e[i])return!1;for(var a in r.rangesAltered){var o=p.id2name(a),s=t.layout[o],l=n[o];if(l.autorange=s.autorange,s.range&&(l.range=s.range.slice()),l.cleanRange(),l._matchGroup)for(var c in l._matchGroup)if(c!==a){var u=n[p.id2name(c)];u.autorange=l.autorange,u.range=l.range.slice(),u._input.range=l.range.slice()}}return!0}function q(t,e){var r=e?function(t){var r=[],n=!0;for(var i in e){var a=p.getFromId(t,i);if(r.push(i),-1!==(a.ticklabelposition||"").indexOf("inside")&&a._anchorAxis&&r.push(a._anchorAxis._id),a._matchGroup)for(var o in a._matchGroup)e[o]||r.push(o);a.automargin&&(n=!1)}return p.draw(t,r,{skipTitle:n})}:function(t){return p.draw(t,"redraw")};t.push(y,w.doAutoRangeAndConstraints,r,w.drawData,w.finalDraw)}var H=/^[xyz]axis[0-

9]*\.range(\[[0|1]\])?$/,G=/^[xyz]axis[0-9]*\.autorange$/,Y=/^[xyz]axis[0-9]*\.domain(\[[0|1]\])?$/;function W(t,e){var
r,n,i,a=t.layout,l=t._fullLayout,c=l._guiEditing,h=F(l._preGUI,c),d=Object.keys(e),g=p.list(t),v=o.extendDeepAll({},e),m={};for(j(e),d=Object.keys(e),n=0;n<d.length;n++)if(0===d[n].indexOf("allaxes")){for(i=0;i<g.length;i++){var y=g[i]._id.substr(1),x=-
1!==y.indexOf("scene")?y+".":"",w=d[n].replace("allaxes",x+g[i]._name);e[w]||(e[w]=e[d[n]])}delete e[d[n]]}var A=T.layoutFlags(),M={},S={};function E(t,r){if(Array.isArray(t))t.forEach((function(t){E(t,r)}));else if(!(t in e)&&!_.hasParent(e,t)){var n=h(a,t);t in S||(S[t]=R(n.get())),void 0!==r&&n.set(r)}}var L,C={};function P(t){var e=p.name2id(t.split(".")[0]);return C[e]=1,e}for(var I in e){if(_.hasParent(e,I))throw new Error("cannot set "+I+" and a parent attribute simultaneously");for(var O=h(a,I),z=e[I],D=O.parts.length-1;D>0&&"string"!=typeof O.parts[D];)D--;var B=O.parts[D],N=O.parts[D-
1]+"."+B,U=O.parts.slice(0,D).join("."),V=s(t.layout,U).get(),q=s(l,U).get(),W=O.get();if(void 0!==z){M[I]=z,S[I]="reverse"===B?z:R(W);var
Z=f.getLayoutValObject(l,O.parts);if(Z&&Z.impliedEdits&&null!==z)for(var J in Z.impliedEdits)E(o.relativeAttr(I,J),Z.impliedEdits[J]);if(-
1!==["width","height"].indexOf(I))if(z){E("autosize",null);var K="height"===I?"width":"height";E(K,l[K])}else l[I]=t._initialAutoSize[I];else if("autosize"===I)E("width",z?null:l.width),E("height",z?null:l.height);else if(N.match(H))P(N),s(l,U+"._inputRange").set(null);else if(N.match(G)){P(N),s(l,U+"._inputRange").set(null);var Q=s(l,U).get();Q._inputDomain&&(Q._input.domain=Q._inputDomain.slice())}else N.match(Y)&&s(l,U+"._inputDomain").set(null);if("type"===B){L=V;var $="linear"===q.type&&"log"===z,tt="log"===q.type&&"linear"===z;if($||tt){if(L&&L.range)if(q.autorange)$&&(L.range=L.range[1]>L.range[0]?[1,2]:[2,1]);else{var
et=L.range[0],rt=L.range[1];$?(et<=0&&rt<=0&&E(U+".autorange",!0),et<=0?et=rt/1e6:rt<=0&&(rt=et/1e6),E(U+".range[0]",Math.log(et)/Math.LN10),E(U+".range[1]",Math.log(rt)/Math.LN10)):(E(U+".range[0]",Math.pow(10,et)),E(U+".range[1]",Math.pow(10,rt)))}else E(U+".autorange",!0);Array.isArray(l._subplots.polar)&&l._subplots.polar.length&&l[O.parts[0]]&&"radialaxis"===O.parts[1]&&delete
l[O.parts[0]]._subplot.viewInitial["radialaxis.range"],u.getComponentMethod("annotations","convertCoords")(t,q,z,E),u.getComponentMethod("images","convertCoords")(t,q,z,E)}else E(U+".autorange",!0),E(U+".range",null);s(l,U+"._inputRange").set(null)}else if(B.match(k)){var nt=s(l,I).get(),it=(z||{}).type;it&&"-
"!==it||(it="linear"),u.getComponentMethod("annotations","convertCoords")(t,nt,it,E),u.getComponentMethod("images","convertCoords")(t,nt,it,E)}var at=b.containerArrayMatch(I);if(at){r=at.array,n=at.index;var ot=at.property,st=Z||{editType:"calc"};""!==n&&""===ot&&(b.isAddVal(z)?S[I]=null:b.isRemoveVal(z)?S[I]=(s(a,r).get()||[])[n]:o.warn("unrecognized full object value",e)),T.update(A,st),m[r]||(m[r]={});var lt=m[r][n];lt||(lt=m[r][n]={}),lt[ot]=z,delete e[I]}else"reverse"===B?(V.range?V.range.reverse():(E(U+".autorange",!0),V.range=[1,0]),q.autorange?A.calc=!0:A.plot=!0):("dragmode"===I&&(!1===z&&!1!==W||!1!==z&&!1===W)||l._has("scatter-like")&&l._has("regl")&&"dragmode"===I&&("lasso"===z||"select"===z)&&"lasso"!==W&&"select"!==W||l._has("gl2d")?A.plot=!0:Z?T.update(A,Z):A.calc=!0,O.set(z))}}for(r in m)b.applyContainerArrayChanges(t,h(a,r),m[r],A,h)||(A.plot=!0);for(var ct in C){var ut=(L=p.getFromId(t,ct))&&L._constraintGroup;if(ut)for(var ft in A.calc=!0,ut)C[ft]||(p.getFromId(t,ft)._constraintShrinkable=!0)}return(X(t)||e.height||e.width)&&(A.plot=!0),(A.plot||A.calc)&&(A.layoutReplot=!0),{flags:A,rangesAltered:C,undoit:S,redoit:M,eventData:v}}function X(t){var e=t._fullLayout,r=e.width,n=e.height;return
t.layout.autosize&&h.plotAutoSize(t,t.layout,e),e.width!==r||e.height!==n}function Z(t,e,n,i){t=o.getGraphDiv(t),_.clearPromiseQueue(t),o.isPlainObject(e)||(e={}),o.isPlainObject(n)||(n={}),Object.keys(e).length&&(t.changed=!0),Object.keys(n).length&&(t.changed=!0);var

a=_.coerceTraceIndices(t,i),s=N(t,o.extendFlat({},e),a),l=s.flags,u=W(t,o.extendFlat({},n)),f=u.flags;(l.calc||f.calc)&&(t.calcdata=void 0),l.clearAxisTypes&&_.clearAxisTypes(t,a,n);var p=[];f.layoutReplot?p.push(w.layoutReplot):l.fullReplot?p.push(r._doPlot):(p.push(h.previousPromises),V(t,f,u)||h.supplyDefaults(t),l.style&&p.push(w.doTraceStyle),(l.colorbars||f.colorbars)&&p.push(w.doColorBars),f.legend&&p.push(w.doLegend),f.layoutstyle&&p.push(w.layoutStyles),f.axrange&&q(p,u.rangesAltered),f.ticks&&p.push(w.doTicksRelayout),f.modebar&&p.push(w.doModeBar),f.camera&&p.push(w.doCamera),p.push(M)),p.push(h.rehover,h.redrag),c.add(t,Z,[t,s.undoit,u.undoit,s.traces],Z,[t,s.redoit,u.redoit,s.traces]);var d=o.syncOrAsync(p,t);return d&&d.then||(d=Promise.resolve(t)),d.then((function(){return t.emit("plotly_update",{data:s.eventData,layout:u.eventData}),t}))}function J(t){return function(e){e._fullLayout._guiEditing=!0;var r=t.apply(null,arguments);return e._fullLayout._guiEditing=!1,r}}var K=[{pattern:/^hiddenlabels/,attr:"legend.uirevision"},{pattern:/^((x|y)axis\d*)\.((auto)?range|title\.text)/},{pattern:/axis\d*\.showspikes$/,attr:"modebar.uirevision"},{pattern:/(hover|drag)mode$/,attr:"modebar.uirevision"},{pattern:/^(scene\d*)\.camera/},{pattern:/^(geo\d*)\.(projection|center|fitbounds)/},{pattern:/^(ternary\d*\.[abc]axis)\.(min|title\.text)$/},{pattern:/^(polar\d*\.radialaxis)\.((auto)?range|angle|title\.text)/},{pattern:/^(polar\d*\.angularaxis)\.rotation/},{pattern:/^(mapbox\d*)\.(center|zoom|bearing|pitch)/},{pattern:/^legend\.(x|y)$/,attr:"editrevision"},{pattern:/^(shapes|annotations)/,attr:"editrevision"},{pattern:/^title\.text$/,attr:"editrevision"}],Q=[{pattern:/^selectedpoints$/,attr:"selectionrevision"},{pattern:/(^|value\.)visible$/,attr:"legend.uirevision"},{pattern:/^dimensions\[\d+\]\.constraintrange/},{pattern:/^node\.(x|y|groups)/},{pattern:/^level$/},{pattern:/(^|value\.)name$/},{pattern:/colorbar\.title\.text$/},{pattern:/colorbar\.(x|y)$/,attr:"editrevision"}];function $(t,e){for(var r=0;r<e.length;r++){var n=e[r],i=t.match(n.pattern);if(i){var a=i[1]||"";return{head:a,tail:t.substr(a.length+1),attr:n.attr}}}}function tt(t,e){var r=s(e,t).get();if(void 0!==r)return r;var n=t.split(".");for(n.pop();n.length>1;)if(n.pop(),void 0!==(r=s(e,n.join(".")+".uirevision").get()))return r;return e.uirevision}function et(t,e){for(var r=0;r<e.length;r++)if(e[r]._fullInput.uid===t)return r;return-1}function rt(t,e,r){for(var n=0;n<e.length;n++)if(e[n].uid===t)return n;return!e[r]||e[r].uid?-1:r}function nt(t,e){var r=o.isPlainObject(t),n=Array.isArray(t);return r||n?(r&&o.isPlainObject(e)||n&&Array.isArray(e))&&JSON.stringify(t)===JSON.stringify(e):t===e}function it(t,e,r,n){var i,a,l,c=n.getValObject,u=n.flags,f=n.immutable,h=n.inArray,p=n.arrayIndex;function d(){var t=i.editType;h&&-1!==t.indexOf("arraydraw")?o.pushUnique(u.arrays[h],p):(T.update(u,i),"none"!==t&&u.nChanges++,n.transition&&i.anim&&u.nChangesAnim++,(H.test(l)||G.test(l))&&(u.rangesAltered[r[0]]=1),Y.test(l)&&s(e,"_inputDomain").set(null),"datarevision"===a&&(u.newDataRevision=1))}function g(t){return"data_array"===t.valType||t.arrayOk}for(a in t){if(u.calc&&!n.transition)return;var v=t[a],m=e[a],y=r.concat(a);if(l=y.join("."),"_"!==a.charAt(0)&&"function"!=typeof v&&v!==m){if(("tick0"===a||"dtick"===a)&&"geo"!==r[0]){var x=e.tickmode;if("auto"===x||"array"===x||!x)continue}if(("range"!==a||!e.autorange)&&("zmin"!==a&&"zmax"!==a||"contourcarpet"!==e.type)&&(i=c(y))&&(!i._compareAsJSON||JSON.stringify(v)!==JSON.stringify(m))){var b,_=i.valType,w=g(i),k=Array.isArray(v),A=Array.isArray(m);if(k&&A){var M="_input_"+a,S=t[M],E=e[M];if(Array.isArray(S)&&S===E)continue}if(void 0===m)w&&k?u.calc=!0:d();else if(i._isLinkedToArray){var L=[],C=!1;h||(u.arrays[a]=L);var P=Math.min(v.length,m.length),I=Math.max(v.length,m.length);if(P!==I){if("arraydraw"!==i.editType){d();continue}C=!0}for(b=0;b<P;b++)it(v[b],m[b],y.concat(b),o.extendFlat({inArray:a,arrayIndex:b},n));if(C)for(b=P;b<I;b++)L.push(b)}else!_&&o.isPlainObject(v)?it(v,m,y,n):w?k&&A?(f&&(u.calc=!0),(f||n.newDataRevision)&&d()):k!==A?u.calc=!0:d():k&&A&&v.length===m.length&&String(v)===String(m)||d()}}for(a in e)if(!(a in t)&&"_"!==a.charAt(0)&&"function"!=typeof e[a]){if(g(i=c(r.concat(a)))&&Array.isArray(e[a]))return void(u.calc=!0);d()}}function at(t,e){var r;for(r in t)if("_"!==r.charAt(0)){var n=t[r],i=e[r];if(n!==i)if(o.isPlainObject(n)&&o.isPlainObject(i)){if(at(n,i))return!0}else{if(!Array.isArray(n)||!Array.isArray(i))return!0;if(n.length!==i.length)return!0;for(var a=0;a<n.length;a++)if(n[a]!==i[a]){if(!o.isPlainObject(n[a])||!o.isPlainObject(i[a]))return!0;if(at(n[a],i[a]))return!0}

}}}function ot(t){var e=t._fullLayout,r=t.getBoundingClientRect();if(!o.equalDomRects(r,e._lastBBox)){var n=e._invTransform=o.inverseTransformMatrix(o.getFullTransformMatrix(t));e._invScaleX=Math.sqrt(n[0][0]*n[0][0]+n[0][1]*n[0][1]+n[0][2]*n[0][2]),e._invScaleY=Math.sqrt(n[1][0]*n[1][0]+n[1][1]*n[1][1]+n[1][2]*n[1][2]),e._lastBBox=r}}r.animate=function(t,e,r){if(t=o.getGraphDiv(t),!o.isPlotDiv(t))throw new Error("This element is not a Plotly plot: "+t+". It's likely that you've failed to create a plot before animating it. For more details, see https://plotly.com/javascript/animations/");var n=t._transitionData;n._frameQueue||(n._frameQueue=[]);var i=(r=h.supplyAnimationDefaults(r)).transition,a=r.frame;function s(t){return Array.isArray(i)?t>=i.length?i[0]:i[t]:i}function l(t){return Array.isArray(a)?t>=a.length?a[0]:a[t]:a}function c(t,e){var r=0;return function(){if(t&&++r===e)return t()}}return void 0===n._frameWaitingCnt&&(n._frameWaitingCnt=0),new Promise((function(a,u){function f(){n._currentFrame&&n._currentFrame.onComplete&&n._currentFrame.onComplete();var e=n._currentFrame=n._frameQueue.shift();if(e){var r=e.name?e.name.toString():null;t._fullLayout._currentFrame=r,n._lastFrameAt=Date.now(),n._timeToNext=e.frameOpts.duration,h.transition(t,e.frame.data,e.frame.layout,_.coerceTraceIndices(t,e.frame.traces),e.frameOpts,e.transitionOpts).then((function(){e.onComplete&&e.onComplete()})),t.emit("plotly_animatingframe",{name:r,frame:e.frame,animation:{frame:e.frameOpts,transition:e.transitionOpts}})}else t.emit("plotly_animated"),window.cancelAnimationFrame(n._animationRaf),n._animationRaf=null}function p(){t.emit("plotly_animating"),n._lastFrameAt=-1/0,n._timeToNext=0,n._runningTransitions=0,n._currentFrame=null;var e=function(){n._animationRaf=window.requestAnimationFrame(e),Date.now()-n._lastFrameAt>n._timeToNext&&f()};e()}var d,g,v=0;function m(t){return Array.isArray(i)?v>=i.length?t.transitionOpts=i[v]:t.transitionOpts=i[0]:t.transitionOpts=i,v++,t}var y=[],x=null==e,b=Array.isArray(e);if(x||b||!o.isPlainObject(e)){if(x||-1!==["string","number"].indexOf(typeof e))for(d=0;d<n._frames.length;d++)(g=n._frames[d])&&(x||String(g.group)===String(e))&&y.push({type:"byname",name:String(g.name),data:m({name:g.name})});else if(b)for(d=0;d<e.length;d++){var w=e[d];-1!==["number","string"].indexOf(typeof w)?(w=String(w),y.push({type:"byname",name:w,data:m({name:w})})):o.isPlainObject(w)&&y.push({type:"object",data:m(o.extendFlat({},w))})}}else y.push({type:"object",data:m(o.extendFlat({},e))});for(d=0;d<y.length;d++)if("byname"===(g=y[d]).type&&!n._frameHash[g.data.name])return o.warn('animate failure: frame not found: "'+g.data.name+'"'),void u();-1!==["next","immediate"].indexOf(r.mode)&&function(){if(0!==n._frameQueue.length){for(;n._frameQueue.length;){var e=n._frameQueue.pop();e.onInterrupt&&e.onInterrupt()}t.emit("plotly_animationinterrupted",[])}}(),"reverse"===r.direction&&y.reverse();var T=t._fullLayout._currentFrame;if(T&&r.fromcurrent){var k=-1;for(d=0;d<y.length;d++)if("byname"===(g=y[d]).type&&g.name===T){k=d;break}if(k>0&&k<y.length-1){var A=[];for(d=0;d<y.length;d++)g=y[d],("byname"!==y[d].type||d>k)&&A.push(g);y=A}}y.length>0?function(e){if(0!==e.length){for(var i=0;i<e.length;i++){var o;o="byname"===e[i].type?h.computeFrame(t,e[i].name):e[i].data;var f=l(i),d=s(i);d.duration=Math.min(d.duration,f.duration);var g={frame:o,name:e[i].name,frameOpts:f,transitionOpts:d};i===e.length-1&&(g.onComplete=c(a,2),g.onInterrupt=u),n._frameQueue.push(g)}"immediate"===r.mode&&(n._lastFrameAt=-1/0),n._animationRaf||p()}}(y):(t.emit("plotly_animated"),a())}))},r.addFrames=function(t,e,r){if(t=o.getGraphDiv(t),null==e)return Promise.resolve();if(!o.isPlotDiv(t))throw new Error("This element is not a Plotly plot: "+t+". It's likely that you've failed to create a plot before adding frames. For more details, see https://plotly.com/javascript/animations/");var n,i,a,s,l=t._transitionData._frames,u=t._transitionData._frameHash;if(!Array.isArray(e))throw new Error("addFrames failure: frameList must be an Array of frame definitions"+e);var f=l.length+2*e.length,p=[],d={};for(n=e.length-1;n>=0;n--)if(o.isPlainObject(e[n])){var g=e[n].name,v=(u[g]||d[g]||{}).name,m=e[n].name,y=u[v]||d[v];v&&m&&"number"==typeof

m&&y&&A<5&&(A++,o.warn('addFrames: overwriting frame "'+(u[v]||d[v]).name+'" with a frame whose name of type "number" also equates to "'+v+'". This is valid but may potentially lead to unexpected behavior since all plotly.js frame names are stored internally as strings.'),5===A&&o.warn("addFrames: This API call has yielded too many of these warnings. For the rest of this call, further warnings about numeric frame names will be suppressed.")),d[g]={name:g},p.push({frame:h.supplyFrameDefaults(e[n]),index:r&&void 0!==r[n]&&null!==r[n]?r[n]:f+n})}p.sort((function(t,e){return t.index>e.index?-1:t.index<e.index?1:0}));var x=[],b=[],_=l.length;for(n=p.length-1;n>=0;n--){if("number"==typeof(i=p[n].frame).name&&o.warn("Warning: addFrames accepts frames with numeric names, but the numbers areimplicitly cast to strings"),!i.name)for(;u[i.name="frame "+t._transitionData._counter++];);if(u[i.name]){for(a=0;a<l.length&&(l[a]||{}).name!==i.name;a++);x.push({type:"replace",index:a,value:i}),b.unshift({type:"replace",index:a,value:l[a]})}else s=Math.max(0,Math.min(p[n].index,_)),x.push({type:"insert",index:s,value:i}),b.unshift({type:"delete",index:s}),_++}var w=h.modifyFrames,T=h.modifyFrames,k=[t,b],M=[t,x];return c&&c.add(t,w,k,T,M),h.modifyFrames(t,x)},r.deleteFrames=function(t,e){if(t=o.getGraphDiv(t),!o.isPlotDiv(t))throw new Error("This element is not a Plotly plot: "+t);var r,n,i=t._transitionData._frames,a=[],s=[];if(!e)for(e=[],r=0;r<i.length;r++)e.push(r);for((e=e.slice()).sort(),r=e.length-1;r>=0;r--)n=e[r],a.push({type:"delete",index:n}),s.unshift({type:"insert",index:n,value:i[n]});var l=h.modifyFrames,u=h.modifyFrames,f=[t,s],p=[t,a];return c&&c.add(t,l,f,u,p),h.modifyFrames(t,a)},r.addTraces=function t(e,n,i){e=o.getGraphDiv(e);var a,s,l=[],u=r.deleteTraces,f=t,h=[e,l],p=[e,n];for(function(t,e,r){var n,i;if(!Array.isArray(t.data))throw new Error("gd.data must be an array.");if(void 0===e)throw new Error("traces must be defined.");for(Array.isArray(e)||(e=[e]),n=0;n<e.length;n++)if("object"!=typeof(i=e[n])||Array.isArray(i)||null===i)throw new Error("all values in traces array must be non-array objects");if(void 0===r||Array.isArray(r)||(r=[r]),void 0!==r&&r.length!==e.length)throw new Error("if indices is specified, traces.length must equal indices.length")}(e,n,i),Array.isArray(n)||(n=[n]),n=n.map((function(t){return o.extendFlat({},t)})),_.cleanData(n),a=0;a<n.length;a++)e.data.push(n[a]);for(a=0;a<n.length;a++)l.push(-n.length+a);if(void 0===i)return s=r.redraw(e),c.add(e,u,h,f,p),s;Array.isArray(i)||(i=[i]);try{I(e,l,i)}catch(t){throw e.data.splice(e.data.length-n.length,n.length),t}return c.startSequence(e),c.add(e,u,h,f,p),s=r.moveTraces(e,l,i),c.stopSequence(e),s},r.deleteTraces=function t(e,n){e=o.getGraphDiv(e);var i,a,s=[],l=r.addTraces,u=t,f=[e,s,n],h=[e,n];if(void 0===n)throw new Error("indices must be an integer or array of integers.");for(Array.isArray(n)||(n=[n]),P(e,n,"indices"),(n=C(n,e.data.length-1)).sort(o.sorterDes),i=0;i<n.length;i+=1)a=e.data.splice(n[i],1)[0],s.push(a);var p=r.redraw(e);return c.add(e,l,f,u,h),p},r.extendTraces=function t(e,n,i,a){function s(t,e,r){var n,i;if(o.isTypedArray(t))if(r<0){var a=new t.constructor(0),s=z(t,e);r<0?(n=s,i=a):(n=a,i=s)}else if(n=new t.constructor(r),i=new t.constructor(t.length+e.length-r),r===e.length)n.set(e),i.set(t);else if(r<e.length){var l=e.length-r;n.set(e.subarray(l)),i.set(t),i.set(e.subarray(0,l),t.length)}else{var c=r-e.length,u=t.length-c;n.set(t.subarray(u)),n.set(e,c),i.set(t.subarray(0,u))}else n=t.concat(e),i=r>=0&&r<n.length?n.splice(0,n.length-r):[];return[n,i]}var l=O(e=o.getGraphDiv(e),n,i,a,s),u=r.redraw(e),f=[e,l.update,i,l.maxPoints];return c.add(e,r.prependTraces,f,t,arguments),u},r.moveTraces=function t(e,n,i){var a,s=[],l=[],u=t,f=t,h=[e=o.getGraphDiv(e),i,n],p=[e,n,i];if(I(e,n,i),n=Array.isArray(n)?n:[n],void 0===i)for(i=[],a=0;a<n.length;a++)i.push(-n.length+a);for(i=Array.isArray(i)?i:[i],n=C(n,e.data.length-1),i=C(i,e.data.length-1),a=0;a<e.data.length;a++)-1===n.indexOf(a)&&s.push(e.data[a]);for(a=0;a<n.length;a++)l.push({newIndex:i[a],trace:e.data[n[a]]});for(l.sort((function(t,e){return t.newIndex-e.newIndex})),a=0;a<l.length;a+=1)s.splice(l[a].newIndex,0,l[a].trace);e.data=s;var d=r.redraw(e);return c.add(e,u,h,f,p),d},r.prependTraces=function t(e,n,i,a){function s(t,e,r){var n,i;if(o.isTypedArray(t))if(r<=0){var a=new t.constructor(0),s=z(e,t);r<0?(n=s,i=a):(n=a,i=s)}else if(n=new t.constructor(r),i=new t.constructor(t.length+e.length-r),r===e.length)n.set(e),i.set(t);else if(r<e.length){var l=e.length-r;n.set(e.subarray(0,l)),i.set(e.subarray(l)),i.set(t,l)}else{var c=r-

e.length;n.set(e),n.set(t.subarray(0,c),e.length),i.set(t.subarray(c))}else
n=e.concat(t),i=r>=0&&r<n.length?n.splice(r,n.length):[];return[n,i]}var
l=O(e=o.getGraphDiv(e),n,i,a,s),u=r.redraw(e),f=[e,l.update,i,l.maxPoints];return
c.add(e,r.extendTraces,f,t,arguments),u},r.newPlot=function(t,e,n,i){return
t=o.getGraphDiv(t),h.cleanPlot([],{},t._fullData||[],t._fullLayout||{}),h.purge(t),r._doPlot(t,e,n,i)},r._doPlot=functio
n(t,e,i,a){var s;if(t=o.getGraphDiv(t),l.init(t),o.isPlainObject(e)){var
c=e;e=c.data,i=c.layout,a=c.config,s=c.frames}if(!1===l.triggerHandler(t,"plotly_beforeplot",[e,i,a]))return
Promise.reject();e||i||o.isPlotDiv(t)||o.warn("Calling _doPlot as if redrawing but this container doesn't yet have a
plot.",t),L(t,a),i||(i={}),n.select(t).classed("js-plotly-
plot",!0),d.makeTester(),Array.isArray(t._promises)||(t._promises=[]);var
f=0===(t.data||[]).length&&Array.isArray(e);Array.isArray(e)&&(_.cleanData(e),f?t.data=e:t.data.push.apply(t.data
,e),t.empty=!1),t.layout&&!f||(t.layout=_.cleanLayout(i)),h.supplyDefaults(t);var
g=t._fullLayout,y=g._has("cartesian");g._replotting=!0,(f||g._shouldCreateBgLayer)&&(function(t){var
e=n.select(t),r=t._fullLayout;if(r._calcInverseTransform=ot,r._calcInverseTransform(t),r._container=e.selectAll(".pl
ot-container").data([0]),r._container.enter().insert("div",":first-child").classed("plot-
container",!0).classed("plotly",!0),r._paperdiv=r._container.selectAll(".svg-
container").data([0]),r._paperdiv.enter().append("div").classed("user-select-none",!0).classed("svg-
container",!0).style("position","relative"),r._glcontainer=r._paperdiv.selectAll(".gl-
container").data([{}]),r._glcontainer.enter().append("div").classed("gl-container",!0),r._paperdiv.selectAll(".main-
svg").remove(),r._paperdiv.select(".modebar-container").remove(),r._paper=r._paperdiv.insert("svg",":first-
child").classed("main-svg",!0),r._toppaper=r._paperdiv.append("svg").classed("main-
svg",!0),r._modebardiv=r._paperdiv.append("div"),delete
r._modeBar,r._hoverpaper=r._paperdiv.append("svg").classed("main-svg",!0),!r._uid){var
i={};n.selectAll("defs").each((function(){this.id&&(i[this.id.split("-
")[1]]=1)})),r._uid=o.randstr(i)}r._paperdiv.selectAll(".main-
svg").attr(m.svgAttrs),r._defs=r._paper.append("defs").attr("id","defs-
"+r._uid),r._clips=r._defs.append("g").classed("clips",!0),r._topdefs=r._toppaper.append("defs").attr("id","topdefs-
"+r._uid),r._topclips=r._topdefs.append("g").classed("clips",!0),r._bgLayer=r._paper.append("g").classed("bglayer",
!0),r._draggers=r._paper.append("g").classed("draglayer",!0);var a=r._paper.append("g").classed("layer-
below",!0);r._imageLowerLayer=a.append("g").classed("imagelayer",!0),r._shapeLowerLayer=a.append("g").classe
d("shapelayer",!0),r._cartesianlayer=r._paper.append("g").classed("cartesianlayer",!0),r._polarlayer=r._paper.appen
d("g").classed("polarlayer",!0),r._smithlayer=r._paper.append("g").classed("smithlayer",!0),r._ternarylayer=r._paper
.append("g").classed("ternarylayer",!0),r._geolayer=r._paper.append("g").classed("geolayer",!0),r._funnelarealayer=
r._paper.append("g").classed("funnelarealayer",!0),r._pielayer=r._paper.append("g").classed("pielayer",!0),r._iciclel
ayer=r._paper.append("g").classed("iciclelayer",!0),r._treemaplayer=r._paper.append("g").classed("treemaplayer",!0
),r._sunburstlayer=r._paper.append("g").classed("sunburstlayer",!0),r._indicatorlayer=r._toppaper.append("g").class
ed("indicatorlayer",!0),r._glimages=r._paper.append("g").classed("glimages",!0);var
s=r._toppaper.append("g").classed("layer-
above",!0);r._imageUpperLayer=s.append("g").classed("imagelayer",!0),r._shapeUpperLayer=s.append("g").classed
("shapelayer",!0),r._infolayer=r._toppaper.append("g").classed("infolayer",!0),r._menulayer=r._toppaper.append("g
").classed("menulayer",!0),r._zoomlayer=r._toppaper.append("g").classed("zoomlayer",!0),r._hoverlayer=r._hoverp
aper.append("g").classed("hoverlayer",!0),r._modebardiv.classed("modebar-
container",!0).style("position","absolute").style("top","0px").style("right","0px"),t.emit("plotly_framework")}(t),g._
shouldCreateBgLayer&&delete
g._shouldCreateBgLayer),d.initGradients(t),d.initPatterns(t),f&&p.saveShowSpikeInitial(t);var
x=!t.calcdata||t.calcdata.length!==(t._fullData||[]).length;x&&h.doCalcdata(t);for(var
b=0;b<t.calcdata.length;b++)t.calcdata[b][0].trace=t._fullData[b];t._context.responsive?t._responsiveChartHandler||(
t._responsiveChartHandler=function(){o.isHidden(t)||h.resize(t)},window.addEventListener("resize",t._responsiveC

hartHandler)):o.clearResponsive(t);var T=o.extendFlat({},g._size),k=0;function A(){if(h.clearAutoMarginIds(t),w.drawMarginPushers(t),p.allowAutoMargin(t),g._has("pie"))for(var e=t._fullData,r=0;r<e.length;r++){var n=e[r];"pie"===n.type&&n.automargin&&h.allowAutoMargin(t,"pie."+n.uid+".automargin")}return h.doAutoMargin(t),h.previousPromises(t)}function S(){t._transitioning||(w.doAutoRangeAndConstraints(t),f&&p.saveRangeInitial(t),u.getComponentMethod("rangeslider","calcAutorange")(t))}var E=[h.previousPromises,function(){if(s)return r.addFrames(t,s)},function e(){for(var r=g._basePlotModules,n=0;n<r.length;n++)r[n].drawFramework&&r[n].drawFramework(t);!g._glcanvas&&g._has("gl")&&(g._glcanvas=g._glcontainer.selectAll(".gl-canvas").data([{key:"contextLayer",context:!0,pick:!1},{key:"focusLayer",context:!1,pick:!1},{key:"pickLayer",context:!1,pick:!0}],(function(t){return t.key})),g._glcanvas.enter().append("canvas").attr("class",(function(t){return"gl-canvas gl-canvas-"+t.key.replace("Layer","")})).style({position:"absolute",top:0,left:0,overflow:"visible","pointer-events":"none"}));var i=t._context.plotGlPixelRatio;if(g._glcanvas){g._glcanvas.attr("width",g.width*i).attr("height",g.height*i).style("width",g.width+"px").style("height",g.height+"px");var a=g._glcanvas.data()[0].regl;if(a&&(Math.floor(g.width*i)!==a._gl.drawingBufferWidth||Math.floor(g.height*i)!==a._gl.drawingBufferHeight)){var s="WebGL context buffer and canvas dimensions do not match due to browser/WebGL bug.";if(!k)return o.log(s+" Clearing graph and plotting again."),h.cleanPlot([],{},t._fullData,g),h.supplyDefaults(t),g=t._fullLayout,h.doCalcdata(t),k++,e();o.error(s)}}return"h"===g.modebar.orientation?g._modebardiv.style("height",null).style("width","100%"):g._modebardiv.style("width",null).style("height",g.height+"px"),h.previousPromises(t)},A,function(){if(h.didMarginChange(T,g._size))return o.syncOrAsync([A,w.layoutStyles],t)}];y&&E.push((function(){if(x)return o.syncOrAsync([u.getComponentMethod("shapes","calcAutorange"),u.getComponentMethod("annotations","calcAutorange"),S],t);S()})),E.push(w.layoutStyles),y&&E.push((function(){return p.draw(t,f?"":"redraw")}),(function(t){t._fullLayout._insideTickLabelsAutorange&&U(t,t._fullLayout._insideTickLabelsAutorange).then((function(){t._fullLayout._insideTickLabelsAutorange=void 0}))})),E.push(w.drawData,w.finalDraw,v,h.addLinks,h.rehover,h.redrag,h.doAutoMargin,(function(t){t._fullLayout._insideTickLabelsAutorange&&f&&p.saveRangeInitial(t,!0)}),h.previousPromises);var C=o.syncOrAsync(E,t);return C&&C.then||(C=Promise.resolve()),C.then((function(){return M(t),t}))},r.purge=function(t){var e=(t=o.getGraphDiv(t))._fullLayout||{},r=t._fullData||[];return h.cleanPlot([],{},r,e),h.purge(t),l.purge(t),e._container&&e._container.remove(),delete t._context,t},r.react=function(t,e,n,i){var a,l;t=o.getGraphDiv(t),_.clearPromiseQueue(t);var c=t._fullData,p=t._fullLayout;if(o.isPlotDiv(t)&&c&&p){if(o.isPlainObject(e)){var d=e;e=d.data,n=d.layout,i=d.config,a=d.frames}var g=!1;if(i){var v=o.extendDeep({},t._context);t._context=void 0,L(t,i),g=at(v,t._context)}t.data=e||[],_.cleanData(t.data),t.layout=n||{},_.cleanLayout(t.layout),function(t,e,r,n){var i,a,l,c,u,f,h,p,d,g,v=n._preGUI,m=[],y={},x={};for(i in v){if(u=$(i,K)){if(d=u.head,g=u.tail,a=u.attr||d+".uirevision",(c=(l=s(n,a).get())&&tt(a,e))&&c===l){if(null===(f=v[i])&&(f=void 0),nt(p=(h=s(e,i)).get(),f)){void 0===p&&"autorange"===g&&m.push(d),h.set(R(s(n,i).get()));continue}if("autorange"===g||"range["===g.substr(0,6)){var b=v[d+".range[0]"],_=v[d+".range[1]"],w=v[d+".autorange"];if(w||null===w&&null===b&&null===_){if(!(d in y)){var T=s(e,d).get();y[d]=T&&(T.autorange||!1!==T.autorange&&(!T.range||2!==T.range.length))}if(y[d]){h.set(R(s(n,i).get()));continue}}}}else o.warn("unrecognized GUI edit: "+i);delete v[i],u&&"range["===u.tail.substr(0,6)&&(x[u.head]=1)}for(var k=0;k<m.length;k++){var A=m[k];if(x[A]){var M=s(e,A).get();M&&delete M.autorange}}var S=n._tracePreGUI;for(var E in S){var L,C=S[E],P=null;for(i in C){if(!P){var I=et(E,r);if(I<0){delete S[E];break}var O=rt(E,t,(L=r[I]._fullInput).index);if(O<0){delete

S[E];break}P=t[O]}if(u=$(i,Q)){if(u.attr?c=(l=s(n,u.attr).get())&&tt(u.attr,e):(l=L.uirevision,void 0===(c=P.uirevision)&&(c=e.uirevision)),c&&c===l&&(null===(f=C[i])&&(f=void 0),nt(p=(h=s(P,i)).get(),f))){h.set(R(s(L,i).get()));continue}}else o.warn("unrecognized GUI edit: "+i+" in trace uid "+E);delete C[i]}}}(t.data,t.layout,c,p),h.supplyDefaults(t,{skipUpdateCalc:!0});var m=t._fullData,y=t._fullLayout,x=void 0===y.datarevision,b=y.transition,k=function(t,e,r,n,i){var a=T.layoutFlags();function o(t){return f.getLayoutValObject(r,t)}return a.arrays={},a.rangesAltered={},a.nChanges=0,a.nChangesAnim=0,it(e,r,[],{getValObject:o,flags:a,immutable:n,transition:i,gd:t}),(a.plot||a.calc)&&(a.layoutReplot=!0),i&&a.nChanges&&a.nChangesAnim&&(a.anim=a.nChanges===a.nChangesAnim?"all":"some"),a}(t,p,y,x,b),A=k.newDataRevision,S=function(t,e,r,n,i,a){var o=e.length===r.length;if(!i&&!o)return{fullReplot:!0,calc:!0};var s,l,c=T.traceFlags();function u(t){var e=f.getTraceValObject(l,t);return!l._module.animatable&&e.anim&&(e.anim=!1),e}c.arrays={},c.nChanges=0,c.nChangesAnim=0;var p={getValObject:u,flags:c,immutable:n,transition:i,newDataRevision:a,gd:t},d={};for(s=0;s<e.length;s++)if(r[s]){if(l=r[s]._fullInput,h.hasMakesDataTransform(l)&&(l=r[s]),d[l.uid])continue;d[l.uid]=1,it(e[s]._fullInput,l,[],p)}return(c.calc||c.plot)&&(c.fullReplot=!0),i&&c.nChanges&&c.nChangesAnim&&(c.anim=c.nChanges===c.nChangesAnim&&o?"all":"some"),c}(t,c,m,x,b,A);if(X(t)&&(k.layoutReplot=!0),S.calc||k.calc){t.calcdata=void 0;for(var E=Object.getOwnPropertyNames(y),C=0;C<E.length;C++){var P=E[C],I=P.substring(0,5);if("xaxis"===I||"yaxis"===I){var O=y[P]._emptyCategories;O&&O()}}}else h.supplyDefaultsUpdateCalc(t.calcdata,m);var z=[];if(a&&(t._transitionData={},h.createTransitionData(t),z.push((function(){return r.addFrames(t,a)}))),y.transition&&!g&&(S.anim||k.anim))k.ticks&&z.push(w.doTicksRelayout),h.doCalcdata(t),w.doAutoRangeAndConstraints(t),z.push((function(){return h.transitionFromReact(t,S,k,p)}));else if(S.fullReplot||k.layoutReplot||g)t._fullLayout._skipDefaults=!0,z.push(r._doPlot);else{for(var D in k.arrays){var F=k.arrays[D];if(F.length){var B=u.getComponentMethod(D,"drawOne");if(B!==o.noop)for(var N=0;N<F.length;N++)B(t,F[N]);else{var j=u.getComponentMethod(D,"draw");if(j===o.noop)throw new Error("cannot draw components: "+D);j(t)}}}z.push(h.previousPromises),S.style&&z.push(w.doTraceStyle),(S.colorbars||k.colorbars)&&z.push(w.doColorBars),k.legend&&z.push(w.doLegend),k.layoutstyle&&z.push(w.layoutStyles),k.axrange&&q(z),k.ticks&&z.push(w.doTicksRelayout),k.modebar&&z.push(w.doModeBar),k.camera&&z.push(w.doCamera),z.push(M)}z.push(h.rehover,h.redrag),(l=o.syncOrAsync(z,t))&&l.then||(l=Promise.resolve(t))}else l=r.newPlot(t,e,n,i);return l.then((function(){return t.emit("plotly_react",{data:e,layout:n}),t}))},r.redraw=function(t){if(t=o.getGraphDiv(t),!o.isPlotDiv(t))throw new Error("This element is not a Plotly plot: "+t);return _.cleanData(t.data),_.cleanLayout(t.layout),t.calcdata=void 0,r._doPlot(t).then((function(){return t.emit("plotly_redraw"),t}))},r.relayout=U,r.restyle=D,r.setPlotConfig=function(t){return o.extendFlat(x,t)},r.update=Z,r._guiRelayout=J(U),r._guiRestyle=J(D),r._guiUpdate=J(Z),r._storeDirectGUIEdit=function(t,e,r){for(var n in r)B(n,s(t,n).get(),r[n],e)}},{"../components/color":366,"../components/drawing":388,"../constants/xmlns_namespaces":480,"../lib":503,"../lib/events":492,"../lib/queue":519,"../plots/cartesian/axes":554,"../plots/cartesian/constants":561,"../plots/cartesian/graph_interact":564,"../plots/cartesian/select":575,"../plots/plots":619,"../registry":638,"./edit_types":536,"./helpers":537,"./manage_arrays":539,"./plot_config":541,"./plot_schema":542,"./subroutines":544,"@plotly/d3":58,"fast-isnumeric":190,"has-hover":228}],541:[function(t,e,r){"use strict";var n={staticPlot:{valType:"boolean",dflt:!1},typesetMath:{valType:"boolean",dflt:!0},plotlyServerURL:{valType:"string",dflt:""},editable:{valType:"boolean",dflt:!1},edits:{annotationPosition:{valType:"boolean",dflt:!1},annotationTail:{valType:"boolean",dflt:!1},annotationText:{valType:"boolean",dflt:!1},axisTitleText:{valType:"boolean",dflt:!1},colorbarPosition:{valType:"boolean",dflt:!1},colorbarTitleText:{valType:"boolean",dflt:!1},legendPosition:{valType:"boolean",dflt:!1},legendText:{valType:"boolean",dflt:!1},shapePosition:{valType:"boolean",dflt:!1},titleText:{valType:"boolean",dflt:!1}},autosizable:{valType:"boolean",dflt:!1},responsive:{valType:"boolean",dflt:!1},fillFr

ame:{valType:"boolean",dflt:!1},frameMargins:{valType:"number",dflt:0,min:0,max:.5},scrollZoom:{valType:"flaglist",flags:["cartesian","gl3d","geo","mapbox"],extras:[!0,!1],dflt:"gl3d+geo+mapbox"},doubleClick:{valType:"enumerated",values:[!1,"reset","autosize","reset+autosize"],dflt:"reset+autosize"},doubleClickDelay:{valType:"number",dflt:300,min:0},showAxisDragHandles:{valType:"boolean",dflt:!0},showAxisRangeEntryBoxes:{valType:"boolean",dflt:!0},showTips:{valType:"boolean",dflt:!0},showLink:{valType:"boolean",dflt:!1},linkText:{valType:"string",dflt:"Edit
chart",noBlank:!0},sendData:{valType:"boolean",dflt:!0},showSources:{valType:"any",dflt:!1},displayModeBar:{valType:"enumerated",values:["hover",!0,!1],dflt:"hover"},showSendToCloud:{valType:"boolean",dflt:!1},showEditInChartStudio:{valType:"boolean",dflt:!1},modeBarButtonsToRemove:{valType:"any",dflt:[]},modeBarButtonsToAdd:{valType:"any",dflt:[]},modeBarButtons:{valType:"any",dflt:!1},toImageButtonOptions:{valType:"any",dflt:{}},displaylogo:{valType:"boolean",dflt:!0},watermark:{valType:"boolean",dflt:!1},plotGlPixelRatio:{valType:"number",dflt:2,min:1,max:4},setBackground:{valType:"any",dflt:"transparent"},topojsonURL:{valType:"string",noBlank:!0,dflt:"https://cdn.plot.ly/"},mapboxAccessToken:{valType:"string",dflt:null},logging:{valType:"integer",min:0,max:2,dflt:1},notifyOnLogging:{valType:"integer",min:0,max:2,dflt:0},queueLength:{valType:"integer",min:0,dflt:0},globalTransforms:{valType:"any",dflt:[]},locale:{valType:"string",dflt:"en-
US"},locales:{valType:"any",dflt:{}}},i={};(function t(e,r){for(var n in e){var
i=e[n];i.valType?r[n]=i.dflt:(r[n]||(r[n]={}),t(i,r[n]))}})(n,i),e.exports={configAttributes:n,dfltConfig:i}},{}],542:[function(t,e,r){"use strict";var
n=t("../registry"),i=t("../lib"),a=t("../plots/attributes"),o=t("../plots/layout_attributes"),s=t("../plots/frame_attributes"),l=t("../plots/animation_attributes"),c=t("./plot_config").configAttributes,u=t("./edit_types"),f=i.extendDeepAll,h=i.isPlainObject,p=i.isArrayOrTypedArray,d=i.nestedProperty,g=i.valObjectMeta,v="_isSubplotObj",m="_isLinkedToArray",y="_deprecated",x=[v,m,"_arrayAttrRegexps",y];function
b(t,e,r){if(!t)return!1;if(t._isLinkedToArray)if(_(e[r]))r++;else if(r<e.length)return!1;for(;r<e.length;r++){var
n=t[e[r]];if(!h(n))break;if(t=n,r===e.length-1)break;if(t._isLinkedToArray){if(!_(e[++r]))return!1}else
if("info_array"===t.valType){var i=e[++r];if(!_(i))return!1;var
a=t.items;if(Array.isArray(a)){if(i>=a.length)return!1;if(2===t.dimensions){if(r++,e.length===r)return t;var
o=e[r];if(!_(o))return!1;t=a[i][o]}else t=a[i]}else t=a}return t}function _(t){return
t===Math.round(t)&&t>=0}function w(){var t,e,r={};for(t in
f(r,o),n.subplotsRegistry)if((e=n.subplotsRegistry[t]).layoutAttributes)if(Array.isArray(e.attr))for(var
i=0;i<e.attr.length;i++)k(r,e,e.attr[i]);else k(r,e,"subplot"===e.attr?e.name:e.attr);for(t in n.componentsRegistry){var
a=(e=n.componentsRegistry[t]).schema;if(a&&(a.subplots||a.layout)){var
s=a.subplots;if(s&&s.xaxis&&!s.yaxis)for(var l in s.xaxis)delete
r.yaxis[l]}else"colorscale"===e.name?f(r,e.layoutAttributes):e.layoutAttributes&&A(r,e.layoutAttributes,e.name)}return{layoutAttributes:T(r)}}function T(t){return function(t){function
e(t){return{valType:"string",editType:"none"}}function
n(t,n,i){r.isValObject(t)?!0!==t.arrayOk&&"data_array"!==t.valType||(i[n+"src"]=e(n)):h(t)&&(t.role="object")}r.crawl(t,n)}(t),function(t){function e(t,e,r){if(t){var n=t._isLinkedToArray;n&&(delete
t._isLinkedToArray,r[e]={items:{}},r[e].items[n]=t,r[e].role="object")}}r.crawl(t,e)}(t),function(t){function
e(t){for(var r in t)if(h(t[r]))e(t[r]);else if(Array.isArray(t[r]))for(var n=0;n<t[r].length;n++)e(t[r][n]);else
t[r]instanceof RegExp&&(t[r]=t[r].toString())}e(t)}(t),t}function k(t,e,r){var
n=d(t,r),i=f({},e.layoutAttributes);i._isSubplotObj=!0,n.set(i)}function A(t,e,r){var
n=d(t,r);n.set(f(n.get()||{},e))}r.IS_SUBPLOT_OBJ=v,r.IS_LINKED_TO_ARRAY=m,r.DEPRECATED=y,r.UNDERSCORE_ATTRS=x,r.get=function(){var t={};n.allTypes.forEach((function(e){t[e]=function(t){var
e,i;i=(e=n.modules[t]._module).basePlotModule;var
o={type:null},s=f({},a),l=f({},e.attributes);r.crawl(l,(function(t,e,r,n,i){d(s,i).set(void 0),void
0===t&&d(l,i).set(void 0)})),f(o,s),n.traceIs(t,"noOpacity")&&delete o.opacity,n.traceIs(t,"showLegend")||(delete
o.showlegend,delete o.legendgroup),n.traceIs(t,"noHover")&&(delete o.hoverinfo,delete
o.hoverlabel),e.selectPoints||delete o.selectedpoints,f(o,l),i.attributes&&f(o,i.attributes),o.type=t;var

c={meta:e.meta||{},categories:e.categories||{},animatable:Boolean(e.animatable),type:t,attributes:T(o)};if(e.layoutAttributes){var u={};f(u,e.layoutAttributes),c.layoutAttributes=T(u)}return e.animatable||r.crawl(c,(function(t){r.isValObject(t)&&"anim"in t&&delete t.anim})),c}(e)}));var e,i={};return Object.keys(n.transformsRegistry).forEach((function(t){i[t]=function(t){var e=n.transformsRegistry[t],r=f({},e.attributes);return Object.keys(n.componentsRegistry).forEach((function(e){var i=n.componentsRegistry[e];i.schema&&i.schema.transforms&&i.schema.transforms[t]&&Object.keys(i.schema.transforms[t]).forEach((function(e){A(r,i.schema.transforms[t][e],e)}))})),{attributes:T(r)}}(t)})),{defs:{valObjects:g,metaKeys:x.concat(["description","role","editType","impliedEdits"]),editType:{traces:u.traces,layout:u.layout},impliedEdits:{}},traces:t,layout:w(),transforms:i,frames:(e={frames:f({},s)},T(e),e.frames),animation:T(l),config:T(c)}},r.crawl=function(t,e,n,i){var a=n||0;i=i||"",Object.keys(t).forEach((function(n){var o=t[n];if(-1===x.indexOf(n)){var s=(i?i+".":"")+n;e(o,n,t,a,s),r.isValObject(o)||h(o)&&"impliedEdits"!==n&&r.crawl(o,e,a+1,s)}}))},r.isValObject=function(t){return t&&void 0!==t.valType},r.findArrayAttributes=function(t){var e,n,i=[],o=[],s=[];function l(t,r,n,i){o=o.slice(0,i).concat([r]),s=s.slice(0,i).concat([t&&t._isLinkedToArray]),t&&("data_array"===t.valType||!0===t.arrayOk)&&("colorbar"!==o[i-1]||"ticktext"!==r&&"tickvals"!==r)&&c(e,0,"")}function c(t,e,r){var a=t[o[e]],l=r+o[e];if(e===o.length-1)p(a)&&i.push(n+l);else if(s[e]){if(Array.isArray(a))for(var u=0;u<a.length;u++)h(a[u])&&c(a[u],e+1,l+"["+u+"].")}else h(a)&&c(a,e+1,l+".")}e=t,n="",r.crawl(a,l),t._module&&t._module.attributes&&r.crawl(t._module.attributes,l);var u=t.transforms;if(u)for(var f=0;f<u.length;f++){var d=u[f],g=d._module;g&&(n="transforms["+f+"].",e=d,r.crawl(g.attributes,l))}return i},r.getTraceValObject=function(t,e){var r,i,o=e[0],s=1;if("transforms"===o){if(1===e.length)return a.transforms;var l=t.transforms;if(!Array.isArray(l)||!l.length)return!1;var c=e[1];if(!_(c)||c>=l.length)return!1;i=(r=(n.transformsRegistry[l[c].type]||{}).attributes)&&r[e[2]],s=3}else{var u=t._module;if(u||(u=(n.modules[t.type||a.type.dflt]||{})._module),!u)return!1;if(!(i=(r=u.attributes)&&r[o])){var f=u.basePlotModule;f&&f.attributes&&(i=f.attributes[o])}i||(i=a[o])}return b(i,e,s)},r.getLayoutValObject=function(t,e){return b(function(t,e){var r,i,a,s,l=t._basePlotModules;if(l){var c;for(r=0;r<l.length;r++){if((a=l[r]).attrRegex&&a.attrRegex.test(e)){if(a.layoutAttrOverrides)return a.layoutAttrOverrides;!c&&a.layoutAttributes&&(c=a.layoutAttributes)}var u=a.baseLayoutAttrOverrides;if(u&&e in u)return u[e]}if(c)return c}var f=t._modules;if(f)for(r=0;r<f.length;r++)if((s=f[r].layoutAttributes)&&e in s)return s[e];for(i in n.componentsRegistry){if("colorscale"===(a=n.componentsRegistry[i]).name&&0===e.indexOf("coloraxis"))return a.layoutAttributes[e];if(!a.schema&&e===a.name)return a.layoutAttributes}return e in o&&o[e]}(t,e[0]),e,1)}},{"../lib":503,"../plots/animation_attributes":548,"../plots/attributes":550,"../plots/frame_attributes":586,"../plots/layout_attributes":610,"../registry":638,"./edit_types":536,"./plot_config":541}],543:[function(t,e,r){"use strict";var n=t("../lib"),i=t("../plots/attributes"),a={name:{valType:"string",editType:"none"}};function o(t){return t&&"string"==typeof t}function s(t){var e=t.length-1;return"s"!==t.charAt(e)&&n.warn("bad argument to arrayDefaultKey: "+t),t.substr(0,t.length-1)+"defaults"}a.templateitemname={valType:"string",editType:"calc"},r.templatedArray=function(t,e){return e._isLinkedToArray=t,e.name=a.name,e.templateitemname=a.templateitemname,e},r.traceTemplater=function(t){var e,r,a={};for(e in t)r=t[e],Array.isArray(r)&&r.length&&(a[e]=0);return{newTrace:function(o){var s={type:e=n.coerce(o,{},i,"type"),_template:null};if(e in a){r=t[e];var l=a[e]%r.length;a[e]++,s._template=r[l]}return s}}},r.newContainer=function(t,e,r){var i=t._template,a=i&&(i[e]||r&&i[r]);return n.isPlainObject(a)||(a=null),t[e]={_template:a}},r.arrayTemplater=function(t,e,r){var n=t._template,i=n&&n[s(e)],a=n&&n[e];Array.isArray(a)&&a.length||(a=[]);var l={};return{newItem:function(t){var e={name:t.name,_input:t},n=e.templateitemname=t.templateitemname;if(!o(n))return e._template=i,e;for(var s=0;s<a.length;s++){var c=a[s];if(c.name===n)return l[n]=1,e._template=c,e}return

e[r]=t[r]||!1,e._template=!1,e},defaultItems:function(){for(var t=[],e=0;e<a.length;e++){var r=a[e],n=r.name;if(o(n)&&!l[n]){var i={_template:r,name:n,_input:{_templateitemname:n}};i.templateitemname=r.templateitemname,t.push(i),l[n]=1}}return t}},r.arrayDefaultKey=s,r.arrayEditor=function(t,e,r){var i=(n.nestedProperty(t,e).get()||[]).length,a=r._index,o=a>=i&&(r._input||{})._templateitemname;o&&(a=i);var s,l=e+"["+a+"]";function c(){s={},o&&(s[l]={},s[l].templateitemname=o)}function u(t,e){o?n.nestedProperty(s[l],t).set(e):s[l+"."+t]=e}function f(){var t=s;return c(),t}return c(),{modifyBase:function(t,e){s[t]=e},modifyItem:u,getUpdateObj:f,applyUpdate:function(e,r){e&&u(e,r);var i=f();for(var a in i)n.nestedProperty(t,a).set(i[a])}}},{"../lib":503,"../plots/attributes":550}],544:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../registry"),a=t("../plots/plots"),o=t("../lib"),s=t("../lib/clear_gl_canvases"),l=t("../components/color"),c=t("../components/drawing"),u=t("../components/titles"),f=t("../components/modebar"),h=t("../plots/cartesian/axes"),p=t("../constants/alignment"),d=t("../plots/cartesian/constraints"),g=d.enforce,v=d.clean,m=t("../plots/cartesian/autorange").doAutoRange,y="start";function x(t,e,r){for(var n=0;n<r.length;n++){var i=r[n][0],a=r[n][1];if(!(i[0]>=t[1]||i[1]<=t[0])&&a[0]<e[1]&&a[1]>e[0])return!0}return!1}function b(t){var e,i,s,u,d,g,v=t._fullLayout,m=v._size,y=m.p,b=h.list(t,"",!0);if(v._paperdiv.style({width:t._context.responsive&&v.autosize&&!t._context._hasZeroWidth&&!t.layout.width?"100%":v.width+"px",height:t._context.responsive&&v.autosize&&!t._context._hasZeroHeight&&!t.layout.height?"100%":v.height+"px"}).selectAll(".main-svg").call(c.setSize,v.width,v.height),t._context.setBackground(t,v.paper_bgcolor),r.drawMainTitle(t),f.manage(t),!v._has("cartesian"))return a.previousPromises(t);function w(t,e,r){var n=t._lw/2;return"x"===t._id.charAt(0)?e?"top"===r?e._offset-y-n:e._offset+e._length+y+n:m.t+m.h*(1-(t.position||0))+n%1:e?"right"===r?e._offset+e._length+y+n:e._offset-y-n:m.l+m.w*(t.position||0)+n%1}for(e=0;e<b.length;e++){var k=(u=b[e])._anchorAxis;u._linepositions={},u._lw=c.crispRound(t,u.linewidth,1),u._mainLinePosition=w(u,k,u.side),u._mainMirrorPosition=u.mirror&&k?w(u,k,p.OPPOSITE_SIDE[u.side]):null}var A=[],M=[],S=[],E=1===l.opacity(v.paper_bgcolor)&&1===l.opacity(v.plot_bgcolor)&&v.paper_bgcolor===v.plot_bgcolor;for(i in v._plots)if((s=v._plots[i]).mainplot)s.bg&&s.bg.remove(),s.bg=void 0;else{var L=s.xaxis.domain,C=s.yaxis.domain,P=s.plotgroup;if(x(L,C,S)){var I=P.node(),O=s.bg=o.ensureSingle(P,"rect","bg");I.insertBefore(O.node(),I.childNodes[0]),M.push(i)}else P.select("rect.bg").remove(),S.push([L,C]),E||(A.push(i),M.push(i))}var z,D,R,F,B,N,j,U,V,q,H,G,Y,W=v._bgLayer.selectAll(".bg").data(A);for(W.enter().append("rect").classed("bg",!0),W.exit().remove(),W.each((function(t){v._plots[t].bg=n.select(this)})),e=0;e<M.length;e++)s=v._plots[M[e]],d=s.xaxis,g=s.yaxis,s.bg&&void 0!==d._offset&&void 0!==g._offset&&s.bg.call(c.setRect,d._offset-y,g._offset-y,d._length+2*y,g._length+2*y).call(l.fill,v.plot_bgcolor).style("stroke-width",0);if(!v._hasOnlyLargeSploms)for(i in v._plots){s=v._plots[i],d=s.xaxis,g=s.yaxis;var X,Z,J=s.clipId="clip"+v._uid+i+"plot",K=o.ensureSingleById(v._clips,"clipPath",J,(function(t){t.classed("plotclip",!0).append("rect")}));s.clipRect=K.select("rect").attr({width:d._length,height:g._length}),c.setTranslate(s.plot,d._offset,g._offset),s._hasClipOnAxisFalse?(X=null,Z=J):(X=J,Z=null),c.setClipUrl(s.plot,X,t),s.layerClipId=Z}function Q(t){return"M"+z+","+t+"H"+D}function $(t){return"M"+d._offset+","+t+"h"+d._length}function tt(t){return"M"+t+","+U+"V"+j}function et(t){return"M"+t+","+g._offset+"v"+g._length}function rt(t,e,r){if(!t.showline||i!==t._mainSubplot)return"";if(!t._anchorAxis)return r(t._mainLinePosition);var n=e(t._mainLinePosition);return t.mirror&&(n+=e(t._mainMirrorPosition)),n}for(i in v._plots){s=v._plots[i],d=s.xaxis,g=s.yaxis;var nt="M0,0";_(d,i)&&(B=T(d,"left",g,b),z=d._offset-(B?y+B:0),N=T(d,"right",g,b),D=d._offset+d._length+(N?y+N:0),R=w(d,g,"bottom"),F=w(d,g,"top"),!(Y=!d._anchorAxis||i!==d._mainSubplot)||"allticks"!==d.mirror&&"all"!==d.mirror||(d._linepositions[i]=[R,F]),nt=rt(d,Q,$),Y&&d.showline&&("all"===d.mirror||"allticks"===d.mirror)&&(nt+=Q(R)+Q(F)),s.xlines.style("stroke-width",d._lw+"px").call(l.stroke,d.showline?d.linecolor:"rgba(0,0,0,0)"),s.xlines.attr("d",nt);var it="M0,0";_(g,i)&&(H=T(g,"bottom",d,b),j=g._offset+g._length+(H?y:0),G=T(g,"top",d,b),U=g._offset-

(G?y:0),V=w(g,d,"left"),q=w(g,d,"right"),!(Y=!g._anchorAxis||i!==g._mainSubplot)||"allticks"!==g.mirror&&"all"!==g.mirror||(g._linepositions[i]=[V,q]),it=rt(g,tt,et),Y&&g.showline&&("all"===g.mirror||"allticks"===g.mirror)&&(it+=tt(V)+tt(q)),s.ylines.style("stroke-width",g._lw+"px").call(l.stroke,g.showline?g.linecolor:"rgba(0,0,0,0)")),s.ylines.attr("d",it)}return h.makeClipPaths(t),a.previousPromises(t)}function _(t,e){return(t.ticks||t.showline)&&(e===t._mainSubplot||"all"===t.mirror||"allticks"===t.mirror)}function w(t,e,r){if(!r.showline||!r._lw)return!1;if("all"===r.mirror||"allticks"===r.mirror)return!0;var n=r._anchorAxis;if(!n)return!1;var i=p.FROM_BL[e];return r.side===e?n.domain[i]===t.domain[i]:r.mirror&&n.domain[1-i]===t.domain[1-i]}function T(t,e,r,n){if(w(t,e,r))return r._lw;for(var i=0;i<n.length;i++){var a=n[i];if(a._mainAxis===r._mainAxis&&w(t,e,a))return a._lw}return 0}function k(t,e){var r=t.title,n=t._size,i=0;switch(e===y?i=r.pad.l:"end"===e&&(i=-r.pad.r),r.xref){case"paper":return n.l+n.w*r.x+i;case"container":default:return t.width*r.x+i}}function A(t,e){var r=t.title,n=t._size,i=0;if("0em"!==e&&e?e===p.CAP_SHIFT+"em"&&(i=r.pad.t):i=-r.pad.b,"auto"===r.y)return n.t/2;switch(r.yref){case"paper":return n.t+n.h-n.h*r.y+i;case"container":default:return t.height-t.height*r.y+i}}r.layoutStyles=function(t){return o.syncOrAsync([a.doAutoMargin,b],t)},r.drawMainTitle=function(t){var e=t._fullLayout,r=function(t){var e=t.title,r="middle";return o.isRightAnchor(e)?r="end":o.isLeftAnchor(e)&&(r=y),r}(e),n=function(t){var e=t.title,r="0em";return o.isTopAnchor(e)?r=p.CAP_SHIFT+"em":o.isMiddleAnchor(e)&&(r=p.MID_SHIFT+"em"),r}(e);u.draw(t,"gtitle",{propContainer:e,propName:"title.text",placeholder:e._dfltTitle.plot,attributes:{x:k(e,r),y:A(e,n),"text-anchor":r,dy:n}})},r.doTraceStyle=function(t){var e,n=t.calcdata,o=[];for(e=0;e<n.length;e++){var l=n[e],c=l[0]||{},u=c.trace||{},f=u._module||{},h=f.arraysToCalcdata;h&&h(l,u);var p=f.editStyle;p&&o.push({fn:p,cd0:c})}if(o.length){for(e=0;e<o.length;e++){var d=o[e];d.fn(t,d.cd0)}s(t),r.redrawReglTraces(t)}return a.style(t),i.getComponentMethod("legend","draw")(t),a.previousPromises(t)},r.doColorBars=function(t){return i.getComponentMethod("colorbar","draw")(t),a.previousPromises(t)},r.layoutReplot=function(t){var e=t.layout;return t.layout=void 0,i.call("_doPlot",t,"",e)},r.doLegend=function(t){return i.getComponentMethod("legend","draw")(t),a.previousPromises(t)},r.doTicksRelayout=function(t){return h.draw(t,"redraw"),t._fullLayout._hasOnlyLargeSploms&&(i.subplotsRegistry.splom.updateGrid(t),s(t),r.redrawReglTraces(t)),r.drawMainTitle(t),a.previousPromises(t)},r.doModeBar=function(t){var e=t._fullLayout;f.manage(t);for(var r=0;r<e._basePlotModules.length;r++){var n=e._basePlotModules[r].updateFx;n&&n(t)}return a.previousPromises(t)},r.doCamera=function(t){for(var e=t._fullLayout,r=e._subplots.gl3d,n=0;n<r.length;n++){var i=e[r[n]];i._scene.setViewport(i)}},r.drawData=function(t){var e=t._fullLayout;s(t);for(var n=e._basePlotModules,o=0;o<n.length;o++)n[o].plot(t);return r.redrawReglTraces(t),a.style(t),i.getComponentMethod("shapes","draw")(t),i.getComponentMethod("annotations","draw")(t),i.getComponentMethod("images","draw")(t),e._replotting=!1,a.previousPromises(t)},r.redrawReglTraces=function(t){var e=t._fullLayout;if(e._has("regl")){var r,n,i=t._fullData,a=[],s=[];for(e._hasOnlyLargeSploms&&e._splomGrid.draw(),r=0;r<i.length;r++){var l=i[r];!0===l.visible&&0!==l._length&&("splom"===l.type?e._splomScenes[l.uid].draw():"scattergl"===l.type?o.pushUnique(a,l.xaxis+l.yaxis):"scatterpolargl"===l.type&&o.pushUnique(s,l.subplot))}for(r=0;r<a.length;r++)(n=e._plots[a[r]])._scene&&n._scene.draw();for(r=0;r<s.length;r++)(n=e[s[r]]._subplot)._scene&&n._scene.draw()}},r.doAutoRangeAndConstraints=function(t){for(var e,r=h.list(t,"",!0),n={},i=0;i<r.length;i++)if(!n[(e=r[i])._id]){n[e._id]=1,v(t,e),m(t,e);var a=e._matchGroup;if(a)for(var o in a){var s=h.getFromId(t,o);m(t,s,e.range),n[o]=1}}g(t)},r.finalDraw=function(t){i.getComponentMethod("rangeslider","draw")(t),i.getComponentMethod("rangeselector","draw")(t)},r.drawMarginPushers=function(t){i.getComponentMetho

d("legend","draw")(t),i.getComponentMethod("rangeselector","draw")(t),i.getComponentMethod("sliders","draw")(t),i.getComponentMethod("updatemenus","draw")(t),i.getComponentMethod("colorbar","draw")(t)}},{"../components/color":366,"../components/drawing":388,"../components/modebar":429,"../components/titles":464,"../constants/alignment":471,"../lib":503,"../lib/clear_gl_canvases":487,"../plots/cartesian/autorange":553,"../plots/cartesian/axes":554,"../plots/cartesian/constraints":562,"../plots/plots":619,"../registry":638,"@plotly/d3":58}],545:[function(t,e,r){"use strict";var n=t("../lib"),i=n.isPlainObject,a=t("./plot_schema"),o=t("../plots/plots"),s=t("../plots/attributes"),l=t("./plot_template"),c=t("./plot_config").dfltConfig;function u(t,e){t=n.extendDeep({},t);var r,a,o=Object.keys(t).sort();function s(e,r,n){if(i(r)&&i(e))u(e,r);else if(Array.isArray(r)&&Array.isArray(e)){var o=l.arrayTemplater({_template:t},n);for(a=0;a<r.length;a++){var s=r[a],c=o.newItem(s)._template;c&&u(c,s)}var f=o.defaultItems();for(a=0;a<f.length;a++)r.push(f[a]._template);for(a=0;a<r.length;a++)delete r[a].templateitemname}}for(r=0;r<o.length;r++){var c=o[r],h=t[c];if(c in e?s(h,e[c],c):e[c]=h,f(c)===c)for(var p in e){var d=f(p);p===d||d!==c||p in t||s(h,e[p],c)}}}function f(t){return t.replace(/[0-9]+$/,"")}function h(t,e,r,a,o){var s=o&&r(o);for(var c in t){var u=t[c],p=g(t,c,a),d=g(t,c,o),v=r(d);if(!v){var m=f(c);m!==c&&(v=r(d=g(t,m,o)))}if(!(s&&s===v||!v||v._noTemplating||"data_array"===v.valType||v.arrayOk&&Array.isArray(u)))if(!v.valType&&i(u))h(u,e,r,p,d);else if(v._isLinkedToArray&&Array.isArray(u))for(var y=!1,x=0,b={},_=0;_<u.length;_++){var w=u[_];if(i(w)){var T=w.name;if(T)b[T]||(h(w,e,r,g(u,x,p),g(u,x,d)),x++,b[T]=1);else if(!y){var k=g(t,l.arrayDefaultKey(c),a),A=g(u,x,p);h(w,e,r,A,g(u,x,d));var M=n.nestedProperty(e,A);n.nestedProperty(e,k).set(M.get()),M.set(null),y=!0}}}else n.nestedProperty(e,p).set(u)}}function p(t,e){return a.getLayoutValObject(t,n.nestedProperty({},e).parts)}function d(t,e){return a.getTraceValObject(t,n.nestedProperty({},e).parts)}function g(t,e,r){return r?Array.isArray(t)?r+"["+e+"]":r+"."+e:e}function v(t){for(var e=0;e<t.length;e++)if(i(t[e]))return!0}function m(t){var e;switch(t.code){case"data":e="The template has no key data.";break;case"layout":e="The template has no key layout.";break;case"missing":e=t.path?"There are no templates for item "+t.path+" with name "+t.templateitemname:"There are no templates for trace "+t.index+", of type "+t.traceType+".";break;case"unused":e=t.path?"The template item at "+t.path+" was not used in constructing the plot.":t.dataCount?"Some of the templates of type "+t.traceType+" were not used. The template has "+t.templateCount+" traces, the data only has "+t.dataCount+" of this type.":"The template has "+t.templateCount+" traces of type "+t.traceType+" but there are none in the data.";break;case"reused":e="Some of the templates of type "+t.traceType+" were used more than once. The template has "+t.templateCount+" traces, the data has "+t.dataCount+" of this type."}return t.msg=e,t}r.makeTemplate=function(t){t=n.isPlainObject(t)?t:n.getGraphDiv(t),t=n.extendDeep({_context:c},{data:t.data,layout:t.layout}),o.supplyDefaults(t);var e=t.data||[],r=t.layout||{};r._basePlotModules=t._fullLayout._basePlotModules,r._modules=t._fullLayout._modules;var a={data:{},layout:{}};e.forEach((function(t){var e={};h(t,e,d.bind(null,t));var r=n.coerce(t,{},s,"type"),i=a.data[r];i||(i=a.data[r]=[]),i.push(e)})),h(r,a.layout,p.bind(null,r)),delete a.layout.template;var l=r.template;if(i(l)){var f,g,v,m,y,x,b=l.layout;i(b)&&u(b,a.layout);var _=l.data;if(i(_)){for(g in a.data)if(v=_[g],Array.isArray(v)){for(x=(y=a.data[g]).length,m=v.length,f=0;f<x;f++)u(v[f%m],y[f]);for(f=x;f<m;f++)y.push(n.extendDeep({},v[f]))}for(g in _)g in a.data||(a.data[g]=n.extendDeep([],_[g]))}}return a},r.validateTemplate=function(t,e){var r=n.extendDeep({},{_context:c,data:t.data,layout:t.layout}),a=r.layout||{};i(e)||(e=a.template||{});var s=e.layout,l=e.data,u=[];r.layout=a,r.layout.template=e,o.supplyDefaults(r);var h=r._fullLayout,p=r._fullData,d={};if(i(s)?(function t(e,r){for(var n in e)if("_"!==n.charAt(0)&&i(e[n])){var a,o=f(n),s=[];for(a=0;a<r.length;a++)s.push(g(e,n,r[a])),o!==n&&s.push(g(e,o,r[a]));for(a=0;a<s.length;a++)d[s[a]]=1;t(e[n],s)}}(h,["layout"]),function t(e,r){for(var n in e)if(-1===n.indexOf("defaults")&&i(e[n])){var a=g(e,n,r);d[a]?t(e[n],a):u.push({code:"unused",path:a})}}(s,"layout")):u.push({code:"layout"}),i(l)){for(var

y,x={},b=0;b<p.length;b++){var
_=p[b];x[y=_.type]=(x[y]||0)+1,_._fullInput._template||u.push({code:"missing",index:_._fullInput.index,traceType:y
})}for(y in l){var
w=l[y].length,T=x[y]||0;w>T?u.push({code:"unused",traceType:y,templateCount:w,dataCount:T}):T>w&&u.push({
code:"reused",traceType:y,templateCount:w,dataCount:T})}}else u.push({code:"data"});if(function t(e,r){for(var n
in e)if("_"!==n.charAt(0)){var
a=e[n],o=g(e,n,r);i(a)?(Array.isArray(e)&&!1===a._template&&a.templateitemname&&u.push({code:"missing",pa
th:o,templateitemname:a.templateitemname}),t(a,o)):Array.isArray(a)&&v(a)&&t(a,o)}}({data:p,layout:h},""),u.len
gth)return
u.map(m)}},{"../lib":503,"../plots/attributes":550,"../plots/plots":619,"./plot_config":541,"./plot_schema":542,"./plot
_template":543}],546:[function(t,e,r){"use strict";var n=t("fast-
isnumeric"),i=t("./plot_api"),a=t("../plots/plots"),o=t("../lib"),s=t("../snapshot/helpers"),l=t("../snapshot/tosvg"),c=t("..
/snapshot/svgtoimg"),u=t("../version").version,f={format:{valType:"enumerated",values:["png","jpeg","webp","svg
","full-
json"],dflt:"png"},width:{valType:"number",min:1},height:{valType:"number",min:1},scale:{valType:"number",mi
n:0,dflt:1},setBackground:{valType:"any",dflt:!1},imageDataOnly:{valType:"boolean",dflt:!1}};e.exports=function
(t,e){var r,h,p,d;function g(t){return!(t in
e)||o.validate(e[t],f[t])}if(e=e||{},o.isPlainObject(t)?(r=t.data||[],h=t.layout||{},p=t.config||{},d={}):(t=o.getGraphDiv
(t),r=o.extendDeep([],t.data),h=o.extendDeep({},t.layout),p=t._context,d=t._fullLayout||{}),!g("width")&&null!==e.
width||!g("height")&&null!==e.height)throw new Error("Height and width should be pixel
values.");if(!g("format"))throw new Error("Export format is not "+o.join2(f.format.values,", "," or ")+".");var
v={};function m(t,r){return o.coerce(e,v,f,t,r)}var
y=m("format"),x=m("width"),b=m("height"),_=m("scale"),w=m("setBackground"),T=m("imageDataOnly"),k=docu
ment.createElement("div");k.style.position="absolute",k.style.left="-5000px",document.body.appendChild(k);var
A=o.extendFlat({},h);x?A.width=x:null===e.width&&n(d.width)&&(A.width=d.width),b?A.height=b:null===e.hei
ght&&n(d.height)&&(A.height=d.height);var
M=o.extendFlat({},p,{_exportedPlot:!0,staticPlot:!0,setBackground:w}),S=s.getRedrawFunc(k);function E(){return
new Promise((function(t){setTimeout(t,s.getDelay(k._fullLayout))}))}function L(){return new
Promise((function(t,e){var r=l(k,y,_),n=k._fullLayout.width,f=k._fullLayout.height;function
h(){i.purge(k),document.body.removeChild(k)}if("full-json"===y){var
p=a.graphJson(k,!1,"keepdata","object",!0,!0);return
p.version=u,p=JSON.stringify(p),h(),t(T?p:s.encodeJSON(p))}if(h(),"svg"===y)return t(T?r:s.encodeSVG(r));var
d=document.createElement("canvas");d.id=o.randstr(),c({format:y,width:n,height:f,scale:_,canvas:d,svg:r,promise:!
0}).then(t).catch(e)}))}return new
Promise((function(t,e){i.newPlot(k,r,A,M).then(S).then(E).then(L).then((function(e){t(function(t){return
T?t.replace(s.IMAGE_URL_PREFIX,""):t}(e))})).catch((function(t){e(t)}))}))}},{"../lib":503,"../plots/plots":619,"..
/snapshot/helpers":642,"../snapshot/svgtoimg":644,"../snapshot/tosvg":646,"../version":1123,"./plot_api":540,"fast-
isnumeric":190}],547:[function(t,e,r){"use strict";var
n=t("../lib"),i=t("../plots/plots"),a=t("./plot_schema"),o=t("./plot_config").dfltConfig,s=n.isPlainObject,l=Array.isArr
ay,c=n.isArrayOrTypedArray;function u(t,e,r,i,a,o){o=o||[];for(var f=Object.keys(t),h=0;h<f.length;h++){var
p=f[h];if("transforms"!==p){var m=o.slice();m.push(p);var
y=t[p],x=e[p],b=v(r,p),_=(b||{}).valType,w="info_array"===_,T="colorscale"===_,k=(b||{}).items;if(g(r,p))if(s(y)
&&s(x)&&"any"!==_)u(y,x,b,i,a,m);else
if(w&&l(y)){y.length>x.length&&i.push(d("unused",a,m.concat(x.length)));var
A,M,S,E,L,C=x.length,P=Array.isArray(k);if(P&&(C=Math.min(C,k.length)),2===b.dimensions)for(M=0;M<C;M
++)if(l(y[M])){y[M].length>x[M].length&&i.push(d("unused",a,m.concat(M,x[M].length)));var
I=x[M].length;for(A=0;A<(P?Math.min(I,k[M].length):I);A++)S=P?k[M][A]:k,E=y[M][A],L=x[M][A],n.validate(E
,S)?L!==E&&L!==+E&&i.push(d("dynamic",a,m.concat(M,A),E,L)):i.push(d("value",a,m.concat(M,A),E))}else

i.push(d("array",a,m.concat(M),y[M]));else
for(M=0;M<C;M++)S=P?k[M]:k,E=y[M],L=x[M],n.validate(E,S)?L!==E&&L!==+E&&i.push(d("dynamic",a,m.concat(M),E,L)):i.push(d("value",a,m.concat(M),E))}else if(b.items&&!w&&l(y)){var
O,z,D=k[Object.keys(k)[0]],R=[];for(O=0;O<x.length;O++){var
F=x[O]._index||O;if((z=m.slice()).push(F),s(y[F])&&s(x[O])){R.push(F);var
B=y[F],N=x[O];s(B)&&!1!==B.visible&&!1===N.visible?i.push(d("invisible",a,z)):u(B,N,D,i,a,z)}}for(O=0;O<y.length;O++)(z=m.slice()).push(O),s(y[O])?-
1===R.indexOf(O)&&i.push(d("unused",a,z)):i.push(d("object",a,z,y[O]))}else!s(y)&&s(x)?i.push(d("object",a,m,y)):c(y)||!c(x)||w||T?p in
e?n.validate(y,b)?"enumerated"===b.valType&&(b.coerceNumber&&y!==+x||y!==x)&&i.push(d("dynamic",a,m,y,x)):i.push(d("value",a,m,y)):i.push(d("unused",a,m,y)):i.push(d("array",a,m,y));else
i.push(d("schema",a,m))}}return i}function f(t,e){for(var r=t.layout.layoutAttributes,i=0;i<e.length;i++){var
a=e[i],o=t.traces[a.type],s=o.layoutAttributes;s&&(a.subplot?n.extendFlat(r[o.attributes.subplot.dflt],s):n.extendFlat(r,s))}return r}e.exports=function(t,e){void 0===t&&(t=[]),void 0===e&&(e={});var
r,c,h=a.get(),p=[],g={_context:n.extendFlat({},o)};l(t)?(g.data=n.extendDeep([],t),r=t):(g.data=[],r=[],p.push(d("array","data"))),s(e)?(g.layout=n.extendDeep({},e),c=e):(g.layout={},c={},arguments.length>1&&p.push(d("object","layout"))),i.supplyDefaults(g);for(var v=g._fullData,m=r.length,y=0;y<m;y++){var x=r[y],b=["data",y];if(s(x)){var
_=v[y],w=_.type,T=h.traces[w].attributes;T.type={valType:"enumerated",values:[w]},!1===_.visible&&!1!==x.visible&&p.push(d("invisible",b)),u(x,_,T,p,b);var
k=x.transforms,A=_.transforms;if(k){l(k)||p.push(d("array",b,["transforms"])),b.push("transforms");for(var
M=0;M<k.length;M++){var S=["transforms",M],E=k[M].type;if(s(k[M])){var
L=h.transforms[E]?h.transforms[E].attributes:{};L.type={valType:"enumerated",values:Object.keys(h.transforms)},u(k[M],A[M],L,p,b,S)}else p.push(d("object",b,S))}}}else p.push(d("object",b))}return
u(c,g._fullLayout,f(h,v),p,"layout"),0===p.length?void 0:p};var
h={object:function(t,e){return("layout"===t&&""===e?"The layout argument":"data"===t[0]&&""===e?"Trace
"+t[1]+" in the data argument":p(t)+"key "+e)+" must be linked to an object
container"},array:function(t,e){return("data"===t?"The data argument":p(t)+"key "+e)+" must be linked to an array
container"},schema:function(t,e){return p(t)+"key "+e+" is not part of the schema"},unused:function(t,e,r){var
n=s(r)?"container":"key";return p(t)+n+" "+e+" did not get
coerced"},dynamic:function(t,e,r,n){return[p(t)+"key",e,"(set to '"+r+"')","got reset to",""+n+"","during
defaults."].join(" ")},invisible:function(t,e){return(e?p(t)+"item "+e:"Trace "+t[1])+" got defaulted to be not
visible"},value:function(t,e,r){return[p(t)+"key "+e,"is set to an invalid value ("+r+")"].join(" ")}};function
p(t){return l(t)?"In data trace "+t[1]+", ":"In "+t+", "}function d(t,e,r,i,a){var
o,s;r=r||"",l(e)?(o=e[0],s=e[1]):(o=e,s=null);var c=function(t){if(!l(t))return String(t);for(var
e="",r=0;r<t.length;r++){var n=t[r];"number"==typeof n?e=e.substr(0,e.length-1)+"["+n+"]":e+=n,r<t.length-1&&(e+=".")}return e}(r),u=h[t](e,c,i,a);return n.log(u),{code:t,container:o,trace:s,path:r,astr:c,msg:u}}function
g(t,e){var r=y(e),n=r.keyMinusId,i=r.id;return!!(n in t&&t[n]._isSubplotObj&&i)||e in t}function v(t,e){return e in
t?t[e]:t[y(e).keyMinusId]}var m=n.counterRegex("([a-z]+)");function y(t){var
e=t.match(m);return{keyMinusId:e&&e[1],id:e&&e[2]}}},{"../lib":503,"../plots/plots":619,"./plot_config":541,"./plot_schema":542}],548:[function(t,e,r){"use
strict";e.exports={mode:{valType:"enumerated",dflt:"afterall",values:["immediate","next","afterall"]},direction:{valType:"enumerated",values:["forward","reverse"],dflt:"forward"},fromcurrent:{valType:"boolean",dflt:!1},frame:{duration:{valType:"number",min:0,dflt:500},redraw:{valType:"boolean",dflt:!0}},transition:{duration:{valType:"number",min:0,dflt:500,editType:"none"},easing:{valType:"enumerated",dflt:"cubic-in-out",values:["linear","quad","cubic","sin","exp","circle","elastic","back","bounce","linear-in","quad-in","cubic-in","sin-in","exp-in","circle-in","elastic-in","back-in","bounce-in","linear-out","quad-out","cubic-out","sin-out","exp-out","circle-out","elastic-out","back-out","bounce-out","linear-in-out","quad-in-out","cubic-in-out","sin-in-out","exp-in-out","circle-in-out","elastic-in-out","back-in-out","bounce-in-

out"],editType:"none"},ordering:{valType:"enumerated",values:["layout first","traces first"],dflt:"layout first",editType:"none"}}}},{}],549:[function(t,e,r){"use strict";var n=t("../lib"),i=t("../plot_api/plot_template");e.exports=function(t,e,r){var a,o,s=r.name,l=r.inclusionAttr||"visible",c=e[s],u=n.isArrayOrTypedArray(t[s])?t[s]:[],f=e[s]=[],h=i.arrayTemplater(e,s,l);for(a=0;a<u.length;a++){var p=u[a];n.isPlainObject(p)?o=h.newItem(p):(o=h.newItem({}))[l]=!1,o._index=a,!1!==o[l]&&r.handleItemDefaults(p,o,e,r),f.push(o)}var d=h.defaultItems();for(a=0;a<d.length;a++)(o=d[a])._index=f.length,r.handleItemDefaults({},o,e,r,{}),f.push(o);if(n.isArrayOrTypedArray(c)){var g=Math.min(c.length,f.length);for(a=0;a<g;a++)n.relinkPrivateKeys(f[a],c[a])}return f}},{"../lib":503,"../plot_api/plot_template":543}],550:[function(t,e,r){"use strict";var n=t("./font_attributes"),i=t("../components/fx/attributes");e.exports={type:{valType:"enumerated",values:[],dflt:"scatter",editType:"calc+clearAxisTypes",_noTemplating:!0},visible:{valType:"enumerated",values:[!0,!1,"legendonly"],dflt:!0,editType:"calc"},showlegend:{valType:"boolean",dflt:!0,editType:"style"},legendgroup:{valType:"string",dflt:"",editType:"style"},legendgrouptitle:{text:{valType:"string",dflt:"",editType:"style"},font:n({editType:"style"}),editType:"style"},legendrank:{valType:"number",dflt:1e3,editType:"style"},opacity:{valType:"number",min:0,max:1,dflt:1,editType:"style"},name:{valType:"string",editType:"style"},uid:{valType:"string",editType:"plot",anim:!0},ids:{valType:"data_array",editType:"calc",anim:!0},customdata:{valType:"data_array",editType:"calc"},meta:{valType:"any",arrayOk:!0,editType:"plot"},selectedpoints:{valType:"any",editType:"calc"},hoverinfo:{valType:"flaglist",flags:["x","y","z","text","name"],extras:["all","none","skip"],arrayOk:!0,dflt:"all",editType:"none"},hoverlabel:i.hoverlabel,stream:{token:{valType:"string",noBlank:!0,strict:!0,editType:"calc"},maxpoints:{valType:"number",min:0,max:1e4,dflt:500,editType:"calc"},editType:"calc"},transforms:{_isLinkedToArray:"transform",editType:"calc"},uirevision:{valType:"any",editType:"none"}}},{"../components/fx/attributes":397,"./font_attributes":585}],551:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib"),a=i.dateTime2ms,o=i.incrementMonth,s=t("../../constants/numerical").ONEAVGMONTH;e.exports=function(t,e,r,i){if("date"!==e.type)return{vals:i};var l=t[r+"periodalignment"];if(!l)return{vals:i};var c,u=t[r+"period"];if(n(u)){if((u=+u)<=0)return{vals:i}}else if("string"==typeof u&&"M"===u.charAt(0)){var f=+u.substring(1);if(!(f>0&&Math.round(f)===f))return{vals:i};c=f}for(var h=e.calendar,p="start"===l,d="end"===l,g=t[r+"period0"],v=a(g,h)||0,m=[],y=[],x=[],b=i.length,_=0;_<b;_++){var w,T,k,A=i[_];if(c){for(w=Math.round((A-v)/(c*s)),k=o(v,c*w,h);k>A;)k=o(k,-c,h);for(;k<=A;)k=o(k,c,h);T=o(k,-c,h)}else{for(k=v+(w=Math.round((A-v)/u))*u;k>A;)k-=u;for(;k<=A;)k+=u;T=k-u}m[_]=p?T:d?k:(T+k)/2,y[_]=T,x[_]=k}return{vals:m,starts:y,ends:x}}},{"../../constants/numerical":479,"../../lib":503,"fast-isnumeric":190}],552:[function(t,e,r){"use strict";e.exports={xaxis:{valType:"subplotid",dflt:"x",editType:"calc+clearAxisTypes"},yaxis:{valType:"subplotid",dflt:"y",editType:"calc+clearAxisTypes"}}},{}],553:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("fast-isnumeric"),a=t("../../lib"),o=t("../../constants/numerical").FP_SAFE,s=t("../../registry"),l=t("../../components/drawing"),c=t("./axis_ids"),u=c.getFromId,f=c.isLinked;function h(t,e){var r,n,i=[],o=t._fullLayout,s=d(o,e,0),l=d(o,e,1),c=g(t,e),u=c.min,f=c.max;if(0===u.length||0===f.length)return a.simpleMap(e.range,e.r2l);var h=u[0].val,v=f[0].val;for(r=1;r<u.length&&h===v;r++)h=Math.min(h,u[r].val);for(r=1;r<f.length&&h===v;r++)v=Math.max(v,f[r].val);var m=!1;if(e.range){var y=a.simpleMap(e.range,e.r2l);m=y[1]<y[0]}"reversed"===e.autorange&&(m=!0,e.autorange=!0);var x,b,_,w,T,k,A=e.rangemode,M="tozero"===A,S="nonnegative"===A,E=e._length,L=E/10,C=0;for(r=0;r<u.length;r++)for(x=u[r],n=0;n<f.length;n++)(k=(b=f[n]).val-x.val-p(e,x.val,b.val))>0&&((T=E-s(x)-l(b))>L?k/T>C&&(_=x,w=b,C=k/T):k/E>C&&(_={val:x.val,nopad:1},w={val:b.val,nopad:1},C=k/E));if(h===v){var P=h-1,I=h+1;if(M)if(0===h)i=[0,1];else{var O=(h>0?f:u).reduce((function(t,e){return Math.max(t,l(e))}),0),z=h/(1-Math.min(.5,O/E));i=h>0?[0,z]:[z,0]}else i=S?[Math.max(0,P),Math.max(1,I)]:[P,I]}else

M?(_.val>=0&&(_={val:0,nopad:1}),w.val<=0&&(w={val:0,nopad:1})):S&&(_.val-C*s(_)<0&&(_={val:0,nopad:1}),w.val<=0&&(w={val:1,nopad:1})),C=(w.val-_.val-p(e,x.val,b.val))/(E-s(_)-l(w)),i=[_.val-C*s(_),w.val+C*l(w)];return m&&i.reverse(),a.simpleMap(i,e.l2r||Number)}function p(t,e,r){var n=0;if(t.rangebreaks)for(var i=t.locateBreaks(e,r),a=0;a<i.length;a++){var o=i[a];n+=o.max-o.min}return n}function d(t,e,r){var i=.05*e._length,o=e._anchorAxis||{};if(-1!==(e.ticklabelposition||"").indexOf("inside")||-1!==(o.ticklabelposition||"").indexOf("inside")){var s="reversed"===e.autorange;if(!s){var c=a.simpleMap(e.range,e.r2l);s=c[1]<c[0]}s&&(r=!r)}var u=0;return f(t,e._id)||(u=function(t,e,r){var i=0,o="x"===e._id.charAt(0);for(var s in t._plots){var c=t._plots[s];if(e._id===c.xaxis._id||e._id===c.yaxis._id){var u=(o?c.yaxis:c.xaxis)||{};if(-1!==(u.ticklabelposition||"").indexOf("inside")&&(!r&&("left"===u.side||"bottom"===u.side)||r&&("top"===u.side||"right"===u.side))){if(u._vals){var f=a.deg2rad(u._tickAngles[u._id+"tick"]||0),h=Math.abs(Math.cos(f)),p=Math.abs(Math.sin(f));if(!u._vals[0].bb){var d=u._id+"tick";u._selections[d].each((function(t){var e=n.select(this);e.select(".text-math-group").empty()&&(t.bb=l.bBox(e.node()))}))}for(var g=0;g<u._vals.length;g++){var v=u._vals[g].bb;if(v){var m=6+v.width,y=6+v.height;i=Math.max(i,o?Math.max(m*h,y*p):Math.max(y*h,m*p))}}}"inside"===u.ticks&&"inside"===u.ticklabelposition&&(i+=u.ticklen||0)}}return i}(t,e,r)),i=Math.max(u,i),"domain"===e.constrain&&e._inputDomain&&(i*=(e._inputDomain[1]-e._inputDomain[0])/(e.domain[1]-e.domain[0])),function(t){return t.nopad?0:t.pad+(t.extrapad?i:u)}}function g(t,e,r){var n,i,a,o=e._id,s=t._fullData,l=t._fullLayout,c=[],f=[];function h(t,e){for(n=0;n<e.length;n++){var r=t[e[n]],s=(r._extremes||{})[o];if(!0===r.visible&&s){for(i=0;i<s.min.length;i++)a=s.min[i],v(c,a.val,a.pad,{extrapad:a.extrapad});for(i=0;i<s.max.length;i++)a=s.max[i],m(f,a.val,a.pad,{extrapad:a.extrapad})}}}if(h(s,e._traceIndices),h(l.annotations||[],e._annIndices||[]),h(l.shapes||[],e._shapeIndices||[]),e._matchGroup&&!r)for(var p in e._matchGroup)if(p!==e._id){var d=u(t,p),y=g(t,d,!0),x=e._length/d._length;for(i=0;i<y.min.length;i++)a=y.min[i],v(c,a.val,a.pad*x,{extrapad:a.extrapad});for(i=0;i<y.max.length;i++)a=y.max[i],m(f,a.val,a.pad*x,{extrapad:a.extrapad})}return{min:c,max:f}}function v(t,e,r,n){y(t,e,r,n,b)}function m(t,e,r,n){y(t,e,r,n,_)}function y(t,e,r,n,i){for(var a=n.tozero,o=n.extrapad,s=!0,l=0;l<t.length&&s;l++){var c=t[l];if(i(c.val,e)&&c.pad>=r&&(c.extrapad||!o)){s=!1;break}i(e,c.val)&&c.pad<=r&&(o||!c.extrapad)&&(t.splice(l,1),l--)}if(s){var u=a&&0===e;t.push({val:e,pad:u?0:r,extrapad:!u&&o})}}function x(t){return i(t)&&Math.abs(t)<o}function b(t,e){return t<=e}function _(t,e){return t>=e}e.exports={getAutoRange:h,makePadFn:d,doAutoRange:function(t,e,r){if(e.setScale(),e.autorange){e.range=r?r.slice():h(t,e),e._r=e.range.slice(),e._rl=a.simpleMap(e._r,e.r2l);var n=e._input,i={};i[e._attr+".range"]=e.range,i[e._attr+".autorange"]=e.autorange,s.call("_storeDirectGUIEdit",t.layout,t._fullLayout._preGUI,i),n.range=e.range.slice(),n.autorange=e.autorange}var o=e._anchorAxis;if(o&&o.rangeslider){var l=o.rangeslider[e._name];l&&"auto"===l.rangemode&&(l.range=h(t,e)),o._input.rangeslider[e._name]=a.extendFlat({},l)}},findExtremes:function(t,e,r){r||(r={}),t._m||t.setScale();var n,a,s,l,c,u,f,h,p,d=[],g=[],y=e.length,b=r.padded||!1,_=r.tozero&&("linear"===t.type||"-"===t.type),w="log"===t.type,T=!1,k=r.vpadLinearized||!1;function A(t){if(Array.isArray(t))return T=!0,function(e){return Math.max(Number(t[e]||0),0)};var e=Math.max(Number(t||0),0);return function(){return e}}var M=A((t._m>0?r.ppadplus:r.ppadminus)||r.ppad||0),S=A((t._m>0?r.ppadminus:r.ppadplus)||r.ppad||0),E=A(r.vpadplus||r.vpad),L=A(r.vpadminus||r.vpad);if(!T){if(h=1/0,p=-1/0,w)for(n=0;n<y;n++)(a=e[n])<h&&a>0&&(h=a),a>p&&a<o&&(p=a);else for(n=0;n<y;n++)(a=e[n])<h&&a>-o&&(h=a),a>p&&a<o&&(p=a);e=[h,p],y=2}var C={tozero:_,extrapad:b};function P(r){s=e[r],i(s)&&(u=M(r),f=S(r),k?(l=t.c2l(s)-L(r),c=t.c2l(s)+E(r)):(h=s-L(r),p=s+E(r),w&&h<p/10&&(h=p/10),l=t.c2l(h),c=t.c2l(p)),_&&(l=Math.min(0,l),c=Math.max(0,c)),x(l)&&v(d,l,f,C),x(c)&&m(g,c,u,C))}var I=Math.min(6,y);for(n=0;n<I;n++)P(n);for(n=y-1;n>=I;n--

)P(n);return{min:d,max:g,opts:r}},concatExtremes:g}},{"../../components/drawing":388,"../../constants/numerical":479,"../../lib":503,"../../registry":638,"./axis_ids":558,"@plotly/d3":58,"fast-isnumeric":190}],554:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("fast-isnumeric"),a=t("../../plots/plots"),o=t("../../registry"),s=t("../../lib"),l=s.strTranslate,c=t("../../lib/svg_text_utils"),u=t("../../components/titles"),f=t("../../components/color"),h=t("../../components/drawing"),p=t("./layout_attributes"),d=t("./clean_ticks"),g=t("../../constants/numerical"),v=g.ONEMAXYEAR,m=g.ONEAVGYEAR,y=g.ONEMINYEAR,x=g.ONEMAXQUARTER,b=g.ONEAVGQUARTER,_=g.ONEMINQUARTER,w=g.ONEMAXMONTH,T=g.ONEAVGMONTH,k=g.ONEMINMONTH,A=g.ONEWEEK,M=g.ONEDAY,S=M/2,E=g.ONEHOUR,L=g.ONEMIN,C=g.ONESEC,P=g.MINUS_SIGN,I=g.BADNUM,O={K:"zeroline"},z={K:"gridline",L:"path"},D={K:"minor-gridline",L:"path"},R={K:"tick",L:"path"},F={K:"tick",L:"text"},B=t("../../constants/alignment"),N=B.MID_SHIFT,j=B.CAP_SHIFT,U=B.LINE_SPACING,V=B.OPPOSITE_SIDE,q=e.exports={};q.setConvert=t("./set_convert");var H=t("./axis_autotype"),G=t("./axis_ids"),Y=G.idSort,W=G.isLinked;q.id2name=G.id2name,q.name2id=G.name2id,q.cleanId=G.cleanId,q.list=G.list,q.listIds=G.listIds,q.getFromId=G.getFromId,q.getFromTrace=G.getFromTrace;var X=t("./autorange");function Z(t){var e=1e-4*(t[1]-t[0]);return[t[0]-e,t[1]+e]}q.getAutoRange=X.getAutoRange,q.findExtremes=X.findExtremes,q.coerceRef=function(t,e,r,n,i,a){var o=n.charAt(n.length-1),l=r._fullLayout._subplots[o+"axis"],c=n+"ref",u={};return i||(i=l[0]||("string"==typeof a?a:a[0])),a||(a=i),l=l.concat(l.map((function(t){return t+"domain"}))),u[c]={valType:"enumerated",values:l.concat(a?"string"==typeof a?[a]:a:[]),dflt:i},s.coerce(t,e,u,c)},q.getRefType=function(t){return void 0===t?t:"paper"===t?"paper":"pixel"===t?"pixel":/domain)$/.test(t)?"domain":"range"},q.coercePosition=function(t,e,r,n,i,a){var o,l;if("range"!==q.getRefType(n))o=s.ensureNumber,l=r(i,a);else{var c=q.getFromId(e,n);l=r(i,a=c.fraction2r(a)),o=c.cleanPos}t[i]=o(l)},q.cleanPosition=function(t,e,r){return("paper"===r||"pixel"===r?s.ensureNumber:q.getFromId(e,r).cleanPos)(t)},q.redrawComponents=function(t,e){e=e||q.listIds(t);var r=t._fullLayout;function n(n,i,a,s){for(var l=o.getComponentMethod(n,i),c={},u=0;u<e.length;u++)for(var f=r[q.id2name(e[u])][a],h=0;h<f.length;h++){var p=f[h];if(!c[p]&&(l(t,p),c[p]=1,s))return}}n("annotations","drawOne","_annIndices"),n("shapes","drawOne","_shapeIndices"),n("images","draw","_imgIndices",!0)};var J=q.getDataConversions=function(t,e,r,n){var i,a="x"===r||"y"===r||"z"===r?r:n;if(Array.isArray(a)){if(i={type:H(n,void 0,{autotypenumbers:t._fullLayout.autotypenumbers}),_categories:[]},q.setConvert(i),"category"===i.type)for(var o=0;o<n.length;o++)i.d2c(n[o])}else i=q.getFromTrace(t,e,a);return i?{d2c:i.d2c,c2d:i.c2d}:"ids"===a?{d2c:Q,c2d:Q}:{d2c:K,c2d:K}};function K(t){return+t}function Q(t){return String(t)}function $(t,e){return Math.abs((t/e+.5)%1-.5)<.001}function tt(t,e){return Math.abs(t/e-1)<.001}function et(t){return+t.substring(1)}function rt(t){var e=Z(s.simpleMap(t.range,t.r2l)),r=Math.min(e[0],e[1]),n=Math.max(e[0],e[1]),i="category"===t.type?t.d2l_noadd:t.d2l;"log"===t.type&&"L"!==String(t.dtick).charAt(0)&&(t.dtick="L"+Math.pow(10,Math.floor(Math.min(t.range[0],t.range[1]))-1));for(var a=[],o=0;o<=1;o++)if(!o||t.minor){var l=o?t.minor.tickvals:t.tickvals,c=o?[]:t.ticktext;if(l){Array.isArray(c)||(c=[]);for(var u=0;u<l.length;u++){var f=i(l[u]);if(f>r&&f<n){var h=void 0===c[u]?q.tickText(t,f):ht(t,f,String(c[u]));o&&(h.minor=!0,h.text=""),a.push(h)}}}}return t.rangebreaks&&(a=a.filter((function(e){return t.maskBreaks(e.x)!==I}))),a}q.getDataToCoordFunc=function(t,e,r,n){return J(t,e,r,n).d2c},q.counterLetter=function(t){var e=t.charAt(0);return"x"===e?"y":"y"===e?"x":void 0},q.minDtick=function(t,e,r,n){-1===["log","category","multicategory"].indexOf(t.type)&&n?void 0===t._minDtick?(t._minDtick=e,t._forceTick0=r):t._minDtick&&((t._minDtick/e+1e-6)%1<2e-6&&((r-t._forceTick0)/e%1+1.000001)%1<2e-6?(t._minDtick=e,t._forceTick0=r):((e/t._minDtick+1e-6)%1>2e-6||((r-t._forceTick0)/t._minDtick%1+1.000001)%1>2e-

6)&&(t._minDtick=0)):t._minDtick=0},q.saveRangeInitial=function(t,e){for(var r=q.list(t,"",!0),n=!1,i=0;i<r.length;i++){var a=r[i],o=void 0===a._rangeInitial,s=o||!(a.range[0]===a._rangeInitial[0]&&a.range[1]===a._rangeInitial[1]);(o&&!1===a.autorange||e&&s)&&(a._rangeInitial=a.range.slice(),n=!0)}return n},q.saveShowSpikeInitial=function(t,e){for(var r=q.list(t,"",!0),n=!1,i="on",a=0;a<r.length;a++){var o=r[a],s=void 0===o._showSpikeInitial,l=s||!(o.showspikes===o._showspikes);(s||e&&l)&&(o._showSpikeInitial=o.showspikes,n=!0),"on"!==i||o.showspikes||(i="off")}return t._fullLayout._cartesianSpikesEnabled=i,n},q.autoBin=function(t,e,r,n,a,o){var l,c=s.aggNums(Math.min,null,t),u=s.aggNums(Math.max,null,t);if("category"===e.type||"multicategory"===e.type)return{start:c-.5,end:u+.5,size:Math.max(1,Math.round(o)||1),_dataSpan:u-c};if(a||(a=e.calendar),l="log"===e.type?{type:"linear",range:[c,u]}:{type:e.type,range:s.simpleMap([c,u],e.c2r,0,a),calendar:a},q.setConvert(l),o=o&&d.dtick(o,l.type))l.dtick=o,l.tick0=d.tick0(void 0,l.type,a);else{var f;if(r)f=(u-c)/r;else{var h=s.distinctVals(t),p=Math.pow(10,Math.floor(Math.log(h.minDiff)/Math.LN10)),g=p*s.roundUp(h.minDiff/p,[.9,1.9,4.9,9.9],!0);f=Math.max(g,2*s.stdev(t)/Math.pow(t.length,n?.25:.4)),i(f)||(f=1)}q.autoTicks(l,f)}var v,m=l.dtick,y=q.tickIncrement(q.tickFirst(l),m,"reverse",a);if("number"==typeof m)v=(y=function(t,e,r,n,a){var o=0,s=0,l=0,c=0;function u(e){return(1+100*(e-t)/r.dtick)%100<2}for(var f=0;f<e.length;f++)e[f]%1==0?l++:i(e[f])||c++,u(e[f])&&o++,u(e[f]+r.dtick/2)&&s++;var h=e.length-c;if(l===h&&"date"!==r.type)r.dtick<1?t=n-.5*r.dtick:(t-=.5)+r.dtick<n&&(t+=r.dtick);else if(s<.1*h&&(o>.3*h||u(n)||u(a))){var p=r.dtick/2;t+=t+p<n?p:-p}return t}(y,t,l,c,u))+(1+Math.floor((u-y)/m))*m;else for("M"===l.dtick.charAt(0)&&(y=function(t,e,r,n,i){var a=s.findExactDates(e,i);if(a.exactDays>.8){var o=Number(r.substr(1));a.exactYears>.8&&o%12==0?t=q.tickIncrement(t,"M6","reverse")+1.5*M:a.exactMonths>.8?t=q.tickIncrement(t,"M1","reverse")+15.5*M:t-=S;var l=q.tickIncrement(t,r);if(l<=n)return l}return t}(y,t,m,c,a)),v=y;v<=u;)v=q.tickIncrement(v,m,!1,a);return{start:e.c2r(y,0,a),end:e.c2r(v,0,a),size:m,_dataSpan:u-c}},q.prepMinorTicks=function(t,e,r){if(!e.minor.dtick){delete t.dtick;var n,a=e.dtick&&i(e._tmin);if(a){var o=q.tickIncrement(e._tmin,e.dtick,!0);n=[e._tmin,.99*o+.01*e._tmin]}else{var l=s.simpleMap(e.range,e.r2l);n=[l[0],.8*l[0]+.2*l[1]]}if(t.range=s.simpleMap(n,e.l2r),t._isMinor=!0,q.prepTicks(t,r),a){var c=i(e.dtick),u=i(t.dtick),f=c?e.dtick:+e.dtick.substring(1),h=u?t.dtick:+t.dtick.substring(1);c&&u?$(f,h)?f===2*A&&h===2*M&&(t.dtick=A):f===2*A&&h===3*M?t.dtick=A:f!==A||(e._input.minor||{}).nticks?tt(f/h,2.5)?t.dtick=f/2:t.dtick=f:t.dtick=M:"M"===String(e.dtick).charAt(0)?u?t.dtick="M1":$(f,h)?f>=12&&2===h&&(t.dtick="M3"):t.dtick=e.dtick:"L"===String(t.dtick).charAt(0)?"L"===String(e.dtick).charAt(0)?$(f,h)||(t.dtick=tt(f/h,2.5)?e.dtick/2:e.dtick):t.dtick="D1":"D2"===t.dtick&&+e.dtick>1&&(t.dtick=1)}t.range=e.range}void 0===e.minor._tick0Init&&(t.tick0=e.tick0)},q.prepTicks=function(t,e){var r=s.simpleMap(t.range,t.r2l,void 0,void 0,e);if("auto"===t.tickmode||!t.dtick){var n,a=t.nticks;a||("category"===t.type||"multicategory"===t.type?(n=t.tickfont?s.bigFont(t.tickfont.size||12):15,a=t._length/n):(n="y"===t._id.charAt(0)?40:80,a=s.constrain(t._length/n,4,9)+1),"radialaxis"===t._name&&(a*=2)),t.minor&&"array"!==t.minor.tickmode||"array"===t.tickmode&&(a*=100),t._roughDTick=Math.abs(r[1]-r[0])/a,q.autoTicks(t,t._roughDTick),t._minDtick>0&&t.dtick<2*t._minDtick&&(t.dtick=t._minDtick,t.tick0=t.l2r(t._forceTick0))}"period"===t.ticklabelmode&&function(t){var e;function r(){return!(i(t.dtick)||"M"!==t.dtick.charAt(0))}var n=r(),a=q.getTickFormat(t);if(a){var o=t._dtickInit!==t.dtick;/%[fLQsSMX]/.test(a)||(/%[HI]/.test(a)?(e=E,o&&!n&&t.dtick<E&&(t.dtick=E)):/%p/.test(a)?(e=S,o&&!n&&t.dtick<S&&(t.dtick=S)):/%[Aadejuwx]/.test(a)?(e=M,o&&!n&&t.dtick<M&&(t.dtick=M)):/%[UVW]/.test(a)?(e=A,o&&!n&&t.dtick<A&&(t.dtick=A)):/%[Bbm]/.test(a)?(e=T,o&&(n?et(t.dtick)<1:t.dtick<k)&&(t.dtick="M1")):/%[q]/.test(a)?(e=b,o&&(n?et(t.dtick)<3:t.dtick<_)&&(t.dtick="M3")):/%[Yy]/.test(a)&&(e=m,o&&(n?et(t.dtick)<12:t.dtick<y)&&(t.dtick="M12")))}(n=r())&&t.tick0===t._dowTick0&&(t.tick0=t._rawTick0),t._definedDelta=e}(t),t.tick0||(t.tick0="date"===t.type?"2000-01-

01":0),"date"===t.type&&t.dtick<.1&&(t.dtick=.1),ft(t)},q.calcTicks=function(t,e){for(var r,n,a=t.type,o=t.calendar,l=t.ticklabelstep,c="period"===t.ticklabelmode,u=s.simpleMap(t.range,t.r2l,void 0,void 0,e),f=u[1]<u[0],h=Math.min(u[0],u[1]),p=Math.max(u[0],u[1]),d=Math.max(1e3,t._length||0),g=[],L=[],C=[],P=[],O=t.minor&&(t.minor.ticks||t.minor.showgrid),z=1;z>=(O?0:1);z--){var D=!z;z?(t._dtickInit=t.dtick,t._tick0Init=t.tick0):(t.minor._dtickInit=t.minor.dtick,t.minor._tick0Init=t.minor.tick0);var R=z?t:s.extendFlat({},t,t.minor);if(D?q.prepMinorTicks(R,t,e):q.prepTicks(R,e),"array"!==R.tickmode){var F=Z(u),B=F[0],N=F[1],j=i(R.dtick),U="log"===a&&!(j||"L"===R.dtick.charAt(0)),V=q.tickFirst(R,e);if(z){if(t._tmin=V,V<B!==f)break;"category"!==a&&"multicategory"!==a||(N=f?Math.max(-.5,N):Math.min(t._categories.length-.5,N))}var H,G,Y=null,W=V;z&&(j?G=t.dtick:"date"===a?"string"==typeof t.dtick&&"M"===t.dtick.charAt(0)&&(G=T*t.dtick.substring(1)):G=t._roughDTick,H=Math.round((t.r2l(W)-t.r2l(t.tick0))/G)-1);var X=R.dtick;for(R.rangebreaks&&R._tick0Init!==R.tick0&&(W=Pt(W,t),f||(W=q.tickIncrement(W,X,!f,o))),z&&c&&(W=q.tickIncrement(W,X,!f,o),H--);f?W>=N:W<=N;W=q.tickIncrement(W,X,f,o)){if(z&&H++,R.rangebreaks&&!f){if(W<B)continue;if(R.maskBreaks(W)===I&&Pt(W,R)>=p)break}if(C.length>d||W===Y)break;Y=W;var J={value:W};z?(U&&W!==(0|W)&&(J.simpleLabel=!0),l>1&&H%l&&(J.skipLabel=!0),C.push(J)):(J.minor=!0,P.push(J))}}else z?(C=[],g=rt(t)):(P=[],L=rt(t))}if(O&&!("inside"===t.minor.ticks&&"outside"===t.ticks||"outside"===t.minor.ticks&&"inside"===t.ticks)){for(var K=C.map((function(t){return t.value})),Q=[],$=0;$<P.length;$++){var tt=P[$],et=tt.value;if(-1===K.indexOf(et)){for(var nt=!1,it=0;!nt&&it<C.length;it++)1e7+C[it].value===1e7+et&&(nt=!0);nt||Q.push(tt)}}P=Q}if(c&&function(t,e,r){for(var n=0;n<t.length;n++){var i=t[n].value,a=n,o=n+1;n<t.length-1?(a=n,o=n+1):n>0?(a=n-1,o=n):(a=n,o=n);var s,l=t[a].value,c=t[o].value,u=Math.abs(c-l),f=r||u,h=0;f>=y?h=u>=y&&u<=v?u:m:r===b&&f>=_?h=u>=_&&u<=x?u:b:f>=k?h=u>=k&&u<=w?u:T:r===A&&f>=A?h=A:f>=M?h=M:r===S&&f>=S?h=S:r===E&&f>=E&&(h=E),h>=u&&(h=u,s=!0);var p=i+h;if(e.rangebreaks&&h>0){for(var d=0,g=0;g<84;g++){var L=(g+.5)/84;e.maskBreaks(i*(1-L)+L*p)!==I&&d++}(h*=d/84)||(t[n].drop=!0),s&&u>A&&(h=u)}(h>0||0===n)&&(t[n].periodX=i+h/2)}}(C,t,t._definedDelta),t.rangebreaks){var at="y"===t._id.charAt(0),ot=1;"auto"===t.tickmode&&(ot=t.tickfont?t.tickfont.size:12);var st=NaN;for(r=C.length-1;r>-1;r--)if(C[r].drop)C.splice(r,1);else{C[r].value=Pt(C[r].value,t);var lt=t.c2p(C[r].value);(at?st>lt-ot:st<lt+ot)?C.splice(f?r+1:r,1):st=lt}Ct(t)&&360===Math.abs(u[1]-u[0])&&C.pop(),t._tmax=(C[C.length-1]||{}).value,t._prevDateHead="",t._inCalcTicks=!0;var ct,ut,ft=function(e){e.text="",t._prevDateHead=n};for(C=C.concat(P),r=0;r<C.length;r++){var ht=C[r].minor,pt=C[r].value;ht?L.push({x:pt,minor:!0}):(n=t._prevDateHead,ct=q.tickText(t,pt,!1,C[r].simpleLabel),void 0!==(ut=C[r].periodX)&&(ct.periodX=ut,(ut>p||ut<h)&&(ut>p&&(ct.periodX=p),ut<h&&(ct.periodX=h),ft(ct))),C[r].skipLabel&&ft(ct),g.push(ct))}return g=g.concat(L),t._inCalcTicks=!1,c&&g.length&&(g[0].noTick=!0),g};var nt=[2,5,10],it=[1,2,3,6,12],at=[1,2,5,10,15,30],ot=[1,2,3,7,14],st=[-.046,0,.301,.477,.602,.699,.778,.845,.903,.954,1],lt=[-.301,0,.301,.699,1],ct=[15,30,45,90,180];function ut(t,e,r){return e*s.roundUp(t/e,r)}function ft(t){var e=t.dtick;if(t._tickexponent=0,i(e)||"string"==typeof e||(e=1),"category"!==t.type&&"multicategory"!==t.type||(t._tickround=null),"date"===t.type){var r=t.r2l(t.tick0),n=t.l2r(r).replace(/(^-|i)/g,""),a=n.length;if("M"===String(e).charAt(0))a>10||"01-01"!==n.substr(5)?t._tickround="d":t._tickround=+e.substr(1)%12==0?"y":"m";else if(e>=M&&a<=10||e>=15*M)t._tickround="d";else if(e>=L&&a<=16||e>=E)t._tickround="M";else if(e>=C&&a<=19||e>=L)t._tickround="S";else{var o=t.l2r(r+e).replace(/^-/,"").length;t._tickround=Math.max(a,o)-20,t._tickround<0&&(t._tickround=4)}}else if(i(e)||"L"===e.charAt(0)){var s=t.range.map(t.r2d||Number);i(e)||(e=Number(e.substr(1))),t._tickround=2-Math.floor(Math.log(e)/Math.LN10+.01);var

l=Math.max(Math.abs(s[0]),Math.abs(s[1])),c=Math.floor(Math.log(l)/Math.LN10+.01),u=void 0===t.minexponent?3:t.minexponent;Math.abs(c)>u&&(gt(t.exponentformat)&&!vt(c)?t._tickexponent=3*Math.round((c-1)/3):t._tickexponent=c)}else t._tickround=null}function ht(t,e,r){var n=t.tickfont||{};return{x:e,dx:0,dy:0,text:r||"",fontSize:n.size,font:n.family,fontColor:n.color}}function pt(t,e,r,n,i){if("radians"!==t.thetaunit||r)e.text=mt(e.x,t,i,n);else{var a=e.x/180;if(0===a)e.text="0";else{var o=function(t){function e(t,e){return Math.abs(t-e)<=1e-6}function r(t,n){return e(n,0)?t:r(n,t%n)}function n(t){for(var r=1;!e(Math.round(t*r)/r,t);)r*=10;return r}var i=n(t),a=t*i,o=Math.abs(r(a,i));return[Math.round(a/o),Math.round(i/o)]}(a);if(o[1]>=100)e.text=mt(s.deg2rad(e.x),t,i,n);else{var l=e.x<0;1===o[1]?1===o[0]?e.text="":e.text=o[0]+"":e.text=["^{",o[0],"}","","_{",o[1],"}",""].join(""),l&&(e.text=P+e.text)}}}}q.autoTicks=function(t,e,r){var n;function a(t){return Math.pow(t,Math.floor(Math.log(e)/Math.LN10))}if("date"===t.type){t.tick0=s.dateTick0(t.calendar,0);var o=2*e;if(o>m)e/=m,n=a(10),t.dtick="M"+12*ut(e,n,nt);else if(o>T)e/=T,t.dtick="M"+ut(e,1,it);else if(o>M){if(t.dtick=ut(e,M,t._hasDayOfWeekBreaks?[1,2,7,14]:ot),!r){var l=q.getTickFormat(t),c="period"===t.ticklabelmode;c&&(t._rawTick0=t.tick0),/%[uVW]/.test(l)?t.tick0=s.dateTick0(t.calendar,2):t.tick0=s.dateTick0(t.calendar,1),c&&(t._dowTick0=t.tick0)}}else o>E?t.dtick=ut(e,E,it):o>L?t.dtick=ut(e,L,at):o>C?t.dtick=ut(e,C,at):(n=a(10),t.dtick=ut(e,n,nt))}else if("log"===t.type){t.tick0=0;var u=s.simpleMap(t.range,t.r2l);if(t._isMinor&&(e*=1.5),e>.7)t.dtick=Math.ceil(e);else if(Math.abs(u[1]-u[0])<1){var f=1.5*Math.abs((u[1]-u[0])/e);e=Math.abs(Math.pow(10,u[1])-Math.pow(10,u[0]))/f,n=a(10),t.dtick="L"+ut(e,n,nt)}else t.dtick=e>.3?"D2":"D1"}else"category"===t.type||"multicategory"===t.type?(t.tick0=0,t.dtick=Math.ceil(Math.max(e,1))):Ct(t)?(t.tick0=0,n=1,t.dtick=ut(e,n,ct)):(t.tick0=0,n=a(10),t.dtick=ut(e,n,nt));if(0===t.dtick&&(t.dtick=1),!i(t.dtick)&&"string"!=typeof t.dtick){var h=t.dtick;throw t.dtick=1,"ax.dtick error: "+String(h)}},q.tickIncrement=function(t,e,r,a){var o=r?-1:1;if(i(e))return s.increment(t,o*e);var l=e.charAt(0),c=o*Number(e.substr(1));if("M"===l)return s.incrementMonth(t,c,a);if("L"===l)return Math.log(Math.pow(10,t)+c)/Math.LN10;if("D"===l){var u="D2"===e?lt:st,f=t+.01*o,h=s.roundUp(s.mod(f,1),u,r);return Math.floor(f)+Math.log(n.round(Math.pow(10,h),1))/Math.LN10}throw"unrecognized dtick "+String(e)},q.tickFirst=function(t,e){var r=t.r2l||Number,a=s.simpleMap(t.range,r,void 0,void 0,e),o=a[1]<a[0],l=o?Math.floor:Math.ceil,c=Z(a)[0],u=t.dtick,f=r(t.tick0);if(i(u)){var h=l((c-f)/u)*u+f;return"category"!==t.type&&"multicategory"!==t.type||(h=s.constrain(h,0,t._categories.length-1)),h}var p=u.charAt(0),d=Number(u.substr(1));if("M"===p){for(var g,v,m,y=0,x=f;y<10;){if(((g=q.tickIncrement(x,u,o,t.calendar))-c)*(x-c)<=0)return o?Math.min(x,g):Math.max(x,g);v=(c-(x+g)/2)/(g-x),m=p+(Math.abs(Math.round(v))||1)*d,x=q.tickIncrement(x,m,v<0?!o:o,t.calendar),y++}return s.error("tickFirst did not converge",t),x}if("L"===p)return Math.log(l((Math.pow(10,c)-f)/d)*d+f)/Math.LN10;if("D"===p){var b="D2"===u?lt:st,_=s.roundUp(s.mod(c,1),b,o);return Math.floor(c)+Math.log(n.round(Math.pow(10,_),1))/Math.LN10}throw"unrecognized dtick "+String(u)},q.tickText=function(t,e,r,n){var a,o=ht(t,e),l="array"===t.tickmode,c=r||l,u=t.type,f="category"===u?t.d2l_noadd:t.d2l;if(l&&Array.isArray(t.ticktext)){var h=s.simpleMap(t.range,t.r2l),p=(Math.abs(h[1]-h[0])-(t._lBreaks||0))/1e4;for(a=0;a<t.ticktext.length&&!(Math.abs(e-f(t.tickvals[a]))<p);a++);if(a<t.ticktext.length)return o.text=String(t.ticktext[a]),o}function d(n){if(void 0===n)return!0;if(r)return"none"===n;var i={first:t._tmin,last:t._tmax}[n];return"all"!==n&&e!==i}var g=r?"never":"none"!==t.exponentformat&&d(t.showexponent)?"hide":"";if("date"===u?function(t,e,r,n){var a=t._tickround,o=r&&t.hoverformat||q.getTickFormat(t);n&&(a=i(a)?4:{y:"m",m:"d",d:"M",M:"S",S:4}[a]);var l,c=s.formatDate(e.x,o,a,t._dateFormat,t.calendar,t._extraFormat),u=c.indexOf("\n");if(-

1!==u&&(l=c.substr(u+1),c=c.substr(0,u)),n&&("00:00:00"===c||"00:00"===c?(c=l,l=""):8===c.length&&(c=c.replace(/:00$/,""))),l)if(r)"d"===a?c+=", "+l:c=l+(c?", "+c:"");else if(t._inCalcTicks&&t._prevDateHead===l){var f=It(t),h=t._trueSide||t.side;(!f&&"top"===h||f&&"bottom"===h)&&(c+="
 ")}else t._prevDateHead=l,c+="<br>"+l;e.text=c}(t,o,r,c):"log"===u?function(t,e,r,n,a){var o=t.dtick,l=e.x,c=t.tickformat,u="string"==typeof o&&o.charAt(0);if("never"===a&&(a=""),n&&"L"!==u&&(o="L3",u="L"),c||"L"===u)e.text=mt(Math.pow(10,l),t,a,n);else if(i(o)||"D"===u&&s.mod(l+.01,1)<.1){var f=Math.round(l),h=Math.abs(f),p=t.exponentformat;"power"===p||gt(p)&&vt(f)?(e.text=0===f?1:1===f?"10":"10^{"+(f>1?"":P)+h+"}",e.fontSize*=1.25):("e"===p||"E"===p)&&h>2?e.text="1"+p+(f>0?"+":P)+h:(e.text=mt(Math.pow(10,l),t,"","fakehover"),"D1"===o&&"y"===t._id.charAt(0)&&(e.dy-=e.fontSize/6))}else{if("D"!==u)throw"unrecognized dtick "+String(o);e.text=String(Math.round(Math.pow(10,s.mod(l,1)))),e.fontSize*=.75}if("D1"===t.dtick){var d=String(e.text).charAt(0);"0"!==d&&"1"!==d||("y"===t._id.charAt(0)?e.dx-=e.fontSize/4:(e.dy+=e.fontSize/2,e.dx+=(t.range[1]>t.range[0]?1:-1)*e.fontSize*(l<0?.5:.25)))}}(t,o,0,c,g):"category"===u?function(t,e){var r=t._categories[Math.round(e.x)];void 0===r&&(r=""),e.text=String(r)}(t,o):"multicategory"===u?function(t,e,r){var n=Math.round(e.x),i=t._categories[n]||[],a=void 0===i[1]?"":String(i[1]),o=void 0===i[0]?"":String(i[0]);r?e.text=o+" - "+a:(e.text=a,e.text2=o)}(t,o,r):Ct(t)?pt(t,o,r,c,g):function(t,e,r,n,i){"never"===i?i="":"all"===t.showexponent&&Math.abs(e.x/t.dtick)<1e-6&&(i="hide"),e.text=mt(e.x,t,i,n)}(t,o,0,c,g),n||(t.tickprefix&&!d(t.showtickprefix)&&(o.text=t.tickprefix+o.text),t.ticksuffix&&!d(t.showticksuffix)&&(o.text+=t.ticksuffix)),"boundaries"===t.tickson||t.showdividers){var v=function(e){var r=t.l2p(e);return r>=0&&r<=t._length?e:null};o.xbnd=[v(o.x-.5),v(o.x+t.dtick-.5)]}return o},q.hoverLabelText=function(t,e,r){r&&(t=s.extendFlat({},t,{hoverformat:r}));var n=Array.isArray(e)?e[0]:e,i=Array.isArray(e)?e[1]:void 0;if(void 0!==i&&i!==n)return q.hoverLabelText(t,n,r)+" - "+q.hoverLabelText(t,i,r);var a="log"===t.type&&n<=0,o=q.tickText(t,t.c2l(a?-n:n),"hover").text;return a?0===n?"0":P+o:o};var dt=["f","p","n","","m","","k","M","G","T"];function gt(t){return"SI"===t||"B"===t}function vt(t){return t>14||t<-15}function mt(t,e,r,n){var a=t<0,o=e._tickround,l=r||e.exponentformat||"B",c=e._tickexponent,u=q.getTickFormat(e),f=e.separatethousands;if(n){var h={exponentformat:l,minexponent:e.minexponent,dtick:"none"===e.showexponent?e.dtick:i(t)&&Math.abs(t)||1,range:"none"===e.showexponent?e.range.map(e.r2d):[0,t||1]};ft(h),o=(Number(h._tickround)||0)+4,c=h._tickexponent,e.hoverformat&&(u=e.hoverformat)}if(u)return e._numFormat(u)(t).replace(/-/g,P);var p,d=Math.pow(10,-o)/2;if("none"===l&&(c=0),(t=Math.abs(t))<d)t="0",a=!1;else{if(t+=d,c&&(t*=Math.pow(10,-c),o+=c),0===o)t=String(Math.floor(t));else if(o<0){t=(t=String(Math.round(t))).substr(0,t.length+o);for(var g=o;g<0;g++)t+="0"}else{var v=(t=String(t)).indexOf(".")+1;v&&(t=t.substr(0,v+o).replace(/\.?0+$/,""))}t=s.numSeparate(t,e._separators,f)}return c&&"hide"!==l&&(gt(l)&&vt(c)&&(l="power"),p=c<0?P+-c:"power"!==l?"+"+c:String(c),"e"===l||"E"===l?t+=l+p:"power"===l?t+="×10^{"+p+"}":"B"===l&&9===c?t+="B":gt(l)&&(t+=dt[c/3+5])),a?P+t:t}function yt(t,e){for(var r=[],n={},i=0;i<e.length;i++){var a=e[i];n[a.text2]?n[a.text2].push(a.x):n[a.text2]=[a.x]}for(var o in n)r.push(ht(t,s.interp(n[o],.5),o));return r}function xt(t){return void 0!==t.periodX?t.periodX:t.x}function bt(t){return[t.text,t.x,t.axInfo,t.font,t.fontSize,t.fontColor].join("_")}function _t(t){var e=t.title.font.size,r=(t.title.text.match(c.BR_TAG_ALL)||[]).length;return t.title.hasOwnProperty("standoff")?r?e*(j+r*U):e*j:r?e*(r+1)*U:e}function wt(t,e){var r=t.l2p(e);return r>1&&r<t._length-1}function Tt(t){var e=n.select(t),r=e.select(".text-math-group");return r.empty()?e.select("text"):r}function kt(t){return t._id+".automargin"}function At(t){return kt(t)+".mirror"}function Mt(t){return t._id+".rangeslider"}function St(t,e){for(var r=0;r<e.length;r++)-

1===t.indexOf(e[r])&&t.push(e[r])}function Et(t,e,r){var
n,i,a=[],o=[],l=t.layout;for(n=0;n<e.length;n++)a.push(q.getFromId(t,e[n]));for(n=0;n<r.length;n++)o.push(q.getFro
mId(t,r[n]));var
c=Object.keys(p),u=["anchor","domain","overlaying","position","side","tickangle","editType"],f=["linear","log"];fo
r(n=0;n<c.length;n++){var h=c[n],d=a[0][h],g=o[0][h],v=!0,m=!1,y=!1;if("_"!==h.charAt(0)&&"function"!=typeof
d&&-1===u.indexOf(h)){for(i=1;i<a.length&&v;i++){var x=a[i][h];"type"===h&&-1!==f.indexOf(d)&&-
1!==f.indexOf(x)&&d!==x?m=!0:x!==d&&(v=!1)}for(i=1;i<o.length&&v;i++){var b=o[i][h];"type"===h&&-
1!==f.indexOf(g)&&-
1!==f.indexOf(b)&&g!==b?y=!0:o[i][h]!==g&&(v=!1)}v&&(m&&(l[a[0]._name].type="linear"),y&&(l[o[0]._nam
e].type="linear"),Lt(l,h,a,o,t._fullLayout._dfltTitle))}}for(n=0;n<t._fullLayout.annotations.length;n++){var
_=t._fullLayout.annotations[n];-1!==e.indexOf(_.xref)&&-
1!==r.indexOf(_.yref)&&s.swapAttrs(l.annotations[n],["?"])}}function Lt(t,e,r,n,i){var
a,o=s.nestedProperty,l=o(t[r[0]._name],e).get(),c=o(t[n[0]._name],e).get();for("title"===e&&(l&&l.text===i.x&&(l.
text=i.y),c&&c.text===i.y&&(c.text=i.x)),a=0;a<r.length;a++)o(t,r[a]._name+"."+e).set(c);for(a=0;a<n.length;a++)
o(t,n[a]._name+"."+e).set(l)}function Ct(t){return"angularaxis"===t._id}function Pt(t,e){for(var
r=e._rangebreaks.length,n=0;n<r;n++){var i=e._rangebreaks[n];if(t>=i.min&&t<i.max)return i.max}return
t}function It(t){return-1!==(t.ticklabelposition||"").indexOf("inside")}function
Ot(t,e){It(t._anchorAxis||{})&&t._hideCounterAxisInsideTickLabels&&t._hideCounterAxisInsideTickLabels(e)}q.
getTickFormat=function(t){var e,r,n,i,a,o,s,l;function c(t){return"string"!=typeof
t?t:Number(t.replace("M",""))*T}function u(t,e){var r=["L","D"];if(typeof t==typeof e){if("number"==typeof
t)return t-e;var n=r.indexOf(t.charAt(0)),i=r.indexOf(e.charAt(0));return n===i?Number(t.replace(/(L|D)/g,""))-
Number(e.replace(/(L|D)/g,"")):n-i}return"number"==typeof t?1:-1}function f(t,e){var
r=null===e[0],n=null===e[1],i=u(t,e[0])>=0,a=u(t,e[1])<=0;return(r||i)&&(n||a)}if(t.tickformatstops&&t.tickformat
stops.length>0)switch(t.type){case"date":case"linear":for(e=0;e<t.tickformatstops.length;e++)if((n=t.tickformatstop
s[e]).enabled&&(i=t.dtick,a=n.dtickrange,o=void 0,s=void 0,l=void 0,o=c||function(t){return
t},s=a[0],l=a[1],(!s&&"number"!=typeof s||o(s)<=o(i))&&(!l&&"number"!=typeof
l||o(l)>=o(i)))){r=n;break}break;case"log":for(e=0;e<t.tickformatstops.length;e++)if((n=t.tickformatstops[e]).enable
d&&f(t.dtick,n.dtickrange)){r=n;break}}return r?r.value:t.tickformat},q.getSubplots=function(t,e){var
r=t._fullLayout._subplots,n=r.cartesian.concat(r.gl2d||[]),i=e?q.findSubplotsWithAxis(n,e):n;return
i.sort((function(t,e){var r=t.substr(1).split("y"),n=e.substr(1).split("y");return r[0]===n[0]?+r[1]-+n[1]:+r[0]-
+n[0]})),i},q.findSubplotsWithAxis=function(t,e){for(var r=new
RegExp("x"===e._id.charAt(0)?"^"+e._id+"y":e._id+"$"),n=[],i=0;i<t.length;i++){var
a=t[i];r.test(a)&&n.push(a)}return n},q.makeClipPaths=function(t){var
e=t._fullLayout;if(!e._hasOnlyLargeSploms){var
r,i,a={_offset:0,_length:e.width,_id:""},o={_offset:0,_length:e.height,_id:""},s=q.list(t,"x",!0),l=q.list(t,"y",!0),c=[];
for(r=0;r<s.length;r++)for(c.push({x:s[r],y:o}),i=0;i<l.length;i++)0===r&&c.push({x:a,y:l[i]}),c.push({x:s[r],y:l[i]}
);var u=e._clips.selectAll(".axesclip").data(c,(function(t){return
t.x._id+t.y._id}));u.enter().append("clipPath").classed("axesclip",!0).attr("id",(function(t){return"clip"+e._uid+t.x._i
d+t.y._id})).append("rect"),u.exit().remove(),u.each((function(t){n.select(this).select("rect").attr({x:t.x._offset||0,y:t.
y._offset||0,width:t.x._length||1,height:t.y._length||1})}))}},q.draw=function(t,e,r){var
n=t._fullLayout;"redraw"===e&&n._paper.selectAll("g.subplot").each((function(t){var
e=t[0],r=n._plots[e];if(r){var
i=r.xaxis,a=r.yaxis;r.xaxislayer.selectAll("."+i._id+"tick").remove(),r.yaxislayer.selectAll("."+a._id+"tick").remove(
),r.xaxislayer.selectAll("."+i._id+"tick2").remove(),r.yaxislayer.selectAll("."+a._id+"tick2").remove(),r.xaxislayer.s
electAll("."+i._id+"divider").remove(),r.yaxislayer.selectAll("."+a._id+"divider").remove(),r.minorGridlayer&&r.mi
norGridlayer.selectAll("path").remove(),r.gridlayer&&r.gridlayer.selectAll("path").remove(),r.zerolinelayer&&r.zer
olinelayer.selectAll("path").remove(),n._infolayer.select(".g-"+i._id+"title").remove(),n._infolayer.select(".g-
"+a._id+"title").remove()}}));var i=e&&"redraw"!==e?e:q.listIds(t);return s.syncOrAsync(i.map((function(e){return

function(){if(e){var n=q.getFromId(t,e),i=q.drawOne(t,n,r);return
n._r=n.range.slice(),n._rl=s.simpleMap(n._r,n.r2l),i}}))))},q.drawOne=function(t,e,r){var
n,i,l;r=r||{},e.setScale();var
c=t._fullLayout,p=e._id,d=p.charAt(0),g=q.counterLetter(p),v=c._plots[e._mainSubplot];if(v){var
m=v[d+"axislayer"],y=e._mainLinePosition,x=e._mainMirrorPosition,b=e._vals=q.calcTicks(e),_=[e.mirror,y,x].joi
n("_");for(n=0;n<b.length;n++)b[n].axInfo=_;e._selections={},e._tickAngles&&(e._prevTickAngles=e._tickAngles
),e._tickAngles={},e._depth=null;var w={};if(e.visible){var
T,k,A=q.makeTransTickFn(e),M=q.makeTransTickLabelFn(e),S="inside"===e.ticks,E="outside"===e.ticks;if("bou
ndaries"===e.tickson){var L=function(t,e){var r,n=[],i=function(t,e){var
r=t.xbnd[e];null!==r&&n.push(s.extendFlat({},t,{x:r}))};if(e.length){for(r=0;r<e.length;r++)i(e[r],0);i(e[r-
1],1)}return n}(0,b);k=q.clipEnds(e,L),T=S?k:L}else k=q.clipEnds(e,b),T=S&&"period"!==e.ticklabelmode?k:b;var
C,P=e._gridVals=k,I=function(t,e){var r,n,i=[],a=e.length&&e[e.length-1].x<e[0].x,o=function(t,e){var
r=t.xbnd[e];null!==r&&i.push(s.extendFlat({},t,{x:r}))};if(t.showdividers&&e.length){for(r=0;r<e.length;r++){var
l=e[r];l.text2!==n&&o(l,a?1:0),n=l.text2}o(e[r-1],a?0:1)}return i}(e,b);if(!c._hasOnlyLargeSploms){var
O=e._subplotsWith,z={};for(n=0;n<O.length;n++){i=O[n];var
D=(l=c._plots[i])[g+"axis"],R=D._mainAxis._id;if(!z[R]){z[R]=1;var
F="x"===d?"M0,"+D._offset+"v"+D._length:"M"+D._offset+",0h"+D._length;q.drawGrid(t,e,{vals:P,counterAxis:
D,layer:l.gridlayer.select("."+p),minorLayer:l.minorGridlayer.select("."+p),path:F,transFn:A}),q.drawZeroLine(t,e,{
counterAxis:D,layer:l.zerolinelayer,path:F,transFn:A})}}}var
B=q.getTickSigns(e),N=q.getTickSigns(e,"minor");if(e.ticks||e.minor&&e.minor.ticks){var
j,H,G,Y,W=q.makeTickPath(e,y,B[2]),X=q.makeTickPath(e,y,N[2],{minor:!0});if(e._anchorAxis&&e.mirror&&!0!
==e.mirror?(j=q.makeTickPath(e,x,B[3]),H=q.makeTickPath(e,x,N[3],{minor:!0}),G=W+j,Y=X+H):(j="",H="",G=
W,Y=X),e.showdividers&&E&&"boundaries"===e.tickson){var
Z={};for(n=0;n<I.length;n++)Z[I[n].x]=1;C=function(t){return Z[t.x]?j:G}}else C=function(t){return
t.minor?Y:G}}if(q.drawTicks(t,e,{vals:T,layer:m,path:C,transFn:A}),"allticks"===e.mirror){var
J=Object.keys(e._linepositions||{});for(n=0;n<J.length;n++){i=J[n],l=c._plots[i];var
K=e._linepositions[i]||[],Q=K[0],$=K[1],tt=K[2],et=q.makeTickPath(e,Q,tt?B[0]:N[0],{minor:tt})+q.makeTickPath(
e,$,tt?B[1]:N[1],{minor:tt});q.drawTicks(t,e,{vals:T,layer:l[d+"axislayer"],path:et,transFn:A})}}var
rt=[];if(rt.push((function(){return
q.drawLabels(t,e,{vals:b,layer:m,plotinfo:l,transFn:M,labelFns:q.makeLabelFns(e,y)})})),"multicategory"===e.type
){var nt={x:2,y:10}[d];rt.push((function(){var
r={x:"height",y:"width"}[d],n=at()[r]+nt+(e._tickAngles[p+"tick"]?e.tickfont.size*U:0);return
q.drawLabels(t,e,{vals:yt(e,b),layer:m,cls:p+"tick2",repositionOnUpdate:!0,secondary:!0,transFn:A,labelFns:q.make
LabelFns(e,y+n*B[4])})})),rt.push((function(){return e._depth=B[4]*(at("tick2")[e.side]-y),function(t,e,r){var
n=e._id+"divider",i=r.vals,a=r.layer.selectAll("path."+n).data(i,bt);a.exit().remove(),a.enter().insert("path",":first-
child").classed(n,1).classed("crisp",1).call(f.stroke,e.dividercolor).style("stroke-
width",h.crispRound(t,e.dividerwidth,1)+"px"),a.attr("transform",r.transFn).attr("d",r.path)}(t,e,{vals:I,layer:m,path:
q.makeTickPath(e,y,B[4],{len:e._depth}),transFn:A})}))}else
e.title.hasOwnProperty("standoff")&&rt.push((function(){e._depth=B[4]*(at()[e.side]-y)}));var
it=o.getComponentMethod("rangeslider","isVisible")(e);return rt.push((function(){var
r,n,i,s,l=e.side.charAt(0),u=V[e.side].charAt(0),f=q.getPxPosition(t,e),h=E?e.ticklen:0;if((e.automargin||it)&&("mul
ticategory"===e.type?r=at("tick2"):(r=at(),"x"===d&&"b"===l&&(e._depth=Math.max(r.width>0?r.bottom-
f:0,h)))),e.automargin){n={x:0,y:0,r:0,l:0,t:0,b:0};var
p=[0,1];if("x"===d){if("b"===l?n[l]=e._depth:(n[l]=e._depth=Math.max(r.width>0?f-
r.top:0,h),p.reverse()),r.width>0){var v=r.right-(e._offset+e._length);v>0&&(n.xr=1,n.r=v);var m=e._offset-
r.left;m>0&&(n.xl=0,n.l=m)}}else if("l"===l?n[l]=e._depth=Math.max(r.height>0?f-
r.left:0,h):(n[l]=e._depth=Math.max(r.height>0?r.right-f:0,h),p.reverse()),r.height>0){var y=r.bottom-
(e._offset+e._length);y>0&&(n.yb=0,n.b=y);var x=e._offset-

r.top;x>0&&(n.yt=1,n.t=x)}n[g]="free"===e.anchor?e.position:e._anchorAxis.domain[p[0]],e.title.text!==c._dfltTitle[d]&&(n[l]+=_t(e)+(e.title.standoff||0)),e.mirror&&"free"!==e.anchor&&((i={x:0,y:0,r:0,l:0,t:0,b:0})[u]=e.linewidth,e.mirror&&!0!==e.mirror&&(i[u]+=h),!0===e.mirror||"ticks"===e.mirror?i[g]=e._anchorAxis.domain[p[1]]:"all"!==e.mirror&&"allticks"!==e.mirror||(i[g]=[e._counterDomainMin,e._counterDomainMax][p[1]]))}it&&(s=o.getComponentMethod("rangeslider","autoMarginOpts")(t,e)),a.autoMargin(t,kt(e),n),a.autoMargin(t,At(e),i),a.autoMargin(t,Mt(e),s)})),r.skipTitle||it&&"bottom"===e.side||rt.push((function(){return function(t,e){var r,n=t._fullLayout,i=e._id,a=i.charAt(0),o=e.title.font.size;if(e.title.hasOwnProperty("standoff"))r=e._depth+e.title.standoff+_t(e);else{var s=It(e);if("multicategory"===e.type)r=e._depth;else{var l=1.5*o;s&&(l=.5*o,"outside"===e.ticks&&(l+=e.ticklen)),r=10+l+(e.linewidth?e.linewidth-1:0)}s||(r+="x"===a?"top"===e.side?o*(e.showticklabels?1:0):o*(e.showticklabels?1.5:.5):"right"===e.side?o*(e.showticklabels?1:.5):o*(e.showticklabels?.5:0))}var c,f,p,d,g=q.getPxPosition(t,e);if("x"===a?(f=e._offset+e._length/2,p="top"===e.side?g-r:g+r):(p=e._offset+e._length/2,f="right"===e.side?g+r:g-r,c={rotate:"-90",offset:0}),"multicategory"!==e.type){var v=e._selections[e._id+"tick"];if(d={selection:v,side:e.side},v&&v.node()&&v.node().parentNode){var m=h.getTranslate(v.node().parentNode);d.offsetLeft=m.x,d.offsetTop=m.y}e.title.hasOwnProperty("standoff")&&(d.pad=0)}return u.draw(t,i+"title",{propContainer:e,propName:e._name+".title.text",placeholder:n._dfltTitle[a],avoid:d,transform:c,attributes:{x:f,y:p,"text-anchor":"middle"}})}(t,e)})),s.syncOrAsync(rt)}}function at(t){var r=p+(t||"tick");return w[r]||(w[r]=function(t,e){var r,n,i,a;return t._selections[e].size()?(r=1/0,n=-1/0,i=1/0,a=-1/0,t._selections[e].each((function(){var t=Tt(this),e=h.bBox(t.node().parentNode);r=Math.min(r,e.top),n=Math.max(n,e.bottom),i=Math.min(i,e.left),a=Math.max(a,e.right)}))):(r=0,n=0,i=0,a=0),{top:r,bottom:n,left:i,right:a,height:n-r,width:a-i}}(e,r)),w[r]}},q.getTickSigns=function(t,e){var r=t._id.charAt(0),n={x:"top",y:"right"}[r],i=t.side===n?1:-1,a=[-1,1,i,-i];return"inside"!==(e?(t.minor||{}).ticks:t.ticks)==("x"===r)&&(a=a.map((function(t){return-t}))),t.side&&a.push({l:-1,t:-1,r:1,b:1}[t.side.charAt(0)]),a},q.makeTransTickFn=function(t){return"x"===t._id.charAt(0)?function(e){return l(t._offset+t.l2p(e.x),0)}:function(e){return l(0,t._offset+t.l2p(e.x))}},q.makeTransTickLabelFn=function(t){var e=function(t){var e=t.ticklabelposition||"",r=function(t){return-1!==e.indexOf(t)},n=r("top"),i=r("left"),a=r("right"),o=r("bottom"),s=r("inside"),l=o||i||n||a;if(!l&&!s)return[0,0];var c=t.side,u=l?(t.tickwidth||0)/2:0,f=3,h=t.tickfont?t.tickfont.size:12;return(o||n)&&(u+=h*j,f+=(t.linewidth||0)/2),(i||a)&&(u+=(t.linewidth||0)/2,f+=3),s&&"top"===c&&(f-=h*(1-j)),(i||n)&&(u=-u),"bottom"!==c&&"right"!==c||(f=-f),[l?u:0,s?f:0]}(t),r=e[0],n=e[1];return"x"===t._id.charAt(0)?function(e){return l(r+t._offset+t.l2p(xt(e)),n)}:function(e){return l(n,r+t._offset+t.l2p(xt(e)))}},q.makeTickPath=function(t,e,r,n){n||(n={});var i=n.minor;if(i&&!t.minor)return"";var a=void 0!==n.len?n.len:i?t.minor.ticklen:t.ticklen,o=t._id.charAt(0),s=(t.linewidth||1)/2;return"x"===o?"M0,"+(e+s*r)+"v"+a*r:"M"+(e+s*r)+",0h"+a*r},q.makeLabelFns=function(t,e,r){var n=t.ticklabelposition||"",a=function(t){return-1!==n.indexOf(t)},o=a("top"),l=a("left"),c=a("right"),u=a("bottom")||l||o||c,f=a("inside"),h="inside"===n&&"inside"===t.ticks||!f&&"outside"===t.ticks&&"boundaries"!==t.tickson,p=0,d=0,g=h?t.ticklen:0;if(f?g*=-1:u&&(g=0),h&&(p+=g,r)){var v=s.deg2rad(r);p=g*Math.cos(v)+1,d=g*Math.sin(v)}t.showticklabels&&(h||t.showline)&&(p+=.2*t.tickfont.size);var m,y,x,b,_,w={labelStandoff:p+=(t.linewidth||1)/2*(f?-1:1),labelShift:d},T=0,k=t.side,A=t._id.charAt(0),M=t.tickangle;if("x"===A)b=(_=!f&&"bottom"===k||f&&"top"===k)?1:-1,f&&(b*=-1),m=d*b,y=e+p*b,x=_?1:-.2,90===Math.abs(M)&&(f?x+=N:x=-90===M&&"bottom"===k?j:90===M&&"top"===k?N:.5,T=N/2*(M/90)),w.xFn=function(t){return t.dx+m+T*t.fontSize},w.yFn=function(t){return t.dy+y+t.fontSize*x},w.anchorFn=function(t,e){if(u){if(l)return"end";if(c)return"start"}return

i(e)&&0!==e&&180!==e?e*b<0!==f?"end":"start":"middle"},w.heightFn=function(e,r,n){return r<-60||r>60?-.5*n:"top"===t.side!==f?-n:0};else if("y"===A){if(b=(_=!f&&"left"===k||f&&"right"===k)?1:-1,f&&(b*=-1),m=p,y=d*b,x=0,f||90!==Math.abs(M)||(x=-90===M&&"left"===k||90===M&&"right"===k?j:.5),f){var S=i(M)?+M:0;if(0!==S){var E=s.deg2rad(S);T=Math.abs(Math.sin(E))*j*b,x=0}}w.xFn=function(t){return t.dx+e-(m+t.fontSize*x)*b+T*t.fontSize},w.yFn=function(t){return t.dy+y+t.fontSize*N},w.anchorFn=function(t,e){return i(e)&&90===Math.abs(e)?"middle":_?"end":"start"},w.heightFn=function(e,r,n){return"right"===t.side&&(r*=-1),r<-30?-n:r<30?-.5*n:0}}return w},q.drawTicks=function(t,e,r){r=r||{};var i=e._id+"tick",a=[].concat(e.minor&&e.minor.ticks?r.vals.filter((function(t){return t.minor&&!t.noTick})):[]).concat(e.ticks?r.vals.filter((function(t){return!t.minor&&!t.noTick})):[]),o=r.layer.selectAll("path."+i).data(a,bt);o.exit().remove(),o.enter().append("path").classed(i,1).classed("ticks",1).classed("crisp",!1!==r.crisp).each((function(t){return f.stroke(n.select(this),t.minor?e.minor.tickcolor:e.tickcolor)})).style("stroke-width",(function(r){return h.crispRound(t,r.minor?e.minor.tickwidth:e.tickwidth,1)+"px"})).attr("d",r.path).style("display",null),Ot(e,[R]),o.attr("transform",r.transFn)},q.drawGrid=function(t,e,r){r=r||{};var i=e._id+"grid",a=e.minor&&e.minor.showgrid,o=a?r.vals.filter((function(t){return t.minor})):[],s=e.showgrid?r.vals.filter((function(t){return!t.minor})):[],l=r.counterAxis;if(l&&q.shouldShowZeroLine(t,e,l))for(var c="array"===e.tickmode,u=0;u<s.length;u++){var p=s[u].x;if(c?!p:Math.abs(p)<e.dtick/100){if(s=s.slice(0,u).concat(s.slice(u+1)),!c)break;u--}}e._gw=h.crispRound(t,e.gridwidth,1);for(var d=a?h.crispRound(t,e.minor.gridwidth,1):0,g=r.layer,v=r.minorLayer,m=1;m>=0;m--){var y=m?g:v;if(y){var x=y.selectAll("path."+i).data(m?s:o,bt);x.exit().remove(),x.enter().append("path").classed(i,1).classed("crisp",!1!==r.crisp),x.attr("transform",r.transFn).attr("d",r.path).each((function(t){return f.stroke(n.select(this),t.minor?e.minor.gridcolor:e.gridcolor||"#ddd")})).style("stroke-dasharray",(function(t){return h.dashStyle(t.minor?e.minor.griddash:e.griddash,t.minor?e.minor.gridwidth:e.gridwidth)})).style("stroke-width",(function(t){return(t.minor?d:e._gw)+"px"})).style("display",null),"function"==typeof r.path&&x.attr("d",r.path)}}Ot(e,[z,D])},q.drawZeroLine=function(t,e,r){r=r||r;var n=e._id+"zl",i=q.shouldShowZeroLine(t,e,r.counterAxis),a=r.layer.selectAll("path."+n).data(i?[{x:0,id:e._id}]:[]);a.exit().remove(),a.enter().append("path").classed(n,1).classed("zl",1).classed("crisp",!1!==r.crisp).each((function(){r.layer.selectAll("path").sort((function(t,e){return Y(t.id,e.id)}))})),a.attr("transform",r.transFn).attr("d",r.path).call(f.stroke,e.zerolinecolor||f.defaultLine).style("stroke-width",h.crispRound(t,e.zerolinewidth,e._gw||1)+"px").style("display",null),Ot(e,[O])},q.drawLabels=function(t,e,r){r=r||{};var a=t._fullLayout,o=e._id,u=o.charAt(0),f=r.cls||o+"tick",p=r.vals.filter((function(t){return t.text})),d=r.labelFns,g=r.secondary?0:e.tickangle,v=(e._prevTickAngles||{})[f],m=r.layer.selectAll("g."+f).data(e.showticklabels?p:[],bt),y=[];function x(t,a){t.each((function(t){var o=n.select(this),s=o.select(".text-math-group"),u=d.anchorFn(t,a),f=r.transFn.call(o.node(),t)+(i(a)&&0!=+a?" rotate("+a+","+d.xFn(t)+","+(d.yFn(t)-t.fontSize/2)+")":""),p=c.lineCount(o),g=U*t.fontSize,v=d.heightFn(t,i(a)?+a:0,(p-1)*g);if(v&&(f+=l(0,v)),s.empty()){var m=o.select("text");m.attr({transform:f,"text-anchor":u}),m.style("opacity",1),e._adjustTickLabelsOverflow&&e._adjustTickLabelsOverflow()}else{var y=h.bBox(s.node()).width*{end:-.5,start:.5}[u];s.attr("transform",f+l(y,0))}}))}m.enter().append("g").classed(f,1).append("text").attr("text-anchor","middle").each((function(e){var r=n.select(this),i=t._promises.length;r.call(c.positionText,d.xFn(e),d.yFn(e)).call(h.font,e.font,e.fontSize,e.fontColor).text(e.text).call(c.convertToTspans,t),t._promises[i]?y.push(t._promises.pop().then((function(){x(r,g)}))):x(r,g)})),Ot(e,[F]),m.exit().remove(),r.repositionOnUpdate&&m.each((function(t){n.select(this).select("text").call(c.positionText,d.xFn(t),d.yFn(t))})),e._adjustTickLabelsOverflow=function(){var r=e.ticklabeloverflow;if(r&&"allow"!==r){var i=-1!==r.indexOf("hide"),o="x"===e._id.charAt(0),l=0,c=o?t._fullLayout.width:t._fullLayout.height;if(-

1!==r.indexOf("domain")){var u=s.simpleMap(e.range,e.r2l);l=e.l2p(u[0])+e._offset,c=e.l2p(u[1])+e._offset}var f=Math.min(l,c),p=Math.max(l,c),d=e.side,g=1/0,v=-1/0;for(var y in m.each((function(t){var r=n.select(this);if(r.select(".text-math-group").empty()){var a=h.bBox(r.node()),s=0;o?(a.right>p||a.left<f)&&(s=1):(a.bottom>p||a.top+(e.tickangle?0:t.fontSize/4)<f)&&(s=1);var l=r.select("text");s?i&&l.style("opacity",0):(l.style("opacity",1),g="bottom"===d||"right"===d?Math.min(g,o?a.top:a.left):-1/0,v="top"===d||"left"===d?Math.max(v,o?a.bottom:a.right):1/0)}})),a._plots){var x=a._plots[y];if(e._id===x.xaxis._id||e._id===x.yaxis._id){var b=o?x.yaxis:x.xaxis;b&&(b["_visibleLabelMin_"+e._id]=g,b["_visibleLabelMax_"+e._id]=v)}}},e._hideCounterAxisInsideTickLabels=function(t){var r="x"===e._id.charAt(0),i=[];for(var o in a._plots){var s=a._plots[o];e._id!==s.xaxis._id&&e._id!==s.yaxis._id||i.push(r?s.yaxis:s.xaxis)}i.forEach((function(r,i){r&&It(r)&&(t||[O,D,z,R,F]).forEach((function(t){var o="tick"===t.K&&"text"===t.L&&"period"===e.ticklabelmode,s=a._plots[e._mainSubplot];(t.K===O.K?s.zerolinelayer.selectAll("."+e._id+"zl"):t.K===D.K?s.minorGridlayer.selectAll("."+e._id):t.K===z.K?s.gridlayer.selectAll("."+e._id):s[e._id.charAt(0)+"axislayer"]).each((function(){var a=n.select(this);t.L&&(a=a.selectAll(t.L)),a.each((function(a){var s=e.l2p(o?xt(a):a.x)+e._offset,l=n.select(this);s<e["_visibleLabelMax_"+r._id]&&s>e["_visibleLabelMin_"+r._id]?l.style("display","none"):"tick"!==t.K||i||l.style("display",null)}))}))}))}))},x(m,v+1?v:g);var b=null;e._selections&&(e._selections[f]=m);var _=[function(){return y.length&&Promise.all(y)}];e.automargin&&a._redrawFromAutoMarginCount&&90===v?(b=90,_.push((function(){x(m,v)}))):_.push((function(){if(x(m,g),p.length&&"x"===u&&!i(g)&&("log"!==e.type||"D"!==String(e.dtick).charAt(0))){b=0;var t,n=0,a=[];if(m.each((function(t){n=Math.max(n,t.fontSize);var r=e.l2p(t.x),i=Tt(this),o=h.bBox(i.node());a.push({top:0,bottom:10,height:10,left:r-o.width/2,right:r+o.width/2+2,width:o.width+2})})),"boundaries"!==e.tickson&&!e.showdividers||r.secondary){var o=p.length,l=Math.abs((p[o-1].x-p[0].x)*e._m)/(o-1),c=e.ticklabelposition||"",f=function(t){return-1!==c.indexOf(t)},d=f("top"),v=f("left"),y=f("right"),_=f("bottom")||v||d||y?(e.tickwidth||0)+6:0,w=l<2.5*n||"multicategory"===e.type||"realaxis"===e._name;for(t=0;t<a.length-1;t++)if(s.bBoxIntersect(a[t],a[t+1],_)){b=w?90:30;break}}else{var T=2;for(e.ticks&&(T+=e.tickwidth/2),t=0;t<a.length;t++){var k=p[t].xbnd,A=a[t];if(null!==k[0]&&A.left-e.l2p(k[0])<T||null!==k[1]&&e.l2p(k[1])-A.right<T){b=90;break}}}b&&x(m,b)})),e._tickAngles&&_.push((function(){e._tickAngles[f]=null===b?i(g)?g:0:b}));var w=e._anchorAxis;w&&w.autorange&&It(e)&&!W(a,e._id)&&(a._insideTickLabelsAutorange||(a._insideTickLabelsAutorange={}),a._insideTickLabelsAutorange[w._name+".autorange"]=w.autorange,_.push((function(){m.each((function(t,r){var n=Tt(this);n.select(".text-math-group").empty()&&(e._vals[r].bb=h.bBox(n.node()))}))}))));var T=s.syncOrAsync(_);return T&&T.then&&t._promises.push(T),T},q.getPxPosition=function(t,e){var r,n=t._fullLayout._size,i=e._id.charAt(0),a=e.side;return"free"!==e.anchor?r=e._anchorAxis:"x"===i?r={_offset:n.t+(1-(e.position||0))*n.h,_length:0}:"y"===i&&(r={_offset:n.l+(e.position||0)*n.w,_length:0}),"top"===a||"left"===a?r._offset:"bottom"===a||"right"===a?r._offset+r._length:void 0},q.shouldShowZeroLine=function(t,e,r){var n=s.simpleMap(e.range,e.r2l);return n[0]*n[1]<=0&&e.zeroline&&("linear"===e.type||"-"===e.type)&&!(e.rangebreaks&&e.maskBreaks(0)===I)&&(wt(e,0)||!function(t,e,r,n){var i=r._mainAxis;if(i){var a=t._fullLayout,o=e._id.charAt(0),s=q.counterLetter(e._id),l=e._offset+(Math.abs(n[0])<Math.abs(n[1])==("x"===o)?0:e._length),c=a._plots[r._mainSubplot];if(!(c.mainplotinfo||c).overlays.length)return p(r);for(var u=q.list(t,s),f=0;f<u.length;f++){var h=u[f];if(h._mainAxis===i&&p(h))return!0}}function p(t){if(!t.showline||!t.linewidth)return!1;var r=Math.max((t.linewidth+e.zerolinewidth)/2,1);function n(t){return"number"==typeof t&&Math.abs(t-l)<r}if(n(t._mainLinePosition)||n(t._mainMirrorPosition))return!0;var i=t._linepositions||{};for(var a in i)if(n(i[a][0])||n(i[a][1]))return!0}(t,e,r,n)||function(t,e){for(var

r=t._fullData,n=e._mainSubplot,i=e._id.charAt(0),a=0;a<r.length;a++){var s=r[a];if(!0===s.visible&&s.xaxis+s.yaxis===n){if(o.traceIs(s,"bar-like")&&s.orientation==={x:"h",y:"v"}[i])return!0;if(s.fill&&s.fill.charAt(s.fill.length-1)===i)return!0}}return!1}(t,e))},q.clipEnds=function(t,e){return e.filter((function(e){return wt(t,e.x)}))},q.allowAutoMargin=function(t){for(var e=q.list(t,"",!0),r=0;r<e.length;r++){var n=e[r];n.automargin&&(a.allowAutoMargin(t,kt(n)),n.mirror&&a.allowAutoMargin(t,At(n))),o.getComponentMethod("rangeslider","isVisible")(n)&&a.allowAutoMargin(t,Mt(n))}},q.swap=function(t,e){for(var r=function(t,e){var r,n,i=[];for(r=0;r<e.length;r++){var a=[],o=t._fullData[e[r]].xaxis,s=t._fullData[e[r]].yaxis;if(o&&s){for(n=0;n<i.length;n++)-1===i[n].x.indexOf(o)&&-1===i[n].y.indexOf(s)||a.push(n);if(a.length){var l,c=i[a[0]];if(a.length>1)for(n=1;n<a.length;n++)l=i[a[n]],St(c.x,l.x),St(c.y,l.y);St(c.x,[o]),St(c.y,[s])}else i.push({x:[o],y:[s]})}}return i}(t,e),n=0;n<r.length;n++)Et(t,r[n].x,r[n].y)}},{"../../components/color":366,"../../components/drawing":388,"../../components/titles":464,"../../constants/alignment":471,"../../constants/numerical":479,"../../lib":503,"../../lib/svg_text_utils":529,"../../plots/plots":619,"../../registry":638,"./autorange":553,"./axis_autotype":555,"./axis_ids":558,"./clean_ticks":560,"./layout_attributes":569,"./set_convert":576,"@plotly/d3":58,"fast-isnumeric":190}],555:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib"),a=t("../../constants/numerical").BADNUM,o=i.isArrayOrTypedArray,s=i.isDateTime,l=i.cleanNumber,c=Math.round;function u(t,e){return e?n(t):"number"==typeof t}function f(t){return Math.max(1,(t-1)/1e3)}e.exports=function(t,e,r){var i=t,h=r.noMultiCategory;if(o(i)&&!i.length)return"-";if(!h&&function(t){return o(t[0])&&o(t[1])}(i))return"multicategory";if(h&&Array.isArray(i[0])){for(var p=[],d=0;d<i.length;d++)if(o(i[d]))for(var g=0;g<i[d].length;g++)p.push(i[d][g]);i=p}if(function(t,e){for(var r=t.length,i=f(r),a=0,o=0,l={},u=0;u<r;u+=i){var h=t[c(u)],p=String(h);l[p]||(l[p]=1,s(h,e)&&a++,n(h)&&o++)}return a>2*o}(i,e))return"date";var v="strict"!==r.autotypenumbers;return function(t,e){for(var r=t.length,n=f(r),i=0,o=0,s={},u=0;u<r;u+=n){var h=t[c(u)],p=String(h);if(!s[p]){s[p]=1;var d=typeof h;"boolean"===d?o++:(e?l(h)!==a:"number"===d)?i++:"string"===d&&o++}}return o>2*i}(i,v)?"category":function(t,e){for(var r=t.length,n=0;n<r;n++)if(u(t[n],e))return!0;return!1}(i,v)?"linear":"-"}},{"../../constants/numerical":479,"../../lib":503,"fast-isnumeric":190}],556:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../registry"),a=t("../../lib"),o=t("../../plot_api/plot_template"),s=t("../array_container_defaults"),l=t("./layout_attributes"),c=t("./tick_value_defaults"),u=t("./tick_mark_defaults"),f=t("./tick_label_defaults"),h=t("./prefix_suffix_defaults"),p=t("./category_order_defaults"),d=t("./line_grid_defaults"),g=t("./set_convert"),v=t("./constants").WEEKDAY_PATTERN,m=t("./constants").HOUR_PATTERN;function y(t,e,r){function i(r,n){return a.coerce(t,e,l.rangebreaks,r,n)}if(i("enabled")){var o=i("bounds");if(o&&o.length>=2){var s,c,u="";if(2===o.length)for(s=0;s<2;s++)if(c=b(o[s])){u=v;break}var f=i("pattern",u);if(f===v)for(s=0;s<2;s++)(c=b(o[s]))&&(e.bounds[s]=o[s]=c-1);if(f)for(s=0;s<2;s++)switch(c=o[s],f){case v:if(!n(c))return void(e.enabled=!1);if((c=+c)!==Math.floor(c)||c<0||c>=7)return void(e.enabled=!1);e.bounds[s]=o[s]=c;break;case m:if(!n(c))return void(e.enabled=!1);if((c=+c)<0||c>24)return void(e.enabled=!1);e.bounds[s]=o[s]=c}if(!1===r.autorange){var h=r.range;if(h[0]<h[1]){if(o[0]<h[0]&&o[1]>h[1])return void(e.enabled=!1)}else if(o[0]>h[0]&&o[1]<h[1])return void(e.enabled=!1)}}else{var p=i("values");if(!p||!p.length)return void(e.enabled=!1);i("dvalue")}}}e.exports=function(t,e,r,n,m){var x,b=n.letter,_=n.font||{},w=n.splomStash||{},T=r("visible",!n.visibleDflt),k=e._template||{},A=e.type||k.type||"-";"date"===A&&(i.getComponentMethod("calendars","handleDefaults")(t,e,"calendar",n.calendar),n.noTicklabelmode||(x=r("ticklabelmode")));var M="";n.noTicklabelposition&&"multicategory"!==A||(M=a.coerce(t,e,{ticklabelposition:{valType:"enumerated",dfl

t:"outside",values:"period"===x?["outside","inside"]:"x"===b?["outside","inside","outside left","inside left","outside right","inside right"]:["outside","inside","outside top","inside top","outside bottom","inside bottom"]}},"ticklabelposition")),n.noTicklabeloverflow||r("ticklabeloverflow",-1!==M.indexOf("inside")?"hide past domain":"category"===A||"multicategory"===A?"allow":"hide past div"),g(e,m);var S=!e.isValidRange(t.range);S&&n.reverseDflt&&(S="reversed"),!r("autorange",S)||"linear"!==A&&"-"!==A||r("rangemode"),r("range"),e.cleanRange(),p(t,e,r,n),"category"===A||n.noHover||r("hoverformat");var E=r("color"),L=E!==l.color.dflt?E:_.color,C=w.label||m._dfltTitle[b];if(h(t,e,r,A,n),!T)return e;r("title.text",C),a.coerceFont(r,"title.font",{family:_.family,size:a.bigFont(_.size),color:L}),c(t,e,r,A);var P=n.hasMinor;if(P&&(o.newContainer(e,"minor"),c(t,e,r,A,{isMinor:!0})),f(t,e,r,A,n),u(t,e,r,n),P){var I=n.isMinor;n.isMinor=!0,u(t,e,r,n),n.isMinor=I}d(t,e,r,{dfltColor:E,bgColor:n.bgColor,showGrid:n.showGrid,hasMinor:P,attributes:l}),!P||e.minor.ticks||e.minor.showgrid||delete e.minor,(e.showline||e.ticks)&&r("mirror"),n.automargin&&r("automargin");var O,z="multicategory"===A;if(n.noTickson||"category"!==A&&!z||!e.ticks&&!e.showgrid||(z&&(O="boundaries"),"boundaries"===r("tickson",O)&&delete e.ticklabelposition),z&&r("showdividers")&&(r("dividercolor"),r("dividerwidth")),"date"===A)if(s(t,e,{name:"rangebreaks",inclusionAttr:"enabled",handleItemDefaults:y}),e.rangebreaks.length){for(var D=0;D<e.rangebreaks.length;D++)if(e.rangebreaks[D].pattern===v){e._hasDayOfWeekBreaks=!0;break}if(g(e,m),m._has("scattergl")||m._has("splom"))for(var R=0;R<n.data.length;R++){var F=n.data[R];"scattergl"!==F.type&&"splom"!==F.type||(F.visible=!1,a.warn(F.type+" traces do not work on axes with rangebreaks. Setting trace "+F.index+" to `visible: false`."))}}else delete e.rangebreaks;return e};var x={sun:1,mon:2,tue:3,wed:4,thu:5,fri:6,sat:7};function b(t){if("string"==typeof t)return x[t.substr(0,3).toLowerCase()]}},{"../../lib":503,"../../plot_api/plot_template":543,"../../registry":638,"../array_container_defaults":549,"./category_order_defaults":559,"./constants":561,"./layout_attributes":569,"./line_grid_defaults":571,"./prefix_suffix_defaults":573,"./set_convert":576,"./tick_label_defaults":578,"./tick_mark_defaults":579,"./tick_value_defaults":580,"fast-isnumeric":190}],557:[function(t,e,r){"use strict";var n=t("../../constants/docs"),i=n.FORMAT_LINK,a=n.DATE_FORMAT_LINK;function o(t,e){return["Sets the "+t+" formatting rule"+(e?"for `"+e+"` ":""),"using d3 formatting mini-languages","which are very similar to those in Python. For numbers, see: "+i+".].join(" ")}function s(t,e){return o(t,e)+[" And for dates see: "+a+".","We add two items to d3's date formatter:","*%h* for half of the year as a decimal number as well as","*%{n}f* for fractional seconds","with n digits. For example, *2016-10-13 09:15:23.456* with tickformat","*%H~%M~%S.%2f* would display *09~15~23.46*"].join("
")}e.exports={axisHoverFormat:function(t,e){return{valType:"string",dflt:"",editType:"none",description:(e?o:s)("hover text",t)+["By default the values are formatted using "+(e?"generic number format":"`"+t+"axis.hoverformat`")+"."].join("
")}},descriptionOnlyNumbers:o,descriptionWithDates:s}},{"../../constants/docs":474}],558:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("./constants");function a(t,e){if(e&&e.length)for(var r=0;r<e.length;r++)if(e[r][t])return!0;return!1}r.id2name=function(t){if("string"==typeof t&&t.match(i.AX_ID_PATTERN)){var e=t.split("
")[0].substr(1);return"1"===e&&(e=""),t.charAt(0)+"axis"+e}},r.name2id=function(t){if(t.match(i.AX_NAME_PATTERN)){var e=t.substr(5);return"1"===e&&(e=""),t.charAt(0)+e}},r.cleanId=function(t,e,r){var n=/(domain)$/.test(t);if("string"==typeof t&&t.match(i.AX_ID_PATTERN)&&(!e||t.charAt(0)===e)&&(!n||r)){var a=t.split(" ")[0].substr(1).replace(/^0+/,"");return"1"===a&&(a=""),t.charAt(0)+a+(n&&r?"domain":"")}},r.list=function(t,e,n){var i=t._fullLayout;if(!i)return[];var a,o=r.listIds(t,e),s=new Array(o.length);for(a=0;a<o.length;a++){var l=o[a];s[a]=i[l.charAt(0)+"axis"+l.substr(1)]}if(!n){var c=i._subplots.gl3d||[];for(a=0;a<c.length;a++){var u=i[c[a]];e?s.push(u[e+"axis"]):s.push(u.xaxis,u.yaxis,u.zaxis)}}return s},r.listIds=function(t,e){var r=t._fullLayout;if(!r)return[];var n=r._subplots;return e?n[e+"axis"]:n.xaxis.concat(n.yaxis)},r.getFromId=function(t,e,n){var i=t._fullLayout;return e=void

0===e||"string"!=typeof e?e:e.replace(" domain",""),"x"===n?e=e.replace(/y[0-9]*/,""):"y"===n&&(e=e.replace(/x[0-9]*/,"")),i[r.id2name(e)]},r.getFromTrace=function(t,e,i){var a=t._fullLayout,o=null;if(n.traceIs(e,"gl3d")){var s=e.scene;"scene"===s.substr(0,5)&&(o=a[s][i+"axis"])}else o=r.getFromId(t,e[i+"axis"]||i);return o},r.idSort=function(t,e){var r=t.charAt(0),n=e.charAt(0);return r!==n?r>n?1:-1:+(t.substr(1)||1)-+(e.substr(1)||1)},r.ref2id=function(t){return!!/^[xyz]/.test(t)&&t.split(" ")[0]},r.isLinked=function(t,e){return a(e,t._axisMatchGroups)||a(e,t._axisConstraintGroups)}},{"../../registry":638,"./constants":561}],559:[function(t,e,r){"use strict";e.exports=function(t,e,r,n){if("category"===e.type){var i,a=t.categoryarray,o=Array.isArray(a)&&a.length>0;o&&(i="array");var s,l=r("categoryorder",i);"array"===l&&(s=r("categoryarray")),o||"array"!==l||(l=e.categoryorder="trace"),"trace"===l?e._initialCategories=[]:"array"===l?e._initialCategories=s.slice():(s=function(t,e){var r,n,i,a=e.dataAttr||t._id.charAt(0),o={};if(e.axData)r=e.axData;else for(r=[],n=0;n<e.data.length;n++){var s=e.data[n];s[a+"axis"]===t._id&&r.push(s)}for(n=0;n<r.length;n++){var l=r[n][a];for(i=0;i<l.length;i++){var c=l[i];null!=c&&(o[c]=1)}}return Object.keys(o)}(e,n).sort(),"category ascending"===l?e._initialCategories=s:"category descending"===l&&(e._initialCategories=s.reverse()))}},{}],560:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib"),a=t("../../constants/numerical"),o=a.ONEDAY,s=a.ONEWEEK;r.dtick=function(t,e){var r="log"===e,i="date"===e,a="category"===e,s=i?o:1;if(!t)return s;if(n(t))return(t=Number(t))<=0?s:a?Math.max(1,Math.round(t)):i?Math.max(.1,t):t;if("string"!=typeof t||!i&&!r)return s;var l=t.charAt(0),c=t.substr(1);return(c=n(c)?Number(c):0)<=0||!(i&&"M"===l&&c===Math.round(c)||r&&"L"===l||r&&"D"===l&&(1===c||2===c))?s:t},r.tick0=function(t,e,r,a){return"date"===e?i.cleanDate(t,i.dateTick0(r,a%s==0?1:0)):"D1"!==a&&"D2"!==a?n(t)?Number(t):0:void 0}},{"../../constants/numerical":479,"../../lib":503,"fast-isnumeric":190}],561:[function(t,e,r){"use strict";var n=t("../../lib/regex").counter;e.exports={idRegex:{x:n("x","(domain)?"),y:n("y","(domain)?")},attrRegex:n("[xy]axis"),xAxisMatch:n("xaxis"),yAxisMatch:n("yaxis"),AX_ID_PATTERN:/^[xyz][0-9]*(domain)?$/,AX_NAME_PATTERN:/^[xyz]axis[0-9]*$/,SUBPLOT_PATTERN:/^x([0-9]*)y([0-9]*)$/,HOUR_PATTERN:"hour",WEEKDAY_PATTERN:"day of week",MINDRAG:8,MINSELECT:12,MINZOOM:20,DRAGGERSIZE:20,BENDPX:1.5,REDRAWDELAY:50,SELECTDELAY:100,SELECTID:"-select",DFLTRANGEX:[-1,6],DFLTRANGEY:[-1,4],traceLayerClasses:["imagelayer","heatmaplayer","contourcarpetlayer","contourlayer","funnellayer","waterfalllayer","barlayer","carpetlayer","violinlayer","boxlayer","ohlclayer","scattercarpetlayer","scatterlayer"],clipOnAxisFalseQuery:[".scatterlayer",".barlayer",".funnellayer",".waterfalllayer"],layerValue2layerClass:{"above traces":"above","below traces":"below"}}},{"../../lib/regex":520}],562:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./autorange"),a=t("./axis_ids").id2name,o=t("./layout_attributes"),s=t("./scale_zoom"),l=t("./set_convert"),c=t("../../constants/numerical").ALMOST_EQUAL,u=t("../../constants/alignment").FROM_BL;function f(t,e,r){var i=r.axIds,s=r.layoutOut,l=r.hasImage,c=s._axisConstraintGroups,u=s._axisMatchGroups,f=e._id,g=f.charAt(0),v=((s._splomAxes||{})[g]||{})[f]||{},m=e._id,y="x"===m.charAt(0);function x(r,i){return n.coerce(t,e,o,r,i)}e._matchGroup=null,e._constraintGroup=null,x("constrain",l?"domain":"range"),n.coerce(t,e,{constraintoward:{valType:"enumerated",values:y?["left","center","right"]:["bottom","middle","top"],dflt:y?"center":"middle"}},"constraintoward");var b,_,w=e.type,T=[];for(b=0;b<i.length;b++)(_=i[b])!==m&&s[a(_)].type===w&&T.push(_);var k=p(c,m);if(k){var A=[];for(b=0;b<T.length;b++)k[_=T[b]]||A.push(_);T=A}var M,S,E=T.length;E&&(t.matches||v.matches)&&(M=n.coerce(t,e,{matches:{valType:"enumerated",values:T,dflt:-1!==T.indexOf(v.matches)?v.matches:void 0}},"matches"));var L=l&&!y?e.anchor:void 0;if(E&&!M&&(t.scaleanchor||L)&&(S=n.coerce(t,e,{scaleanchor:{valType:"enumerated",values:T}},"scaleanchor",L)),M){e._matchGroup=d(u,m,M,1);var

C=s[a(M)],P=h(s,e)/h(s,C);y!==("x"===M.charAt(0))&&(P=(y?"x":"y")+P),d(c,m,M,P)}else t.matches&&-1!==i.indexOf(t.matches)&&n.warn("ignored "+e._name+'.matches: "'+t.matches+'" to avoid an infinite loop');if(S){var I=x("scaleratio");I||(I=e.scaleratio=1),d(c,m,S,I)}else t.scaleanchor&&-1!==i.indexOf(t.scaleanchor)&&n.warn("ignored "+e._name+'.scaleanchor: "'+t.scaleanchor+'" to avoid either an infinite loop and possibly inconsistent scaleratios, or because this axis declares a *matches* constraint.')}function h(t,e){var r=e.domain;return r||(r=t[a(e.overlaying)].domain),r[1]-r[0]}function p(t,e){for(var r=0;r<t.length;r++)if(t[r][e])return t[r];return null}function d(t,e,r,n){var i,a,o,s,l,c=p(t,e);null===c?((c={})[e]=1,l=t.length,t.push(c)):l=t.indexOf(c);var u=Object.keys(c);for(i=0;i<t.length;i++)if(o=t[i],i!==l&&o[r]){var f=o[r];for(a=0;a<u.length;a++)o[s=u[a]]=g(f,g(n,c[s]));return void t.splice(l,1)}if(1!==n)for(a=0;a<u.length;a++){var h=u[a];c[h]=g(n,c[h])}c[r]=1}function g(t,e){var r,n,i="",a="";"string"==typeof t&&(r=(i=t.match(/^[xy]*/)[0]).length,t=+t.substr(r)),"string"==typeof e&&(n=(a=e.match(/^[xy]*/)[0]).length,e=+e.substr(n));var o=t*e;return r||n?r&&n&&i.charAt(0)!==a.charAt(0)?r===n?o:(r>n?i.substr(n):a.substr(r))+o:i+a+t*e:o}function v(t,e){for(var r=e._size,n=r.h/r.w,i={},a=Object.keys(t),o=0;o<a.length;o++){var s=a[o],l=t[s];if("string"==typeof l){var c=l.match(/^[xy]*/)[0],u=c.length;l=+l.substr(u);for(var f="y"===c.charAt(0)?n:1/n,h=0;h<u;h++)l*=f}i[s]=l}return i}function m(t,e){var r=t._inputDomain,n=u[t.constraintoward],i=r[0]+(r[1]-r[0])*n;t.domain=t._input.domain=[i+(r[0]-i)/e,i+(r[1]-i)/e],t.setScale()}r.handleDefaults=function(t,e,r){var i,o,s,c,u,h,p,d,g=r.axIds,v=r.axHasImage,m=e._axisConstraintGroups=[],y=e._axisMatchGroups=[];for(i=0;i<g.length;i++)f(u=t[c=a(g[i])],h=e[c],{axIds:g,layoutOut:e,hasImage:v[c]});function x(t,r){for(i=0;i<t.length;i++)for(s in o=t[i])e[a(s)][r]=o}for(x(y,"_matchGroup"),i=0;i<m.length;i++)for(s in o=m[i])if((h=e[a(s)]).fixedrange){for(var b in o){var _=a(b);!1===(t[_]||{}).fixedrange&&n.warn("fixedrange was specified as false for axis "+_+" but was overridden because another axis in its constraint group has fixedrange true"),e[_].fixedrange=!0}break}for(i=0;i<m.length;){for(s in o=m[i]){(h=e[a(s)])._matchGroup&&Object.keys(h._matchGroup).length===Object.keys(o).length&&(m.splice(i,1),i--);break}i++}x(m,"_constraintGroup");var w=["constrain","range","autorange","rangemode","rangebreaks","categoryorder","categoryarray"],T=!1,k=!1;function A(){d=h[p],"rangebreaks"===p&&(k=h._hasDayOfWeekBreaks)}for(i=0;i<y.length;i++){o=y[i];for(var M=0;M<w.length;M++){var S;for(s in p=w[M],d=null,o)if(u=t[c=a(s)],h=e[c],p in h){if(!h.matches&&(S=h,p in u)){A();break}null===d&&p in u&&A()}if("range"===p&&d&&(T=!0),"autorange"===p&&null===d&&T&&(d=!1),null===d&&p in S&&(d=S[p]),null!==d)for(s in o)(h=e[a(s)])[p]="range"===p?d.slice():d,"rangebreaks"===p&&(h._hasDayOfWeekBreaks=k,l(h,e))}},r.enforce=function(t){var e,r,n,o,l,u,f,h,p=t._fullLayout,d=p._axisConstraintGroups||[];for(e=0;e<d.length;e++){n=v(d[e],p);var g=Object.keys(n),y=1/0,x=0,b=1/0,_={},w={},T=!1;for(r=0;r<g.length;r++)w[o=g[r]]=l=p[a(o)],l._inputDomain?l.domain=l._inputDomain.slice():l._inputDomain=l.domain.slice(),l._inputRange||(l._inputRange=l.range.slice()),l.setScale(),_[o]=u=Math.abs(l._m)/n[o],y=Math.min(y,u),"domain"!==l.constrain&&l._constraintShrinkable||(b=Math.min(b,u)),delete l._constraintShrinkable,x=Math.max(x,u),"domain"===l.constrain&&(T=!0);if(!(y>c*x)||T)for(r=0;r<g.length;r++)if(u=_[o=g[r]],f=(l=w[o]).constrain,u!==b||"domain"===f)if(h=u/b,"range"===f)s(l,h);else{var k=l._inputDomain,A=(l.domain[1]-l.domain[0])/(k[1]-k[0]),M=(l.r2l(l.range[1])-l.r2l(l.range[0]))/(l.r2l(l._inputRange[1])-l.r2l(l._inputRange[0]));if((h/=A)*M<1){l.domain=l._input.domain=k.slice(),s(l,h);continue}if(M<1&&(l.range=l._input.range=l._inputRange.slice(),h*=M),l.autorange){var S=l.r2l(l.range[0]),E=l.r2l(l.range[1]),L=(S+E)/2,C=L,P=L,I=Math.abs(E-L),O=L-I*h*1.0001,z=L+I*h*1.0001,D=i.makePadFn(p,l,0),R=i.makePadFn(p,l,1);m(l,h);var F,B,N=Math.abs(l._m),j=i.concatExtremes(t,l),U=j.min,V=j.max;for(B=0;B<U.length;B++)(F=U[B].val-

D(U[B])/N)>O&&F<C&&(C=F);for(B=0;B<V.length;B++)(F=V[B].val+R(V[B])/N)<z&&F>P&&(P=F);h/=(P-C)/(2*I),C=l.l2r(C),P=l.l2r(P),l.range=l._input.range=S<E?[C,P]:[P,C]}m(l,h)}},r.getAxisGroup=function(t,e){for(var r=t._axisMatchGroups,n=0;n<r.length;n++)if(r[n][e])return"g"+n;return e},r.clean=function(t,e){if(e._inputDomain){for(var r=!1,n=e._id,i=t._fullLayout._axisConstraintGroups,a=0;a<i.length;a++)if(i[a][n]){r=!0;break}r&&"domain"===e.constrain||(e._input.domain=e.domain=e._inputDomain,delete e._inputDomain)}}},{"../../constants/alignment":471,"../../constants/numerical":479,"../../lib":503,"./autorange":553,"./axis_ids":558,"./layout_attributes":569,"./scale_zoom":574,"./set_convert":576}],563:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../lib"),a=i.numberFormat,o=t("tinycolor2"),s=t("has-passive-events"),l=t("../../registry"),c=i.strTranslate,u=t("../../lib/svg_text_utils"),f=t("../../components/color"),h=t("../../components/drawing"),p=t("../../components/fx"),d=t("./axes"),g=t("../../lib/setcursor"),v=t("../../components/dragelement"),m=t("../../components/dragelement/helpers"),y=m.selectingOrDrawing,x=m.freeMode,b=t("../../constants/alignment").FROM_TL,_=t("../../lib/clear_gl_canvases"),w=t("../../plot_api/subroutines").redrawReglTraces,T=t("../plots"),k=t("./axis_ids").getFromId,A=t("./select").prepSelect,M=t("./select").clearSelect,S=t("./select").selectOnClick,E=t("./scale_zoom"),L=t("./constants"),C=L.MINDRAG,P=L.MINZOOM,I=!0;function O(t,e,r,n){var a=i.ensureSingle(t.draglayer,e,r,(function(e){e.classed("drag",!0).style({fill:"transparent","stroke-width":0}).attr("data-subplot",t.id)}));return a.call(g,n),a.node()}function z(t,e,r,i,a,o,s){var l=O(t,"rect",e,r);return n.select(l).call(h.setRect,i,a,o,s),l}function D(t,e){for(var r=0;r<t.length;r++)if(!t[r].fixedrange)return e;return""}function R(t,e,r,n,i){for(var a=0;a<t.length;a++){var o=t[a];if(!o.fixedrange)if(o.rangebreaks){var s="y"===o._id.charAt(0),l=s?1-e:e,c=s?1-r:r;n[o._name+".range[0]"]=o.l2r(o.p2l(l*o._length)),n[o._name+".range[1]"]=o.l2r(o.p2l(c*o._length))}else{var u=o._rl[0],f=o._rl[1]-u;n[o._name+".range[0]"]=o.l2r(u+f*e),n[o._name+".range[1]"]=o.l2r(u+f*r)}}if(i&&i.length){var h=(e+(1-r))/2;R(i,h,1-h,n,[])}}function F(t,e){for(var r=0;r<t.length;r++){var n=t[r];if(!n.fixedrange)if(n.rangebreaks){var i=n._length,a=(n.p2l(0+e)-n.p2l(0)+(n.p2l(i+e)-n.p2l(i)))/2;n.range=[n.l2r(n._rl[0]-a),n.l2r(n._rl[1]-a)]}else n.range=[n.l2r(n._rl[0]-e/n._m),n.l2r(n._rl[1]-e/n._m)]}}function B(t){return 1-(t>=0?Math.min(t,.9):1/(1/Math.max(t,-.3)+3.222))}function N(t,e,r,n,i){return t.append("path").attr("class","zoombox").style({fill:e>.2?"rgba(0,0,0,0)":"rgba(255,255,255,0)","stroke-width":0}).attr("transform",c(r,n)).attr("d",i+"Z")}function j(t,e,r){return t.append("path").attr("class","zoombox-corners").style({fill:f.background,stroke:f.defaultLine,"stroke-width":1,opacity:0}).attr("transform",c(e,r)).attr("d","M0,0Z")}function U(t,e,r,n,i,a){t.attr("d",n+"M"+r.l+","+r.t+"v"+r.h+"h"+r.w+"v-"+r.h+"h-"+r.w+"Z"),V(t,e,i,a)}function V(t,e,r,n){r||(t.transition().style("fill",n>.2?"rgba(0,0,0,0.4)":"rgba(255,255,255,0.3)").duration(200),e.transition().style("opacity",1).duration(200))}function q(t){n.select(t).selectAll(".zoombox,.js-zoombox-backdrop,.js-zoombox-menu,.zoombox-corners").remove()}function H(t){I&&t.data&&t._context.showTips&&(i.notifier(i._(t,"Double-click to zoom back out"),"long"),I=!1)}function G(t){var e=Math.floor(Math.min(t.b-t.t,t.r-t.l,P)/2);return"M"+(t.l-3.5)+","+(t.t-.5+e)+"h3v"+-e+"h"+e+"v-3h-"+(e+3)+"ZM"+(t.r+3.5)+","+(t.t-.5+e)+"h-3v"+-e+"h"+-e+"v-3h"+(e+3)+"ZM"+(t.r+3.5)+","+(t.b+.5-e)+"h-3v"+e+"h"+-e+"v3h"+(e+3)+"ZM"+(t.l-3.5)+","+(t.b+.5-e)+"h3v"+e+"h"+e+"v3h-"+(e+3)+"Z"}function Y(t,e,r,n,a){for(var o,s,l,c,u=!1,f={},h={},p=(a||{}).xaHash,d=(a||{}).yaHash,g=0;g<e.length;g++){var v=e[g];for(o in r)if(v[o]){for(l in v)a&&(p[l]||d[l])||("x"===l.charAt(0)?r:n)[l]||(f[l]=o);for(s in n)a&&(p[s]||d[s])||!v[s]||(u=!0)}for(s in n)if(v[s])for(c in v)a&&(p[c]||d[c])||("x"===c.charAt(0)?r:n)[c]||(h[c]=s)}u&&(i.extendFlat(f,h),h={});var m={},y=[];for(l in f){var x=k(t,l);y.push(x),m[x._id]=x}var b={},_=[];for(c in h){var w=k(t,c);_.push(w),b[w._id]=w}return{xaHash:m,yaHash:b,xaxes:y,yaxes:_,xLinks:f,yLinks:h,isSubplotConstrained:u}}function W(t,e){if(s){var r=void 0!==t.onwheel?"wheel":"mousewheel";t._onwheel&&t.removeEventListener(r,t._onwheel),t._onwheel=e,t.addEventListener(r,e,{passive:!1})}else void 0!==t.onwheel?t.onwheel=e:void 0!==t.onmousewheel?t.onmousewheel=e:t.isAddedWheelEvent||(t.isAddedWheelEvent=!0,t.addEventListener("whe

el",e,{passive:!1}))}function X(t){var e=[];for(var r in t)e.push(t[r]);return
e}e.exports={makeDragBox:function(t,e,r,s,c,f,g,m){var
I,O,V,Z,J,K,Q,$,tt,et,rt,nt,it,at,ot,st,lt,ct,ut,ft,ht,pt,dt,gt=t._fullLayout._zoomlayer,vt=g+m==="nsew",mt=1===(g+m
).length;function
yt(){if(I=e.xaxis,O=e.yaxis,tt=I._length,et=O._length,Q=I._offset,$=O._offset,(V={})[I._id]=I,(Z={})[O._id]=O,g&
&m)for(var r=e.overlays,n=0;n<r.length;n++){var i=r[n].xaxis;V[i._id]=i;var
a=r[n].yaxis;Z[a._id]=a}J=X(V),K=X(Z),it=D(J,m),at=D(K,g),ot=!at&&!it,nt=Y(t,t._fullLayout._axisMatchGroups,
V,Z);var
o=(rt=Y(t,t._fullLayout._axisConstraintGroups,V,Z,nt)).isSubplotConstrained||nt.isSubplotConstrained;st=m||o,lt=g||
o;var s=t._fullLayout;ct=s._has("scattergl"),ut=s._has("splom"),ft=s._has("svg")}yt();var xt=function(t,e,r){return
t?"nsew"===t?r?"":"pan"===e?"move":"crosshair":t.toLowerCase()+"-
resize":"pointer"}(at+it,t._fullLayout.dragmode,vt),bt=z(e,g+m+"drag",xt,r,s,c,f);if(ot&&!vt)return
bt.onmousedown=null,bt.style.pointerEvents="none",bt;var
_t,wt,Tt,kt,At,Mt,St,Et,Lt,Ct,Pt={element:bt,gd:t,plotinfo:e};function It(){Pt.plotinfo.selection=!1,M(t)}function
Ot(t,r){var i=Pt.gd;if(i._fullLayout._activeShapeIndex>=0)i._fullLayout._deactivateShape(i);else{var
o=i._fullLayout.clickmode;if(q(i),2!==t||mt||Ht(),vt)o.indexOf("select")>-
1&&S(r,i,J,K,e.id,Pt),o.indexOf("event")>-1&&p.click(i,r,e.id);else if(1===t&&mt){var
s=g?O:I,c="s"===g||"w"===m?0:1,f=s._name+".range["+c+"]",h=function(t,e){var r,n=t.range[e],i=Math.abs(n-
t.range[1-e]);return"date"===t.type?n:"log"===t.type?(r=Math.ceil(Math.max(0,-
Math.log(i)/Math.LN10))+3,a("."+r+"g")(Math.pow(10,n))):(r=Math.floor(Math.log(Math.abs(n))/Math.LN10)-
Math.floor(Math.log(i)/Math.LN10)+4,a("."+String(r)+"g")(n))}(s,c),d="left",v="middle";if(s.fixedrange)return;g?(
v="n"===g?"top":"bottom","right"===s.side&&(d="right")):"e"===m&&(d="right"),i._context.showAxisRangeEnt
ryBoxes&&n.select(bt).call(u.makeEditable,{gd:i,immediate:!0,background:i._fullLayout.paper_bgcolor,text:String
(h),fill:s.tickfont?s.tickfont.color:"#444",horizontalAlign:d,verticalAlign:v}).on("edit",(function(t){var
e=s.d2r(t);void 0!==e&&l.call("_guiRelayout",i,f,e)}))}}}function
zt(e,r){if(t._transitioningWithDuration)return!1;var
n=Math.max(0,Math.min(tt,pt*e+_t)),i=Math.max(0,Math.min(et,dt*r+wt)),a=Math.abs(n-_t),o=Math.abs(i-
wt);function
s(){St="",Tt.r=Tt.l,Tt.t=Tt.b,Lt.attr("d","M0,0Z")}if(Tt.l=Math.min(_t,n),Tt.r=Math.max(_t,n),Tt.t=Math.min(wt,i),
Tt.b=Math.max(wt,i),rt.isSubplotConstrained)a>P||o>P?(St="xy",a/tt>o/et?(o=a*et/tt,wt>i?Tt.t=wt-
o:Tt.b=wt+o):(a=o*tt/et,_t>n?Tt.l=_t-a:Tt.r=_t+a),Lt.attr("d",G(Tt))):s();else
if(nt.isSubplotConstrained)if(a>P||o>P){St="xy";var l=Math.min(Tt.l/tt,(et-Tt.b)/et),c=Math.max(Tt.r/tt,(et-
Tt.t)/et);Tt.l=l*tt,Tt.r=c*tt,Tt.b=(1-l)*et,Tt.t=(1-c)*et,Lt.attr("d",G(Tt))}else
s();else!at||o<Math.min(Math.max(.6*a,C),P)?a<C||!it?s():(Tt.t=0,Tt.b=et,St="x",Lt.attr("d",function(t,e){return"M"
+(t.l-.5)+","+(e-P-.5)+"h-3v"+(2*P+1)+"h3ZM"+(t.r+.5)+","+(e-P-.5)+"h3v"+(2*P+1)+"h-
3Z"}(Tt,wt))):!it||a<Math.min(.6*o,P)?(Tt.l=0,Tt.r=tt,St="y",Lt.attr("d",function(t,e){return"M"+(e-P-.5)+","+(t.t-
.5)+"v-3h"+(2*P+1)+"v3ZM"+(e-P-.5)+","+(t.b+.5)+"v3h"+(2*P+1)+"v-
3Z"}(Tt,_t))):(St="xy",Lt.attr("d",G(Tt)));Tt.w=Tt.r-Tt.l,Tt.h=Tt.b-
Tt.t,St&&(Ct=!0),t._dragged=Ct,U(Et,Lt,Tt,At,Mt,kt),Dt(),t.emit("plotly_relayouting",ht),Mt=!0}function
Dt(){ht={},"xy"!==St&&"x"!==St||(R(J,Tt.l/tt,Tt.r/tt,ht,rt.xaxes),Vt("x",ht)),"xy"!==St&&"y"!==St||(R(K,(et-
Tt.b)/et,(et-Tt.t)/et,ht,rt.yaxes),Vt("y",ht))}function Rt(){Dt(),q(t),Gt(),H(t)}Pt.prepFn=function(e,r,n){var
a=Pt.dragmode,s=t._fullLayout.dragmode;s!==a&&(Pt.dragmode=s),yt(),pt=t._fullLayout._invScaleX,dt=t._fullLay
out._invScaleY,ot||(vt?e.shiftKey?"pan"===s?s="zoom":y(s)||(s="pan"):e.ctrlKey&&(s="pan"):s="pan"),x(s)?Pt.min
Drag=1:Pt.minDrag=void
0,y(s)?(Pt.xaxes=J,Pt.yaxes=K,A(e,r,n,Pt,s)):(Pt.clickFn=Ot,y(a)&&It(),ot||("zoom"===s?(Pt.moveFn=zt,Pt.doneFn
=Rt,Pt.minDrag=1,function(e,r,n){var a=bt.getBoundingClientRect();_t=r-a.left,wt=n-
a.top,t._fullLayout._calcInverseTransform(t);var
s=i.apply3DTransform(t._fullLayout._invTransform)(_t,wt);_t=s[0],wt=s[1],Tt={l:_t,r:_t,w:0,t:wt,b:wt,h:0},kt=t._h

mpixcount?t._hmlumcount/t._hmpixcount:o(t._fullLayout.plot_bgcolor).getLuminance(),Mt=!1,St="xy",Ct=!1,Et=N(gt,kt,Q,$,At="M0,0H"+tt+"V"+et+"H0V0"),Lt=j(gt,Q,$)}(0,r,n)):"pan"===s&&(Pt.moveFn=Ut,Pt.doneFn=Gt))),t._fullLayout._redrag=function(){var e=t._dragdata;if(e&&e.element===bt){var r=t._fullLayout.dragmode;y(r)||(yt(),Yt([0,0,tt,et]),Pt.moveFn(e.dx,e.dy))}},v.init(Pt);var Ft=[0,0,tt,et],Bt=null,Nt=L.REDRAWDELAY,jt=e.mainplot?t._fullLayout._plots[e.mainplot]:e;function Ut(e,r){if(e*=pt,r*=dt,!t._transitioningWithDuration){if(t._fullLayout._replotting=!0,"ew"===it||"ns"===at){var n=it?-e:0,i=at?-r:0;if(nt.isSubplotConstrained){if(it&&at){var a=(e/tt-r/et)/2;n=-(e=a*tt),i=-(r=-a*et)}at?n=-i*tt/et:i=-n*et/tt}return it&&(F(J,e),Vt("x")),at&&(F(K,r),Vt("y")),Yt([n,i,tt,et]),qt(),void t.emit("plotly_relayouting",ht)}var o,s,l="w"===it==("n"===at)?1:-1;if(it&&at&&(rt.isSubplotConstrained||nt.isSubplotConstrained)){var c=(e/tt+l*r/et)/2;e=c*tt,r=l*c*et}if("w"===it?e=p(J,0,e):"e"===it?e=p(J,1,-e):it||(e=0),"n"===at?r=p(K,1,r):"s"===at?r=p(K,0,-r):at||(r=0),o="w"===it?e:0,s="n"===at?r:0,rt.isSubplotConstrained&&!nt.isSubplotConstrained||nt.isSubplotConstrained&&it&&at&&l>0){var u;if(nt.isSubplotConstrained||!it&&1===at.length){for(u=0;u<J.length;u++)J[u].range=J[u]._r.slice(),E(J[u],1-r/et);o=(e=r*tt/et)/2}if(nt.isSubplotConstrained||!at&&1===it.length){for(u=0;u<K.length;u++)K[u].range=K[u]._r.slice(),E(K[u],1-e/tt);s=(r=e*et/tt)/2}}nt.isSubplotConstrained&&at||Vt("x"),nt.isSubplotConstrained&&it||Vt("y");var f=tt-e,h=et-r;!nt.isSubplotConstrained||it&&at||(it?(s=o?0:e*et/tt,h=f*et/tt):(o=s?0:r*tt/et,f=h*tt/et)),Yt([o,s,f,h]),qt(),t.emit("plotly_relayouting",ht)}function p(t,e,r){for(var n,i,a=1-e,o=0;o<t.length;o++){var s=t[o];if(!s.fixedrange){n=s,i=s._rl[a]+(s._rl[e]-s._rl[a])/B(r/s._length);var l=s.l2r(i);!1!==l&&void 0!==l&&(s.range[e]=l)}}return n._length*(n._rl[e]-i)/(n._rl[e]-n._rl[a])}}function Vt(t,e){for(var r=nt.isSubplotConstrained?{x:K,y:J}[t]:nt[t+"axes"],n=nt.isSubplotConstrained?{x:J,y:K}[t]:[],i=0;i<r.length;i++){var a=r[i],o=a._id,s=nt.xLinks[o]||nt.yLinks[o],l=n[0]||V[s]||Z[s];l&&(e?(e[a._name+".range[0]"]=e[l._name+".range[0]"],e[a._name+".range[1]"]=e[l._name+".range[1]"]):a.range=l.range.slice())}}function qt(){var e,r=[];function n(t){for(e=0;e<t.length;e++)t[e].fixedrange||r.push(t[e]._id)}for(st&&(n(J),n(rt.xaxes),n(nt.xaxes)),lt&&(n(K),n(rt.yaxes),n(nt.yaxes)),ht={},e=0;e<r.length;e++){var i=r[e],a=k(t,i);d.drawOne(t,a,{skipTitle:!0}),ht[a._name+".range[0]"]=a.range[0],ht[a._name+".range[1]"]=a.range[1]}d.redrawComponents(t,r)}function Ht(){if(!t._transitioningWithDuration){var e=t._context.doubleClick,r=[];it&&(r=r.concat(J)),at&&(r=r.concat(K)),nt.xaxes&&(r=r.concat(nt.xaxes)),nt.yaxes&&(r=r.concat(nt.yaxes));var n,i,a,o={};if("reset+autosize"===e)for(e="autosize",i=0;i<r.length;i++)if((n=r[i])._rangeInitial&&(n.range[0]!==n._rangeInitial[0]||n.range[1]!==n._rangeInitial[1])||!n._rangeInitial&&!n.autorange){e="reset";break}if("autosize"===e)for(i=0;i<r.length;i++)(n=r[i]).fixedrange||(o[n._name+".autorange"]=!0);else if("reset"===e)for((it||rt.isSubplotConstrained)&&(r=r.concat(rt.xaxes)),at&&!rt.isSubplotConstrained&&(r=r.concat(rt.yaxes)),rt.isSubplotConstrained&&(it?at||(r=r.concat(K)):r=r.concat(J)),i=0;i<r.length;i++)(n=r[i]).fixedrange||(n._rangeInitial?(a=n._rangeInitial,o[n._name+".range[0]"]=a[0],o[n._name+".range[1]"]=a[1]):o[n._name+".autorange"]=!0);t.emit("plotly_doubleclick",null),l.call("_guiRelayout",t,o)}}function Gt(){Yt([0,0,tt,et]),i.syncOrAsync([T.previousPromises,function(){t._fullLayout._replotting=!1,l.call("_guiRelayout",t,ht)}],t)}function Yt(e){var r,n,a,o,s=t._fullLayout,c=s._plots,u=s._subplots.cartesian;if(ut&&l.subplotsRegistry.splom.drag(t),ct)for(r=0;r<u.length;r++)if(a=(n=c[u[r]]).xaxis,o=n.yaxis,n._scene){var f=i.simpleMap(a.range,a.r2l),p=i.simpleMap(o.range,o.r2l);n._scene.update({range:[f[0],p[0],f[1],p[1]]})}if((ut||ct)&&(_(t),w(t)),ft){var d=e[2]/I._length,v=e[3]/O._length;for(r=0;r<u.length;r++){a=(n=c[u[r]]).xaxis,o=n.yaxis;var y,x,b,T,k=(st||nt.isSubplotConstrained)&&!a.fixedrange&&V[a._id],A=(lt||nt.isSubplotConstrained)&&!o.fixedrange&&Z[o._id];if(k?(y=d,b=m||nt.isSubplotConstrained?e[0]:Zt(a,y)):nt.xaHash[a._id]?(y=d,b=e[0]*a._length/I._length):nt.yaHash[a._id]?(y=v,b="ns"===at?-

e[1]*a._length/O._length:Zt(a,y,{n:"top",s:"bottom"}[at])):b=Xt(a,y=Wt(a,d,v)),A?(x=v,T=g||nt.isSubplotConstrained?e[1]:Zt(o,x)):nt.yaHash[o._id]?(x=v,T=e[1]*o._length/O._length):nt.xaHash[o._id]?(x=d,T="ew"===it?-e[0]*o._length/I._length:Zt(o,x,{e:"right",w:"left"}[it])):T=Xt(o,x=Wt(o,d,v)),y||x){y||(y=1),x||(x=1);var M=a._offset-b/y,S=o._offset-T/x;n.clipRect.call(h.setTranslate,b,T).call(h.setScale,y,x),n.plot.call(h.setTranslate,M,S).call(h.setScale,1/y,1/x),y===n.xScaleFactor&&x===n.yScaleFactor||(h.setPointGroupScale(n.zoomScalePts,y,x),h.setTextPointsScale(n.zoomScaleTxt,y,x)),h.hideOutsideRangePoints(n.clipOnAxisFalseTraces,n),n.xScaleFactor=y,n.yScaleFactor=x}}}function Wt(t,e,r){return t.fixedrange?0:st&&rt.xaHash[t._id]?e:lt&&(rt.isSubplotConstrained?rt.xaHash:rt.yaHash)[t._id]?r:0}function Xt(t,e){return e?(t.range=t._r.slice(),E(t,e),Zt(t,e)):0}function Zt(t,e,r){return t._length*(1-e)*b[r||t.constraintoward||"middle"]}return g.length*m.length!=1&&W(bt,(function(e){if(t._context._scrollZoom.cartesian||t._fullLayout._enablescrollzoom){if(It(),t._transitioningWithDuration)return e.preventDefault(),void e.stopPropagation();yt(),clearTimeout(Bt);var r=-e.deltaY;if(isFinite(r)||(r=e.wheelDelta/10),isFinite(r)){var n,a=Math.exp(-Math.min(Math.max(r,-20),20)/200),o=jt.draglayer.select(".nsewdrag").node().getBoundingClientRect(),s=(e.clientX-o.left)/o.width,l=(o.bottom-e.clientY)/o.height;if(st){for(m||(s=.5),n=0;n<J.length;n++)c(J[n],s,a);Vt("x"),Ft[2]*=a,Ft[0]+=Ft[2]*s*(1/a-1)}if(lt){for(g||(l=.5),n=0;n<K.length;n++)c(K[n],l,a);Vt("y"),Ft[3]*=a,Ft[1]+=Ft[3]*(1-l)*(1/a-1)}Yt(Ft),qt(),t.emit("plotly_relayouting",ht),Bt=setTimeout((function(){t._fullLayout&&(Ft=[0,0,tt,et],Gt())}),Nt),e.preventDefault()}else i.log("Did not find wheel motion attributes: ",e)}function c(t,e,r){if(!t.fixedrange){var n=i.simpleMap(t.range,t.r2l),a=n[0]+(n[1]-n[0])*e;t.range=n.map((function(e){return t.l2r(a+(e-a)*r)}))}}})),bt},makeDragger:O,makeRectDragger:z,makeZoombox:N,makeCorners:j,updateZoombox:U,xyCorners:G,transitionZoombox:V,removeZoombox:q,showDoubleClickNotifier:H,attachWheelEventHandler:W}},{"../../components/color":366,"../../components/dragelement":385,"../../components/dragelement/helpers":384,"../../components/drawing":388,"../../components/fx":406,"../../constants/alignment":471,"../../lib":503,"../../lib/clear_gl_canvases":487,"../../lib/setcursor":524,"../../lib/svg_text_utils":529,"../../plot_api/subroutines":544,"../../registry":638,"../plots":619,"./axes":554,"./axis_ids":558,"./constants":561,"./scale_zoom":574,"./select":575,"@plotly/d3":58,"has-passive-events":229,tinycolor2:312}],564:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../components/fx"),a=t("../../components/dragelement"),o=t("../../lib/setcursor"),s=t("./dragbox").makeDragBox,l=t("./constants").DRAGGERSIZE;r.initInteractions=function(t){var e=t._fullLayout;if(t._context.staticPlot)n.select(t).selectAll(".drag").remove();else if(e._has("cartesian")||e._has("splom")){Object.keys(e._plots||{}).sort((function(t,r){if((e._plots[t].mainplot&&!0)===(e._plots[r].mainplot&&!0)){var n=t.split("y"),i=r.split("y");return n[0]===i[0]?Number(n[1]||1)-Number(i[1]||1):Number(n[0]||1)-Number(i[0]||1)}return e._plots[t].mainplot?1:-1})).forEach((function(r){var n=e._plots[r],o=n.xaxis,c=n.yaxis;if(!n.mainplot){var u=s(t,n,o._offset,c._offset,o._length,c._length,"ns","ew");u.onmousemove=function(e){t._fullLayout._rehover=function(){t._fullLayout._hoversubplot===r&&t._fullLayout._plots[r]&&i.hover(t,e,r)},i.hover(t,e,r),t._fullLayout._lasthover=u,t._fullLayout._hoversubplot=r},u.onmouseout=function(e){t._dragging||(t._fullLayout._hoversubplot=null,a.unhover(t,e))},t._context.showAxisDragHandles&&(s(t,n,o._offset-l,c._offset-l,l,l,"n","w"),s(t,n,o._offset+o._length,c._offset-l,l,l,"n","e"),s(t,n,o._offset-l,c._offset+c._length,l,l,"s","w"),s(t,n,o._offset+o._length,c._offset+c._length,l,l,"s","e"))}if(t._context.showAxisDragHandles){if(r===o._mainSubplot){var f=o._mainLinePosition;"top"===o.side&&(f=l),s(t,n,o._offset+.1*o._length,f,.8*o._length,l,"","ew"),s(t,n,o._offset,f,.1*o._length,l,"","w"),s(t,n,o._offset+.9*o._length,f,.1*o._length,l,"","e")}if(r===c._mainSubplot){var h=c._mainLinePosition;"right"!==c.side&&(h=l),s(t,n,h,c._offset+.1*c._length,l,.8*c._length,"ns",""),s(t,n,h,c._offset+.9*c._length,l,.1*c._length,"s",""),s(t,n,h,c._offset,l,.1*c._length,"n","")}}}));var o=e._hoverlayer.node();o.onmousemove=function(r){r.target=t._fullLayout._lasthover,i.hover(t,r,e._hoversubplot)},o.onclick=function(e){e.target=t._fullLayout._lasthover,i.click(t,e)},o.onmousedown=function(e){t._fullLayout._las

thover.onmousedown(e)},r.updateFx(t)}},r.updateFx=function(t){var
e=t._fullLayout,r="pan"===e.dragmode?"move":"crosshair";o(e._draggers,r)}},{"../../components/dragelement":385
,"../../components/fx":406,"../../lib/setcursor":524,"./constants":561,"./dragbox":563,"@plotly/d3":58}],565:[functio
n(t,e,r){"use strict";e.exports={clearOutlineControllers:function(t){var
e=t._fullLayout._zoomlayer;e&&e.selectAll(".outline-controllers").remove()},clearSelect:function(t){var
e=t._fullLayout._zoomlayer;e&&e.selectAll(".select-
outline").remove(),t._fullLayout._drawing=!1}}},{}],566:[function(t,e,r){"use strict";var
n=t("../../lib").strTranslate;function i(t,e){switch(t.type){case"log":return t.p2d(e);case"date":return
t.p2r(e,0,t.calendar);default:return t.p2r(e)}}e.exports={p2r:i,r2p:function(t,e){switch(t.type){case"log":return
t.d2p(e);case"date":return t.r2p(e,0,t.calendar);default:return t.r2p(e)}},axValue:function(t){var
e="y"===t._id.charAt(0)?1:0;return function(r){return i(t,r[e])}},getTransform:function(t){return
n(t.xaxis._offset,t.yaxis._offset)}}},{"../../lib":503}],567:[function(t,e,r){"use strict";var
n=t("../../registry"),i=t("../../lib"),a=t("./axis_ids");e.exports=function(t){return function(e,r){var
o=e[t];if(Array.isArray(o))for(var
s=n.subplotsRegistry.cartesian,l=s.idRegex,c=r._subplots,u=c.xaxis,f=c.yaxis,h=c.cartesian,p=r._has("cartesian")||r.
_has("gl2d"),d=0;d<o.length;d++){var g=o[d];if(i.isPlainObject(g)){var
v=a.cleanId(g.xref,"x",!1),m=a.cleanId(g.yref,"y",!1),y=l.x.test(v),x=l.y.test(m);if(y||x){p||i.pushUnique(r._basePlot
Modules,s);var b=!1;y&&-1===u.indexOf(v)&&(u.push(v),b=!0),x&&-
1===f.indexOf(m)&&(f.push(m),b=!0),b&&y&&x&&h.push(v+m)}}}}},{"../../lib":503,"../../registry":638,"./axis
_ids":558}],568:[function(t,e,r){"use strict";var
n=t("@plotly/d3"),i=t("../../registry"),a=t("../../lib"),o=t("../plots"),s=t("../../components/drawing"),l=t("../get_data").
getModuleCalcData,c=t("./axis_ids"),u=t("./constants"),f=t("../../constants/xmlns_namespaces"),h=a.ensureSingle;fu
nction p(t,e,r){return a.ensureSingle(t,e,r,(function(t){t.datum(r)}))}function d(t,e,r,a,o){for(var
c,f,h,p=u.traceLayerClasses,d=t._fullLayout,g=d._modules,v=[],m=[],y=0;y<g.length;y++){var
x=(c=g[y]).name,b=i.modules[x].categories;if(b.svg){var
=c.layerName||x+"layer",w=c.plot;h=(f=l(r,w))[0],r=f[1],h.length&&v.push({i:p.indexOf(),className:_,plotMeth
od:w,cdModule:h}),b.zoomScale&&m.push("."+_)}}v.sort((function(t,e){return t.i-e.i}));var
T=e.plot.selectAll("g.mlayer").data(v,(function(t){return
t.className}));if(T.enter().append("g").attr("class",(function(t){return
t.className})).classed("mlayer",!0).classed("rangeplot",e.isRangePlot),T.exit().remove(),T.order(),T.each((function
(r){var i=n.select(this),l=r.className;r.plotMethod(t,e,r.cdModule,i,a,o),-
1===u.clipOnAxisFalseQuery.indexOf("."+l)&&s.setClipUrl(i,e.layerClipId,t)})),d._has("scattergl")&&(c=i.getMo
dule("scattergl"),h=l(r,c)[0],c.plot(t,e,h)),!t._context.staticPlot&&(e._hasClipOnAxisFalse&&(e.clipOnAxisFalseTr
aces=e.plot.selectAll(u.clipOnAxisFalseQuery.join(",")).selectAll(".trace")),m.length)){var
k=e.plot.selectAll(m.join(",")).selectAll(".trace");e.zoomScalePts=k.selectAll("path.point"),e.zoomScaleTxt=k.selec
tAll(".textpoint")}}function g(t,e){var
r=e.plotgroup,n=e.id,i=u.layerValue2layerClass[e.xaxis.layer],a=u.layerValue2layerClass[e.yaxis.layer],o=t._fullLa
yout._hasOnlyLargeSploms;if(e.mainplot){var s=e.mainplotinfo,l=s.plotgroup,f=n+"-x",d=n+"-
y";e.minorGridlayer=s.minorGridlayer,e.gridlayer=s.gridlayer,e.zerolinelayer=s.zerolinelayer,h(s.overlinesBelow,"p
ath",f),h(s.overlinesBelow,"path",d),h(s.overaxesBelow,"g",f),h(s.overaxesBelow,"g",d),e.plot=h(s.overplot,"g",n),h
(s.overlinesAbove,"path",f),h(s.overlinesAbove,"path",d),h(s.overaxesAbove,"g",f),h(s.overaxesAbove,"g",d),e.xlin
es=l.select(".overlines-"+i).select("."+f),e.ylines=l.select(".overlines-
"+a).select("."+d),e.xaxislayer=l.select(".overaxes-"+i).select("."+f),e.yaxislayer=l.select(".overaxes-
"+a).select("."+d)}else if(o)e.xlines=h(r,"path","xlines-above"),e.ylines=h(r,"path","ylines-
above"),e.xaxislayer=h(r,"g","xaxislayer-above"),e.yaxislayer=h(r,"g","yaxislayer-above");else{var
g=h(r,"g","layer-
subplot");e.shapelayer=h(g,"g","shapelayer"),e.imagelayer=h(g,"g","imagelayer"),e.minorGridlayer=h(r,"g","minor-
gridlayer"),e.gridlayer=h(r,"g","gridlayer"),e.zerolinelayer=h(r,"g","zerolinelayer"),h(r,"path","xlines-

below"),h(r,"path","ylines-below"),e.overlinesBelow=h(r,"g","overlines-below"),h(r,"g","xaxislayer-below"),h(r,"g","yaxislayer-below"),e.overaxesBelow=h(r,"g","overaxes-below"),e.plot=h(r,"g","plot"),e.overplot=h(r,"g","overplot"),e.xlines=h(r,"path","xlines-above"),e.ylines=h(r,"path","ylines-above"),e.overlinesAbove=h(r,"g","overlines-above"),h(r,"g","xaxislayer-above"),h(r,"g","yaxislayer-above"),e.overaxesAbove=h(r,"g","overaxes-above"),e.xlines=r.select(".xlines-"+i),e.ylines=r.select(".ylines-"+a),e.xaxislayer=r.select(".xaxislayer-"+i),e.yaxislayer=r.select(".yaxislayer-"+a)}o||(p(e.minorGridlayer,"g",e.xaxis._id),p(e.minorGridlayer,"g",e.yaxis._id),e.minorGridlayer.selectAll("g").map((function(t){return t[0]})).sort(c.idSort),p(e.gridlayer,"g",e.xaxis._id),p(e.gridlayer,"g",e.yaxis._id),e.gridlayer.selectAll("g").map((function(t){return t[0]})).sort(c.idSort)),e.xlines.style("fill","none").classed("crisp",!0),e.ylines.style("fill","none").classed("crisp",!0)}function v(t,e){if(t){var r={};for(var i in t.each((function(t){var i=t[0];n.select(this).remove(),m(i,e),r[i]=!0})),e._plots)for(var a=e._plots[i].overlays||[],o=0;o<a.length;o++){var s=a[o];r[s.id]&&s.plot.selectAll(".trace").remove()}}}function m(t,e){e._draggers.selectAll("g."+t).remove(),e._defs.select("#clip"+e._uid+t+"plot").remove()}r.name="cartesian",r.attr=["xaxis","yaxis"],r.idRoot=["x","y"],r.idRegex=u.idRegex,r.attrRegex=u.attrRegex,r.attributes=t("./attributes"),r.layoutAttributes=t("./layout_attributes"),r.supplyLayoutDefaults=t("./layout_defaults"),r.transitionAxes=t("./transition_axes"),r.finalizeSubplots=function(t,e){var r,n,i,o=e._subplots,s=o.xaxis,l=o.yaxis,f=o.cartesian,h=f.concat(o.gl2d||[]),p={},d={};for(r=0;r<h.length;r++){var g=h[r].split("y");p[g[0]]=1,d["y"+g[1]]=1}for(r=0;r<s.length;r++)p[n=s[r]]||(i=(t[c.id2name(n)]||{}).anchor,u.idRegex.y.test(i)||(i="y"),f.push(n+i),h.push(n+i),d[i]||(d[i]=1,a.pushUnique(l,i)));for(r=0;r<l.length;r++)d[i=l[r]]||(n=(t[c.id2name(i)]||{}).anchor,u.idRegex.x.test(n)||(n="x"),f.push(n+i),h.push(n+i),p[n]||(p[n]=1,a.pushUnique(s,n)));if(!h.length){for(var v in n="",i="",t)u.attrRegex.test(v)&&("x"===v.charAt(0)?(!n||+v.substr(5)<+n.substr(5))&&(n=v):(!i||+v.substr(5)<+i.substr(5))&&(i=v));n=n?c.name2id(n):"x",i=i?c.name2id(i):"y",s.push(n),l.push(i),f.push(n+i)}},r.plot=function(t,e,r,n){var i,a=t._fullLayout,o=a._subplots.cartesian,s=t.calcdata;if(!Array.isArray(e))for(e=[],i=0;i<s.length;i++)e.push(i);for(i=0;i<o.length;i++){for(var l,c=o[i],u=a._plots[c],f=[],h=0;h<s.length;h++){var p=s[h],g=p[0].trace;g.xaxis+g.yaxis===c&&((-1!==e.indexOf(g.index)||g.carpet)&&(l&&l[0].trace.xaxis+l[0].trace.yaxis===c&&-1!==["tonextx","tonexty","tonext"].indexOf(g.fill)&&-1===f.indexOf(l)&&f.push(l),f.push(p)),l=p)}d(t,u,f,r,n)}},r.clean=function(t,e,r,n){var i,a,o,s=n._plots||{},l=e._plots||{},u=n._subplots||{};if(n._hasOnlyLargeSploms&&!e._hasOnlyLargeSploms)for(o in s)(i=s[o]).plotgroup&&i.plotgroup.remove();var f=n._has&&n._has("gl"),h=e._has&&e._has("gl");if(f&&!h)for(o in s)(i=s[o])._scene&&i._scene.destroy();if(u.xaxis&&u.yaxis){var p=c.listIds({_fullLayout:n});for(a=0;a<p.length;a++){var d=p[a];e[c.id2name(d)]||n._infolayer.selectAll(".g-"+d+"title").remove()}}var g=n._has&&n._has("cartesian"),y=e._has&&e._has("cartesian");if(g&&!y)v(n._cartesianlayer.selectAll(".subplot"),n),n._defs.selectAll(".axesclip").remove(),delete n._axisConstraintGroups,delete n._axisMatchGroups;else if(u.cartesian)for(a=0;a<u.cartesian.length;a++){var x=u.cartesian[a];if(!l[x]){var b="."+x+",."+x+"-x,."+x+"-y";n._cartesianlayer.selectAll(b).remove(),m(x,n)}}},r.drawFramework=function(t){var e=t._fullLayout,r=function(t){var e,r,n,i,a,o,s=t._fullLayout,l=s._subplots.cartesian,c=l.length,u=[],f=[];for(e=0;e<c;e++){n=l[e],a=(i=s._plots[n]).xaxis,o=i.yaxis;var h=a._mainAxis,p=o._mainAxis,d=h._id+p._id,g=s._plots[d];i.overlays=[],d!==n&&g?(i.mainplot=d,i.mainplotinfo=g,f.push(n)):(i.mainplot=void 0,i.mainplotinfo=void 0,u.push(n))}for(e=0;e<f.length;e++)n=f[e],(i=s._plots[n]).mainplotinfo.overlays.push(i);var v=u.concat(f),m=new Array(c);for(e=0;e<c;e++){n=v[e],a=(i=s._plots[n]).xaxis,o=i.yaxis;var

y=[n,a.layer,o.layer,a.overlaying||"",o.overlaying||""];for(r=0;r<i.overlays.length;r++)y.push(i.overlays[r].id);m[e]=y
}return
m}(t),i=e._cartesianlayer.selectAll(".subplot").data(r,String);i.enter().append("g").attr("class",(function(t){return"su
bplot "+t[0]})),i.order(),i.exit().call(v,e),i.each((function(r){var
i=r[0],a=e._plots[i];a.plotgroup=n.select(this),g(t,a),a.draglayer=h(e._draggers,"g",i)}))},r.rangePlot=function(t,e,r){
g(t,e),d(t,e,r),o.style(t)},r.toSVG=function(t){var e=t._fullLayout._glimages,r=n.select(t).selectAll(".svg-
container");r.filter((function(t,e){return e===r.size()-1})).selectAll(".gl-canvas-context, .gl-canvas-
focus").each((function(){var
t=this,r=t.toDataURL("image/png");e.append("svg:image").attr({xmlns:f.svg,"xlink:href":r,preserveAspectRatio:"no
ne",x:0,y:0,width:t.style.width,height:t.style.height})}))},r.updateFx=t("./graph_interact").updateFx},{"../../compone
nts/drawing":388,"../../constants/xmlns_namespaces":480,"../../lib":503,"../../registry":638,"../get_data":593,"../plots"
:619,"./attributes":552,"./axis_ids":558,"./constants":561,"./graph_interact":564,"./layout_attributes":569,"./layout_d
efaults":570,"./transition_axes":581,"@plotly/d3":58}],569:[function(t,e,r){"use strict";var
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./../lib/extend").extendFlat,s=t("../../plot_api/plot_template").templatedArray,l=t("../../plots/cartesian/axis_format_att
ributes").descriptionWithDates,c=t("../../constants/numerical").ONEDAY,u=t("./constants"),f=u.HOUR_PATTERN,
h=u.WEEKDAY_PATTERN,p={valType:"enumerated",values:["auto","linear","array"],editType:"ticks",impliedEd
its:{tick0:void 0,dtick:void 0}};function d(t){return{valType:"integer",min:0,dflt:t?5:0,editType:"ticks"}}var
g={valType:"any",editType:"ticks",impliedEdits:{tickmode:"linear"}},v={valType:"any",editType:"ticks",impliedE
dits:{tickmode:"linear"}},m={valType:"data_array",editType:"ticks"},y={valType:"enumerated",values:["outside","
inside",""],editType:"ticks"};function x(t){var e={valType:"number",min:0,editType:"ticks"};return
t||(e.dflt=5),e}function b(t){var e={valType:"number",min:0,editType:"ticks"};return t||(e.dflt=1),e}var
_={valType:"color",dflt:i.defaultLine,editType:"ticks"},w={valType:"color",dflt:i.lightLine,editType:"ticks"};functi
on T(t){var e={valType:"number",min:0,editType:"ticks"};return t||(e.dflt=1),e}var
k=o({},a,{editType:"ticks"}),A={valType:"boolean",editType:"ticks"};e.exports={visible:{valType:"boolean",editT
ype:"plot"},color:{valType:"color",dflt:i.defaultLine,editType:"ticks"},title:{text:{valType:"string",editType:"ticks"
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bottom","inside
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e","E","power","SI","B"],dflt:"B",editType:"ticks"},minexponent:{valType:"number",dflt:3,min:0,editType:"ticks"}
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text")},showline:{valType:"boolean",dflt:!1,editType:"ticks+layoutstyle"},linecolor:{valType:"color",dflt:i.defaultL
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lt:i.defaultLine,editType:"ticks"},zerolinewidth:{valType:"number",dflt:1,editType:"ticks"},showdividers:{valType:
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Regex.y.toString()],editType:"plot"},side:{valType:"enumerated",values:["top","bottom","left","right"],editType:"pl
ot"},overlaying:{valType:"enumerated",values:["free",u.idRegex.x.toString(),u.idRegex.y.toString()],editType:"plot
"},minor:{tickmode:p,nticks:d("minor"),tick0:g,dtick:v,tickvals:m,ticks:y,ticklen:x("minor"),tickwidth:b("minor"),ti
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alType:"number",min:0,max:1,editType:"plot"}],dflt:[0,1],editType:"plot"},position:{valType:"number",min:0,max:
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descending","array","total ascending","total descending","min ascending","min descending","max ascending","max
descending","sum ascending","sum descending","mean ascending","mean descending","median ascending","median
descending"],dflt:"trace",editType:"calc"},categoryarray:{valType:"data_array",editType:"calc"},uirevision:{valTy
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onents/drawing/attributes":387,"../../constants/numerical":479,"../../lib/extend":493,"../../plot_api/plot_template":543
,"../../plots/cartesian/axis_format_attributes":557,"../font_attributes":585,"./constants":561}],570:[function(t,e,r){"us
e strict";var
n=t("../../lib"),i=t("../../components/color"),a=t("../../components/fx/helpers").isUnifiedHover,o=t("../../components/f
x/hovermode_defaults"),s=t("../../plot_api/plot_template"),l=t("../layout_attributes"),c=t("./layout_attributes"),u=t("./
type_defaults"),f=t("./axis_defaults"),h=t("./constraints"),p=t("./position_defaults"),d=t("./axis_ids"),g=d.id2name,v
=d.name2id,m=t("./constants").AX_ID_PATTERN,y=t("../../registry"),x=y.traceIs,b=y.getComponentMethod;functi
on _(t,e,r){Array.isArray(t[e])?t[e].push(r):t[e]=[r]}e.exports=function(t,e,r){var

y,w,T=e.autotypenumbers,k={},A={},M={},S={},E={},L={},C={},P={},I={},O={};for(y=0;y<r.length;y++){var z=r[y];if(x(z,"cartesian")||x(z,"gl2d")){var D,R;if(z.xaxis)D=g(z.xaxis),_(k,D,z);else if(z.xaxes)for(w=0;w<z.xaxes.length;w++)_(k,g(z.xaxes[w]),z);if(z.yaxis)R=g(z.yaxis),_(k,R,z);else if(z.yaxes)for(w=0;w<z.yaxes.length;w++)_(k,g(z.yaxes[w]),z);"funnel"===z.type?"h"===z.orientation?(D&&(A[D]=!0),R&&(C[R]=!0)):R&&(M[R]=!0):"image"===z.type?(R&&(P[R]=!0),D&&(P[D]=!0)):(R&&(E[R]=!0,L[R]=!0),x(z,"carpet")&&("carpet"!==z.type||z._cheater)||D&&(S[D]=!0)),"carpet"===z.type&&z._cheater&&D&&(A[D]=!0),x(z,"2dMap")&&(I[D]=!0,I[R]=!0),x(z,"oriented")&&(O["h"===z.orientation?R:D]=!0)}}var F=e._subplots,B=F.xaxis,N=F.yaxis,j=n.simpleMap(B,g),U=n.simpleMap(N,g),V=j.concat(U),q=i.background;B.length&&N.length&&(q=n.coerce(t,e,l,"plot_bgcolor"));var H,G,Y,W,X,Z=i.combine(q,e.paper_bgcolor);function J(){var t=k[H]||[];X._traceIndices=t.map((function(t){return t._expandedIndex})),X._annIndices=[],X._shapeIndices=[],X._imgIndices=[],X._subplotsWith=[],X._counterAxes=[],X._name=X._attr=H,X._id=G}function K(t,e){return n.coerce(W,X,c,t,e)}function Q(t,e){return n.coerce2(W,X,c,t,e)}function $(t){return"x"===t?N:B}function tt(e,r){for(var n="x"===e?j:U,i=[],a=0;a<n.length;a++){var o=n[a];o===r||(t[o]||{}).overlaying||i.push(v(o))}return i}var et={x:$("x"),y:$("y")},rt=et.x.concat(et.y),nt={},it=[];function at(){var t=W.matches;m.test(t)&&-1===rt.indexOf(t)&&(nt[t]=W.type,it=Object.keys(nt))}var ot=o(t,e),st=a(ot);for(y=0;y<V.length;y++){H=V[y],G=v(H),Y=H.charAt(0),n.isPlainObject(t[H])||(t[H]={}),W=t[H],X=s.newContainer(e,H,Y+"axis"),J();var lt="x"===Y&&!S[H]&&A[H]||"y"===Y&&!E[H]&&M[H],ct="y"===Y&&(!L[H]&&C[H]||P[H]),ut={hasMinor:!0,letter:Y,font:e.font,outerTicks:I[H],showGrid:!O[H],data:k[H]||[],bgColor:Z,calendar:e.calendar,automargin:!0,visibleDflt:lt,reverseDflt:ct,autotypenumbersDflt:T,splomStash:((e._splomAxes||{})[Y]||{})[G]};K("uirevision",e.uirevision),u(W,X,K,ut),f(W,X,K,ut,e);var ft=st&&Y===ot.charAt(0),ht=Q("spikecolor",st?X.color:void 0),pt=Q("spikethickness",st?1.5:void 0),dt=Q("spikedash",st?"dot":void 0),gt=Q("spikemode",st?"across":void 0),vt=Q("spikesnap");K("showspikes",!!(ft||ht||pt||dt||gt||vt))||(delete X.spikecolor,delete X.spikethickness,delete X.spikedash,delete X.spikemode,delete X.spikesnap),p(W,X,K,{letter:Y,counterAxes:et[Y],overlayableAxes:tt(Y,H),grid:e.grid}),K("title.standoff"),at(),X._input=W}for(y=0;y<it.length;){G=it[y++],Y=(H=g(G)).charAt(0),n.isPlainObject(t[H])||(t[H]={}),W=t[H],X=s.newContainer(e,H,Y+"axis"),J();var mt={letter:Y,font:e.font,outerTicks:I[H],showGrid:!O[H],data:[],bgColor:Z,calendar:e.calendar,automargin:!0,visibleDflt:!1,reverseDflt:!1,autotypenumbersDflt:T,splomStash:((e._splomAxes||{})[Y]||{})[G]};K("uirevision",e.uirevision),X.type=nt[G]||"linear",f(W,X,K,mt,e),p(W,X,K,{letter:Y,counterAxes:et[Y],overlayableAxes:tt(Y,H),grid:e.grid}),K("fixedrange"),at(),X._input=W}var yt=b("rangeslider","handleDefaults"),xt=b("rangeselector","handleDefaults");for(y=0;y<j.length;y++)H=j[y],W=t[H],X=e[H],yt(t,e,H),"date"===X.type&&xt(W,X,e,U,X.calendar),K("fixedrange");for(y=0;y<U.length;y++){H=U[y],W=t[H],X=e[H];var bt=e[g(X.anchor)];K("fixedrange",b("rangeslider","isVisible")(bt))}h.handleDefaults(t,e,{axIds:rt.concat(it).sort(d.idSort),axHasImage:P})}},{"../../components/color":366,"../../components/fx/helpers":402,"../../components/fx/hovermode_defaults":405,"../../lib":503,"../../plot_api/plot_template":543,"../../registry":638,"../layout_attributes":610,"./axis_defaults":556,"./axis_ids":558,"./constants":561,"./constraints":562,"./layout_attributes":569,"./position_defaults":572,"./type_defaults":582}],571:[function(t,e,r){"use strict";var n=t("tinycolor2").mix,i=t("../../components/color/attributes"),a=t("../../lib");e.exports=function(t,e,r,o){var s=(o=o||{}).dfltColor;function l(r,n){return a.coerce2(t,e,o.attributes,r,n)}var c=l("linecolor",s),u=l("linewidth");r("showline",o.showLine||!!c||!!u)||(delete e.linecolor,delete e.linewidth);var f=l("gridcolor",n(s,o.bgColor,o.blend||i.lightFraction).toRgbString()),h=l("gridwidth"),p=l("griddash");if(r("showgrid",o.showGrid||!!f||!!h||!!p)||(delete e.gridcolor,delete e.gridwidth,delete e.griddash),o.hasMinor){var d=l("minor.gridcolor",n(e.gridcolor,o.bgColor,67).toRgbString()),g=l("minor.gridwidth",e.gridwidth||1),v=l("minor.griddash",e.griddash||"solid");r("minor.showgrid",!!d||!!g||!!v)||(delete e.minor.gridcolor,delete e.minor.gridwidth,delete e.minor.griddash)}if(!o.noZeroLine){var

m=l("zerolinecolor",s),y=l("zerolinewidth");r("zeroline",o.showGrid||!!m||!!y)||(delete e.zerolinecolor,delete e.zerolinewidth)}}},{"../../components/color/attributes":365,"../../lib":503,tinycolor2:312}],572:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib");e.exports=function(t,e,r,a){var o,s,l,c,u=a.counterAxes||[],f=a.overlayableAxes||[],h=a.letter,p=a.grid;p&&(s=p._domains[h][p._axisMap[e._id]],o=p._anchors[e._id],s&&(l=p[h+"side"].split(" ")[0],c=p.domain[h]["right"===l||"top"===l?1:0])),s=s||[0,1],o=o||(n(t.position)?"free":u[0]||"free"),l=l||("x"===h?"bottom":"left"),c=c||0,"free"===i.coerce(t,e,{anchor:{valType:"enumerated",values:["free"].concat(u),dflt:o}},"anchor")&&r("position",c),i.coerce(t,e,{side:{valType:"enumerated",values:"x"===h?["bottom","top"]:["left","right"],dflt:l}},"side");var d=!1;if(f.length&&(d=i.coerce(t,e,{overlaying:{valType:"enumerated",values:[!1].concat(f),dflt:!1}},"overlaying")),!d){var g=r("domain",s);g[0]>g[1]-1/4096&&(e.domain=s),i.noneOrAll(t.domain,e.domain,s)}return r("layer"),e}},{"../../lib":503,"fast-isnumeric":190}],573:[function(t,e,r){"use strict";var n=t("./show_dflt");e.exports=function(t,e,r,i,a){a||(a={});var o=a.tickSuffixDflt,s=n(t);r("tickprefix")&&r("showtickprefix",s),r("ticksuffix",o)&&r("showticksuffix",s)}},{"./show_dflt":577}],574:[function(t,e,r){"use strict";var n=t("../../constants/alignment").FROM_BL;e.exports=function(t,e,r){void 0===r&&(r=n[t.constraintoward||"center"]);var i=[t.r2l(t.range[0]),t.r2l(t.range[1])],a=i[0]+(i[1]-i[0])*r;t.range=t._input.range=[t.l2r(a+(i[0]-a)*e),t.l2r(a+(i[1]-a)*e)],t.setScale()}},{"../../constants/alignment":471}],575:[function(t,e,r){"use strict";var n=t("polybooljs"),i=t("../../registry"),a=t("../../components/drawing").dashStyle,o=t("../../components/color"),s=t("../../components/fx"),l=t("../../components/fx/helpers").makeEventData,c=t("../../components/dragelement/helpers"),u=c.freeMode,f=c.rectMode,h=c.drawMode,p=c.openMode,d=c.selectMode,g=t("../../components/shapes/draw_newshape/display_outlines"),v=t("../../components/shapes/draw_newshape/helpers").handleEllipse,m=t("../../components/shapes/draw_newshape/newshapes"),y=t("../../lib"),x=t("../../lib/polygon"),b=t("../../lib/throttle"),_=t("./axis_ids").getFromId,w=t("../../lib/clear_gl_canvases"),T=t("../../plot_api/subroutines").redrawReglTraces,k=t("./constants"),A=k.MINSELECT,M=x.filter,S=x.tester,E=t("./handle_outline").clearSelect,L=t("./helpers"),C=L.p2r,P=L.axValue,I=L.getTransform;function O(t,e,r,n,i,a,o){var s,l,c,u,f,h,d,v,m,y=e._hoverdata,x=e._fullLayout.clickmode.indexOf("event")>-1,b=[];if(function(t){return t&&Array.isArray(t)&&!0!==t[0].hoverOnBox}(y)){F(t,e,a);var _=function(t,e){var r,n,i=t[0],a=-1,o=[];for(n=0;n<e.length;n++)if(r=e[n],i.fullData._expandedIndex===r.cd[0].trace._expandedIndex){if(!0===i.hoverOnBox)break;void 0!==i.pointNumber?a=i.pointNumber:void 0!==i.binNumber&&(a=i.binNumber,o=i.pointNumbers);break}return{pointNumber:a,pointNumbers:o,searchInfo:r}}(y,s=N(e,r,n,i));if(_.pointNumbers.length>0?function(t,e){var r,n,i,a=[];for(i=0;i<t.length;i++)(r=t[i]).cd[0].trace.selectedpoints&&r.cd[0].trace.selectedpoints.length>0&&a.push(r);if(1===a.length&&a[0]===e.searchInfo&&(n=e.searchInfo.cd[0].trace).selectedpoints.length===e.pointNumbers.length){for(i=0;i<e.pointNumbers.length;i++)if(n.selectedpoints.indexOf(e.pointNumbers[i])<0)return!1;return!0}return!1}(s,_):function(t){var e,r,n=0;for(r=0;r<t.length;r++)if((e=t[r].cd[0].trace).selectedpoints){if(e.selectedpoints.length>1)return!1;if((n+=e.selectedpoints.length)>1)return!1}return 1===n}(s)&&(h=j(_))){for(o&&o.remove(),m=0;m<s.length;m++)(l=s[m])._module.selectPoints(l,!1);U(e,s),B(a),x&&e.emit("plotly_deselect",null)}else{for(d=t.shiftKey&&(void 0!==h?h:j(_)),c=function(t,e,r){return{pointNumber:t,searchInfo:e,subtract:r}}(_.pointNumber,_.searchInfo,d),u=R(a.selectionDefs.concat([c])),m=0;m<s.length;m++)if(f=V(s[m]._module.selectPoints(s[m],u),s[m]),b.length)for(var w=0;w<f.length;w++)b.push(f[w]);else b=f;if(U(e,s,v={points:b}),c&&a&&a.selectionDefs.push(c),o){var T=a.mergedPolygons,k=p(a.dragmode);g(q(T,k),o,a)}x&&e.emit("plotly_selected",v)}}function z(t){return"pointNumber"in t&&"searchInfo"in t}function D(t){return{xmin:0,xmax:0,ymin:0,ymax:0,pts:[],contains:function(e,r,n,i){var a=t.searchInfo.cd[0].trace._expandedIndex;return

i.cd[0].trace._expandedIndex===a&&n===t.pointNumber},isRect:!1,degenerate:!1,subtract:t.subtract}}function R(t){for(var e=[],r=z(t[0])?0:t[0][0][0],n=r,i=z(t[0])?0:t[0][0][1],a=i,o=0;o<t.length;o++)if(z(t[o]))e.push(D(t[o]));else{var s=x.tester(t[o]);s.subtract=t[o].subtract,e.push(s),r=Math.min(r,s.xmin),n=Math.max(n,s.xmax),i=Math.min(i,s.ymin),a=Math.max(a,s.ymax)}return{xmin:r,xmax:n,ymin:i,ymax:a,pts:[],contains:function(t,r,n,i){for(var a=!1,o=0;o<e.length;o++)e[o].contains(t,r,n,i)&&(a=!1===e[o].subtract);return a},isRect:!1,degenerate:!1}}function F(t,e,r){e._fullLayout._drawing=!1;var n=e._fullLayout,i=r.plotinfo,a=r.dragmode,o=n._lastSelectedSubplot&&n._lastSelectedSubplot===i.id,s=(t.shiftKey||t.altKey)&&!(h(a)&&p(a));o&&s&&i.selection&&i.selection.selectionDefs&&!r.selectionDefs?(r.selectionDefs=i.selection.selectionDefs,r.mergedPolygons=i.selection.mergedPolygons):s&&i.selection||B(r),o||(E(e),n._lastSelectedSubplot=i.id)}function B(t){var e=t.dragmode,r=t.plotinfo,n=t.gd;if(n._fullLayout._activeShapeIndex>=0&&n._fullLayout._deactivateShape(n),h(e)){var a=n._fullLayout._zoomlayer.selectAll(".select-outline-"+r.id);if(a&&n._fullLayout._drawing){var o=m(a,t);o&&i.call("_guiRelayout",n,{shapes:o}),n._fullLayout._drawing=!1}}r.selection={},r.selection.selectionDefs=t.selectionDefs=[],r.selection.mergedPolygons=t.mergedPolygons=[]}function N(t,e,r,n){var i,a,o,s=[],l=e.map((function(t){return t._id})),c=r.map((function(t){return t._id}));for(o=0;o<t.calcdata.length;o++)if(!0===(a=(i=t.calcdata[o])[0].trace).visible&&a._module&&a._module.selectPoints)if(!n||a.subplot!==n&&a.geo!==n)if("splom"===a.type&&a._xaxes[l[0]]&&a._yaxes[c[0]]){var u=h(a._module,i,e[0],r[0]);u.scene=t._fullLayout._splomScenes[a.uid],s.push(u)}else if("sankey"===a.type){var f=h(a._module,i,e[0],r[0]);s.push(f)}else{if(-1===l.indexOf(a.xaxis))continue;if(-1===c.indexOf(a.yaxis))continue;s.push(h(a._module,i,_(t,a.xaxis),_(t,a.yaxis)))}else s.push(h(a._module,i,e[0],r[0]));return s;function h(t,e,r,n){return{_module:t,cd:e,xaxis:r,yaxis:n}}}function j(t){var e=t.searchInfo.cd[0].trace,r=t.pointNumber,n=t.pointNumbers,i=n.length>0?n[0]:r;return!!e.selectedpoints&&e.selectedpoints.indexOf(i)>-1}function U(t,e,r){var n,a,o,s;for(n=0;n<e.length;n++){var l=e[n].cd[0].trace._fullInput,c=t._fullLayout._tracePreGUI[l.uid]||{};void 0===c.selectedpoints&&(c.selectedpoints=l._input.selectedpoints||null)}if(r){var u=r.points||[];for(n=0;n<e.length;n++)(s=e[n].cd[0].trace)._input.selectedpoints=s._fullInput.selectedpoints=[],s._fullInput!==s&&(s.selectedpoints=[]);for(n=0;n<u.length;n++){var f=u[n],h=f.data,p=f.fullData;f.pointIndices?([].push.apply(h.selectedpoints,f.pointIndices),s._fullInput!==s&&[].push.apply(p.selectedpoints,f.pointIndices)):(h.selectedpoints.push(f.pointIndex),s._fullInput!==s&&p.selectedpoints.push(f.pointIndex))}}else for(n=0;n<e.length;n++)delete(s=e[n].cd[0].trace).selectedpoints,delete s._input.selectedpoints,s._fullInput!==s&&delete s._fullInput.selectedpoints;var d=!1;for(n=0;n<e.length;n++){s=(o=(a=e[n]).cd)[0].trace,i.traceIs(s,"regl")&&(d=!0);var g=a._module,v=g.styleOnSelect||g.style;v&&(v(t,o,o[0].node3),o[0].nodeRangePlot3&&v(t,o,o[0].nodeRangePlot3))}d&&(w(t),T(t))}function V(t,e){if(Array.isArray(t))for(var r=e.cd,n=e.cd[0].trace,i=0;i<t.length;i++)t[i]=l(t[i],n,r);return t}function q(t,e){for(var r=[],n=0;n<t.length;n++){r[n]=[];for(var i=0;i<t[n].length;i++){r[n][i]=[],r[n][i][0]=i?"L":"M";for(var a=0;a<t[n][i].length;a++)r[n][i].push(t[n][i][a])}e||r[n].push(["Z",r[n][0][1],r[n][0][2]])}return r}e.exports={prepSelect:function(t,e,r,i,l){var c=u(l),m=f(l),x=p(l),_=h(l),w=d(l),T="drawcircle"===l,E="drawline"===l||T,L=i.gd,z=L._fullLayout,D=z._zoomlayer,j=i.element.getBoundingClientRect(),H=i.plotinfo,G=I(H),Y=e-j.left,W=r-j.top;z._calcInverseTransform(L);var X=y.apply3DTransform(z._invTransform)(Y,W);Y=X[0],W=X[1];var Z,J,K,Q,$,tt,et,rt=z._invScaleX,nt=z._invScaleY,it=Y,at=W,ot="M"+Y+","+W,st=i.xaxes[0]._length,lt=i.yaxes[0]._length,ct=i.xaxes.concat(i.yaxes),ut=t.altKey&&!(h(l)&&x);F(t,L,i),c&&(Z=M([[Y,W]],k.BENDPX));var ft=D.selectAll("path.select-outline-"+H.id).data(_?[0]:[1,2]),ht=z.newshape;ft.enter().append("path").attr("class",(function(t){return"select-outline select-outline-"+t+" select-outline-"+H.id})).style(_?{opacity:ht.opacity/2,fill:x?void 0:ht.fillcolor,stroke:ht.line.color,"stroke-dasharray":a(ht.line.dash,ht.line.width),"stroke-

width":ht.line.width+"px"}:{}).attr("fill-rule",ht.fillrule).classed("cursor-move",!!_).attr("transform",G).attr("d",ot+"Z");var pt,dt=D.append("path").attr("class","zoombox-corners").style({fill:o.background,stroke:o.defaultLine,"stroke-width":1}).attr("transform",G).attr("d","M0,0Z"),gt=z._uid+k.SELECTID,vt=[],mt=N(L,i.xaxes,i.yaxes,i.subplot);function yt(t,e){return t-e}pt=H.fillRangeItems?H.fillRangeItems:m?function(t,e){var r=t.range={};for($=0;$<ct.length;$++){var n=ct[$],i=n._id.charAt(0);r[n._id]=[C(n,e[i+"min"]),C(n,e[i+"max"])].sort(yt)}}:function(t,e,r){var n=t.lassoPoints={};for($=0;$<ct.length;$++){var i=ct[$];n[i._id]=r.filtered.map(P(i))}},i.moveFn=function(t,e){it=Math.max(0,Math.min(st,rt*t+Y)),at=Math.max(0,Math.min(lt,nt*e+W));var r=Math.abs(it-Y),a=Math.abs(at-W);if(m){var o,s,l;if(w){var u=z.selectdirection;switch(o="any"===u?a<Math.min(.6*r,A)?"h":r<Math.min(.6*a,A)?"v":"d":u){case"h":s=T?lt/2:0,l=lt;break;case"v":s=T?st/2:0,l=st}}if(_)switch(z.newshape.drawdirection){case"vertical":o="h",s=T?lt/2:0,l=lt;break;case"horizontal":o="v",s=T?st/2:0,l=st;break;case"ortho":r<a?(o="h",s=W,l=at):(o="v",s=Y,l=it);break;default:o="d"}"h"===o?((Q=E?v(T,[it,s],[it,l]):[[Y,s],[Y,l],[it,l],[it,s]]).xmin=E?it:Math.min(Y,it),Q.xmax=E?it:Math.max(Y,it),Q.ymin=Math.min(s,l),Q.ymax=Math.max(s,l),dt.attr("d","M"+Q.xmin+","+(W-A)+"h-4v"+2*A+"h4ZM"+(Q.xmax-1)+","+(W-A)+"h4v"+2*A+"h-4Z")):"v"===o?((Q=E?v(T,[s,at],[l,at]):[[s,W],[s,at],[l,at],[l,W]]).xmin=Math.min(s,l),Q.xmax=Math.max(s,l),Q.ymin=E?at:Math.min(W,at),Q.ymax=E?at:Math.max(W,at),dt.attr("d","M"+(Y-A)+","+Q.ymin+"v-4h"+2*A+"v4ZM"+(Y-A)+","+(Q.ymax-1)+"v4h"+2*A+"v-4Z")):"d"===o&&((Q=E?v(T,[Y,W],[it,at]):[[Y,W],[Y,at],[it,at],[it,W]]).xmin=Math.min(Y,it),Q.xmax=Math.max(Y,it),Q.ymin=Math.min(W,at),Q.ymax=Math.max(W,at),dt.attr("d","M0,0Z"))}else c&&(Z.addPt([it,at]),Q=Z.filtered);i.selectionDefs&&i.selectionDefs.length?(K=function(t,e,r){return r?n.difference({regions:t,inverted:!1},{regions:[e],inverted:!1}).regions:n.union({regions:t,inverted:!1},{regions:[e],inverted:!1}).regions}(i.mergedPolygons,Q,ut),Q.subtract=ut,J=R(i.selectionDefs.concat([Q]))):(K=[Q],J=S(Q)),g(q(K,x),ft,i),w&&b.throttle(gt,k.SELECTDELAY,(function(){var t;vt=[];var e,r=[];for($=0;$<mt.length;$++)if(e=(tt=mt[$])._module.selectPoints(tt,J),r.push(e),t=V(e,tt),vt.length)for(var n=0;n<t.length;n++)vt.push(t[n]);else vt=t;U(L,mt,et={points:vt}),pt(et,Q,Z),i.gd.emit("plotly_selecting",et)}))},i.clickFn=function(t,e){if(dt.remove(),L._fullLayout._activeShapeIndex>=0)L._fullLayout._deactivateShape(L);else if(!_){var r=z.clickmode;b.done(gt).then((function(){if(b.clear(gt),2===t){for(ft.remove(),$=0;$<mt.length;$++)(tt=mt[$])._module.selectPoints(tt,!1);U(L,mt),B(i),L.emit("plotly_deselect",null)}else r.indexOf("select")>-1&&O(e,L,i.xaxes,i.yaxes,i.subplot,i,ft),"event"===r&&L.emit("plotly_selected",void 0);s.click(L,e)})).catch(y.error)}},i.doneFn=function(){dt.remove(),b.done(gt).then((function(){b.clear(gt),i.gd.emit("plotly_selected",et),Q&&i.selectionDefs&&(Q.subtract=ut,i.selectionDefs.push(Q),i.mergedPolygons.length=0,[].push.apply(i.mergedPolygons,K)),i.doneFnCompleted&&i.doneFnCompleted(vt)})).catch(y.error),_&&B(i)},clearSelect:E,clearSelectionsCache:B,selectOnClick:O}},{"../../components/color":366,"../../components/dragelement/helpers":384,"../../components/drawing":388,"../../components/fx":406,"../../components/fx/helpers":402,"../../components/shapes/draw_newshape/display_outlines":454,"../../components/shapes/draw_newshape/helpers":455,"../../components/shapes/draw_newshape/newshapes":456,"../../lib":503,"../../lib/clear_gl_canvases":487,"../../lib/polygon":515,"../../lib/throttle":530,"../../plot_api/subroutines":544,"../../registry":638,"./axis_ids":558,"./constants":561,"./handle_outline":565,"./helpers":566,polybooljs:254}],576:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("d3-time-format").utcFormat,a=t("../../lib"),o=a.numberFormat,s=t("fast-isnumeric"),l=a.cleanNumber,c=a.ms2DateTime,u=a.dateTime2ms,f=a.ensureNumber,h=a.isArrayOrTypedArray,p=t("../../constants/numerical"),d=p.FP_SAFE,g=p.BADNUM,v=p.LOG_CLIP,m=p.ONEWEEK,y=p.ONEDAY,x=p.ONEHOUR,b=p.ONEMIN,_=p.ONESEC,w=t("./axis_ids"),T=t("./constants"),k=T.HOUR_PATTERN,A=T.WEEKDAY_PATTERN;function M(t){return Math.pow(10,t)}function S(t){return null!=t}e.exports=function(t,e){e=e||{};var r=t._id||"x",p=r.charAt(0);function E(e,r){if(e>0)return Math.log(e)/Math.LN10;if(e<=0&&r&&t.range&&2===t.range.length){var n=t.range[0],i=t.range[1];return.5*(n+i-

2*v*Math.abs(n-i))}return g}function L(e,r,n,i){if((i||{}).msUTC&&s(e))return+e;var o=u(e,n||t.calendar);if(o===g){if(!s(e))return g;e=+e;var l=Math.floor(10*a.mod(e+.05,1)),c=Math.round(e-l/10);o=u(new Date(c))+l/10}return o}function C(e,r,n){return c(e,r,n||t.calendar)}function P(e){return t._categories[Math.round(e)]}function I(e){if(S(e)){if(void 0===t._categoriesMap&&(t._categoriesMap={}),void 0!==t._categoriesMap[e])return t._categoriesMap[e];t._categories.push("number"==typeof e?String(e):e);var r=t._categories.length-1;return t._categoriesMap[e]=r,r}return g}function O(e){if(t._categoriesMap)return t._categoriesMap[e]}function z(t){var e=O(t);return void 0!==e?e:s(t)?+t:void 0}function D(t){return s(t)?+t:O(t)}function R(t,e,r){return n.round(r+e*t,2)}function F(t,e,r){return(t-r)/e}var B=function(e){return s(e)?R(e,t._m,t._b):g},N=function(e){return F(e,t._m,t._b)};if(t.rangebreaks){var j="y"===p;B=function(e){if(!s(e))return g;var r=t._rangebreaks.length;if(!r)return R(e,t._m,t._b);var n=j;t.range[0]>t.range[1]&&(n=!n);for(var i=n?-1:1,a=i*e,o=0,l=0;l<r;l++){var c=i*t._rangebreaks[l].min,u=i*t._rangebreaks[l].max;if(a<c)break;if(!(a>u)){o=a<(c+u)/2?l:l+1;break}o=l+1}var f=t._B[o]||0;return isFinite(f)?R(e,t._m2,f):0},N=function(e){var r=t._rangebreaks.length;if(!r)return F(e,t._m,t._b);for(var n=0,i=0;i<r&&!(e<t._rangebreaks[i].pmin);i++)e>t._rangebreaks[i].pmax&&(n=i+1);return F(e,t._m2,t._B[n])}}t.c2l="log"===t.type?E:f,t.l2c="log"===t.type?M:f,t.l2p=B,t.p2l=N,t.c2p="log"===t.type?function(t,e){return B(E(t,e))}:B,t.p2c="log"===t.type?function(t){return M(N(t))}:N,-1!==["linear","-"].indexOf(t.type)?(t.d2r=t.r2d=t.d2c=t.r2c=t.d2l=t.r2l=l,t.c2d=t.c2r=t.l2d=t.l2r=f,t.d2p=t.r2p=function(e){return t.l2p(l(e))},t.p2d=t.p2r=N,t.cleanPos=f):"log"===t.type?(t.d2r=t.d2l=function(t,e){return E(l(t),e)},t.r2d=t.r2c=function(t){return M(l(t))},t.d2c=t.r2l=l,t.c2d=t.l2r=f,t.c2r=E,t.l2d=M,t.d2p=function(e,r){return t.l2p(t.d2r(e,r))},t.p2d=function(t){return M(N(t))},t.r2p=function(e){return t.l2p(l(e))},t.p2r=N,t.cleanPos=f):"date"===t.type?(t.d2r=t.r2d=a.identity,t.d2c=t.r2c=t.d2l=t.r2l=L,t.c2d=t.c2r=t.l2d=t.l2r=C,t.d2p=t.r2p=function(e,r,n){return t.l2p(L(e,0,n))},t.p2d=t.p2r=function(t,e,r){return C(N(t),e,r)},t.cleanPos=function(e){return a.cleanDate(e,g,t.calendar)}):"category"===t.type?(t.d2c=t.d2l=I,t.r2d=t.c2d=t.l2d=P,t.d2r=t.d2l_noadd=z,t.r2c=function(e){var r=D(e);return void 0!==r?r:t.fraction2r(.5)},t.l2r=t.c2r=f,t.r2l=D,t.d2p=function(e){return t.l2p(t.r2c(e))},t.p2d=function(t){return P(N(t))},t.r2p=t.d2p,t.p2r=N,t.cleanPos=function(t){return"string"==typeof t&&""!==t?t:f(t)}):"multicategory"===t.type&&(t.r2d=t.c2d=t.l2d=P,t.d2r=t.d2l_noadd=z,t.r2c=function(e){var r=z(e);return void 0!==r?r:t.fraction2r(.5)},t.r2c_just_indices=O,t.l2r=t.c2r=f,t.r2l=z,t.d2p=function(e){return t.l2p(t.r2c(e))},t.p2d=function(t){return P(N(t))},t.r2p=t.d2p,t.p2r=N,t.cleanPos=function(t){return Array.isArray(t)||"string"==typeof t&&""!==t?t:f(t)},t.setupMultiCategory=function(n){var i,o,s=t._traceIndices,l=t._matchGroup;if(l&&0===t._categories.length)for(var c in l)if(c!==r){var u=e[w.id2name(c)];s=s.concat(u._traceIndices)}var f=[[0,{}],[0,{}]],d=[];for(i=0;i<s.length;i++){var g=n[s[i]];if(p in g){var v=g[p],m=g._length||a.minRowLength(v);if(h(v[0])&&h(v[1]))for(o=0;o<m;o++){var y=v[0][o],x=v[1][o];S(y)&&S(x)&&(d.push([y,x]),y in f[0][1]||(f[0][1][y]=f[0][0]++),x in f[1][1]||(f[1][1][x]=f[1][0]++))}}}for(d.sort((function(t,e){var r=f[0][1],n=r[t[0]]-r[e[0]];if(n)return n;var i=f[1][1];return i[t[1]]-i[e[1]]})),i=0;i<d.length;i++)I(d[i])}),t.fraction2r=function(e){var r=t.r2l(t.range[0]),n=t.r2l(t.range[1]);return t.l2r(r+e*(n-r))},t.r2fraction=function(e){var r=t.r2l(t.range[0]),n=t.r2l(t.range[1]);return(t.r2l(e)-r)/(n-r)},t.cleanRange=function(e,r){r||(r={}),e||(e="range");var n,i,o=a.nestedProperty(t,e).get();if(i=(i="date"===t.type?a.dfltRange(t.calendar):"y"===p?T.DFLTRANGEY:"realaxis"===t._name?[0,1]:r.dfltRange||T.DFLTRANGEX).slice(),"tozero"!==t.rangemode&&"nonnegative"!==t.rangemode||(i[0]=0),o&&2===o.length)for("date"!==t.type||t.autorange||(o[0]=a.cleanDate(o[0],g,t.calendar),o[1]=a.cleanDate(o[1],g,t.calendar)),n=0;n<2;n++)if("date"===t.type){if(!a.isDateTime(o[n],t.calendar)){t[e]=i;break}if(t.r2l(o[0])===t.r2l(o[1])){var l=a.constrain(t.r2l(o[0]),a.MIN_MS+1e3,a.MAX_MS-1e3);o[0]=t.l2r(l-1e3),o[1]=t.l2r(l+1e3);break}}else{if(!s(o[n])){if(!s(o[1-n])){t[e]=i;break}o[n]=o[1-n]*(n?10:.1)}if(o[n]<-d?o[n]=-d:o[n]>d&&(o[n]=d),o[0]===o[1]){var c=Math.max(1,Math.abs(1e-6*o[0]));o[0]-=c,o[1]+=c}}else a.nestedProperty(t,e).set(i)},t.setScale=function(r){var n=e._size;if(t.overlaying){var i=w.getFromId({_fullLayout:e},t.overlaying);t.domain=i.domain}var

a=r&&t._r?"_r":"range",o=t.calendar;t.cleanRange(a);var
s,l,c=t.r2l(t[a][0],o),u=t.r2l(t[a][1],o),f="y"===p;if(f?(t._offset=n.t+(1-t.domain[1])*n.h,t._length=n.h*(t.domain[1]-
t.domain[0]),t._m=t._length/(c-u),t._b=-t._m*u):(t._offset=n.l+t.domain[0]*n.w,t._length=n.w*(t.domain[1]-
t.domain[0]),t._m=t._length/(u-c),t._b=-
t._m*c),t._rangebreaks=[],t._lBreaks=0,t._m2=0,t._B=[],t.rangebreaks&&(t._rangebreaks=t.locateBreaks(Math.min
(c,u),Math.max(c,u)),t._rangebreaks.length)){for(s=0;s<t._rangebreaks.length;s++)l=t._rangebreaks[s],t._lBreaks+=
Math.abs(l.max-l.min);var h=f;c>u&&(h=!h),h&&t._rangebreaks.reverse();var d=h?-
1:1;for(t._m2=d*t._length/(Math.abs(u-c)-t._lBreaks),t._B.push(-
t._m2*(f?u:c)),s=0;s<t._rangebreaks.length;s++)l=t._rangebreaks[s],t._B.push(t._B[t._B.length-1]-d*t._m2*(l.max-
l.min));for(s=0;s<t._rangebreaks.length;s++)(l=t._rangebreaks[s]).pmin=B(l.min),l.pmax=B(l.max)}if(!isFinite(t._m
)||!isFinite(t._b)||t._length<0)throw e._replotting=!1,new Error("Something went wrong with axis
scaling")},t.maskBreaks=function(e){var
r,n,i,o,s,c=t.rangebreaks||[];c._cachedPatterns||(c._cachedPatterns=c.map((function(e){return
e.enabled&&e.bounds?a.simpleMap(e.bounds,e.pattern?l:t.d2c):null}))),c._cachedValues||(c._cachedValues=c.map(
(function(e){return e.enabled&&e.values?a.simpleMap(e.values,t.d2c).sort(a.sorterAsc):null})));for(var
u=0;u<c.length;u++){var f=c[u];if(f.enabled)if(f.bounds){var
h=f.pattern;switch(n=(r=c._cachedPatterns[u])[0],i=r[1],h){case A:o=(s=new
Date(e)).getUTCDay(),n>i&&(i+=7,o<n&&(o+=7));break;case k:o=(s=new
Date(e)).getUTCHours()+(s.getUTCMinutes()/60+s.getUTCSeconds()/3600+s.getUTCMilliseconds()/36e5),n>i&&
(i+=24,o<n&&(o+=24));break;case"":o=e}if(o>=n&&o<i)return g}else for(var
p=c._cachedValues[u],d=0;d<p.length;d++)if(i=(n=p[d])+f.dvalue,e>=n&&e<i)return g}return
e},t.locateBreaks=function(e,r){var n,i,o,s,c=[];if(!t.rangebreaks)return c;var
u=t.rangebreaks.slice().sort((function(t,e){return t.pattern===A&&e.pattern===k?-
1:e.pattern===A&&t.pattern===k?1:0})),f=function(t,n){if((t=a.constrain(t,e,r))!==(n=a.constrain(n,e,r))){for(var
i=!0,o=0;o<c.length;o++){var
s=c[o];t<s.max&&n>=s.min&&(t<s.min&&(s.min=t),n>s.max&&(s.max=n),i=!1)}i&&c.push({min:t,max:n})}};fo
r(n=0;n<u.length;n++){var h=u[n];if(h.enabled)if(h.bounds){var
p=e,d=r;h.pattern&&(p=Math.floor(p)),o=(i=a.simpleMap(h.bounds,h.pattern?l:t.r2l))[0],s=i[1];var g,v,w=new
Date(p);switch(h.pattern){case A:v=m,g=(s-o+(s<o?7:0))*y,p+=o*y-
(w.getUTCDay()*y+w.getUTCHours()*x+w.getUTCMinutes()*b+w.getUTCSeconds()*_+w.getUTCMilliseconds()
);break;case k:v=y,g=(s-o+(s<o?24:0))*x,p+=o*x-
(w.getUTCHours()*x+w.getUTCMinutes()*b+w.getUTCSeconds()*_+w.getUTCMilliseconds());break;default:p=
Math.min(i[0],i[1]),g=v=(d=Math.max(i[0],i[1]))-p}for(var T=p;T<d;T+=v)f(T,T+g)}else for(var
M=a.simpleMap(h.values,t.d2c),S=0;S<M.length;S++)f(o=M[S],s=o+h.dvalue)}return c.sort((function(t,e){return
t.min-e.min})),c},t.makeCalcdata=function(e,r,n){var i,o,s,l,c=t.type,u="date"===c&&e[r+"calendar"];if(r in
e){if(i=e[r],l=e._length||a.minRowLength(i),a.isTypedArray(i)&&("linear"===c||"log"===c)){if(l===i.length)return
i;if(i.subarray)return i.subarray(0,l)}if("multicategory"===c)return function(t,e){for(var r=new
Array(e),n=0;n<e;n++){var i=(t[0]||[])[n],a=(t[1]||[])[n];r[n]=O([i,a])}return r}(i,l);for(o=new
Array(l),s=0;s<l;s++)o[s]=t.d2c(i[s],0,u,n)}else{var f=r+"0"in
e?t.d2c(e[r+"0"],0,u):0,h=e["d"+r]?Number(e["d"+r]):1;for(i=e[{x:"y",y:"x"}[r]],l=e._length||i.length,o=new
Array(l),s=0;s<l;s++)o[s]=f+s*h}if(t.rangebreaks)for(s=0;s<l;s++)o[s]=t.maskBreaks(o[s]);return
o},t.isValidRange=function(e){return
Array.isArray(e)&&2===e.length&&s(t.r2l(e[0]))&&s(t.r2l(e[1]))},t.isPtWithinRange=function(e,r){var
n=t.c2l(e[p],null,r),i=t.r2l(t.range[0]),a=t.r2l(t.range[1]);return
i<a?i<=n&&n<=a:a<=n&&n<=i},t._emptyCategories=function(){t._categories=[],t._categoriesMap={}},t.clearCalc
=function(){var r=t._matchGroup;if(r){var n=null,i=null;for(var a in r){var
o=e[w.id2name(a)];if(o._categories){n=o._categories,i=o._categoriesMap;break}}n&&i?(t._categories=n,t._categor
iesMap=i):t._emptyCategories()}else t._emptyCategories();if(t._initialCategories)for(var

s=0;s<t._initialCategories.length;s++)I(t._initialCategories[s])},t.sortByInitialCategories=function(){var n=[];if(t._emptyCategories(),t._initialCategories)for(var i=0;i<t._initialCategories.length;i++)I(t._initialCategories[i]);n=n.concat(t._traceIndices);var a=t._matchGroup;for(var o in a)if(r!==o){var s=e[w.id2name(o)];s._categories=t._categories,s._categoriesMap=t._categoriesMap,n=n.concat(s._traceIndices)}return n};var U=e._d3locale;"date"===t.type&&(t._dateFormat=U?U.timeFormat:i,t._extraFormat=e._extraFormat),t._separators=e.separators,t._numFormat=U?U.numberFormat:o,delete t._minDtick,delete t._forceTick0}},{"../../constants/numerical":479,"../../lib":503,"./axis_ids":558,"./constants":561,"@plotly/d3":58,"d3-time-format":120,"fast-isnumeric":190}],577:[function(t,e,r){"use strict";e.exports=function(t){var e=["showexponent","showtickprefix","showticksuffix"].filter((function(e){return void 0!==t[e]}));if(e.every((function(r){return t[r]===t[e[0]]}))||1===e.length)return t[e[0]]}},{}],578:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../components/color").contrast,a=t("./layout_attributes"),o=t("./show_dflt"),s=t("../array_container_defaults");function l(t,e){function r(r,i){return n.coerce(t,e,a.tickformatstops,r,i)}r("enabled")&&(r("dtickrange"),r("value"))}e.exports=function(t,e,r,c,u){u||(u={});var f=o(t);if(r("showticklabels")){var h=u.font||{},p=e.color,d=-1!==(e.ticklabelposition||"").indexOf("inside")?i(u.bgColor):p&&p!==a.color.dflt?p:h.color;if(n.coerceFont(r,"tickfont",{family:h.family,size:h.size,color:d}),u.noTicklabelstep||"multicategory"===c||"log"===c||r("ticklabelstep"),u.noAng||r("tickangle"),"category"!==c){var g=r("tickformat");s(t,e,{name:"tickformatstops",inclusionAttr:"enabled",handleItemDefaults:l}),e.tickformatstops.length||delete e.tickformatstops,u.noExp||g||"date"===c||(r("showexponent",f),r("exponentformat"),r("minexponent"),r("separatethousands"))}}}},{"../../components/color":366,"../../lib":503,"../array_container_defaults":549,"./layout_attributes":569,"./show_dflt":577}],579:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./layout_attributes");e.exports=function(t,e,r,a){var o=a.isMinor,s=o?t.minor||{}:t,l=o?e.minor:e,c=o?i.minor:i,u=o?"minor.":"",f=n.coerce2(s,l,c,"ticklen",o?.6*(e.ticklen||5):void 0),h=n.coerce2(s,l,c,"tickwidth",o?e.tickwidth||1:void 0),p=n.coerce2(s,l,c,"tickcolor",(o?e.tickcolor:void 0)||l.color);r(u+"ticks",!o&&a.outerTicks||f||h||p?"outside":"")||(delete l.ticklen,delete l.tickwidth,delete l.tickcolor)}},{"../../lib":503,"./layout_attributes":569}],580:[function(t,e,r){"use strict";var n=t("./clean_ticks"),i=t("../../lib").isArrayOrTypedArray;e.exports=function(t,e,r,a,o){o||(o={});var s=o.isMinor,l=s?t.minor||{}:t,c=s?e.minor:e,u=s?"minor.":"";function f(t){var e=l[t];return void 0!==e?e:(c._template||{})[t]}var h=f("tick0"),p=f("dtick"),d=f("tickvals"),g=r(u+"tickmode",i(d)?"array":p?"linear":"auto");if("auto"===g)r(u+"nticks");else if("linear"===g){var v=c.dtick=n.dtick(p,a);c.tick0=n.tick0(h,a,e.calendar,v)}else"multicategory"!==a&&(void 0===r(u+"tickvals")?c.tickmode="auto":s||r("ticktext"))}},{"../../lib":503,"./clean_ticks":560}],581:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../registry"),a=t("../../lib"),o=t("../../components/drawing"),s=t("./axes");e.exports=function(t,e,r,l){var c=t._fullLayout;if(0!==e.length){var u,f,h,p;l&&(u=l());var d=n.ease(r.easing);return t._transitionData._interruptCallbacks.push((function(){return window.cancelAnimationFrame(p),p=null,function(){for(var r={},n=0;n<e.length;n++){var a=e[n],o=a.plotinfo.xaxis,s=a.plotinfo.yaxis;a.xr0&&(r[o._name+".range"]=a.xr0.slice()),a.yr0&&(r[s._name+".range"]=a.yr0.slice())}return i.call("relayout",t,r).then((function(){for(var t=0;t<e.length;t++)g(e[t].plotinfo)}))}()})),f=Date.now(),p=window.requestAnimationFrame((function n(){h=Date.now();for(var a=Math.min(1,(h-f)/r.duration),o=d(a),s=0;s<e.length;s++)v(e[s],o);h-f>r.duration?(function(){for(var r={},n=0;n<e.length;n++){var a=e[n],o=a.plotinfo.xaxis,s=a.plotinfo.yaxis;a.xr1&&(r[o._name+".range"]=a.xr1.slice()),a.yr1&&(r[s._name+".ran

ge"]=a.yr1.slice())}u&&u(),i.call("relayout",t,r).then((function(){for(var t=0;t<e.length;t++)g(e[t].plotinfo)}))}(),p=window.cancelAnimationFrame(n)):p=window.requestAnimationFrame(n)})),Promise.resolve()}function g(t){var e=t.xaxis,r=t.yaxis;c._defs.select("#"+t.clipId+"> rect").call(o.setTranslate,0,0).call(o.setScale,1,1),t.plot.call(o.setTranslate,e._offset,r._offset).call(o.setScale,1,1);var n=t.plot.selectAll(".scatterlayer .trace");n.selectAll(".point").call(o.setPointGroupScale,1,1),n.selectAll(".textpoint").call(o.setTextPointsScale,1,1),n.call(o.hideOutsideRangePoints,t)}function v(e,r){var n=e.plotinfo,i=n.xaxis,l=n.yaxis,c=i._length,u=l._length,f=!!e.xr1,h=!!e.yr1,p=[];if(f){var d=a.simpleMap(e.xr0,i.r2l),g=a.simpleMap(e.xr1,i.r2l),v=d[1]-d[0],m=g[1]-g[0];p[0]=(d[0]*(1-r)+r*g[0]-d[0])/(d[1]-d[0])*c,p[2]=c*(1-r+r*m/v),i.range[0]=i.l2r(d[0]*(1-r)+r*g[0]),i.range[1]=i.l2r(d[1]*(1-r)+r*g[1])}else p[0]=0,p[2]=c;if(h){var y=a.simpleMap(e.yr0,l.r2l),x=a.simpleMap(e.yr1,l.r2l),b=y[1]-y[0],_=x[1]-x[0];p[1]=(y[1]*(1-r)+r*x[1]-y[1])/(y[0]-y[1])*u,p[3]=u*(1-r+r*_/b),l.range[0]=i.l2r(y[0]*(1-r)+r*x[0]),l.range[1]=l.l2r(y[1]*(1-r)+r*x[1])}else p[1]=0,p[3]=u;s.drawOne(t,i,{skipTitle:!0}),s.drawOne(t,l,{skipTitle:!0}),s.redrawComponents(t,[i._id,l._id]);var w=f?c/p[2]:1,T=h?u/p[3]:1,k=f?p[0]:0,A=h?p[1]:0,M=f?p[0]/p[2]*c:0,S=h?p[1]/p[3]*u:0,E=i._offset-M,L=l._offset-S;n.clipRect.call(o.setTranslate,k,A).call(o.setScale,1/w,1/T),n.plot.call(o.setTranslate,E,L).call(o.setScale,w,T),o.setPointGroupScale(n.zoomScalePts,1/w,1/T),o.setTextPointsScale(n.zoomScaleTxt,1/w,1/T)}s.redrawComponents(t)}},{"../../components/drawing":388,"../../lib":503,"../../registry":638,"./axes":554,"@plotly/d3":58}],582:[function(t,e,r){"use strict";var n=t("../../registry").traceIs,i=t("./axis_autotype");function a(t,e){if("-"===t.type){var r,a=t._id,l=a.charAt(0);-1!==a.indexOf("scene")&&(a=l);var c=function(t,e,r){for(var n=0;n<t.length;n++){var i=t[n];if("splom"===i.type&&i._length>0&&(i["_"+r+"axes"]||{})[e])return i;if((i[r+"axis"]||r)===e){if(s(i,r))return i;if((i[r]||[]).length||i[r+"0"])return i}}}(e,a,l);if(c)if("histogram"!==c.type||l!=={v:"y",h:"x"}[c.orientation||"v"]){var u=l+"calendar",f=c[u],h={noMultiCategory:!n(c,"cartesian")||n(c,"noMultiCategory")};if("box"===c.type&&c._hasPreCompStats&&l==={h:"x",v:"y"}[c.orientation||"v"]&&(h.noMultiCategory=!0),h.autotypenumbers=t.autotypenumbers,s(c,l)){var p=o(c),d=[];for(r=0;r<e.length;r++){var g=e[r];n(g,"box-violin")&&(g[l+"axis"]||l)===a&&(void 0!==g[p]?d.push(g[p][0]):void 0!==g.name?d.push(g.name):d.push("text"),g[u]!==f&&(f=void 0))}t.type=i(d,f,h)}else if("splom"===c.type){var v=c.dimensions[c._axesDim[a]];v.visible&&(t.type=i(v.values,f,h))}else t.type=i(c[l]||[c[l+"0"]],f,h)}else t.type="linear"}}function o(t){return{v:"x",h:"y"}[t.orientation||"v"]}function s(t,e){var r=o(t),i=n(t,"box-violin"),a=n(t._fullInput||{},"candlestick");return i&&!a&&e===r&&void 0===t[r]&&void 0===t[r+"0"]}e.exports=function(t,e,r,n){r("autotypenumbers",n.autotypenumbersDflt),"-"===r("type",(n.splomStash||{}).type)&&(a(e,n.data),"-"===e.type?e.type="linear":t.type=e.type)}},{"../../registry":638,"./axis_autotype":555}],583:[function(t,e,r){"use strict";var n=t("../registry"),i=t("../lib");function a(t,e,r){var n,a,o,s=!1;if("data"===e.type)n=t._fullData[null!==e.traces?e.traces[0]:0];else{if("layout"!==e.type)return!1;n=t._fullLayout}return a=i.nestedProperty(n,e.prop).get(),(o=r[e.type]=r[e.type]||{}).hasOwnProperty(e.prop)&&o[e.prop]!==a&&(s=!0),o[e.prop]=a,{changed:s,value:a}}function o(t,e){var r=[],n=e[0],a={};if("string"==typeof n)a[n]=e[1];else{if(!i.isPlainObject(n))return r;a=n}return l(a,(function(t,e,n){r.push({type:"layout",prop:t,value:n})}),"",0),r}function s(t,e){var r,n,a,o,s=[];if(n=e[0],a=e[1],r=e[2],o={},"string"==typeof n)o[n]=a;else{if(!i.isPlainObject(n))return s;o=n,void 0===r&&(r=a)}return void 0===r&&(r=null),l(o,(function(e,n,i){var a,o;if(Array.isArray(i)){o=i.slice();var l=Math.min(o.length,t.data.length);r&&(l=Math.min(l,r.length)),a=[];for(var c=0;c<l;c++)a[c]=r?r[c]:c}else o=i,a=r?r.slice():null;if(null===a)Array.isArray(o)&&(o=o[0]);else if(Array.isArray(a)){if(!Array.isArray(o)){var u=o;o=[];for(var f=0;f<a.length;f++)o[f]=u}o.length=Math.min(a.length,o.length)}s.push({type:"data",prop:e,traces:a,value:o})}),"",0),s}function l(t,e,r,n){Object.keys(t).forEach((function(a){var o=t[a];if("_"!==a[0]){var

s=r+(n>0?".":"")+a;i.isPlainObject(o)?l(o,e,s,n+1):e(s,a,o)}})}r.manageCommandObserver=function(t,e,n,o){var s={},l=!0;e&&e._commandObserver&&(s=e._commandObserver),s.cache||(s.cache={}),s.lookupTable={};var c=r.hasSimpleAPICommandBindings(t,n,s.lookupTable);if(e&&e._commandObserver){if(c)return s;if(e._commandObserver.remove)return e._commandObserver.remove(),e._commandObserver=null,s}if(c){a(t,c,s.cache),s.check=function(){if(l){var e=a(t,c,s.cache);return e.changed&&o&&void 0!==s.lookupTable[e.value]&&(s.disable(),Promise.resolve(o({value:e.value,type:c.type,prop:c.prop,traces:c.traces,index:s.lookupTable[e.value]})).then(s.enable,s.enable)),e.changed}};for(var u=["plotly_relayout","plotly_redraw","plotly_restyle","plotly_update","plotly_animatingframe","plotly_afterplot"],f=0;f<u.length;f++)t._internalOn(u[f],s.check);s.remove=function(){for(var e=0;e<u.length;e++)t._removeInternalListener(u[e],s.check)}}else i.log("Unable to automatically bind plot updates to API command"),s.lookupTable={},s.remove=function(){};return s.disable=function(){l=!1},s.enable=function(){l=!0},e&&(e._commandObserver=s),s},r.hasSimpleAPICommandBindings=function(t,e,n){var i,a,o=e.length;for(i=0;i<o;i++){var s,l=e[i],c=l.method,u=l.args;if(Array.isArray(u)||(u=[]),!c)return!1;var f=r.computeAPICommandBindings(t,c,u);if(1!==f.length)return!1;if(a){if((s=f[0]).type!==a.type)return!1;if(s.prop!==a.prop)return!1;if(Array.isArray(a.traces)){if(!Array.isArray(s.traces))return!1;s.traces.sort();for(var h=0;h<a.traces.length;h++)if(a.traces[h]!==s.traces[h])return!1}else if(s.prop!==a.prop)return!1}else a=f[0],Array.isArray(a.traces)&&a.traces.sort();var p=(s=f[0]).value;if(Array.isArray(p)){if(1!==p.length)return!1;p=p[0]}n&&(n[p]=i)}return a},r.executeAPICommand=function(t,e,r){if("skip"===e)return Promise.resolve();var a=n.apiMethodRegistry[e],o=[t];Array.isArray(r)||(r=[]);for(var s=0;s<r.length;s++)o.push(r[s]);return a.apply(null,o).catch((function(t){return i.warn("API call to Plotly."+e+" rejected.",t),Promise.reject(t)}))},r.computeAPICommandBindings=function(t,e,r){var n;switch(Array.isArray(r)||(r=[]),e){case"restyle":n=s(t,r);break;case"relayout":n=o(0,r);break;case"update":n=s(t,[r[0],r[2]]).concat(o(0,[r[1]]));break;case"animate":n=function(t,e){return Array.isArray(e[0])&&1===e[0].length&&-1!==["string","number"].indexOf(typeof e[0][0])?[{type:"layout",prop:"_currentFrame",value:e[0][0].toString()}]:[]}(0,r);break;default:n=[]}return n}},{"../lib":503,"../registry":638}],584:[function(t,e,r){"use strict";var n=t("../lib/extend").extendFlat;r.attributes=function(t,e){e=e||{};var r={valType:"info_array",editType:(t=t||{}).editType,items:[{valType:"number",min:0,max:1,editType:t.editType},{valType:"number",min:0,max:1,editType:t.editType}],dflt:[0,1]},i=(t.name&&t.name,t.trace,e.description&&e.description,{x:n({},r,{}),y:n({},r,{}),editType:t.editType});return t.noGridCell||(i.row={valType:"integer",min:0,dflt:0,editType:t.editType},i.column={valType:"integer",min:0,dflt:0,editType:t.editType}),i},r.defaults=function(t,e,r,n){var i=n&&n.x||[0,1],a=n&&n.y||[0,1],o=e.grid;if(o){var s=r("domain.column");void 0!==s&&(s<o.columns?i=o._domains.x[s]:delete t.domain.column);var l=r("domain.row");void 0!==l&&(l<o.rows?a=o._domains.y[l]:delete t.domain.row)}var c=r("domain.x",i),u=r("domain.y",a);c[0]<c[1]||(t.domain.x=i.slice()),u[0]<u[1]||(t.domain.y=a.slice())}},{"../lib/extend":493}],585:[function(t,e,r){"use strict";e.exports=function(t){var e=t.editType,r=t.colorEditType;void 0===r&&(r=e);var n={family:{valType:"string",noBlank:!0,strict:!0,editType:e},size:{valType:"number",min:1,editType:e},color:{valType:"color",editType:r},editType:e};return t.autoSize&&(n.size.dflt="auto"),t.autoColor&&(n.color.dflt="auto"),t.arrayOk&&(n.family.arrayOk=!0,n.size.arrayOk=!0,n.color.arrayOk=!0),n}},{}],586:[function(t,e,r){"use strict";e.exports={_isLinkedToArray:"frames_entry",group:{valType:"string"},name:{valType:"string"},traces:{valType:"any"},baseframe:{valType:"string"},data:{valType:"any"},layout:{valType:"any"}}},{}],587:[function(t,e,r){"use strict";r.projNames={airy:"airy",aitoff:"aitoff","albers usa":"albersUsa",albers:"albers",august:"august","azimuthal equal area":"azimuthalEqualArea","azimuthal

equidistant":"azimuthalEquidistant",baker:"baker",bertin1953:"bertin1953",boggs:"boggs",bonne:"bonne",bottomley:"bottomley",bromley:"bromley",collignon:"collignon","conic conformal":"conicConformal","conic equal area":"conicEqualArea","conic equidistant":"conicEquidistant",craig:"craig",craster:"craster","cylindrical equal area":"cylindricalEqualArea","cylindrical stereographic":"cylindricalStereographic",eckert1:"eckert1",eckert2:"eckert2",eckert3:"eckert3",eckert4:"eckert4",eckert5:"eckert5",eckert6:"eckert6",eisenlohr:"eisenlohr",equirectangular:"equirectangular",fahey:"fahey","foucaut sinusoidal":"foucautSinusoidal",foucaut:"foucaut",ginzburg4:"ginzburg4",ginzburg5:"ginzburg5",ginzburg6:"ginzburg6",ginzburg8:"ginzburg8",ginzburg9:"ginzburg9",gnomonic:"gnomonic","gringorten quincuncial":"gringortenQuincuncial",gringorten:"gringorten",guyou:"guyou",hammer:"hammer",hill:"hill",homolosine:"homolosine",hufnagel:"hufnagel",hyperelliptical:"hyperelliptical",kavrayskiy7:"kavrayskiy7",lagrange:"lagrange",larrivee:"larrivee",laskowski:"laskowski",loximuthal:"loximuthal",mercator:"mercator",miller:"miller",mollweide:"mollweide","mt flat polar parabolic":"mtFlatPolarParabolic","mt flat polar quartic":"mtFlatPolarQuartic","mt flat polar sinusoidal":"mtFlatPolarSinusoidal","natural earth":"naturalEarth","natural earth1":"naturalEarth1","natural earth2":"naturalEarth2","nell hammer":"nellHammer",nicolosi:"nicolosi",orthographic:"orthographic",patterson:"patterson","peirce quincuncial":"peirceQuincuncial",polyconic:"polyconic","rectangular polyconic":"rectangularPolyconic",robinson:"robinson",satellite:"satellite","sinu mollweide":"sinuMollweide",sinusoidal:"sinusoidal",stereographic:"stereographic",times:"times","transverse mercator":"transverseMercator","van der grinten":"vanDerGrinten","van der grinten2":"vanDerGrinten2","van der grinten3":"vanDerGrinten3","van der grinten4":"vanDerGrinten4",wagner4:"wagner4",wagner6:"wagner6",wiechel:"wiechel","winkel tripel":"winkel3",winkel3:"winkel3"},r.axesNames=["lonaxis","lataxis"],r.lonaxisSpan={orthographic:180,"azimuthal equal area":360,"azimuthal equidistant":360,"conic conformal":180,gnomonic:160,stereographic:180,"transverse mercator":180,"*":360},r.lataxisSpan={"conic conformal":150,stereographic:179.5,"*":180},r.scopeDefaults={world:{lonaxisRange:[-180,180],lataxisRange:[-90,90],projType:"equirectangular",projRotate:[0,0,0]},usa:{lonaxisRange:[-180,-50],lataxisRange:[15,80],projType:"albers usa"},europe:{lonaxisRange:[-30,60],lataxisRange:[30,85],projType:"conic conformal",projRotate:[15,0,0],projParallels:[0,60]},asia:{lonaxisRange:[22,160],lataxisRange:[-15,55],projType:"mercator",projRotate:[0,0,0]},africa:{lonaxisRange:[-30,60],lataxisRange:[-40,40],projType:"mercator",projRotate:[0,0,0]},"north america":{lonaxisRange:[-180,-45],lataxisRange:[5,85],projType:"conic conformal",projRotate:[-100,0,0],projParallels:[29.5,45.5]},"south america":{lonaxisRange:[-100,-30],lataxisRange:[-60,15],projType:"mercator",projRotate:[0,0,0]}},r.clipPad=.001,r.precision=.1,r.landColor="#F0DC82",r.waterColor="#3399FF",r.locationmodeToLayer={"ISO-3":"countries","USA-states":"subunits","country names":"countries"},r.sphereSVG={type:"Sphere"},r.fillLayers={ocean:1,land:1,lakes:1},r.lineLayers={subunits:1,countries:1,coastlines:1,rivers:1,frame:1},r.layers=["bg","ocean","land","lakes","subunits","countries","coastlines","rivers","lataxis","lonaxis","frame","backplot","frontplot"],r.layersForChoropleth=["bg","ocean","land","subunits","countries","coastlines","lataxis","lonaxis","frame","backplot","rivers","lakes","frontplot"],r.layerNameToAdjective={ocean:"ocean",land:"land",lakes:"lake",subunits:"subunit",countries:"country",coastlines:"coastline",rivers:"river",frame:"frame"}},{}],588:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("d3-geo"),a=i.geoPath,o=i.geoDistance,s=t("d3-geo-projection"),l=t("../../registry"),c=t("../../lib"),u=c.strTranslate,f=t("../../components/color"),h=t("../../components/drawing"),p=t("../../components/fx"),d=t("../plots"),g=t("../cartesian/axes"),v=t("../cartesian/autorange").getAutoRange,m=t("../../components/dragelement"),y=t("../cartesian/select").prepSelect,x=t("../cartesian/select").clearSelect,b=t("../cartesian/select").selectOnClick,_=t("./zoom"),w=t("./constants"),T=t("../../lib/geo_location_utils"),k=t("../../lib/topojson_utils"),A=t("topojson-client").feature;function M(t){this.id=t.id,this.graphDiv=t.graphDiv,this.container=t.container,this.topojsonURL=t.topojsonURL,this.isStatic

=t.staticPlot,this.topojsonName=null,this.topojson=null,this.projection=null,this.scope=null,this.viewInitial=null,this
.fitScale=null,this.bounds=null,this.midPt=null,this.hasChoropleth=!1,this.traceHash={},this.layers={},this.basePat
hs={},this.dataPaths={},this.dataPoints={},this.clipDef=null,this.clipRect=null,this.bgRect=null,this.makeFramewo
rk()}var S=M.prototype;function E(t,e){var r=w.clipPad,n=t[0]+r,i=t[1]-r,a=e[0]+r,o=e[1]-
r;n>0&&i<0&&(i+=360);var s=(i-
n)/4;return{type:"Polygon",coordinates:[[[n,a],[n,o],[n+s,o],[n+2*s,o],[n+3*s,o],[i,o],[i,a],[i-s,a],[i-2*s,a],[i-
3*s,a],[n,a]]]}}e.exports=function(t){return new M(t)},S.plot=function(t,e,r){var
n=this,i=e[this.id],a=[],o=!1;for(var s in
w.layerNameToAdjective)if("frame"!==s&&i["show"+s]){o=!0;break}for(var
l=0;l<t.length;l++)if(t[0][0].trace.locationmode){o=!0;break}if(o){var
c=k.getTopojsonName(i);null!==n.topojson&&c===n.topojsonName||(n.topojsonName=c,void
0===PlotlyGeoAssets.topojson[n.topojsonName]&&a.push(n.fetchTopojson()))}a=a.concat(T.fetchTraceGeoData(t
)),r.push(new
Promise((function(r,i){Promise.all(a).then((function(){n.topojson=PlotlyGeoAssets.topojson[n.topojsonName],n.up
date(t,e),r()})).catch(i)})))},S.fetchTopojson=function(){var
t=this,e=k.getTopojsonPath(t.topojsonURL,t.topojsonName);return new
Promise((function(r,i){n.json(e,(function(n,a){if(n)return 404===n.status?i(new Error(["plotly.js could not find
topojson file at",e+".","Make sure the *topojsonURL* plot config option","is set properly."].join(" "))):i(new
Error(["unexpected error while fetching topojson file at",e].join("
")));PlotlyGeoAssets.topojson[t.topojsonName]=a,r()}))}))},S.update=function(t,e){var
r=e[this.id];this.hasChoropleth=!1;for(var n=0;n<t.length;n++){var
i=t[n],a=i[0].trace;"choropleth"===a.type&&(this.hasChoropleth=!0),!0===a.visible&&a._length>0&&a._module.c
alcGeoJSON(i,e)}if(!this.updateProjection(t,e)){this.viewInitial&&this.scope===r.scope||this.saveViewInitial(r),this
.scope=r.scope,this.updateBaseLayers(e,r),this.updateDims(e,r),this.updateFx(e,r),d.generalUpdatePerTraceModule(
this.graphDiv,this,t,r);var
o=this.layers.frontplot.select(".scatterlayer");this.dataPoints.point=o.selectAll(".point"),this.dataPoints.text=o.select
All("text"),this.dataPaths.line=o.selectAll(".js-line");var
s=this.layers.backplot.select(".choroplethlayer");this.dataPaths.choropleth=s.selectAll("path"),this.render()},S.upda
teProjection=function(t,e){var
r=this.graphDiv,n=e[this.id],l=e._size,u=n.domain,f=n.projection,h=n.lonaxis,p=n.lataxis,d=h._ax,g=p._ax,m=this.p
rojection=function(t){var e=t.projection,r=e.type,n=w.projNames[r];n="geo"+c.titleCase(n);for(var
l=(i[n]||s[n])(),u=t._isSatellite?180*Math.acos(1/e.distance)/Math.PI:t._isClipped?w.lonaxisSpan[r]/2:null,f=["center
","rotate","parallels","clipExtent"],h=function(t){return t?l:[]},p=0;p<f.length;p++){var d=f[p];"function"!=typeof
l[d]&&(l[d]=h)}return l.isLonLatOverEdges=function(t){if(null===l(t))return!0;if(u){var e=l.rotate();return o(t,[-
e[0],-e[1]])>u*Math.PI/180}return!1},l.getPath=function(){return a().projection(l)},l.getBounds=function(t){return
l.getPath().bounds(t)},l.precision(w.precision),t._isSatellite&&l.tilt(e.tilt).distance(e.distance),u&&l.clipAngle(u-
w.clipPad),l}(n),y=[[l.l+l.w*u.x[0],l.t+l.h*(1-u.y[1])],[l.l+l.w*u.x[1],l.t+l.h*(1-
u.y[0])]],x=n.center||{},b=f.rotation||{},_=h.range||[],T=p.range||[];if(n.fitbounds){d._length=y[1][0]-
y[0][0],g._length=y[1][1]-y[0][1],d.range=v(r,d),g.range=v(r,g);var
k=(d.range[0]+d.range[1])/2,A=(g.range[0]+g.range[1])/2;if(n._isScoped)x={lon:k,lat:A};else
if(n._isClipped){x={lon:k,lat:A},b={lon:k,lat:A,roll:b.roll};var
M=f.type,S=w.lonaxisSpan[M]/2||180,L=w.lataxisSpan[M]/2||90;_=[k-S,k+S],T=[A-L,A+L]}else
x={lon:k,lat:A},b={lon:k,lat:b.lat,roll:b.roll}}m.center([x.lon-b.lon,x.lat-b.lat]).rotate([-b.lon,-
b.lat,b.roll]).parallels(f.parallels);var C=E(_,T);m.fitExtent(y,C);var
P=this.bounds=m.getBounds(C),I=this.fitScale=m.scale(),O=m.translate();if(n.fitbounds){var
z=m.getBounds(E(d.range,g.range)),D=Math.min((P[1][0]-P[0][0])/(z[1][0]-z[0][0]),(P[1][1]-P[0][1])/(z[1][1]-
z[0][1]));isFinite(D)?m.scale(D*I):c.warn("Something went wrong during"+this.id+"fitbounds computations.")}else
m.scale(f.scale*I);var R=this.midPt=[(P[0][0]+P[1][0])/2,(P[0][1]+P[1][1])/2];if(m.translate([O[0]+(R[0]-

O[0]),O[1]+(R[1]-O[1])]).clipExtent(P),n._isAlbersUsa){var F=m([x.lon,x.lat]),B=m.translate();m.translate([B[0]-(F[0]-B[0]),B[1]-(F[1]-B[1])])}},S.updateBaseLayers=function(t,e){var r=this,i=r.topojson,a=r.layers,o=r.basePaths;function s(t){return"lonaxis"===t||"lataxis"===t}function l(t){return Boolean(w.lineLayers[t])}function c(t){return Boolean(w.fillLayers[t])}var u=(this.hasChoropleth?w.layersForChoropleth:w.layers).filter((function(t){return l(t)||c(t)?e["show"+t]:!s(t)||e[t].showgrid})),p=r.framework.selectAll(".layer").data(u,String);p.exit().each((function(t){delete a[t],delete o[t],n.select(this).remove()})),p.enter().append("g").attr("class",(function(t){return"layer "+t})).each((function(t){var e=a[t]=n.select(this);"bg"===t?r.bgRect=e.append("rect").style("pointer-events","all"):s(t)?o[t]=e.append("path").style("fill","none"):"backplot"===t?e.append("g").classed("choroplethlayer",!0):"frontplot"===t?e.append("g").classed("scatterlayer",!0):l(t)?o[t]=e.append("path").style("fill","none").style("stroke-miterlimit",2):c(t)&&(o[t]=e.append("path").style("stroke","none"))})),p.order(),p.each((function(r){var n=o[r],a=w.layerNameToAdjective[r];"frame"===r?n.datum(w.sphereSVG):l(r)||c(r)?n.datum(A(i,i.objects[r])):s(r)&&n.datum(function(t,e,r){var n,i,a,o=e[t],s=w.scopeDefaults[e.scope];"lonaxis"===t?(n=s.lonaxisRange,i=s.lataxisRange,a=function(t,e){return[t,e]}):"lataxis"===t&&(n=s.lataxisRange,i=s.lonaxisRange,a=function(t,e){return[e,t]});var l={type:"linear",range:[n[0],n[1]-1e-6],tick0:o.tick0,dtick:o.dtick};g.setConvert(l,r);var c=g.calcTicks(l);e.isScoped||"lonaxis"!==t||c.pop();for(var u=c.length,f=new Array(u),h=0;h<u;h++)for(var p=c[h].x,d=f[h]=[],v=i[0];v<i[1]+2.5;v+=2.5)d.push(a(p,v));return{type:"MultiLineString",coordinates:f}}(r,e,t)).call(f.stroke,e[r].gridcolor).call(h.dashLine,e[r].griddash,e[r].gridwidth),l(r)?n.call(f.stroke,e[a+"color"]).call(h.dashLine,"",e[a+"width"]):c(r)&&n.call(f.fill,e[a+"color"])})))},S.updateDims=function(t,e){var r=this.bounds,n=(e.framewidth||0)/2,i=r[0][0]-n,a=r[0][1]-n,o=r[1][0]-i+n,s=r[1][1]-a+n;h.setRect(this.clipRect,i,a,o,s),this.bgRect.call(h.setRect,i,a,o,s).call(f.fill,e.bgcolor),this.xaxis._offset=i,this.xaxis._length=o,this.yaxis._offset=a,this.yaxis._length=s},S.updateFx=function(t,e){var r=this,i=r.graphDiv,a=r.bgRect,o=t.dragmode,s=t.clickmode;if(!r.isStatic){var u;"select"===o?u=function(t,e){(t.range={})[r.id]=[h([e.xmin,e.ymin]),h([e.xmax,e.ymax])]}:"lasso"===o&&(u=function(t,e,n){(t.lassoPoints={})[r.id]=n.filtered.map(h)});var f={element:r.bgRect.node(),gd:i,plotinfo:{id:r.id,xaxis:r.xaxis,yaxis:r.yaxis,fillRangeItems:u},xaxes:[r.xaxis],yaxes:[r.yaxis],subplot:r.id,clickFn:function(t){2===t&&x(i)}};"pan"===o?(a.node().onmousedown=null,a.call(_(r,e)),a.on("dblclick.zoom",(function(){var t=r.viewInitial,e={};for(var n in t)e[r.id+"."+n]=t[n];l.call("_guiRelayout",i,e),i.emit("plotly_doubleclick",null)})),i._context._scrollZoom.geo||a.on("wheel.zoom",null)):"select"!==o&&"lasso"!==o||(a.on(".zoom",null),f.prepFn=function(t,e,r){y(t,e,r,f,o)},m.init(f)),a.on("mousemove",(function(){var t=r.projection.invert(c.getPositionFromD3Event());if(!t)return m.unhover(i,n.event);r.xaxis.p2c=function(){return t[0]},r.yaxis.p2c=function(){return t[1]},p.hover(i,n.event,r.id)})),a.on("mouseout",(function(){i._dragging||m.unhover(i,n.event)})),a.on("click",(function(){"select"!==o&&"lasso"!==o&&(s.indexOf("select")>-1&&b(n.event,i,[r.xaxis],[r.yaxis],r.id,f),s.indexOf("event")>-1&&p.click(i,n.event))}))}function h(t){return r.projection.invert([t[0]+r.xaxis._offset,t[1]+r.yaxis._offset])}},S.makeFramework=function(){var t=this,e=t.graphDiv,r=e._fullLayout,i="clip"+r._uid+t.id;t.clipDef=r._clips.append("clipPath").attr("id",i),t.clipRect=t.clipDef.append("rect"),t.framework=n.select(t.container).append("g").attr("class","geo "+t.id).call(h.setClipUrl,i,e),t.project=function(e){var r=t.projection(e);return r?[r[0]-t.xaxis._offset,r[1]-t.yaxis._offset]:[null,null]},t.xaxis={_id:"x",c2p:function(e){return t.project(e)[0]}},t.yaxis={_id:"y",c2p:function(e){return t.project(e)[1]}},t.mockAxis={type:"linear",showexponent:"all",exponentformat:"B"},g.setConvert(t.mockAxis,r)},S.saveViewInitial=function(t){var e,r=t.center||{},n=t.projection,i=n.rotation||{};this.viewInitial={fitbounds:t.fitbounds,"projection.scale":n.scale},e=t._isScoped?{"center.lon":r.lon,"center.lat":r.lat}:t._isClipped?{"projection.rotation.lon":i.lon,"projection.rotation.lat":i.lat}:{"center.lon":r.lon,"center.lat":r.lat,"projection.rotation.lon":i.lon},c.extendFlat(this.viewInitial,e)},S.render=function(){var t,e=this.projection,r=e.getPath();function n(t){var r=e(t.lonlat);return r?u(r[0],r[1]):null}function

i(t){return e.isLonLatOverEdges(t.lonlat)?"none":null}for(t in this.basePaths)this.basePaths[t].attr("d",r);for(t in this.dataPaths)this.dataPaths[t].attr("d",(function(t){return r(t.geojson)}));for(t in this.dataPoints)this.dataPoints[t].attr("display",i).attr("transform",n)}},{"../../components/color":366,"../../components/dragelement":385,"../../components/drawing":388,"../../components/fx":406,"../../lib":503,"../../lib/geo_location_utils":496,"../../lib/topojson_utils":532,"../../registry":638,"../cartesian/autorange":553,"../cartesian/axes":554,"../cartesian/select":575,"../plots":619,"./constants":587,"./zoom":592,"@plotly/d3":58,"d3-geo":114,"d3-geo-projection":113,"topojson-client":315}],589:[function(t,e,r){"use strict";var n=t("../../plots/get_data").getSubplotCalcData,i=t("../../lib").counterRegex,a=t("./geo"),o="geo",s=i(o),l={};l.geo={valType:"subplotid",dflt:o,editType:"calc"},e.exports={attr:o,name:o,idRoot:o,idRegex:s,attrRegex:s,attributes:l,layoutAttributes:t("./layout_attributes"),supplyLayoutDefaults:t("./layout_defaults"),plot:function(t){for(var e=t._fullLayout,r=t.calcdata,i=e._subplots.geo,s=0;s<i.length;s++){var l=i[s],c=n(r,o,l),u=e[l]._subplot;u||(u=a({id:l,graphDiv:t,container:e._geolayer.node(),topojsonURL:t._context.topojsonURL,staticPlot:t._context.staticPlot}),e[l]._subplot=u),u.plot(c,e,t._promises)}},updateFx:function(t){for(var e=t._fullLayout,r=e._subplots.geo,n=0;n<r.length;n++){var i=e[r[n]];i._subplot.updateFx(e,i)}},clean:function(t,e,r,n){for(var i=n._subplots.geo||[],a=0;a<i.length;a++){var o=i[a],s=n[o]._subplot;!e[o]&&s&&(s.framework.remove(),s.clipDef.remove())}}},{"../../lib":503,"../../plots/get_data":593,"./geo":588,"./layout_attributes":590,"./layout_defaults":591}],590:[function(t,e,r){"use strict";var n=t("../../components/color/attributes"),i=t("../domain").attributes,a=t("../../components/drawing/attributes").dash,o=t("./constants"),s=t("../../plot_api/edit_types").overrideAll,l=t("../../lib/sort_object_keys"),c={range:{valType:"info_array",items:[{valType:"number"},{valType:"number"}]},showgrid:{valType:"boolean",dflt:!1},tick0:{valType:"number",dflt:0},dtick:{valType:"number"},gridcolor:{valType:"color",dflt:n.lightLine},gridwidth:{valType:"number",min:0,dflt:1},griddash:a};(e.exports=s({domain:i({name:"geo"},{}),fitbounds:{valType:"enumerated",values:[!1,"locations","geojson"],dflt:!1,editType:"plot"},resolution:{valType:"enumerated",values:[110,50],dflt:110,coerceNumber:!0},scope:{valType:"enumerated",values:l(o.scopeDefaults),dflt:"world"},projection:{type:{valType:"enumerated",values:l(o.projNames)},rotation:{lon:{valType:"number"},lat:{valType:"number"},roll:{valType:"number"}},tilt:{valType:"number",dflt:0},distance:{valType:"number",min:1.001,dflt:2},parallels:{valType:"info_array",items:[{valType:"number"},{valType:"number"}]},scale:{valType:"number",min:0,dflt:1}},center:{lon:{valType:"number"},lat:{valType:"number"}},visible:{valType:"boolean",dflt:!0},showcoastlines:{valType:"boolean"},coastlinecolor:{valType:"color",dflt:n.defaultLine},coastlinewidth:{valType:"number",min:0,dflt:1},showland:{valType:"boolean",dflt:!1},landcolor:{valType:"color",dflt:o.landColor},showocean:{valType:"boolean",dflt:!1},oceancolor:{valType:"color",dflt:o.waterColor},showlakes:{valType:"boolean",dflt:!1},lakecolor:{valType:"color",dflt:o.waterColor},showrivers:{valType:"boolean",dflt:!1},rivercolor:{valType:"color",dflt:o.waterColor},riverwidth:{valType:"number",min:0,dflt:1},showcountries:{valType:"boolean"},countrycolor:{valType:"color",dflt:n.defaultLine},countrywidth:{valType:"number",min:0,dflt:1},showsubunits:{valType:"boolean"},subunitcolor:{valType:"color",dflt:n.defaultLine},subunitwidth:{valType:"number",min:0,dflt:1},showframe:{valType:"boolean"},framecolor:{valType:"color",dflt:n.defaultLine},framewidth:{valType:"number",min:0,dflt:1},bgcolor:{valType:"color",dflt:n.background},lonaxis:c,lataxis:c},"plot","from-root")).uirevision={valType:"any",editType:"none"}},{"../../components/color/attributes":365,"../../components/drawing/attributes":387,"../../lib/sort_object_keys":526,"../../plot_api/edit_types":536,"../domain":584,"./constants":587}],591:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../subplot_defaults"),a=t("../get_data").getSubplotData,o=t("./constants"),s=t("./layout_attributes"),l=o.axesNames;function c(t,e,r,i){var s=a(i.fullData,"geo",i.id).map((function(t){return t._expandedIndex})),c=r("resolution"),u=r("scope"),f=o.scopeDefaults[u],h=r("projection.type",f.projType),p=e._isAlbersUsa="albers usa"===h;p&&(u=e.scope="usa");var d=e._isScoped="world"!==u,g=e._isSatellite="satellite"===h,v=e._isConic=-1!==h.indexOf("conic")||"albers"===h,m=e._isClipped=!!o.lonaxisSpan[h];if(!1===t.visible){var y=n.extendDeep({},e._template);y.showcoastlines=!1,y.showcountries=!1,y.showframe=!1,y.showlakes=!1,y.showland=!1,y.showocean=!1,y.showrivers=!1,y.showsubunits=!1,y.lonaxis&&(y.lonaxis.showgrid=!1),y.lataxis&&(y.lat

axis.showgrid=!1),e._template=y}for(var x=r("visible"),b=0;b<l.length;b++){var
_,w=l[b],T=[30,10][b];if(d)_=f[w+"Range"];else{var
k=o[w+"Span"],A=(k[h]||k["*"])/2,M=r("projection.rotation."+w.substr(0,3),f.projRotate[b]);_=[M-A,M+A]}var
S=r(w+".range",_);r(w+".tick0"),r(w+".dtick",T),r(w+".showgrid",!!x&&void
0)&&(r(w+".gridcolor"),r(w+".gridwidth"),r(w+".griddash")),e[w]._ax={type:"linear",_id:w.slice(0,3),_traceIndices
:s,setScale:n.identity,c2l:n.identity,r2l:n.identity,autorange:!0,range:S.slice(),_m:1,_input:{}}}var
E=e.lonaxis.range,L=e.lataxis.range,C=E[0],P=E[1];C>0&&P<0&&(P+=360);var I,O,z,D=(C+P)/2;if(!p){var
R=d?f.projRotate:[D,0,0];I=r("projection.rotation.lon",R[0]),r("projection.rotation.lat",R[1]),r("projection.rotation.ro
ll",R[2]),r("showcoastlines",!d&&x)&&(r("coastlinecolor"),r("coastlinewidth")),r("showocean",!!x&&void
0)&&r("oceancolor")}p?(O=-
96.6,z=38.7):(O=d?D:I,z=(L[0]+L[1])/2),r("center.lon",O),r("center.lat",z),g&&(r("projection.tilt"),r("projection.dis
tance")),v&&r("projection.parallels",f.projParallels||[0,60]),r("projection.scale"),r("showland",!!x&&void
0)&&r("landcolor"),r("showlakes",!!x&&void 0)&&r("lakecolor"),r("showrivers",!!x&&void
0)&&(r("rivercolor"),r("riverwidth")),r("showcountries",d&&"usa"!==u&&x)&&(r("countrycolor"),r("countrywidt
h")),("usa"===u||"north
america"===u&&50===c)&&(r("showsubunits",x),r("subunitcolor"),r("subunitwidth")),d||r("showframe",x)&&(r("
framecolor"),r("framewidth")),r("bgcolor"),r("fitbounds")&&(delete e.projection.scale,d?(delete e.center.lon,delete
e.center.lat):m?(delete e.center.lon,delete e.center.lat,delete e.projection.rotation.lon,delete
e.projection.rotation.lat,delete e.lonaxis.range,delete e.lataxis.range):(delete e.center.lon,delete e.center.lat,delete
e.projection.rotation.lon))}e.exports=function(t,e,r){i(t,e,r,{type:"geo",attributes:s,handleDefaults:c,fullData:r,partiti
on:"y"})}},{"../../lib":503,"../get_data":593,"../subplot_defaults":632,"./constants":587,"./layout_attributes":590}],59
2:[function(t,e,r){"use strict";var
n=t("@plotly/d3"),i=t("../../lib"),a=t("../../registry"),o=Math.PI/180,s=180/Math.PI,l={cursor:"pointer"},c={cursor:"
auto"};function u(t,e){return n.behavior.zoom().translate(e.translate()).scale(e.scale())}function f(t,e,r){var
n=t.id,o=t.graphDiv,s=o.layout,l=s[n],c=o._fullLayout,u=c[n],f={},h={};function
p(t,e){f[n+"."+t]=i.nestedProperty(l,t).get(),a.call("_storeDirectGUIEdit",s,c._preGUI,f);var
r=i.nestedProperty(u,t);r.get()!==e&&(r.set(e),i.nestedProperty(l,t).set(e),h[n+"."+t]=e)}r(p),p("projection.scale",e.s
cale()/t.fitScale),p("fitbounds",!1),o.emit("plotly_relayout",h)}function h(t,e){var r=u(0,e);function i(r){var
n=e.invert(t.midPt);r("center.lon",n[0]),r("center.lat",n[1])}return
r.on("zoomstart",(function(){n.select(this).style(l)})).on("zoom",(function(){e.scale(n.event.scale).translate(n.event.t
ranslate),t.render();var
r=e.invert(t.midPt);t.graphDiv.emit("plotly_relayouting",{"geo.projection.scale":e.scale()/t.fitScale,"geo.center.lon":
r[0],"geo.center.lat":r[1]})})).on("zoomend",(function(){n.select(this).style(c),f(t,e,i)})),r}function p(t,e){var
r,i,a,o,s,h,p,d,g,v=u(0,e);function m(t){return e.invert(t)}function y(r){var
n=e.rotate(),i=e.invert(t.midPt);r("projection.rotation.lon",-n[0]),r("center.lon",i[0]),r("center.lat",i[1])}return
v.on("zoomstart",(function(){n.select(this).style(l),r=n.mouse(this),i=e.rotate(),a=e.translate(),o=i,s=m(r)})).on("zoo
m",(function(){if(h=n.mouse(this),function(t){var r=m(t);if(!r)return!0;var n=e(r);return Math.abs(n[0]-
t[0])>2||Math.abs(n[1]-t[1])>2}(r))return v.scale(e.scale()),void
v.translate(e.translate());e.scale(n.event.scale),e.translate([a[0],n.event.translate[1]]),s?m(h)&&(d=m(h),p=[o[0]+(d[
0]-s[0]),i[1],i[2]],e.rotate(p),o=p):s=m(r=h),g=!0,t.render();var
l=e.rotate(),c=e.invert(t.midPt);t.graphDiv.emit("plotly_relayouting",{"geo.projection.scale":e.scale()/t.fitScale,"geo
.center.lon":c[0],"geo.center.lat":c[1],"geo.projection.rotation.lon":-
l[0]})})).on("zoomend",(function(){n.select(this).style(c),g&&f(t,e,y)})),v}function d(t,e){var
r,i={r:e.rotate(),k:e.scale()},a=u(0,e),o=function(t){for(var
e=0,r=arguments.length,i=[];++e<r;)i.push(arguments[e]);var a=n.dispatch.apply(null,i);return
a.of=function(e,r){return function(i){var
o;try{o=i.sourceEvent=n.event,i.target=t,n.event=i,a[i.type].apply(e,r)}finally{n.event=o}}},a}(a,"zoomstart","zoo
m","zoomend"),s=0,h=a.on;function p(t){s++||t({type:"zoomstart"})}function d(t){t({type:"zoom"})}function b(t){-

-s||t({type:"zoomend"})}function _(t){var r=e.rotate();t("projection.rotation.lon",-r[0]),t("projection.rotation.lat",-r[1])}return a.on("zoomstart",(function(){n.select(this).style(l);var t=n.mouse(this),s=e.rotate(),c=s,u=e.translate(),f=v(s);r=g(e,t),h.call(a,"zoom",(function(){var a=n.mouse(this);if(e.scale(i.k=n.event.scale),r){if(g(e,a)){e.rotate(s).translate(u);var l=g(e,a),h=y(r,l),p=T(m(f,h)),v=i.r=x(p,r,c);isFinite(v[0])&&isFinite(v[1])&&isFinite(v[2])||(v=c),e.rotate(v),c=v}}else r=g(e,t=a);d(o.of(this,arguments))})),p(o.of(this,arguments))})).on("zoomend",(function(){n.select(this).style(c),h.call(a,"zoom",null),b(o.of(this,arguments)),f(t,e,_)})).on("zoom.redraw",(function(){t.render();var r=e.rotate();t.graphDiv.emit("plotly_relayouting",{"geo.projection.scale":e.scale()/t.fitScale,"geo.projection.rotation.lon":-r[0],"geo.projection.rotation.lat":-r[1]})})),n.rebind(a,o,"on")}function g(t,e){var r=t.invert(e);return r&&isFinite(r[0])&&isFinite(r[1])&&function(t){var e=t[0]*o,r=t[1]*o,n=Math.cos(r);return[n*Math.cos(e),n*Math.sin(e),Math.sin(r)]}(r)}function v(t){var e=.5*t[0]*o,r=.5*t[1]*o,n=.5*t[2]*o,i=Math.sin(e),a=Math.cos(e),s=Math.sin(r),l=Math.cos(r),c=Math.sin(n),u=Math.cos(n);return[a*l*u+i*s*c,i*l*u-a*s*c,a*s*u+i*l*c,a*l*c-i*s*u]}function m(t,e){var r=t[0],n=t[1],i=t[2],a=t[3],o=e[0],s=e[1],l=e[2],c=e[3];return[r*o-n*s-i*l-a*c,r*s+n*o+i*c-a*l,r*l-n*c+i*o+a*s,r*c+n*l-i*s+a*o]}function y(t,e){if(t&&e){var r=function(t,e){return[t[1]*e[2]-t[2]*e[1],t[2]*e[0]-t[0]*e[2],t[0]*e[1]-t[1]*e[0]]}(t,e),n=Math.sqrt(k(r,r)),i=.5*Math.acos(Math.max(-1,Math.min(1,k(t,e)))),a=Math.sin(i)/n;return n&&[Math.cos(i),r[2]*a,-r[1]*a,r[0]*a]}}function x(t,e,r){var n=w(e,2,t[0]);n=w(n,1,t[1]),n=w(n,0,t[2]-r[2]);var i,a,o=e[0],l=e[1],c=e[2],u=n[0],f=n[1],h=n[2],p=Math.atan2(l,o)*s,d=Math.sqrt(o*o+l*l);Math.abs(f)>d?(a=(f>0?90:-90)-p,i=0):(a=Math.asin(f/d)*s-p,i=Math.sqrt(d*d-f*f));var g=180-a-2*p,v=(Math.atan2(h,u)-Math.atan2(c,i))*s,m=(Math.atan2(h,u)-Math.atan2(c,-i))*s;return b(r[0],r[1],a,v)<=b(r[0],r[1],g,m)?[a,v,r[2]]:[g,m,r[2]]}function b(t,e,r,n){var i=_(r-t),a=_(n-e);return Math.sqrt(i*i+a*a)}function _(t){return(t%360+540)%360-180}function w(t,e,r){var n=r*o,i=t.slice(),a=0===e?1:0,s=2===e?1:2,l=Math.cos(n),c=Math.sin(n);return i[a]=t[a]*l-t[s]*c,i[s]=t[s]*l+t[a]*c,i}function T(t){return[Math.atan2(2*(t[0]*t[1]+t[2]*t[3]),1-2*(t[1]*t[1]+t[2]*t[2]))*s,Math.asin(Math.max(-1,Math.min(1,2*(t[0]*t[2]-t[3]*t[1]))))*s,Math.atan2(2*(t[0]*t[3]+t[1]*t[2]),1-2*(t[2]*t[2]+t[3]*t[3]))*s]}function k(t,e){for(var r=0,n=0,i=t.length;n<i;++n)r+=t[n]*e[n];return r}e.exports=function(t,e){var r=t.projection;return(e._isScoped?h:e._isClipped?d:p)(t,r)}},{"../../lib":503,"../../registry":638,"@plotly/d3":58}],593:[function(t,e,r){"use strict";var n=t("../registry"),i=t("./cartesian/constants").SUBPLOT_PATTERN;r.getSubplotCalcData=function(t,e,r){var i=n.subplotsRegistry[e];if(!i)return[];for(var a=i.attr,o=[],s=0;s<t.length;s++){var l=t[s];l[0].trace[a]===r&&o.push(l)}return o},r.getModuleCalcData=function(t,e){var r,i=[],a=[];if(!(r="string"==typeof e?n.getModule(e).plot:"function"==typeof e?e:e.plot))return[i,t];for(var o=0;o<t.length;o++){var s=t[o],l=s[0].trace;!0===l.visible&&0!==l._length&&(l._module.plot===r?i.push(s):a.push(s))}return[i,a]},r.getSubplotData=function(t,e,r){if(!n.subplotsRegistry[e])return[];var a,o,s,l=n.subplotsRegistry[e].attr,c=[];if("gl2d"===e){var u=r.match(i);o="x"+u[1],s="y"+u[2]}for(var f=0;f<t.length;f++)a=t[f],"gl2d"===e&&n.traceIs(a,"gl2d")?a[l[0]]===o&&a[l[1]]===s&&c.push(a):a[l]===r&&c.push(a);return c}},{"../registry":638,"./cartesian/constants":561}],594:[function(t,e,r){"use strict";var n=t("mouse-change"),i=t("mouse-wheel"),a=t("mouse-event-offset"),o=t("../cartesian/constants"),s=t("has-passive-events");function l(t,e){this.element=t,this.plot=e,this.mouseListener=null,this.wheelListener=null,this.lastInputTime=Date.now(),this.lastPos=[0,0],this.boxEnabled=!1,this.boxInited=!1,this.boxStart=[0,0],this.boxEnd=[0,0],this.dragStart=[0,0]}e.exports=function(t){var e=t.mouseContainer,r=t.glplot,c=new l(e,r);function u(){t.xaxis.autorange=!1,t.yaxis.autorange=!1}function f(e,n,i){var a,s,l=t.calcDataBox(),f=r.viewBox,h=c.lastPos[0],p=c.lastPos[1],d=o.MINDRAG*r.pixelRatio,g=o.MINZOOM*r.pi

xelRatio;function v(e,r,n){var
i=Math.min(r,n),a=Math.max(r,n);i!==a?(l[e]=i,l[e+2]=a,c.dataBox=l,t.setRanges(l)):(t.selectBox.selectBox=[0,0,1,
1],t.glplot.setDirty())}switch(n*=r.pixelRatio,i*=r.pixelRatio,i=f[3]-f[1]-
i,t.fullLayout.dragmode){case"zoom":if(e){var m=n/(f[2]-f[0])*(l[2]-l[0])+l[0],y=i/(f[3]-f[1])*(l[3]-
l[1])+l[1];c.boxInited||(c.boxStart[0]=m,c.boxStart[1]=y,c.dragStart[0]=n,c.dragStart[1]=i),c.boxEnd[0]=m,c.boxEn
d[1]=y,c.boxInited=!0,c.boxEnabled||c.boxStart[0]===c.boxEnd[0]&&c.boxStart[1]===c.boxEnd[1]||(c.boxEnabled
=!0);var x=Math.abs(c.dragStart[0]-n)<g,b=Math.abs(c.dragStart[1]-i)<g;if(!function(){for(var
e=t.graphDiv._fullLayout._axisConstraintGroups,r=t.xaxis._id,n=t.yaxis._id,i=0;i<e.length;i++)if(-1!==e[i][r]){if(-
1!==e[i][n])return!0;break}return!1}()||x&&b)x&&(c.boxEnd[0]=c.boxStart[0]),b&&(c.boxEnd[1]=c.boxStart[1]);e
lse{a=c.boxEnd[0]-c.boxStart[0],s=c.boxEnd[1]-c.boxStart[1];var _=(l[3]-l[1])/(l[2]-
l[0]);Math.abs(a*_)>Math.abs(s)?(c.boxEnd[1]=c.boxStart[1]+Math.abs(a)*_*(s>=0?1:-
1),c.boxEnd[1]<l[1]?(c.boxEnd[1]=l[1],c.boxEnd[0]=c.boxStart[0]+(l[1]-
c.boxStart[1])/Math.abs(_)):c.boxEnd[1]>l[3]&&(c.boxEnd[1]=l[3],c.boxEnd[0]=c.boxStart[0]+(l[3]-
c.boxStart[1])/Math.abs(_))):(c.boxEnd[0]=c.boxStart[0]+Math.abs(s)/_*(a>=0?1:-
1),c.boxEnd[0]<l[0]?(c.boxEnd[0]=l[0],c.boxEnd[1]=c.boxStart[1]+(l[0]-
c.boxStart[0])*Math.abs(_)):c.boxEnd[0]>l[2]&&(c.boxEnd[0]=l[2],c.boxEnd[1]=c.boxStart[1]+(l[2]-
c.boxStart[0])*Math.abs(_)))}}else
c.boxEnabled?(a=c.boxStart[0]!==c.boxEnd[0],s=c.boxStart[1]!==c.boxEnd[1],a||s?(a&&(v(0,c.boxStart[0],c.boxE
nd[0]),t.xaxis.autorange=!1),s&&(v(1,c.boxStart[1],c.boxEnd[1]),t.yaxis.autorange=!1),t.relayoutCallback()):t.glplot
.setDirty(),c.boxEnabled=!1,c.boxInited=!1):c.boxInited&&(c.boxInited=!1);break;case"pan":c.boxEnabled=!1,c.bo
xInited=!1,e?(c.panning||(c.dragStart[0]=n,c.dragStart[1]=i),Math.abs(c.dragStart[0]-
n)<d&&(n=c.dragStart[0]),Math.abs(c.dragStart[1]-i)<d&&(i=c.dragStart[1]),a=(h-n)*(l[2]-l[0])/(r.viewBox[2]-
r.viewBox[0]),s=(p-i)*(l[3]-l[1])/(r.viewBox[3]-
r.viewBox[1]),l[0]+=a,l[2]+=a,l[1]+=s,l[3]+=s,t.setRanges(l),c.panning=!0,c.lastInputTime=Date.now(),u(),t.camera
Changed(),t.handleAnnotations()):c.panning&&(c.panning=!1,t.relayoutCallback())}c.lastPos[0]=n,c.lastPos[1]=i}r
eturn c.mouseListener=n(e,f),e.addEventListener("touchstart",(function(t){var
r=a(t.changedTouches[0],e);f(0,r[0],r[1]),f(1,r[0],r[1]),t.preventDefault()}),!!s&&{passive:!1}),e.addEventListener(
"touchmove",(function(t){t.preventDefault();var
r=a(t.changedTouches[0],e);f(1,r[0],r[1]),t.preventDefault()}),!!s&&{passive:!1}),e.addEventListener("touchend",(f
unction(t){f(0,c.lastPos[0],c.lastPos[1]),t.preventDefault()}),!!s&&{passive:!1}),c.wheelListener=i(e,(function(e,n){
if(!t.scrollZoom)return!1;var i=t.calcDataBox(),a=r.viewBox,o=c.lastPos[0],s=c.lastPos[1],l=Math.exp(5*n/(a[3]-
a[1])),f=o/(a[2]-a[0])*(i[2]-i[0])+i[0],h=s/(a[3]-a[1])*(i[3]-i[1])+i[1];return i[0]=(i[0]-f)*l+f,i[2]=(i[2]-
f)*l+f,i[1]=(i[1]-h)*l+h,i[3]=(i[3]-
h)*l+h,t.setRanges(i),c.lastInputTime=Date.now(),u(),t.cameraChanged(),t.handleAnnotations(),t.relayoutCallback()
,!0}),!0),c}},{"../cartesian/constants":561,"has-passive-events":229,"mouse-change":241,"mouse-event-
offset":242,"mouse-wheel":244}],595:[function(t,e,r){"use strict";var
n=t("../cartesian/axes"),i=t("../../lib/str2rgbarray");function
a(t){this.scene=t,this.gl=t.gl,this.pixelRatio=t.pixelRatio,this.screenBox=[0,0,1,1],this.viewBox=[0,0,1,1],this.dataB
ox=[-1,-
1,1,1],this.borderLineEnable=[!1,!1,!1,!1],this.borderLineWidth=[1,1,1,1],this.borderLineColor=[[0,0,0,1],[0,0,0,1],
[0,0,0,1],[0,0,0,1]],this.ticks=[[],[]],this.tickEnable=[!0,!0,!1,!1],this.tickPad=[15,15,15,15],this.tickAngle=[0,0,0,0],
this.tickColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.tickMarkLength=[0,0,0,0],this.tickMarkWidth=[0,0,0,0],th
is.tickMarkColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.labels=["x","y"],this.labelEnable=[!0,!0,!1,!1],this.label
Angle=[0,Math.PI/2,0,3*Math.PI/2],this.labelPad=[15,15,15,15],this.labelSize=[12,12],this.labelFont=["sans-
serif","sans-
serif"],this.labelColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.title="",this.titleEnable=!0,this.titleCenter=[0,0,0,0
],this.titleAngle=0,this.titleColor=[0,0,0,1],this.titleFont="sans-
serif",this.titleSize=18,this.gridLineEnable=[!0,!0],this.gridLineColor=[[0,0,0,.5],[0,0,0,.5]],this.gridLineWidth=[1,1

],this.zeroLineEnable=[!0,!0],this.zeroLineWidth=[1,1],this.zeroLineColor=[[0,0,0,1],[0,0,0,1]],this.borderColor=[0
,0,0,0],this.backgroundColor=[0,0,0,0],this.static=this.scene.staticPlot}var
o=a.prototype,s=["xaxis","yaxis"];o.merge=function(t){var
e,r,n,a,o,l,c,u,f,h,p;for(this.titleEnable=!1,this.backgroundColor=i(t.plot_bgcolor),h=0;h<2;++h){var
d=(e=s[h]).charAt(0);for(n=(r=t[this.scene[e]._name]).title.text===this.scene.fullLayout._dfltTitle[d]?"":r.title.text,p
=0;p<=2;p+=2)this.labelEnable[h+p]=!1,this.labels[h+p]=n,this.labelColor[h+p]=i(r.title.font.color),this.labelFont[h
+p]=r.title.font.family,this.labelSize[h+p]=r.title.font.size,this.labelPad[h+p]=this.getLabelPad(e,r),this.tickEnable[h
+p]=!1,this.tickColor[h+p]=i((r.tickfont||{}).color),this.tickAngle[h+p]="auto"===r.tickangle?0:Math.PI*-
r.tickangle/180,this.tickPad[h+p]=this.getTickPad(r),this.tickMarkLength[h+p]=0,this.tickMarkWidth[h+p]=r.tickwi
dth||0,this.tickMarkColor[h+p]=i(r.tickcolor),this.borderLineEnable[h+p]=!1,this.borderLineColor[h+p]=i(r.linecolo
r),this.borderLineWidth[h+p]=r.linewidth||0;c=this.hasSharedAxis(r),o=this.hasAxisInDfltPos(e,r)&&!c,l=this.hasA
xisInAltrPos(e,r)&&!c,a=r.mirror||!1,u=c?-1!==String(a).indexOf("all"):!!a,f=c?"allticks"===a:-
1!==String(a).indexOf("ticks"),o?this.labelEnable[h]=!0:l&&(this.labelEnable[h+2]=!0),o?this.tickEnable[h]=r.sho
wticklabels:l&&(this.tickEnable[h+2]=r.showticklabels),(o||u)&&(this.borderLineEnable[h]=r.showline),(l||u)&&(th
is.borderLineEnable[h+2]=r.showline),(o||f)&&(this.tickMarkLength[h]=this.getTickMarkLength(r)),(l||f)&&(this.ti
ckMarkLength[h+2]=this.getTickMarkLength(r)),this.gridLineEnable[h]=r.showgrid,this.gridLineColor[h]=i(r.gridc
olor),this.gridLineWidth[h]=r.gridwidth,this.zeroLineEnable[h]=r.zeroline,this.zeroLineColor[h]=i(r.zerolinecolor),t
his.zeroLineWidth[h]=r.zerolinewidth}},o.hasSharedAxis=function(t){var
e=this.scene,r=e.fullLayout._subplots.gl2d;return
0!==n.findSubplotsWithAxis(r,t).indexOf(e.id)},o.hasAxisInDfltPos=function(t,e){var
r=e.side;return"xaxis"===t?"bottom"===r:"yaxis"===t?"left"===r:void 0},o.hasAxisInAltrPos=function(t,e){var
r=e.side;return"xaxis"===t?"top"===r:"yaxis"===t?"right"===r:void 0},o.getLabelPad=function(t,e){var
r=1.5,n=e.title.font.size,i=e.showticklabels;return"xaxis"===t?"top"===e.side?n*(r+(i?1:0))-10:n*(r+(i?.5:0))-
10:"yaxis"===t?"right"===e.side?10+n*(r+(i?1:.5)):10+n*(r+(i?.5:0)):void
0},o.getTickPad=function(t){return"outside"===t.ticks?10+t.ticklen:15},o.getTickMarkLength=function(t){if(!t.tick
s)return 0;var e=t.ticklen;return"inside"===t.ticks?-e:e},e.exports=function(t){return new
a(t)}},{"../../lib/str2rgbarray":528,"../cartesian/axes":554}],596:[function(t,e,r){"use strict";var
n=t("../../plot_api/edit_types").overrideAll,i=t("./scene2d"),a=t("../layout_attributes"),o=t("../../constants/xmlns_nam
espaces"),s=t("../cartesian/constants"),l=t("../cartesian"),c=t("../../components/fx/layout_attributes"),u=t("../get_data"
).getSubplotData;r.name="gl2d",r.attr=["xaxis","yaxis"],r.idRoot=["x","y"],r.idRegex=s.idRegex,r.attrRegex=s.attrR
egex,r.attributes=t("../cartesian/attributes"),r.supplyLayoutDefaults=function(t,e,r){e._has("cartesian")||l.supplyLayo
utDefaults(t,e,r)},r.layoutAttrOverrides=n(l.layoutAttributes,"plot","from-
root"),r.baseLayoutAttrOverrides=n({plot_bgcolor:a.plot_bgcolor,hoverlabel:c.hoverlabel},"plot","nested"),r.plot=f
unction(t){for(var e=t._fullLayout,r=t._fullData,n=e._subplots.gl2d,a=0;a<n.length;a++){var
o=n[a],s=e._plots[o],l=u(r,"gl2d",o),c=s._scene2d;void 0===c&&(c=new
i({id:o,graphDiv:t,container:t.querySelector(".gl-
container"),staticPlot:t._context.staticPlot,plotGlPixelRatio:t._context.plotGlPixelRatio},e),s._scene2d=c),c.plot(l,t.c
alcdata,e,t.layout)}},r.clean=function(t,e,r,n){for(var i=n._subplots.gl2d||[],a=0;a<i.length;a++){var
o=i[a],s=n._plots[o];s._scene2d&&0===u(t,"gl2d",o).length&&(s._scene2d.destroy(),delete
n._plots[o])}l.clean.apply(this,arguments)},r.drawFramework=function(t){t._context.staticPlot||l.drawFramework(t)
},r.toSVG=function(t){for(var e=t._fullLayout,r=e._subplots.gl2d,n=0;n<r.length;n++){var
i=e._plots[r[n]]._scene2d,a=i.toImage("png");e._glimages.append("svg:image").attr({xmlns:o.svg,"xlink:href":a,x:0,
y:0,width:"100%",height:"100%",preserveAspectRatio:"none"}),i.destroy()}},r.updateFx=function(t){for(var
e=t._fullLayout,r=e._subplots.gl2d,n=0;n<r.length;n++)e._plots[r[n]]._scene2d.updateFx(e.dragmode)}},{"../../com
ponents/fx/layout_attributes":407,"../../constants/xmlns_namespaces":480,"../../plot_api/edit_types":536,"../cartesian
":568,"../cartesian/attributes":552,"../cartesian/constants":561,"../get_data":593,"../layout_attributes":610,"./scene2d"
:597}],597:[function(t,e,r){"use strict";var
n,i,a=t("../../registry"),o=t("../../plots/cartesian/axes"),s=t("../../components/fx"),l=t("../../../stackgl_modules").gl_plot

2d,c=t("../../../stackgl_modules").gl_spikes2d,u=t("../../../stackgl_modules").gl_select_box,f=t("webgl-context"),h=t("./convert"),p=t("./camera"),d=t("../../lib/show_no_webgl_msg"),g=t("../cartesian/constraints"),v=g.enforce,m=g.clean,y=t("../cartesian/autorange").doAutoRange,x=t("../../components/dragelement/helpers"),b=x.drawMode,_=x.selectMode,w=["xaxis","yaxis"],T=t("../cartesian/constants").SUBPLOT_PATTERN;function k(t,e){this.container=t.container,this.graphDiv=t.graphDiv,this.pixelRatio=t.plotGlPixelRatio||window.devicePixelRatio,this.id=t.id,this.staticPlot=!!t.staticPlot,this.scrollZoom=this.graphDiv._context._scrollZoom.cartesian,this.fullData=null,this.updateRefs(e),this.makeFramework(),this.stopped||(this.glplotOptions=h(this),this.glplotOptions.merge(e),this.glplot=l(this.glplotOptions),this.camera=p(this),this.traces={},this.spikes=c(this.glplot),this.selectBox=u(this.glplot,{innerFill:!1,outerFill:!0}),this.lastButtonState=0,this.pickResult=null,this.isMouseOver=!0,this.stopped=!1,this.redraw=this.draw.bind(this),this.redraw())}e.exports=k;var A=k.prototype;A.makeFramework=function(){if(this.staticPlot){if(!(i||(n=document.createElement("canvas"),i=f({canvas:n,preserveDrawingBuffer:!1,premultipliedAlpha:!0,antialias:!0}))))throw new Error("Error creating static canvas/context for image server");this.canvas=n,this.gl=i}else{var t=this.container.querySelector(".gl-canvas-focus"),e=f({canvas:t,preserveDrawingBuffer:!0,premultipliedAlpha:!0});if(!e)return d(this),void(this.stopped=!0);this.canvas=t,this.gl=e}var r=this.canvas;r.style.width="100%",r.style.height="100%",r.style.position="absolute",r.style.top="0px",r.style.left="0px",r.style["pointer-events"]="none",this.updateSize(r);var a=this.svgContainer=document.createElementNS("http://www.w3.org/2000/svg","svg");a.style.position="absolute",a.style.top=a.style.left="0px",a.style.width=a.style.height="100%",a.style["z-index"]=20,a.style["pointer-events"]="none";var o=this.mouseContainer=document.createElement("div");o.style.position="absolute",o.style["pointer-events"]="auto",this.pickCanvas=this.container.querySelector(".gl-canvas-pick");var s=this.container;s.appendChild(a),s.appendChild(o);var l=this;o.addEventListener("mouseout",(function(){l.isMouseOver=!1,l.unhover()})),o.addEventListener("mouseover",(function(){l.isMouseOver=!0}))},A.toImage=function(t){t||(t="png"),this.stopped=!0,this.staticPlot&&this.container.appendChild(n),this.updateSize(this.canvas);var e=this.glplot.gl,r=e.drawingBufferWidth,i=e.drawingBufferHeight;e.clearColor(1,1,1,0),e.clear(e.COLOR_BUFFER_BIT|e.DEPTH_BUFFER_BIT),this.glplot.setDirty(),this.glplot.draw(),e.bindFramebuffer(e.FRAMEBUFFER,null);var a=new Uint8Array(r*i*4);e.readPixels(0,0,r,i,e.RGBA,e.UNSIGNED_BYTE,a);for(var o=0,s=i-1;o<s;++o,--s)for(var l=0;l<r;++l)for(var c=0;c<4;++c){var u=a[4*(r*o+l)+c];a[4*(r*o+l)+c]=a[4*(r*s+l)+c],a[4*(r*s+l)+c]=u}var f=document.createElement("canvas");f.width=r,f.height=i;var h,p=f.getContext("2d",{willReadFrequently:!0}),d=p.createImageData(r,i);switch(d.data.set(a),p.putImageData(d,0,0),t){case"jpeg":h=f.toDataURL("image/jpeg");break;case"webp":h=f.toDataURL("image/webp");break;default:h=f.toDataURL("image/png")}return this.staticPlot&&this.container.removeChild(n),h},A.updateSize=function(t){t||(t=this.canvas);var e=this.pixelRatio,r=this.fullLayout,n=r.width,i=r.height,a=0|Math.ceil(e*n),o=0|Math.ceil(e*i);return t.width===a&&t.height===o||(t.width=a,t.height=o),t},A.computeTickMarks=function(){this.xaxis.setScale(),this.yaxis.setScale();for(var t=[o.calcTicks(this.xaxis),o.calcTicks(this.yaxis)],e=0;e<2;++e)for(var r=0;r<t[e].length;++r)t[e][r].text=t[e][r].text+"";return t},A.updateRefs=function(t){this.fullLayout=t;var e=this.id.match(T),r="xaxis"+e[1],n="yaxis"+e[2];this.xaxis=this.fullLayout[r],this.yaxis=this.fullLayout[n]},A.relayoutCallback=function(){var t=this.graphDiv,e=this.xaxis,r=this.yaxis,n=t.layout,i={},o=i[e._name+".range"]=e.range.slice(),s=i[r._name+".range"]=r.range.slice();i[e._name+".autorange"]=e.autorange,i[r._name+".autorange"]=r.autorange,a.call("_storeDirectGUIEdit",t.layout,t._fullLayout._preGUI,i);var l=n[e._name];l.range=o,l.autorange=e.autorange;var c=n[r._name];c.range=s,c.autorange=r.autorange,i.lastInputTime=this.camera.lastInputTime,t.emit("plotly_relayout",i)},A.cameraChanged=function(){var t=this.camera;this.glplot.setDataBox(this.calcDataBox());var e=this.computeTickMarks();(function(t,e){for(var r=0;r<2;++r){var

n=t[r],i=e[r];if(n.length!==i.length)return!0;for(var a=0;a<n.length;++a)if(n[a].x!==i[a].x)return!0}return!1})(e,this.glplotOptions.ticks)&&(this.glplotOptions.ticks=e,this.glplotOptions.dataBox=t.dataBox,this.glplot.update(this.glplotOptions),this.handleAnnotations())},A.handleAnnotations=function(){for(var t=this.graphDiv,e=this.fullLayout.annotations,r=0;r<e.length;r++){var n=e[r];n.xref===this.xaxis._id&&n.yref===this.yaxis._id&&a.getComponentMethod("annotations","drawOne")(t,r)}},A.destroy=function(){if(this.glplot){var t=this.traces;t&&Object.keys(t).map((function(e){t[e].dispose(),delete t[e]})),this.glplot.dispose(),this.container.removeChild(this.svgContainer),this.container.removeChild(this.mouseContainer),this.fullData=null,this.glplot=null,this.stopped=!0,this.camera.mouseListener.enabled=!1,this.mouseContainer.removeEventListener("wheel",this.camera.wheelListener),this.camera=null}},A.plot=function(t,e,r){var n=this.glplot;this.updateRefs(r),this.xaxis.clearCalc(),this.yaxis.clearCalc(),this.updateTraces(t,e),this.updateFx(r.dragmode);var i=r.width,a=r.height;this.updateSize(this.canvas);var o=this.glplotOptions;o.merge(r),o.screenBox=[0,0,i,a];var s={_fullLayout:{_axisConstraintGroups:r._axisConstraintGroups,xaxis:this.xaxis,yaxis:this.yaxis,_size:r._size}};m(s,this.xaxis),m(s,this.yaxis);var l,c,u=r._size,f=this.xaxis.domain,h=this.yaxis.domain;for(o.viewBox=[u.l+f[0]*u.w,u.b+h[0]*u.h,i-u.r-(1-f[1])*u.w,a-u.t-(1-h[1])*u.h],this.mouseContainer.style.width=u.w*(f[1]-f[0])+"px",this.mouseContainer.style.height=u.h*(h[1]-h[0])+"px",this.mouseContainer.height=u.h*(h[1]-h[0]),this.mouseContainer.style.left=u.l+f[0]*u.w+"px",this.mouseContainer.style.top=u.t+(1-h[1])*u.h+"px",c=0;c<2;++c)(l=this[w[c]])._length=o.viewBox[c+2]-o.viewBox[c],y(this.graphDiv,l),l.setScale();v(s),o.ticks=this.computeTickMarks(),o.dataBox=this.calcDataBox(),o.merge(r),n.update(o),this.glplot.draw()},A.calcDataBox=function(){var t=this.xaxis,e=this.yaxis,r=t.range,n=e.range,i=t.r2l,a=e.r2l;return[i(r[0]),a(n[0]),i(r[1]),a(n[1])]},A.setRanges=function(t){var e=this.xaxis,r=this.yaxis,n=e.l2r,i=r.l2r;e.range=[n(t[0]),n(t[2])],r.range=[i(t[1]),i(t[3])]},A.updateTraces=function(t,e){var r,n,i,a=Object.keys(this.traces);this.fullData=t;t:for(r=0;r<a.length;r++){var o=a[r],s=this.traces[o];for(n=0;n<t.length;n++)if((i=t[n]).uid===o&&i.type===s.type)continue t;s.dispose(),delete this.traces[o]}for(r=0;r<t.length;r++){i=t[r];var l=e[r],c=this.traces[i.uid];c?c.update(i,l):(c=i._module.plot(this,i,l),this.traces[i.uid]=c)}this.glplot.objects.sort((function(t,e){return t._trace.index-e._trace.index}))},A.updateFx=function(t){_(t)||b(t)?(this.pickCanvas.style["pointer-events"]="none",this.mouseContainer.style["pointer-events"]="none"):(this.pickCanvas.style["pointer-events"]="auto",this.mouseContainer.style["pointer-events"]="auto"),this.mouseContainer.style.cursor="pan"===t?"move":"zoom"===t?"crosshair":null},A.emitPointAction=function(t,e){for(var r,n=t.trace.uid,i=t.pointIndex,a=0;a<this.fullData.length;a++)this.fullData[a].uid===n&&(r=this.fullData[a]);var o={x:t.traceCoord[0],y:t.traceCoord[1],curveNumber:r.index,pointNumber:i,data:r._input,fullData:this.fullData,xaxis:this.xaxis,yaxis:this.yaxis};s.appendArrayPointValue(o,r,i),this.graphDiv.emit(e,{points:[o]})},A.draw=function(){if(!this.stopped){requestAnimationFrame(this.redraw);var t=this.glplot,e=this.camera,r=e.mouseListener,n=1===this.lastButtonState&&0===r.buttons,i=this.fullLayout;this.lastButtonState=r.buttons,this.cameraChanged();var a,o=r.x*t.pixelRatio,l=this.canvas.height-t.pixelRatio*r.y;if(e.boxEnabled&&"zoom"===i.dragmode){this.selectBox.enabled=!0;for(var c=this.selectBox.selectBox=[Math.min(e.boxStart[0],e.boxEnd[0]),Math.min(e.boxStart[1],e.boxEnd[1]),Math.max(e.boxStart[0],e.boxEnd[0]),Math.max(e.boxStart[1],e.boxEnd[1])],u=0;u<2;u++)e.boxStart[u]===e.boxEnd[u]&&(c[u]=t.dataBox[u],c[u+2]=t.dataBox[u+2]);t.setDirty()}else if(!e.panning&&this.isMouseOver){this.selectBox.enabled=!1;var f=i._size,h=this.xaxis.domain,p=this.yaxis.domain,d=(a=t.pick(o/t.pixelRatio+f.l+h[0]*f.w,l/t.pixelRatio-(f.t+(1-p[1])*f.h)))&&a.object._trace.handlePick(a);if(d&&n&&this.emitPointAction(d,"plotly_click"),a&&"skip"!==a.object._trace.hoverinfo&&i.hovermode&&d&&(!this.lastPickResult||this.lastPickResult.traceUid!==d.trace.uid||this.lastPickResult.dataCoord[0]!==d.dataCoord[0]||this.lastPickResult.dataCoord[1]!==d.dataCoord[1])){var

g=d;this.lastPickResult={traceUid:d.trace?d.trace.uid:null,dataCoord:d.dataCoord.slice()},this.spikes.update({center:a.dataCoord}),g.screenCoord=[((t.viewBox[2]-t.viewBox[0])*(a.dataCoord[0]-t.dataBox[0])/(t.dataBox[2]-t.dataBox[0])+t.viewBox[0])/t.pixelRatio,(this.canvas.height-(t.viewBox[3]-t.viewBox[1])*(a.dataCoord[1]-t.dataBox[1])/(t.dataBox[3]-t.dataBox[1])-t.viewBox[1])/t.pixelRatio],this.emitPointAction(d,"plotly_hover");var v=this.fullData[g.trace.index]||{},m=g.pointIndex,y=s.castHoverinfo(v,i,m);if(y&&"all"!==y){var x=y.split("+");-1===x.indexOf("x")&&(g.traceCoord[0]=void 0),-1===x.indexOf("y")&&(g.traceCoord[1]=void 0),-1===x.indexOf("z")&&(g.traceCoord[2]=void 0),-1===x.indexOf("text")&&(g.textLabel=void 0),-1===x.indexOf("name")&&(g.name=void 0)}s.loneHover({x:g.screenCoord[0],y:g.screenCoord[1],xLabel:this.hoverFormatter("xaxis",g.traceCoord[0]),yLabel:this.hoverFormatter("yaxis",g.traceCoord[1]),zLabel:g.traceCoord[2],text:g.textLabel,name:g.name,color:s.castHoverOption(v,m,"bgcolor")||g.color,borderColor:s.castHoverOption(v,m,"bordercolor"),fontFamily:s.castHoverOption(v,m,"font.family"),fontSize:s.castHoverOption(v,m,"font.size"),fontColor:s.castHoverOption(v,m,"font.color"),nameLength:s.castHoverOption(v,m,"namelength"),textAlign:s.castHoverOption(v,m,"align")},{container:this.svgContainer,gd:this.graphDiv})}}a||this.unhover(),t.draw()}},A.unhover=function(){this.lastPickResult&&(this.spikes.update({}),this.lastPickResult=null,this.graphDiv.emit("plotly_unhover"),s.loneUnhover(this.svgContainer))},A.hoverFormatter=function(t,e){if(void 0!==e){var r=this[t];return o.tickText(r,r.c2l(e),"hover").text}},{"../../../stackgl_modules":1124,"../../components/dragelement/helpers":384,"../../components/fx":406,"../../lib/show_no_webgl_msg":525,"../../plots/cartesian/axes":554,"../../registry":638,"../cartesian/autorange":553,"../cartesian/constants":561,"../cartesian/constraints":562,"./camera":594,"./convert":595,"webgl-context":331}],598:[function(t,e,r){"use strict";var n=t("../../plot_api/edit_types").overrideAll,i=t("../../components/fx/layout_attributes"),a=t("./scene"),o=t("../get_data").getSubplotData,s=t("../../lib"),l=t("../../constants/xmlns_namespaces"),c="gl3d",u="scene";r.name=c,r.attr=u,r.idRoot=u,r.idRegex=r.attrRegex=s.counterRegex("scene"),r.attributes=t("./layout/attributes"),r.layoutAttributes=t("./layout/layout_attributes"),r.baseLayoutAttrOverrides=n({hoverlabel:i.hoverlabel},"plot","nested"),r.supplyLayoutDefaults=t("./layout/defaults"),r.plot=function(t){for(var e=t._fullLayout,r=t._fullData,n=e._subplots.gl3d,i=0;i<n.length;i++){var s=n[i],l=o(r,c,s),u=e[s],f=u.camera,h=u._scene;h||(h=new a({id:s,graphDiv:t,container:t.querySelector(".gl-container"),staticPlot:t._context.staticPlot,plotGlPixelRatio:t._context.plotGlPixelRatio,camera:f},e),u._scene=h),h.viewInitial||(h.viewInitial={up:{x:f.up.x,y:f.up.y,z:f.up.z},eye:{x:f.eye.x,y:f.eye.y,z:f.eye.z},center:{x:f.center.x,y:f.center.y,z:f.center.z}}),h.plot(l,e,t.layout)}},r.clean=function(t,e,r,n){for(var i=n._subplots.gl3d||[],a=0;a<i.length;a++){var o=i[a];!e[o]&&n[o]._scene&&(n[o]._scene.destroy(),n._infolayer&&n._infolayer.selectAll(".annotation-"+o).remove())}},r.toSVG=function(t){for(var e=t._fullLayout,r=e._subplots.gl3d,n=e._size,i=0;i<r.length;i++){var a=e[r[i]],o=a.domain,s=a._scene,c=s.toImage("png");e._glimages.append("svg:image").attr({xmlns:l.svg,"xlink:href":c,x:n.l+n.w*o.x[0],y:n.t+n.h*(1-o.y[1]),width:n.w*(o.x[1]-o.x[0]),height:n.h*(o.y[1]-o.y[0]),preserveAspectRatio:"none"}),s.destroy()}},r.cleanId=function(t){if(t.match(/^scene[0-9]*$/)){var e=t.substr(5);return"1"===e&&(e=""),u+e}},r.updateFx=function(t){for(var e=t._fullLayout,r=e._subplots.gl3d,n=0;n<r.length;n++)e[r[n]]._scene.updateFx(e.dragmode,e.hovermode)}},{"../../components/fx/layout_attributes":407,"../../constants/xmlns_namespaces":480,"../../lib":503,"../../plot_api/edit_types":536,"../get_data":593,"./layout/attributes":599,"./layout/defaults":603,"./layout/layout_attributes":604,"./scene":608}],599:[function(t,e,r){"use strict";e.exports={scene:{valType:"subplotid",dflt:"scene",editType:"calc+clearAxisTypes"}}},{}],600:[function(t,e,r){"use strict";var n=t("../../../components/color"),i=t("../../cartesian/layout_attributes"),a=t("../../../lib/extend").extendFlat,o=t("../../../plot_api/edit_types").overrideAll;e.exports=o({visible:i.visible,showspikes:{valType:"boolean",dflt:!0},spikesides:{valType:"boolean",dflt:!0},spikethickness:{valType:"number",min:0,dflt:2},spikecolor:{valType:"color",dflt:n.defaultLine},showbackground:{valType:"boolean",dflt:!1},backgroundcolor:{valType:"color",dflt:"rgba(204, 204, 204, 0.5)"},showaxeslabels:{valType:"boolean",dflt:!0},color:i.color,categoryorder:i.categoryorder,categoryarray:i.categ

oryarray,title:{text:i.title.text,font:i.title.font},type:a({},i.type,{values:["-","linear","log","date","category"]}),autotypenumbers:i.autotypenumbers,autorange:i.autorange,rangemode:i.rangemode,range:a({},i.range,{items:[{valType:"any",editType:"plot",impliedEdits:{"^autorange":!1}},{valType:"any",editType:"plot",impliedEdits:{"^autorange":!1}}],anim:!1}),tickmode:i.tickmode,nticks:i.nticks,tick0:i.tick0,dtick:i.dtick,tickvals:i.tickvals,ticktext:i.ticktext,ticks:i.ticks,mirror:i.mirror,ticklen:i.ticklen,tickwidth:i.tickwidth,tickcolor:i.tickcolor,showticklabels:i.showticklabels,tickfont:i.tickfont,tickangle:i.tickangle,tickprefix:i.tickprefix,showtickprefix:i.showtickprefix,ticksuffix:i.ticksuffix,showticksuffix:i.showticksuffix,showexponent:i.showexponent,exponentformat:i.exponentformat,minexponent:i.minexponent,separatethousands:i.separatethousands,tickformat:i.tickformat,tickformatstops:i.tickformatstops,hoverformat:i.hoverformat,showline:i.showline,linecolor:i.linecolor,linewidth:i.linewidth,showgrid:i.showgrid,gridcolor:a({},i.gridcolor,{dflt:"rgb(204, 204, 204)"}),gridwidth:i.gridwidth,zeroline:i.zeroline,zerolinecolor:i.zerolinecolor,zerolinewidth:i.zerolinewidth,_deprecated:{title:i._deprecated.title,titlefont:i._deprecated.titlefont}},"plot","from-root")},{"../../../components/color":366,"../../../lib/extend":493,"../../../plot_api/edit_types":536,"../../cartesian/layout_attributes":569}],601:[function(t,e,r){"use strict";var n=t("tinycolor2").mix,i=t("../../../lib"),a=t("../../../plot_api/plot_template"),o=t("./axis_attributes"),s=t("../../cartesian/type_defaults"),l=t("../../cartesian/axis_defaults"),c=["xaxis","yaxis","zaxis"];e.exports=function(t,e,r){var u,f;function h(t,e){return i.coerce(u,f,o,t,e)}for(var p=0;p<c.length;p++){var d=c[p];u=t[d]||{},(f=a.newContainer(e,d))._id=d[0]+r.scene,f._name=d,s(u,f,h,r),l(u,f,h,{font:r.font,letter:d[0],data:r.data,showGrid:!0,noTickson:!0,noTicklabelmode:!0,noTicklabelstep:!0,noTicklabelposition:!0,noTicklabeloverflow:!0,bgColor:r.bgColor,calendar:r.calendar},r.fullLayout),h("gridcolor",n(f.color,r.bgColor,72.72727272727273).toRgbString()),h("title.text",d[0]),f.setScale=i.noop,h("showspikes")&&(h("spikesides"),h("spikethickness"),h("spikecolor",f.color)),h("showaxeslabels"),h("showbackground")&&h("backgroundcolor")}},{"../../../lib":503,"../../../plot_api/plot_template":543,"../../cartesian/axis_defaults":556,"../../cartesian/type_defaults":582,"./axis_attributes":600,tinycolor2:312}],602:[function(t,e,r){"use strict";var n=t("../../../lib/str2rgbarray"),i=t("../../../lib"),a=["xaxis","yaxis","zaxis"];function o(){this.bounds=[[-10,-10,-10],[10,10,10]],this.ticks=[[],[],[]],this.tickEnable=[!0,!0,!0],this.tickFont=["sans-serif","sans-serif","sans-serif"],this.tickSize=[12,12,12],this.tickAngle=[0,0,0],this.tickColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.tickPad=[18,18,18],this.labels=["x","y","z"],this.labelEnable=[!0,!0,!0],this.labelFont=["Open Sans","Open Sans","Open Sans"],this.labelSize=[20,20,20],this.labelColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.labelPad=[30,30,30],this.lineEnable=[!0,!0,!0],this.lineMirror=[!1,!1,!1],this.lineWidth=[1,1,1],this.lineColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.lineTickEnable=[!0,!0,!0],this.lineTickMirror=[!1,!1,!1],this.lineTickLength=[10,10,10],this.lineTickWidth=[1,1,1],this.lineTickColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.gridEnable=[!0,!0,!0],this.gridWidth=[1,1,1],this.gridColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.zeroEnable=[!0,!0,!0],this.zeroLineColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.zeroLineWidth=[2,2,2],this.backgroundEnable=[!0,!0,!0],this.backgroundColor=[[.8,.8,.8,.5],[.8,.8,.8,.5],[.8,.8,.8,.5]],this._defaultTickPad=this.tickPad.slice(),this._defaultLabelPad=this.labelPad.slice(),this._defaultLineTickLength=this.lineTickLength.slice()}o.prototype.merge=function(t,e){for(var r=this,o=0;o<3;++o){var s=e[a[o]];s.visible?(r.labels[o]=t._meta?i.templateString(s.title.text,t._meta):s.title.text,"font"in s.title&&(s.title.font.color&&(r.labelColor[o]=n(s.title.font.color)),s.title.font.family&&(r.labelFont[o]=s.title.font.family),s.title.font.size&&(r.labelSize[o]=s.title.font.size)),"showline"in s&&(r.lineEnable[o]=s.showline),"linecolor"in s&&(r.lineColor[o]=n(s.linecolor)),"linewidth"in s&&(r.lineWidth[o]=s.linewidth),"showgrid"in s&&(r.gridEnable[o]=s.showgrid),"gridcolor"in s&&(r.gridColor[o]=n(s.gridcolor)),"gridwidth"in s&&(r.gridWidth[o]=s.gridwidth),"log"===s.type?r.zeroEnable[o]=!1:"zeroline"in s&&(r.zeroEnable[o]=s.zeroline),"zerolinecolor"in s&&(r.zeroLineColor[o]=n(s.zerolinecolor)),"zerolinewidth"in s&&(r.zeroLineWidth[o]=s.zerolinewidth),"ticks"in s&&s.ticks?r.lineTickEnable[o]=!0:r.lineTickEnable[o]=!1,"ticklen"in s&&(r.lineTickLength[o]=r._defaultLineTickLength[o]=s.ticklen),"tickcolor"in s&&(r.lineTickColor[o]=n(s.tickcolor)),"tickwidth"in s&&(r.lineTickWidth[o]=s.tickwidth),"tickangle"in

s&&(r.tickAngle[o]="auto"===s.tickangle?-3600:Math.PI*-s.tickangle/180),"showticklabels"in s&&(r.tickEnable[o]=s.showticklabels),"tickfont"in s&&(s.tickfont.color&&(r.tickColor[o]=n(s.tickfont.color)),s.tickfont.family&&(r.tickFont[o]=s.tickfont.family),s.tickfont.size&&(r.tickSize[o]=s.tickfont.size)),"mirror"in s?-1!==["ticks","all","allticks"].indexOf(s.mirror)?(r.lineTickMirror[o]=!0,r.lineMirror[o]=!0):!0===s.mirror?(r.lineTickMirror[o]=!1,r.lineMirror[o]=!0):(r.lineTickMirror[o]=!1,r.lineMirror[o]=!1):r.lineMirror[o]=!1,"showbackground"in s&&!1!==s.showbackground?(r.backgroundEnable[o]=!0,r.backgroundColor[o]=n(s.backgroundcolor)):r.backgroundEnable[o]=!1):(r.tickEnable[o]=!1,r.labelEnable[o]=!1,r.lineEnable[o]=!1,r.lineTickEnable[o]=!1,r.gridEnable[o]=!1,r.zeroEnable[o]=!1,r.backgroundEnable[o]=!1)}},e.exports=function(t,e){var r=new o;return r.merge(t,e),r}},{"../../../lib":503,"../../../lib/str2rgbarray":528}],603:[function(t,e,r){"use strict";var n=t("../../../lib"),i=t("../../../components/color"),a=t("../../../registry"),o=t("../../subplot_defaults"),s=t("./axis_defaults"),l=t("./layout_attributes"),c=t("../../get_data").getSubplotData,u="gl3d";function f(t,e,r,n){for(var o=r("bgcolor"),l=i.combine(o,n.paper_bgcolor),f=["up","center","eye"],h=0;h<f.length;h++)r("camera."+f[h]+".x"),r("camera."+f[h]+".y"),r("camera."+f[h]+".z");r("camera.projection.type");var p=!!r("aspectratio.x")&&!!r("aspectratio.y")&&!!r("aspectratio.z"),d=r("aspectmode",p?"manual":"auto");p||(t.aspectratio=e.aspectratio={x:1,y:1,z:1},"manual"===d&&(e.aspectmode="auto"),t.aspectmode=e.aspectmode);var g=c(n.fullData,u,n.id);s(t,e,{font:n.font,scene:n.id,data:g,bgColor:l,calendar:n.calendar,autotypenumbersDflt:n.autotypenumbersDflt,fullLayout:n.fullLayout}),a.getComponentMethod("annotations3d","handleDefaults")(t,e,n);var v=n.getDfltFromLayout("dragmode");if(!1!==v&&!v)if(v="orbit",t.camera&&t.camera.up){var m=t.camera.up.x,y=t.camera.up.y,x=t.camera.up.z;0!==x&&(m&&y&&x?x/Math.sqrt(m*m+y*y+x*x)>.999&&(v="turntable"):v="turntable")}else v="turntable";r("dragmode",v),r("hovermode",n.getDfltFromLayout("hovermode"))}e.exports=function(t,e,r){var i=e._basePlotModules.length>1;o(t,e,r,{type:u,attributes:l,handleDefaults:f,fullLayout:e,font:e.font,fullData:r,getDfltFromLayout:function(e){if(!i)return n.validate(t[e],l[e])?t[e]:void 0},autotypenumbersDflt:e.autotypenumbers,paper_bgcolor:e.paper_bgcolor,calendar:e.calendar})}},{"../../../components/color":366,"../../../lib":503,"../../../registry":638,"../../get_data":593,"../../subplot_defaults":632,"./axis_defaults":601,"./layout_attributes":604}],604:[function(t,e,r){"use strict";var n=t("./axis_attributes"),i=t("../../domain").attributes,a=t("../../../lib/extend").extendFlat,o=t("../../../lib").counterRegex;function s(t,e,r){return{x:{valType:"number",dflt:t,editType:"camera"},y:{valType:"number",dflt:e,editType:"camera"},z:{valType:"number",dflt:r,editType:"camera"},editType:"camera"}}e.exports={_arrayAttrRegexps:[o("scene",".annotations",!0)],bgcolor:{valType:"color",dflt:"rgba(0,0,0,0)",editType:"plot"},camera:{up:a(s(0,0,1),{}),center:a(s(0,0,0),{}),eye:a(s(1.25,1.25,1.25),{}),projection:{type:{valType:"enumerated",values:["perspective","orthographic"],dflt:"perspective",editType:"calc"},editType:"calc"},editType:"camera"},domain:i({name:"scene",editType:"plot"}),aspectmode:{valType:"enumerated",values:["auto","cube","data","manual"],dflt:"auto",editType:"plot",impliedEdits:{"aspectratio.x":void 0,"aspectratio.y":void 0,"aspectratio.z":void 0}},aspectratio:{x:{valType:"number",min:0,editType:"plot",impliedEdits:{"^aspectmode":"manual"}},y:{valType:"number",min:0,editType:"plot",impliedEdits:{"^aspectmode":"manual"}},z:{valType:"number",min:0,editType:"plot",impliedEdits:{"^aspectmode":"manual"}},editType:"plot",impliedEdits:{aspectmode:"manual"}},xaxis:n,yaxis:n,zaxis:n,dragmode:{valType:"enumerated",values:["orbit","turntable","zoom","pan",!1],editType:"plot"},hovermode:{valType:"enumerated",values:["closest",!1],dflt:"closest",editType:"modebar"},uirevision:{valType:"any",editType:"none"},editType:"plot",_deprecated:{cameraposition:{valType:"info_array",editType:"camera"}}}},{"../../../lib":503,"../../../lib/extend":493,"../../domain":584,"./axis_attributes":600}],605:[function(t,e,r){"use strict";var n=t("../../../lib/str2rgbarray"),i=["xaxis","yaxis","zaxis"];function a(){this.enabled=[!0,!0,!0],this.colors=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.drawSides=[!0,!0,!0],this.lineWidth=[1,1,1]}a.prototype.merge=function(t){for(var e=0;e<3;++e){var r=t[i[e]];r.visible?(this.enabled[e]=r.showspikes,this.colors[e]=n(r.spikecolor),this.drawSides[e]=r.spikesides,this.lin

eWidth[e]=r.spikethickness):(this.enabled[e]=!1,this.drawSides[e]=!1)}},e.exports=function(t){var e=new a;return e.merge(t),e}},{"../../../lib/str2rgbarray":528}],606:[function(t,e,r){"use strict";e.exports=function(t){for(var e=t.axesOptions,r=t.glplot.axesPixels,s=t.fullSceneLayout,l=[[],[],[]],c=0;c<3;++c){var u=s[a[c]];if(u._length=(r[c].hi-r[c].lo)*r[c].pixelsPerDataUnit/t.dataScale[c],Math.abs(u._length)===1/0||isNaN(u._length))l[c]=[];else{u._input_range=u.range.slice(),u.range[0]=r[c].lo/t.dataScale[c],u.range[1]=r[c].hi/t.dataScale[c],u._m=1/(t.dataScale[c]*r[c].pixelsPerDataUnit),u.range[0]===u.range[1]&&(u.range[0]-=1,u.range[1]+=1);var f=u.tickmode;if("auto"===u.tickmode){u.tickmode="linear";var h=u.nticks||i.constrain(u._length/40,4,9);n.autoTicks(u,Math.abs(u.range[1]-u.range[0])/h)}for(var p=n.calcTicks(u,{msUTC:!0}),d=0;d<p.length;++d)p[d].x=p[d].x*t.dataScale[c],"date"===u.type&&(p[d].text=p[d].text.replace(/\<br\>/g," "));l[c]=p,u.tickmode=f}}for(e.ticks=l,c=0;c<3;++c)for(o[c]=.5*(t.glplot.bounds[0][c]+t.glplot.bounds[1][c]),d=0;d<2;++d)e.bounds[d][c]=t.glplot.bounds[d][c];t.contourLevels=function(t){for(var e=new Array(3),r=0;r<3;++r){for(var n=t[r],i=new Array(n.length),a=0;a<n.length;++a)i[a]=n[a].x;e[r]=i}return e}(l)};var n=t("../../cartesian/axes"),i=t("../../../lib"),a=["xaxis","yaxis","zaxis"],o=[0,0,0]},{"../../../lib":503,"../../cartesian/axes":554}],607:[function(t,e,r){"use strict";function n(t,e){var r,n,i=[0,0,0,0];for(r=0;r<4;++r)for(n=0;n<4;++n)i[n]+=t[4*r+n]*e[r];return i}e.exports=function(t,e){return n(t.projection,n(t.view,n(t.model,[e[0],e[1],e[2],1])))}},{}],608:[function(t,e,r){"use strict";var n,i,a=t("../../../stackgl_modules").gl_plot3d,o=a.createCamera,s=a.createScene,l=t("webgl-context"),c=t("has-passive-events"),u=t("../../registry"),f=t("../../lib"),h=f.preserveDrawingBuffer(),p=t("../../plots/cartesian/axes"),d=t("../../components/fx"),g=t("../../lib/str2rgbarray"),v=t("../../lib/show_no_webgl_msg"),m=t("./project"),y=t("./layout/convert"),x=t("./layout/spikes"),b=t("./layout/tick_marks");function _(t,e){var r=document.createElement("div"),n=t.container;this.graphDiv=t.graphDiv;var i=document.createElementNS("http://www.w3.org/2000/svg","svg");i.style.position="absolute",i.style.top=i.style.left="0px",i.style.width=i.style.height="100%",i.style["z-index"]=20,i.style["pointer-events"]="none",r.appendChild(i),this.svgContainer=i,r.id=t.id,r.style.position="absolute",r.style.top=r.style.left="0px",r.style.width=r.style.height="100%",n.appendChild(r),this.fullLayout=e,this.id=t.id||"scene",this.fullSceneLayout=e[this.id],this.plotArgs=[[],{},{}],this.axesOptions=y(e,e[this.id]),this.spikeOptions=x(e[this.id]),this.container=r,this.staticMode=!!t.staticPlot,this.pixelRatio=this.pixelRatio||t.plotGlPixelRatio||2,this.dataScale=[1,1,1],this.contourLevels=[[],[],[]],this.convertAnnotations=u.getComponentMethod("annotations3d","convert"),this.drawAnnotations=u.getComponentMethod("annotations3d","draw"),this.initializeGLPlot()}var w=_.prototype;w.prepareOptions=function(){var t=this,e={canvas:t.canvas,gl:t.gl,glOptions:{preserveDrawingBuffer:h,premultipliedAlpha:!0,antialias:!0},container:t.container,axes:t.axesOptions,spikes:t.spikeOptions,pickRadius:10,snapToData:!0,autoScale:!0,autoBounds:!1,cameraObject:t.camera,pixelRatio:t.pixelRatio};if(t.staticMode){if(!(i||(n=document.createElement("canvas"),i=l({canvas:n,preserveDrawingBuffer:!0,premultipliedAlpha:!0,antialias:!0}))))throw new Error("error creating static canvas/context for image server");e.gl=i,e.canvas=n}return e};var T=!0;w.tryCreatePlot=function(){var t=this,e=t.prepareOptions(),r=!0;try{t.glplot=s(e)}catch(n){if(t.staticMode||!T||h)r=!1;else{f.warn(["webgl setup failed possibly due to","false preserveDrawingBuffer config.","The mobile/tablet device may not be detected by is-mobile module.","Enabling preserveDrawingBuffer in second attempt to create webgl scene..."].join(" "));try{h=e.glOptions.preserveDrawingBuffer=!0,t.glplot=s(e)}catch(t){h=e.glOptions.preserveDrawingBuffer=!1,r=!1}}}return T=!1,r},w.initializeGLCamera=function(){var t=this,e=t.fullSceneLayout.camera,r="orthographic"===e.projection.type;t.camera=o(t.container,{center:[e.center.x,e.center.y,e.center.z],eye:[e.eye.x,e.eye.y,e.eye.z],up:[e.up.x,e.up.y,e.up.z],_ortho:r,zoomMin:.01,zoomMax:100,mode:"orbit"})},w.initializeGLPlot=function(){var t=this;if(t.initializeGLCamera(),!t.tryCreatePlot())return v(t);t.traces={},t.make4thDimension();var e=t.graphDiv,r=e.layout,n=function(){var e={};return t.isCameraChanged(r)&&(e[t.id+".camera"]=t.getCamera()),t.isAspectChanged(r)&&(e[t.id+".aspectratio"]=t.glplot

.getAspectratio(),"manual"!==r[t.id].aspectmode&&(t.fullSceneLayout.aspectmode=r[t.id].aspectmode=e[t.id+".aspectmode"]="manual")),e},i=function(t){if(!1!==t.fullSceneLayout.dragmode){var e=n();t.saveLayout(r),t.graphDiv.emit("plotly_relayout",e)}};return t.glplot.canvas&&(t.glplot.canvas.addEventListener("mouseup",(function(){i(t)})),t.glplot.canvas.addEventListener("wheel",(function(r){if(e._context._scrollZoom.gl3d){if(t.camera._ortho){var n=r.deltaX>r.deltaY?1.1:1/1.1,a=t.glplot.getAspectratio();t.glplot.setAspectratio({x:n*a.x,y:n*a.y,z:n*a.z})}i(t)}}),!!c&&{passive:!1}),t.glplot.canvas.addEventListener("mousemove",(function(){if(!1!==t.fullSceneLayout.dragmode&&0!==t.camera.mouseListener.buttons){var e=n();t.graphDiv.emit("plotly_relayouting",e)}})),t.staticMode||t.glplot.canvas.addEventListener("webglcontextlost",(function(r){e&&e.emit&&e.emit("plotly_webglcontextlost",{event:r,layer:t.id})}),!1)),t.glplot.oncontextloss=function(){t.recoverContext()},t.glplot.onrender=function(){t.render()},!0},w.render=function(){var t,e=this,r=e.graphDiv,n=e.svgContainer,i=e.container.getBoundingClientRect();r._fullLayout._calcInverseTransform(r);var a=r._fullLayout._invScaleX,o=r._fullLayout._invScaleY,s=i.width*a,l=i.height*o;n.setAttributeNS(null,"viewBox","0 0 "+s+" "+l),n.setAttributeNS(null,"width",s),n.setAttributeNS(null,"height",l),b(e),e.glplot.axes.update(e.axesOptions);for(var c=Object.keys(e.traces),u=null,h=e.glplot.selection,g=0;g<c.length;++g)"skip"!==(t=e.traces[c[g]]).data.hoverinfo&&t.handlePick(h)&&(u=t),t.setContourLevels&&t.setContourLevels();function v(t,r,n){var i=e.fullSceneLayout[t+"axis"];return"log"!==i.type&&(r=i.d2l(r)),p.hoverLabelText(i,r,n)}if(null!==u){var y=m(e.glplot.cameraParams,h.dataCoordinate);t=u.data;var x,_=r._fullData[t.index],w=h.index,T={xLabel:v("x",h.traceCoordinate[0],t.xhoverformat),yLabel:v("y",h.traceCoordinate[1],t.yhoverformat),zLabel:v("z",h.traceCoordinate[2],t.zhoverformat)},k=d.castHoverinfo(_,e.fullLayout,w),A=(k||"").split("+"),M=k&&"all"===k;_.hovertemplate||M||(-1===A.indexOf("x")&&(T.xLabel=void 0),-1===A.indexOf("y")&&(T.yLabel=void 0),-1===A.indexOf("z")&&(T.zLabel=void 0),-1===A.indexOf("text")&&(h.textLabel=void 0),-1===A.indexOf("name")&&(u.name=void 0));var S=[];"cone"===t.type||"streamtube"===t.type?(T.uLabel=v("x",h.traceCoordinate[3],t.uhoverformat),(M||-1!==A.indexOf("u"))&&S.push("u: "+T.uLabel),T.vLabel=v("y",h.traceCoordinate[4],t.vhoverformat),(M||-1!==A.indexOf("v"))&&S.push("v: "+T.vLabel),T.wLabel=v("z",h.traceCoordinate[5],t.whoverformat),(M||-1!==A.indexOf("w"))&&S.push("w: "+T.wLabel),T.normLabel=h.traceCoordinate[6].toPrecision(3),(M||-1!==A.indexOf("norm"))&&S.push("norm: "+T.normLabel),"streamtube"===t.type&&(T.divergenceLabel=h.traceCoordinate[7].toPrecision(3),(M||-1!==A.indexOf("divergence"))&&S.push("divergence: "+T.divergenceLabel)),h.textLabel&&S.push(h.textLabel),x=S.join("<br>")):"isosurface"===t.type||"volume"===t.type?(T.valueLabel=p.hoverLabelText(e._mockAxis,e._mockAxis.d2l(h.traceCoordinate[3]),t.valuehoverformat),S.push("value: "+T.valueLabel),h.textLabel&&S.push(h.textLabel),x=S.join("<br>")):x=h.textLabel;var E={x:h.traceCoordinate[0],y:h.traceCoordinate[1],z:h.traceCoordinate[2],data:_._input,fullData:_,curveNumber:_.index,pointNumber:w};d.appendArrayPointValue(E,_,w),t._module.eventData&&(E=_._module.eventData(E,h,_,{},w));var L={points:[E]};if(e.fullSceneLayout.hovermode){var C=[];d.loneHover({trace:_,x:(.5+.5*y[0]/y[3])*s,y:(.5-.5*y[1]/y[3])*l,xLabel:T.xLabel,yLabel:T.yLabel,zLabel:T.zLabel,text:x,name:u.name,color:d.castHoverOption(_,w,"bgcolor")||u.color,borderColor:d.castHoverOption(_,w,"bordercolor"),fontFamily:d.castHoverOption(_,w,"font.family"),fontSize:d.castHoverOption(_,w,"font.size"),fontColor:d.castHoverOption(_,w,"font.color"),nameLength:d.castHoverOption(_,w,"namelength"),textAlign:d.castHoverOption(_,w,"align"),hovertemplate:f.castOption(_,w,"hovertemplate"),hovertemplateLabels:f.extendFlat({},E,T),eventData:[E]},{container:n,gd:r,inOut_bbox:C}),E.bbox=C[0]}h.buttons&&h.distance<5?r.emit("plotly_click",L):r.emit("plotly_hover",L),this.oldEventData=L}else d.loneUnhover(n),this.oldEventData&&r.emit("plotly_unhover",this.oldEventData),this.oldEventData=void 0;e.drawAnnotations(e)},w.recoverContext=function(){var t=this;t.glplot.dispose();var

e=function(){t.glplot.gl.isContextLost()?requestAnimationFrame(e):t.initializeGLPlot()?t.plot.apply(t,t.plotArgs):f.error("Catastrophic and unrecoverable WebGL error. Context lost.")};requestAnimationFrame(e)};var k=["xaxis","yaxis","zaxis"];function A(t,e,r){for(var n=t.fullSceneLayout,i=0;i<3;i++){var a=k[i],o=a.charAt(0),s=n[a],l=e[o],c=e[o+"calendar"],u=e["_"+o+"length"];if(f.isArrayOrTypedArray(l))for(var h,p=0;p<(u||l.length);p++)if(f.isArrayOrTypedArray(l[p]))for(var d=0;d<l[p].length;++d)h=s.d2l(l[p][d],0,c),!isNaN(h)&&isFinite(h)&&(r[0][i]=Math.min(r[0][i],h),r[1][i]=Math.max(r[1][i],h));else h=s.d2l(l[p],0,c),!isNaN(h)&&isFinite(h)&&(r[0][i]=Math.min(r[0][i],h),r[1][i]=Math.max(r[1][i],h));else r[0][i]=Math.min(r[0][i],0),r[1][i]=Math.max(r[1][i],u-1)}}w.plot=function(t,e,r){var n=this;if(n.plotArgs=[t,e,r],!n.glplot.contextLost){var i,a,o,s,l,c,u=e[n.id],f=r[n.id];n.fullLayout=e,n.fullSceneLayout=u,n.axesOptions.merge(e,u),n.spikeOptions.merge(u),n.setViewport(u),n.updateFx(u.dragmode,u.hovermode),n.camera.enableWheel=n.graphDiv._context._scrollZoom.gl3d,n.glplot.setClearColor(g(u.bgcolor)),n.setConvert(l),t?Array.isArray(t)||(t=[t]):t=[];var h=[[1/0,1/0,1/0],[-1/0,-1/0,-1/0]];for(o=0;o<t.length;++o)!0===(i=t[o]).visible&&0!==i._length&&A(this,i,h);!function(t,e){for(var r=t.fullSceneLayout,n=r.annotations||[],i=0;i<3;i++)for(var a=k[i],o=a.charAt(0),s=r[a],l=0;l<n.length;l++){var c=n[l];if(c.visible){var u=s.r2l(c[o]);!isNaN(u)&&isFinite(u)&&(e[0][i]=Math.min(e[0][i],u),e[1][i]=Math.max(e[1][i],u))}}}(this,h);var p=[1,1,1];for(s=0;s<3;++s)h[1][s]===h[0][s]?p[s]=1:p[s]=1/(h[1][s]-h[0][s]);for(n.dataScale=p,n.convertAnnotations(this),o=0;o<t.length;++o)!0===(i=t[o]).visible&&0!==i._length&&((a=n.traces[i.uid])?a.data.type===i.type?a.update(i):(a.dispose(),a=i._module.plot(this,i),n.traces[i.uid]=a):(a=i._module.plot(this,i),n.traces[i.uid]=a),a.name=i.name);var d=Object.keys(n.traces);t:for(o=0;o<d.length;++o){for(s=0;s<t.length;++s)if(t[s].uid===d[o]&&!0===t[s].visible&&0!==t[s]._length)continue t;(a=n.traces[d[o]]).dispose(),delete n.traces[d[o]]}n.glplot.objects.sort((function(t,e){return t._trace.data.index-e._trace.data.index}));var v,m=[[0,0,0],[0,0,0]],y=[],x={};for(o=0;o<3;++o){if((c=(l=u[k[o]]).type)in x?(x[c].acc*=p[o],x[c].count+=1):x[c]={acc:p[o],count:1},l.autorange){m[0][o]=1/0,m[1][o]=-1/0;var b=n.glplot.objects,_=n.fullSceneLayout.annotations||[],w=l._name.charAt(0);for(s=0;s<b.length;s++){var T=b[s],M=T.bounds,S=T._trace.data._pad||0;"ErrorBars"===T.constructor.name&&l._lowerLogErrorBound?m[0][o]=Math.min(m[0][o],l._lowerLogErrorBound):m[0][o]=Math.min(m[0][o],M[0][o]/p[o]-S),m[1][o]=Math.max(m[1][o],M[1][o]/p[o]+S)}for(s=0;s<_.length;s++){var E=_[s];if(E.visible){var L=l.r2l(E[w]);m[0][o]=Math.min(m[0][o],L),m[1][o]=Math.max(m[1][o],L)}}if("rangemode"in l&&"tozero"===l.rangemode&&(m[0][o]=Math.min(m[0][o],0),m[1][o]=Math.max(m[1][o],0)),m[0][o]>m[1][o])m[0][o]=-1,m[1][o]=1;else{var C=m[1][o]-m[0][o];m[0][o]-=C/32,m[1][o]+=C/32}if("reversed"===l.autorange){var P=m[0][o];m[0][o]=m[1][o],m[1][o]=P}}else{var I=l.range;m[0][o]=l.r2l(I[0]),m[1][o]=l.r2l(I[1])}m[0][o]===m[1][o]&&(m[0][o]-=1,m[1][o]+=1),y[o]=m[1][o]-m[0][o],n.glplot.setBounds(o,{min:m[0][o]*p[o],max:m[1][o]*p[o]})}var O=u.aspectmode;if("cube"===O)v=[1,1,1];else if("manual"===O){var z=u.aspectratio;v=[z.x,z.y,z.z]}else{if("auto"!==O&&"data"!==O)throw new Error("scene.js aspectRatio was not one of the enumerated types");var D=[1,1,1];for(o=0;o<3;++o){var R=x[c=(l=u[k[o]]).type];D[o]=Math.pow(R.acc,1/R.count)/p[o]}v="data"===O||Math.max.apply(null,D)/Math.min.apply(null,D)<=4?D:[1,1,1]}u.aspectratio.x=f.aspectratio.x=v[0],u.aspectratio.y=f.aspectratio.y=v[1],u.aspectratio.z=f.aspectratio.z=v[2],n.glplot.setAspectratio(u.aspectratio),n.viewInitial.aspectratio||(n.viewInitial.aspectratio={x:u.aspectratio.x,y:u.aspectratio.y,z:u.aspectratio.z}),n.viewInitial.aspectmode||(n.viewInitial.aspectmode=u.aspectmode);var F=u.domain||null,B=e._size||null;if(F&&B){var N=n.container.style;N.position="absolute",N.left=B.l+F.x[0]*B.w+"px",N.top=B.t+(1-F.y[1])*B.h+"px",N.width=B.w*(F.x[1]-F.x[0])+"px",N.height=B.h*(F.y[1]-F.y[0])+"px"}n.glplot.redraw()}},w.destroy=function(){var t=this;t.glplot&&(t.camera.mouseListener.enabled=!1,t.container.removeEventListener("wheel",t.camera.wheelList

ener),t.camera=null,t.glplot.dispose(),t.container.parentNode.removeChild(t.container),t.glplot=null)},w.getCamera
=function(){var t,e=this;return
e.camera.view.recalcMatrix(e.camera.view.lastT()),{up:{x:(t=e.camera).up[0],y:t.up[1],z:t.up[2]},center:{x:t.center[
0],y:t.center[1],z:t.center[2]},eye:{x:t.eye[0],y:t.eye[1],z:t.eye[2]},projection:{type:!0===t._ortho?"orthographic":"p
erspective"}}},w.setViewport=function(t){var
e,r=this,n=t.camera;r.camera.lookAt.apply(this,[[(e=n).eye.x,e.eye.y,e.eye.z],[e.center.x,e.center.y,e.center.z],[e.up.x
,e.up.y,e.up.z]]),r.glplot.setAspectratio(t.aspectratio),"orthographic"===n.projection.type!==r.camera._ortho&&(r.gl
plot.redraw(),r.glplot.clearRGBA(),r.glplot.dispose(),r.initializeGLPlot())},w.isCameraChanged=function(t){var
e=this.getCamera(),r=f.nestedProperty(t,this.id+".camera").get();function n(t,e,r,n){var
i=["up","center","eye"],a=["x","y","z"];return e[i[r]]&&t[i[r]][a[n]]===e[i[r]][a[n]]}var i=!1;if(void
0===r)i=!0;else{for(var a=0;a<3;a++)for(var
o=0;o<3;o++)if(!n(e,r,a,o)){i=!0;break}(!r.projection||e.projection&&e.projection.type!==r.projection.type)&&(i=!0
)}return i},w.isAspectChanged=function(t){var
e=this.glplot.getAspectratio(),r=f.nestedProperty(t,this.id+".aspectratio").get();return void
0===r||r.x!==e.x||r.y!==e.y||r.z!==e.z},w.saveLayout=function(t){var
e,r,n,i,a,o,s=this,l=s.fullLayout,c=s.isCameraChanged(t),h=s.isAspectChanged(t),p=c||h;if(p){var
d={};c&&(e=s.getCamera(),n=(r=f.nestedProperty(t,s.id+".camera")).get(),d[s.id+".camera"]=n),h&&(i=s.glplot.get
Aspectratio(),o=(a=f.nestedProperty(t,s.id+".aspectratio")).get(),d[s.id+".aspectratio"]=o),u.call("_storeDirectGUIEd
it",t,l._preGUI,d),c&&(r.set(e),f.nestedProperty(l,s.id+".camera").set(e)),h&&(a.set(i),f.nestedProperty(l,s.id+".aspe
ctratio").set(i),s.glplot.redraw())}return p},w.updateFx=function(t,e){var
r=this,n=r.camera;if(n)if("orbit"===t)n.mode="orbit",n.keyBindingMode="rotate";else
if("turntable"===t){n.up=[0,0,1],n.mode="turntable",n.keyBindingMode="rotate";var
i=r.graphDiv,a=i._fullLayout,o=r.fullSceneLayout.camera,s=o.up.x,l=o.up.y,c=o.up.z;if(c/Math.sqrt(s*s+l*l+c*c)<.
999){var h=r.id+".camera.up",p={x:0,y:0,z:1},d={};d[h]=p;var
g=i.layout;u.call("_storeDirectGUIEdit",g,a._preGUI,d),o.up=p,f.nestedProperty(g,h).set(p)}}else
n.keyBindingMode=t;r.fullSceneLayout.hovermode=e},w.toImage=function(t){var
e=this;t||(t="png"),e.staticMode&&e.container.appendChild(n),e.glplot.redraw();var
r=e.glplot.gl,i=r.drawingBufferWidth,a=r.drawingBufferHeight;r.bindFramebuffer(r.FRAMEBUFFER,null);var
o=new Uint8Array(i*a*4);r.readPixels(0,0,i,a,r.RGBA,r.UNSIGNED_BYTE,o),function(t,e,r){for(var n=0,i=r-
1;n<i;++n,--i)for(var a=0;a<e;++a)for(var o=0;o<4;++o){var
s=4*(e*n+a)+o,l=4*(e*i+a)+o,c=t[s];t[s]=t[l],t[l]=c}}(o,i,a),function(t,e,r){for(var n=0;n<r;++n)for(var
i=0;i<e;++i){var a=4*(e*n+i),o=t[a+3];if(o>0)for(var
s=255/o,l=0;l<3;++l)t[a+l]=Math.min(s*t[a+l],255)}}(o,i,a);var
s=document.createElement("canvas");s.width=i,s.height=a;var
l,c=s.getContext("2d",{willReadFrequently:!0}),u=c.createImageData(i,a);switch(u.data.set(o),c.putImageData(u,0,
0),t){case"jpeg":l=s.toDataURL("image/jpeg");break;case"webp":l=s.toDataURL("image/webp");break;default:l=s.t
oDataURL("image/png")}return e.staticMode&&e.container.removeChild(n),l},w.setConvert=function(){for(var
t=0;t<3;t++){var
e=this.fullSceneLayout[k[t]];p.setConvert(e,this.fullLayout),e.setScale=f.noop}},w.make4thDimension=function(){
var
t=this,e=t.graphDiv._fullLayout;t._mockAxis={type:"linear",showexponent:"all",exponentformat:"B"},p.setConvert
(t._mockAxis,e)},e.exports=_},{"../../../stackgl_modules":1124,"../../components/fx":406,"../../lib":503,"../../lib/show
_no_webgl_msg":525,"../../lib/str2rgbarray":528,"../../plots/cartesian/axes":554,"../../registry":638,"./layout/convert":
602,"./layout/spikes":605,"./layout/tick_marks":606,"./project":607,"has-passive-events":229,"webgl-
context":331}],609:[function(t,e,r){"use strict";e.exports=function(t,e,r,n){n=n||t.length;for(var i=new
Array(n),a=0;a<n;a++)i[a]=[t[a],e[a],r[a]];return i}},{}],610:[function(t,e,r){"use strict";var
n=t("./font_attributes"),i=t("./animation_attributes"),a=t("../components/color/attributes"),o=t("../components/shapes
/draw_newshape/attributes"),s=t("./pad_attributes"),l=t("../lib/extend").extendFlat,c=n({editType:"calc"});c.family.d

flt='"Open Sans", verdana, arial, sans-serif',c.size.dflt=12,c.color.dflt=a.defaultLine,e.exports={font:c,title:{text:{valType:"string",editType:"layoutstyle"},font:n({editType:"layoutstyle"}),xref:{valType:"enumerated",dflt:"container",values:["container","paper"],editType:"layoutstyle"},yref:{valType:"enumerated",dflt:"container",values:["container","paper"],editType:"layoutstyle"},x:{valType:"number",min:0,max:1,dflt:.5,editType:"layoutstyle"},y:{valType:"number",min:0,max:1,dflt:"auto",editType:"layoutstyle"},xanchor:{valType:"enumerated",dflt:"auto",values:["auto","left","center","right"],editType:"layoutstyle"},yanchor:{valType:"enumerated",dflt:"auto",values:["auto","top","middle","bottom"],editType:"layoutstyle"},pad:l(s({editType:"layoutstyle"}),{}),editType:"layoutstyle"},uniformtext:{mode:{valType:"enumerated",values:[!1,"hide","show"],dflt:!1,editType:"plot"},minsize:{valType:"number",min:0,dflt:0,editType:"plot"},editType:"plot"},autosize:{valType:"boolean",dflt:!1,editType:"none"},width:{valType:"number",min:10,dflt:700,editType:"plot"},height:{valType:"number",min:10,dflt:450,editType:"plot"},margin:{l:{valType:"number",min:0,dflt:80,editType:"plot"},r:{valType:"number",min:0,dflt:80,editType:"plot"},t:{valType:"number",min:0,dflt:100,editType:"plot"},b:{valType:"number",min:0,dflt:80,editType:"plot"},pad:{valType:"number",min:0,dflt:0,editType:"plot"},autoexpand:{valType:"boolean",dflt:!0,editType:"plot"},editType:"plot"},computed:{valType:"any",editType:"none"},paper_bgcolor:{valType:"color",dflt:a.background,editType:"plot"},plot_bgcolor:{valType:"color",dflt:a.background,editType:"layoutstyle"},autotypenumbers:{valType:"enumerated",values:["convert types","strict"],dflt:"convert types",editType:"calc"},separators:{valType:"string",editType:"plot"},hidesources:{valType:"boolean",dflt:!1,editType:"plot"},showlegend:{valType:"boolean",editType:"legend"},colorway:{valType:"colorlist",dflt:a.defaults,editType:"calc"},datarevision:{valType:"any",editType:"calc"},uirevision:{valType:"any",editType:"none"},editrevision:{valType:"any",editType:"none"},selectionrevision:{valType:"any",editType:"none"},template:{valType:"any",editType:"calc"},newshape:o.newshape,activeshape:o.activeshape,meta:{valType:"any",arrayOk:!0,editType:"plot"},transition:l({},i.transition,{editType:"none"}),_deprecated:{title:{valType:"string",editType:"layoutstyle"},titlefont:n({editType:"layoutstyle"})}}},{"../components/color/attributes":365,"../components/shapes/draw_newshape/attributes":451,"../lib/extend":493,"./animation_attributes":548,"./font_attributes":585,"./pad_attributes":618}],611:[function(t,e,r){"use strict";var n=t("../../lib/sort_object_keys"),i="1.10.1",a='© OpenStreetMap contributors',o=['© Carto',a].join(" "),s=['Map tiles by Stamen Design','under CC BY 3.0',"|",'Data by OpenStreetMap contributors','under ODbL'].join(" "),l={"open-street-map":{id:"osm",version:8,sources:{"plotly-osm-tiles":{type:"raster",attribution:a,tiles:["https://a.tile.openstreetmap.org/{z}/{x}/{y}.png","https://b.tile.openstreetmap.org/{z}/{x}/{y}.png"],tileSize:256}},layers:[{id:"plotly-osm-tiles",type:"raster",source:"plotly-osm-tiles",minzoom:0,maxzoom:22}]},"white-bg":{id:"white-bg",version:8,sources:{},layers:[{id:"white-bg",type:"background",paint:{"background-color":"#FFFFFF"},minzoom:0,maxzoom:22}]},"carto-positron":{id:"carto-positron",version:8,sources:{"plotly-carto-positron":{type:"raster",attribution:o,tiles:["https://cartodb-basemaps-c.global.ssl.fastly.net/light_all/{z}/{x}/{y}.png"],tileSize:256}},layers:[{id:"plotly-carto-positron",type:"raster",source:"plotly-carto-positron",minzoom:0,maxzoom:22}]},"carto-darkmatter":{id:"carto-darkmatter",version:8,sources:{"plotly-carto-darkmatter":{type:"raster",attribution:o,tiles:["https://cartodb-basemaps-c.global.ssl.fastly.net/dark_all/{z}/{x}/{y}.png"],tileSize:256}},layers:[{id:"plotly-carto-darkmatter",type:"raster",source:"plotly-carto-darkmatter",minzoom:0,maxzoom:22}]},"stamen-terrain":{id:"stamen-terrain",version:8,sources:{"plotly-stamen-terrain":{type:"raster",attribution:s,tiles:["https://stamen-tiles.a.ssl.fastly.net/terrain/{z}/{x}/{y}.png"],tileSize:256}},layers:[{id:"plotly-stamen-terrain",type:"raster",source:"plotly-stamen-terrain",minzoom:0,maxzoom:22}]},"stamen-toner":{id:"stamen-toner",version:8,sources:{"plotly-stamen-toner":{type:"raster",attribution:s,tiles:["https://stamen-

tiles.a.ssl.fastly.net/toner/{z}/{x}/{y}.png"],tileSize:256}},layers:[{id:"plotly-stamen-toner",type:"raster",source:"plotly-stamen-toner",minzoom:0,maxzoom:22}]},"stamen-watercolor":{id:"stamen-watercolor",version:8,sources:{"plotly-stamen-watercolor":{type:"raster",attribution:['Map tiles by Stamen Design','under CC BY 3.0',"|",'Data by OpenStreetMap contributors','under CC BY SA'].join(" "),tiles:["https://stamen-tiles.a.ssl.fastly.net/watercolor/{z}/{x}/{y}.png"],tileSize:256}},layers:[{id:"plotly-stamen-watercolor",type:"raster",source:"plotly-stamen-watercolor",minzoom:0,maxzoom:22}]}},c=n(l);e.exports={requiredVersion:i,styleUrlPrefix:"mapbox://styles/mapbox/",styleUrlSuffix:"v9",styleValuesMapbox:["basic","streets","outdoors","light","dark","satellite","satellite-streets"],styleValueDflt:"basic",stylesNonMapbox:l,styleValuesNonMapbox:c,traceLayerPrefix:"plotly-trace-layer-",layoutLayerPrefix:"plotly-layout-layer-",wrongVersionErrorMsg:["Your custom plotly.js bundle is not using the correct mapbox-gl version","Please install mapbox-gl@1.10.1."].join("\n"),noAccessTokenErrorMsg:["Missing Mapbox access token.","Mapbox trace type require a Mapbox access token to be registered.","For example:"," Plotly.newPlot(gd, data, layout, { mapboxAccessToken: 'my-access-token' });","More info here: https://www.mapbox.com/help/define-access-token/"].join("\n"),missingStyleErrorMsg:["No valid mapbox style found, please set `mapbox.style` to one of:",c.join(", "),"or register a Mapbox access token to use a Mapbox-served style."].join("\n"),multipleTokensErrorMsg:["Set multiple mapbox access token across different mapbox subplot,","using first token found as mapbox-gl does not allow multipleaccess tokens on the same page."].join("\n"),mapOnErrorMsg:"Mapbox error.",mapboxLogo:{path0:"m 10.5,1.24 c -5.11,0 -9.25,4.15 -9.25,9.25 0,5.1 4.15,9.25 9.25,9.25 5.1,0 9.25,-4.15 9.25,-9.25 0,-5.11 -4.14,-9.25 -9.25,-9.25 z m 4.39,11.53 c -1.93,1.93 -4.78,2.31 -6.7,2.31 -0.7,0 -1.41,-0.05 -2.1,-0.16 0,0 -1.02,-5.64 2.14,-8.81 0.83,-0.83 1.95,-1.28 3.13,-1.28 1.27,0 2.49,0.51 3.39,1.42 1.84,1.84 1.89,4.75 0.14,6.52 z",path1:"M 10.5,-0.01 C 4.7,-0.01 0,4.7 0,10.49 c 0,5.79 4.7,10.5 10.5,10.5 5.8,0 10.5,-4.7 10.5,-10.5 C 20.99,4.7 16.3,-0.01 10.5,-0.01 Z m 0,19.75 c -5.11,0 -9.25,-4.15 -9.25,-9.25 0,-5.1 4.14,-9.26 9.25,-9.26 5.11,0 9.25,4.15 9.25,9.25 0,5.13 -4.14,9.26 -9.25,9.26 z",path2:"M 14.74,6.25 C 12.9,4.41 9.98,4.35 8.23,6.1 5.07,9.27 6.09,14.91 6.09,14.91 c 0,0 5.64,1.02 8.81,-2.14 C 16.64,11 16.59,8.09 14.74,6.25 Z m -2.27,4.09 -0.91,1.87 -0.9,-1.87 -1.86,-0.91 1.86,-0.9 0.9,-1.87 0.91,1.87 1.86,0.9 z",polygon:"11.56,12.21 10.66,10.34 8.8,9.43 10.66,8.53 11.56,6.66 12.47,8.53 14.33,9.43 12.47,10.34"},styleRules:{map:"overflow:hidden;position:relative;","missing-css":"display:none;",canary:"background-color:salmon;","ctrl-bottom-left":"position: absolute; pointer-events: none; z-index: 2; bottom: 0; left: 0;","ctrl-bottom-right":"position: absolute; pointer-events: none; z-index: 2; right: 0; bottom: 0;",ctrl:"clear: both; pointer-events: auto; transform: translate(0, 0);","ctrl-attrib.mapboxgl-compact .mapboxgl-ctrl-attrib-inner":"display: none;","ctrl-attrib.mapboxgl-compact:hover .mapboxgl-ctrl-attrib-inner":"display: block; margin-top:2px","ctrl-attrib.mapboxgl-compact:hover":"padding: 2px 24px 2px 4px; visibility: visible; margin-top: 6px;","ctrl-attrib.mapboxgl-compact::after":'content: ""; cursor: pointer; position: absolute; background-image: url(\'data:image/svg+xml;charset=utf-8,%3Csvg viewBox="0 0 20 20" xmlns="http://www.w3.org/2000/svg"%3E %3Cpath fill="%23333333" fill-rule="evenodd" d="M4,10a6,6 0 1,0 12,0a6,6 0 1,0 -12,0 M9,7a1,1 0 1,0 2,0a1,1 0 1,0 -2,0 M9,10a1,1 0 1,1 2,0l0,3a1,1 0 1,1 -2,0"/%3E %3C/svg%3E\'); background-color: rgba(255, 255, 255, 0.5); width: 24px; height: 24px; box-sizing: border-box; border-radius: 12px;',"ctrl-attrib.mapboxgl-compact":"min-height: 20px; padding: 0; margin: 10px; position: relative; background-color: #fff; border-radius: 3px 12px 12px 3px;","ctrl-bottom-right > .mapboxgl-ctrl-attrib.mapboxgl-compact::after":"bottom: 0; right: 0","ctrl-bottom-left > .mapboxgl-ctrl-attrib.mapboxgl-compact::after":"bottom: 0; left: 0","ctrl-bottom-left .mapboxgl-ctrl":"margin: 0 0 10px 10px; float: left;","ctrl-bottom-right .mapboxgl-ctrl":"margin: 0 10px 10px 0; float: right;","ctrl-attrib":"color: rgba(0, 0, 0, 0.75); text-decoration: none; font-size: 12px","ctrl-attrib a":"color: rgba(0, 0, 0, 0.75); text-decoration: none; font-size: 12px","ctrl-attrib a:hover":"color: inherit; text-decoration: underline;","ctrl-attrib .mapbox-improve-map":"font-weight: bold; margin-left: 2px;","attrib-empty":"display: none;","ctrl-logo":'display:block; width: 21px; height:

21px; background-image: url(\'data:image/svg+xml;charset=utf-8,%3C?xml version="1.0" encoding="utf-8"?%3E%3Csvg version="1.1" id="Layer_1" xmlns="http://www.w3.org/2000/svg" xmlns:xlink="http://www.w3.org/1999/xlink" x="0px" y="0px" viewBox="0 0 21 21" style="enable-background:new 0 0 21 21;" xml:space="preserve"%3E%3Cg transform="translate(0,0.01)"%3E%3Cpath d="m 10.5,1.24 c -5.11,0 -9.25,4.15 -9.25,9.25 0,5.1 4.15,9.25 9.25,9.25 5.1,0 9.25,-4.15 9.25,-9.25 0,-5.11 -4.14,-9.25 -9.25,-9.25 z m 4.39,11.53 c -1.93,1.93 -4.78,2.31 -6.7,2.31 -0.7,0 -1.41,-0.05 -2.1,-0.16 0,0 -1.02,-5.64 2.14,-8.81 0.83,-0.83 1.95,-1.28 3.13,-1.28 1.27,0 2.49,0.51 3.39,1.42 1.84,1.84 1.89,4.75 0.14,6.52 z" style="opacity:0.9;fill:%23ffffff;enable-background:new" class="st0"/%3E%3Cpath d="M 10.5,-0.01 C 4.7,-0.01 0,4.7 0,10.49 c 0,5.79 4.7,10.5 10.5,10.5 5.8,0 10.5,-4.7 10.5,-10.5 C 20.99,4.7 16.3,-0.01 10.5,-0.01 Z m 0,19.75 c -5.11,0 -9.25,-4.15 -9.25,-9.25 0,-5.1 4.14,-9.26 9.25,-9.26 5.11,0 9.25,4.15 9.25,9.25 0,5.13 -4.14,9.26 -9.25,9.26 z" style="opacity:0.35;enable-background:new" class="st1"/%3E%3Cpath d="M 14.74,6.25 C 12.9,4.41 9.98,4.35 8.23,6.1 5.07,9.27 6.09,14.91 6.09,14.91 c 0,0 5.64,1.02 8.81,-2.14 C 16.64,11 16.59,8.09 14.74,6.25 Z m -2.27,4.09 -0.91,1.87 -0.9,-1.87 -1.86,-0.91 1.86,-0.9 0.9,-1.87 0.91,1.87 1.86,0.9 z" style="opacity:0.35;enable-background:new" class="st1"/%3E%3Cpolygon points="11.56,12.21 10.66,10.34 8.8,9.43 10.66,8.53 11.56,6.66 12.47,8.53 14.33,9.43 12.47,10.34 " style="opacity:0.9;fill:%23ffffff;enable-background:new" class="st0"/%3E%3C/g%3E%3C/svg%3E\')'}}},{"../../lib/sort_object_keys":526}],612:[function(t,e,r){"use strict";var n=t("../../lib");e.exports=function(t,e){var r=t.split(" "),i=r[0],a=r[1],o=n.isArrayOrTypedArray(e)?n.mean(e):e,s=.5+o/100,l=1.5+o/100,c=["",""],u=[0,0];switch(i){case"top":c[0]="top",u[1]=-l;break;case"bottom":c[0]="bottom",u[1]=l}switch(a){case"left":c[1]="right",u[0]=-s;break;case"right":c[1]="left",u[0]=s}return{anchor:c[0]&&c[1]?c.join("-"):c[0]?c[0]:c[1]?c[1]:"center",offset:u}}},{"../../lib":503}],613:[function(t,e,r){"use strict";var n=t("mapbox-gl/dist/mapbox-gl-unminified"),i=t("../../lib"),a=i.strTranslate,o=i.strScale,s=t("../../plots/get_data").getSubplotCalcData,l=t("../../constants/xmlns_namespaces"),c=t("@plotly/d3"),u=t("../../components/drawing"),f=t("../../lib/svg_text_utils"),h=t("./mapbox"),p="mapbox",d=r.constants=t("./constants");function g(t){return"string"==typeof t&&(-1!==d.styleValuesMapbox.indexOf(t)||0===t.indexOf("mapbox://"))}r.name=p,r.attr="subplot",r.idRoot=p,r.idRegex=r.attrRegex=i.counterRegex(p),r.attributes={subplot:{valType:"subplotid",dflt:"mapbox",editType:"calc"}},r.layoutAttributes=t("./layout_attributes"),r.supplyLayoutDefaults=t("./layout_defaults"),r.plot=function(t){var e=t._fullLayout,r=t.calcdata,a=e._subplots.mapbox;if(n.version!==d.requiredVersion)throw new Error(d.wrongVersionErrorMsg);var o=function(t,e){var r=t._fullLayout;if(""===t._context.mapboxAccessToken)return"";for(var n=[],a=[],o=!1,s=!1,l=0;l<e.length;l++){var c=r[e[l]],u=c.accesstoken;g(c.style)&&(u?i.pushUnique(n,u):(g(c._input.style)&&(i.error("Uses Mapbox map style, but did not set an access token."),o=!0),s=!0)),u&&i.pushUnique(a,u)}if(s){var f=o?d.noAccessTokenErrorMsg:d.missingStyleErrorMsg;throw i.error(f),new Error(f)}return n.length?(n.length>1&&i.warn(d.multipleTokensErrorMsg),n[0]):(a.length&&i.log(["Listed mapbox access token(s)",a.join(","),"but did not use a Mapbox map style, ignoring token(s)."].join(" ")),"")}(t,a);n.accessToken=o;for(var l=0;l<a.length;l++){var c=a[l],u=s(r,p,c),f=e[c],v=f._subplot;v||(v=new h(t,c),e[c]._subplot=v),v.viewInitial||(v.viewInitial={center:i.extendFlat({},f.center),zoom:f.zoom,bearing:f.bearing,pitch:f.pitch}),v.plot(u,e,t._promises)}},r.clean=function(t,e,r,n){for(var i=n._subplots.mapbox||[],a=0;a<i.length;a++){var o=i[a];!e[o]&&n[o]._subplot&&n[o]._subplot.destroy()}},r.toSVG=function(t){for(var e=t._fullLayout,r=e._subplots.mapbox,n=e._size,i=0;i<r.length;i++){var s=e[r[i]],h=s.domain,p=s._subplot.toImage("png");e._glimages.append("svg:image").attr({xmlns:l.svg,"xlink:href":p,x:n.l+n.w*h.x[0],y:n.t+n.h*(1-h.y[1]),width:n.w*(h.x[1]-h.x[0]),height:n.h*(h.y[1]-h.y[0]),preserveAspectRatio:"none"});var g=c.select(s._subplot.div);if(null!==g.select(".mapboxgl-ctrl-logo").node().offsetParent){var v=e._glimages.append("g");v.attr("transform",a(n.l+n.w*h.x[0]+10,n.t+n.h*(1-h.y[0])-31)),v.append("path").attr("d",d.mapboxLogo.path0).style({opacity:.9,fill:"#ffffff","enable-

background":"new"}),v.append("path").attr("d",d.mapboxLogo.path1).style("opacity",.35).style("enable-background","new"),v.append("path").attr("d",d.mapboxLogo.path2).style("opacity",.35).style("enable-background","new"),v.append("polygon").attr("points",d.mapboxLogo.polygon).style({opacity:.9,fill:"#ffffff","enable-background":"new"})}var m=g.select(".mapboxgl-ctrl-attrib").text().replace("Improve this map",""),y=e._glimages.append("g"),x=y.append("text");x.text(m).classed("static-attribution",!0).attr({"font-size":12,"font-family":"Arial",color:"rgba(0, 0, 0, 0.75)","text-anchor":"end","data-unformatted":m});var b=u.bBox(x.node()),_=n.w*(h.x[1]-h.x[0]);if(b.width>_/2){var w=m.split("|").join("<br>");x.text(w).attr("data-unformatted",w).call(f.convertToTspans,t),b=u.bBox(x.node())}x.attr("transform",a(-3,8-b.height)),y.insert("rect",".static-attribution").attr({x:-b.width-6,y:-b.height-3,width:b.width+6,height:b.height+3,fill:"rgba(255, 255, 255, 0.75)"});var T=1;b.width+6>_&&(T=_/(b.width+6));var k=[n.l+n.w*h.x[1],n.t+n.h*(1-h.y[0])];y.attr("transform",a(k[0],k[1])+o(T))}},r.updateFx=function(t){for(var e=t._fullLayout,r=e._subplots.mapbox,n=0;n<r.length;n++)e[r[n]]._subplot.updateFx(e)}},{"../../components/drawing":388,"../../constants/xmlns_namespaces":480,"../../lib":503,"../../lib/svg_text_utils":529,"../../plots/get_data":593,"./constants":611,"./layout_attributes":615,"./layout_defaults":616,"./mapbox":617,"@plotly/d3":58,"mapbox-gl/dist/mapbox-gl-unminified":239}],614:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../lib/svg_text_utils").sanitizeHTML,a=t("./convert_text_opts"),o=t("./constants");function s(t,e){this.subplot=t,this.uid=t.uid+"-"+e,this.index=e,this.idSource="source-"+this.uid,this.idLayer=o.layoutLayerPrefix+this.uid,this.sourceType=null,this.source=null,this.layerType=null,this.below=null,this.visible=!1}var l=s.prototype;function c(t){if(!t.visible)return!1;var e=t.source;if(Array.isArray(e)&&e.length>0){for(var r=0;r<e.length;r++)if("string"!=typeof e[r]||0===e[r].length)return!1;return!0}return n.isPlainObject(e)||"string"==typeof e&&e.length>0}function u(t){var e={},r={};switch(t.type){case"circle":n.extendFlat(r,{"circle-radius":t.circle.radius,"circle-color":t.color,"circle-opacity":t.opacity});break;case"line":n.extendFlat(r,{"line-width":t.line.width,"line-color":t.color,"line-opacity":t.opacity,"line-dasharray":t.line.dash});break;case"fill":n.extendFlat(r,{"fill-color":t.color,"fill-outline-color":t.fill.outlinecolor,"fill-opacity":t.opacity});break;case"symbol":var i=t.symbol,o=a(i.textposition,i.iconsize);n.extendFlat(e,{"icon-image":i.icon+"-15","icon-size":i.iconsize/10,"text-field":i.text,"text-size":i.textfont.size,"text-anchor":o.anchor,"text-offset":o.offset,"symbol-placement":i.placement}),n.extendFlat(r,{"icon-color":t.color,"text-color":i.textfont.color,"text-opacity":t.opacity});break;case"raster":n.extendFlat(r,{"raster-fade-duration":0,"raster-opacity":t.opacity})}return{layout:e,paint:r}}l.update=function(t){this.visible?this.needsNewImage(t)?this.updateImage(t):this.needsNewSource(t)?(this.removeLayer(),this.updateSource(t),this.updateLayer(t)):this.needsNewLayer(t)?this.updateLayer(t):this.updateStyle(t):(this.updateSource(t),this.updateLayer(t)),this.visible=c(t)},l.needsNewImage=function(t){return this.subplot.map.getSource(this.idSource)&&"image"===this.sourceType&&"image"===t.sourcetype&&(this.source!==t.source||JSON.stringify(this.coordinates)!==JSON.stringify(t.coordinates))},l.needsNewSource=function(t){return this.sourceType!==t.sourcetype||JSON.stringify(this.source)!==JSON.stringify(t.source)||this.layerType!==t.type},l.needsNewLayer=function(t){return this.layerType!==t.type||this.below!==this.subplot.belowLookup["layout-"+this.index]},l.lookupBelow=function(){return this.subplot.belowLookup["layout-"+this.index]},l.updateImage=function(t){this.subplot.map.getSource(this.idSource).updateImage({url:t.source,coordinates:t.coordinates});var e=this.findFollowingMapboxLayerId(this.lookupBelow());null!==e&&this.subplot.map.moveLayer(this.idLayer,e)},l.updateSource=function(t){var e=this.subplot.map;if(e.getSource(this.idSource)&&e.removeSource(this.idSource),this.sourceType=t.sourcetype,this.source=t.source,c(t)){var r=function(t){var e,r=t.sourcetype,n=t.source,a={type:r};return"geojson"===r?e="data":"vector"===r?e="string"==typeof n?"url":"tiles":"raster"===r?(e="tiles",a.tileSize=256):"image"===r&&(e="url",a.coordinates=t.coordinates),a[e]=n,

t.sourceattribution&&(a.attribution=i(t.sourceattribution)),a}(t);e.addSource(this.idSource,r)}},l.findFollowingMapboxLayerId=function(t){if("traces"===t)for(var e=this.subplot.getMapLayers(),r=0;r<e.length;r++){var n=e[r].id;if("string"==typeof n&&0===n.indexOf(o.traceLayerPrefix)){t=n;break}}return t},l.updateLayer=function(t){var e=this.subplot,r=u(t),n=this.lookupBelow(),i=this.findFollowingMapboxLayerId(n);this.removeLayer(),c(t)&&e.addLayer({id:this.idLayer,source:this.idSource,"source-layer":t.sourcelayer||"",type:t.type,minzoom:t.minzoom,maxzoom:t.maxzoom,layout:r.layout,paint:r.paint},i),this.layerType=t.type,this.below=n},l.updateStyle=function(t){if(c(t)){var e=u(t);this.subplot.setOptions(this.idLayer,"setLayoutProperty",e.layout),this.subplot.setOptions(this.idLayer,"setPaintProperty",e.paint)}},l.removeLayer=function(){var t=this.subplot.map;t.getLayer(this.idLayer)&&t.removeLayer(this.idLayer)},l.dispose=function(){var t=this.subplot.map;t.getLayer(this.idLayer)&&t.removeLayer(this.idLayer),t.getSource(this.idSource)&&t.removeSource(this.idSource)},e.exports=function(t,e,r){var n=new s(t,e);return n.update(r),n}},{"../../lib":503,"../../lib/svg_text_utils":529,"./constants":611,"./convert_text_opts":612}],615:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../components/color").defaultLine,a=t("../domain").attributes,o=t("../font_attributes"),s=t("../../traces/scatter/attributes").textposition,l=t("../../plot_api/edit_types").overrideAll,c=t("../../plot_api/plot_template").templatedArray,u=t("./constants"),f=o({});f.family.dflt="Open Sans Regular, Arial Unicode MS Regular",(e.exports=l({_arrayAttrRegexps:[n.counterRegex("mapbox",".layers",!0)],domain:a({name:"mapbox"}),accesstoken:{valType:"string",noBlank:!0,strict:!0},style:{valType:"any",values:u.styleValuesMapbox.concat(u.styleValuesNonMapbox),dflt:u.styleValueDflt},center:{lon:{valType:"number",dflt:0},lat:{valType:"number",dflt:0}},zoom:{valType:"number",dflt:1},bearing:{valType:"number",dflt:0},pitch:{valType:"number",dflt:0},layers:c("layer",{visible:{valType:"boolean",dflt:!0},sourcetype:{valType:"enumerated",values:["geojson","vector","raster","image"],dflt:"geojson"},source:{valType:"any"},sourcelayer:{valType:"string",dflt:""},sourceattribution:{valType:"string"},type:{valType:"enumerated",values:["circle","line","fill","symbol","raster"],dflt:"circle"},coordinates:{valType:"any"},below:{valType:"string"},color:{valType:"color",dflt:i},opacity:{valType:"number",min:0,max:1,dflt:1},minzoom:{valType:"number",min:0,max:24,dflt:0},maxzoom:{valType:"number",min:0,max:24,dflt:24},circle:{radius:{valType:"number",dflt:15}},line:{width:{valType:"number",dflt:2},dash:{valType:"data_array"}},fill:{outlinecolor:{valType:"color",dflt:i}},symbol:{icon:{valType:"string",dflt:"marker"},iconsize:{valType:"number",dflt:10},text:{valType:"string",dflt:""},placement:{valType:"enumerated",values:["point","line","line-center"],dflt:"point"},textfont:f,textposition:n.extendFlat({},s,{arrayOk:!1})}}),"plot","from-root")).uirevision={valType:"any",editType:"none"}},{"../../components/color":366,"../../lib":503,"../../plot_api/edit_types":536,"../../plot_api/plot_template":543,"../../traces/scatter/attributes":927,"../domain":584,"../font_attributes":585,"./constants":611}],616:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../subplot_defaults"),a=t("../array_container_defaults"),o=t("./layout_attributes");function s(t,e,r,n){r("accesstoken",n.accessToken),r("style"),r("center.lon"),r("center.lat"),r("zoom"),r("bearing"),r("pitch"),a(t,e,{name:"layers",handleItemDefaults:l}),e._input=t}function l(t,e){function r(r,i){return n.coerce(t,e,o.layers,r,i)}if(r("visible")){var i,a=r("sourcetype"),s="raster"===a||"image"===a;r("source"),r("sourceattribution"),"vector"===a&&r("sourcelayer"),"image"===a&&r("coordinates"),s&&(i="raster");var l=r("type",i);s&&"raster"!==l&&(l=e.type="raster",n.log("Source types *raster* and *image* must drawn *raster* layer type.")),r("below"),r("color"),r("opacity"),r("minzoom"),r("maxzoom"),"circle"===l&&r("circle.radius"),"line"===l&&(r("line.width"),r("line.dash")),"fill"===l&&r("fill.outlinecolor"),"symbol"===l&&(r("symbol.icon"),r("symbol.iconsize"),r("symbol.text"),n.coerceFont(r,"symbol.textfont"),r("symbol.textposition"),r("symbol.placement"))}}e.exports=function(t,e,r){i(t,e,r,{type:"mapbox",attributes:o,handleDefaults:s,partition:"y",accessToken:e._mapboxAccessToken})}},{"../../lib":503,"../array_container_defaults":549,"../subplot_defaults":632,"./layout_attributes":615}],617:[function(t,e,r){"use strict";var n=t("mapbox-gl/dist/mapbox-gl-

unminified"),i=t("../../lib"),a=t("../../lib/geo_location_utils"),o=t("../../registry"),s=t("../cartesian/axes"),l=t("../../components/dragelement"),c=t("../../components/fx"),u=t("../../components/dragelement/helpers"),f=u.rectMode,h=u.drawMode,p=u.selectMode,d=t("../cartesian/select").prepSelect,g=t("../cartesian/select").clearSelect,v=t("../cartesian/select").clearSelectionsCache,m=t("../cartesian/select").selectOnClick,y=t("./constants"),x=t("./layers");function b(t,e){this.id=e,this.gd=t;var r=t._fullLayout,n=t._context;this.container=r._glcontainer.node(),this.isStatic=n.staticPlot,this.uid=r._uid+"-"+this.id,this.div=null,this.xaxis=null,this.yaxis=null,this.createFramework(r),this.map=null,this.accessToken=null,this.styleObj=null,this.traceHash={},this.layerList=[],this.belowLookup={},this.dragging=!1,this.wheeling=!1}var _=b.prototype;_.plot=function(t,e,r){var n,i=this,a=e[i.id];i.map&&a.accesstoken!==i.accessToken&&(i.map.remove(),i.map=null,i.styleObj=null,i.traceHash={},i.layerList=[]),n=i.map?new Promise((function(r,n){i.updateMap(t,e,r,n)})):new Promise((function(r,n){i.createMap(t,e,r,n)})),r.push(n)},_.createMap=function(t,e,r,i){var o=this,s=e[o.id],l=o.styleObj=T(s.style);o.accessToken=s.accesstoken;var c=o.map=new n.Map({container:o.div,style:l.style,center:A(s.center),zoom:s.zoom,bearing:s.bearing,pitch:s.pitch,interactive:!o.isStatic,preserveDrawingBuffer:o.isStatic,doubleClickZoom:!1,boxZoom:!1,attributionControl:!1}).addControl(new n.AttributionControl({compact:!0}));c._canvas.style.left="0px",c._canvas.style.top="0px",o.rejectOnError(i),o.isStatic||o.initFx(t,e);var u=[];u.push(new Promise((function(t){c.once("load",t)}))),u=u.concat(a.fetchTraceGeoData(t)),Promise.all(u).then((function(){o.fillBelowLookup(t,e),o.updateData(t),o.updateLayout(e),o.resolveOnRender(r)})).catch(i)},_.updateMap=function(t,e,r,n){var i=this,o=i.map,s=e[this.id];i.rejectOnError(n);var l=[],c=T(s.style);JSON.stringify(i.styleObj)!==JSON.stringify(c)&&(i.styleObj=c,o.setStyle(c.style),i.traceHash={},l.push(new Promise((function(t){o.once("styledata",t)})))),l=l.concat(a.fetchTraceGeoData(t)),Promise.all(l).then((function(){i.fillBelowLookup(t,e),i.updateData(t),i.updateLayout(e),i.resolveOnRender(r)})).catch(n)},_.fillBelowLookup=function(t,e){var r,n,i=e[this.id].layers,a=this.belowLookup={},o=!1;for(r=0;r<t.length;r++){var s=t[r][0].trace,l=s._module;"string"==typeof s.below?n=s.below:l.getBelow&&(n=l.getBelow(s,this)),""===n&&(o=!0),a["trace-"+s.uid]=n||""}for(r=0;r<i.length;r++){var c=i[r];n="string"==typeof c.below?c.below:o?"traces":"",a["layout-"+r]=n}var u,f,h={};for(u in a)h[n=a[u]]?h[n].push(u):h[n]=[u];for(n in h){var p=h[n];if(p.length>1)for(r=0;r<p.length;r++)0===(u=p[r]).indexOf("trace-")?(f=u.split("trace-")[1],this.traceHash[f]&&(this.traceHash[f].below=null)):0===u.indexOf("layout-")&&(f=u.split("layout-")[1],this.layerList[f]&&(this.layerList[f].below=null))}};var w={choroplethmapbox:0,densitymapbox:1,scattermapbox:2};function T(t){var e={};return i.isPlainObject(t)?(e.id=t.id,e.style=t):"string"==typeof t?(e.id=t,1!==y.styleValuesMapbox.indexOf(t)?e.style=k(t):y.stylesNonMapbox[t]?e.style=y.stylesNonMapbox[t]:e.style=t):(e.id=y.styleValueDflt,e.style=k(y.styleValueDflt)),e.transition={duration:0,delay:0},e}function k(t){return y.styleUrlPrefix+t+"-"+y.styleUrlSuffix}function A(t){return[t.lon,t.lat]}_.updateData=function(t){var e,r,n,i,a=this.traceHash,o=t.slice().sort((function(t,e){return w[t[0].trace.type]-w[e[0].trace.type]}));for(n=0;n<o.length;n++){var s=o[n],l=!1;(e=a[(r=s[0].trace).uid])&&(e.type===r.type?(e.update(s),l=!0):e.dispose()),!l&&r._module&&(a[r.uid]=r._module.plot(this,s))}var c=Object.keys(a);t:for(n=0;n<c.length;n++){var u=c[n];for(i=0;i<t.length;i++)if(u===(r=t[i][0].trace).uid)continue t;(e=a[u]).dispose(),delete a[u]}},_.updateLayout=function(t){var e=this.map,r=t[this.id];this.dragging||this.wheeling||(e.setCenter(A(r.center)),e.setZoom(r.zoom),e.setBearing(r.bearing),e.setPitch(r.pitch)),this.updateLayers(t),this.updateFramework(t),this.updateFx(t),this.map.resize(),this.gd._context._scrollZoom.mapbox?e.scrollZoom.enable():e.scrollZoom.disable()},_.resolveOnRender=function(t){var e=this.map;e.on("render",(function r(){e.loaded()&&(e.off("render",r),setTimeout(t,10))}))},_.rejectOnError=function(t){var e=this.map;function

r(){t(new
Error(y.mapOnErrorMsg))}e.once("error",r),e.once("style.error",r),e.once("source.error",r),e.once("tile.error",r),e.once("layer.error",r)},_.createFramework=function(t){var
e=this,r=e.div=document.createElement("div");r.id=e.uid,r.style.position="absolute",e.container.appendChild(r),e.xaxis={_id:"x",c2p:function(t){return e.project(t).x}},e.yaxis={_id:"y",c2p:function(t){return
e.project(t).y}},e.updateFramework(t),e.mockAxis={type:"linear",showexponent:"all",exponentformat:"B"},s.setConvert(e.mockAxis,t)},_.initFx=function(t,e){var r=this,n=r.gd,i=r.map;function
a(){c.loneUnhover(e._hoverlayer)}function s(){var
t=r.getView();n.emit("plotly_relayouting",r.getViewEditsWithDerived(t))}i.on("moveend",(function(t){if(r.map){var e=n._fullLayout;if(t.originalEvent||r.wheeling){var
i=e[r.id];o.call("_storeDirectGUIEdit",n.layout,e._preGUI,r.getViewEdits(i));var
a=r.getView();i._input.center=i.center=a.center,i._input.zoom=i.zoom=a.zoom,i._input.bearing=i.bearing=a.bearing,i._input.pitch=i.pitch=a.pitch,n.emit("plotly_relayout",r.getViewEditsWithDerived(a))}t.originalEvent&&"mouseup"===t.originalEvent.type?r.dragging=!1:r.wheeling&&(r.wheeling=!1),e._rehover&&e._rehover()})),i.on("wheel",(function(){r.wheeling=!0})),i.on("mousemove",(function(t){var
e=r.div.getBoundingClientRect(),a=[t.originalEvent.offsetX,t.originalEvent.offsetY];t.target.getBoundingClientRect=function(){return e},r.xaxis.p2c=function(){return i.unproject(a).lng},r.yaxis.p2c=function(){return
i.unproject(a).lat},n._fullLayout._rehover=function(){n._fullLayout._hoversubplot===r.id&&n._fullLayout[r.id]&&c.hover(n,t,r.id)},c.hover(n,t,r.id),n._fullLayout._hoversubplot=r.id})),i.on("dragstart",(function(){r.dragging=!0,a()})),i.on("zoomstart",a),i.on("mouseout",(function(){n._fullLayout._hoversubplot=null})),i.on("drag",s),i.on("zoom",s),i.on("dblclick",(function(){var
t=n._fullLayout[r.id];o.call("_storeDirectGUIEdit",n.layout,n._fullLayout._preGUI,r.getViewEdits(t));var
e=r.viewInitial;i.setCenter(A(e.center)),i.setZoom(e.zoom),i.setBearing(e.bearing),i.setPitch(e.pitch);var
a=r.getView();t._input.center=t.center=a.center,t._input.zoom=t.zoom=a.zoom,t._input.bearing=t.bearing=a.bearing,t._input.pitch=t.pitch=a.pitch,n.emit("plotly_doubleclick",null),n.emit("plotly_relayout",r.getViewEditsWithDerived(a))})),r.clearSelect=function(){v(r.dragOptions),g(r.dragOptions.gd)},r.onClickInPanFn=function(t){return
function(e){var i=n._fullLayout.clickmode;i.indexOf("select")>-
1&&m(e.originalEvent,n,[r.xaxis],[r.yaxis],r.id,t),i.indexOf("event")>-
1&&c.click(n,e.originalEvent)}}},_.updateFx=function(t){var e=this,r=e.map,n=e.gd;if(!e.isStatic){var
a,o=t.dragmode;a=f(o)?function(t,r){(t.range={})[e.id]=[c([r.xmin,r.ymin]),c([r.xmax,r.ymax])]}:function(t,r,n){(t.lassoPoints={})[e.id]=n.filtered.map(c)};var
s=e.dragOptions;e.dragOptions=i.extendDeep(s||{},{dragmode:t.dragmode,element:e.div,gd:n,plotinfo:{id:e.id,domain:t[e.id].domain,xaxis:e.xaxis,yaxis:e.yaxis,fillRangeItems:a},xaxes:[e.xaxis],yaxes:[e.yaxis],subplot:e.id}),r.off("click",e.onClickInPanHandler),p(o)||h(o)?(r.dragPan.disable(),r.on("zoomstart",e.clearSelect),e.dragOptions.prepFn=function(t,r,n){d(t,r,n,e.dragOptions,o)},l.init(e.dragOptions)):(r.dragPan.enable(),r.off("zoomstart",e.clearSelect),e.div.onmousedown=null,e.onClickInPanHandler=e.onClickInPanFn(e.dragOptions),r.on("click",e.onClickInPanHandler))}function c(t){var r=e.map.unproject(t);return[r.lng,r.lat]},_.updateFramework=function(t){var
e=t[this.id].domain,r=t._size,n=this.div.style;n.width=r.w*(e.x[1]-e.x[0])+"px",n.height=r.h*(e.y[1]-
e.y[0])+"px",n.left=r.l+e.x[0]*r.w+"px",n.top=r.t+(1-
e.y[1])*r.h+"px",this.xaxis._offset=r.l+e.x[0]*r.w,this.xaxis._length=r.w*(e.x[1]-e.x[0]),this.yaxis._offset=r.t+(1-
e.y[1])*r.h,this.yaxis._length=r.h*(e.y[1]-e.y[0])},_.updateLayers=function(t){var
e,r=t[this.id].layers,n=this.layerList;if(r.length!==n.length){for(e=0;e<n.length;e++)n[e].dispose();for(n=this.layerList=[],e=0;e<r.length;e++)n.push(x(this,e,r[e]))}else
for(e=0;e<r.length;e++)n[e].update(r[e])},_.destroy=function(){this.map&&(this.map.remove(),this.map=null,this.container.removeChild(this.div))},_.toImage=function(){return
this.map.stop(),this.map.getCanvas().toDataURL()},_.setOptions=function(t,e,r){for(var n in
r)this.map[e](t,n,r[n])},_.getMapLayers=function(){return this.map.getStyle().layers},_.addLayer=function(t,e){var
r=this.map;if("string"==typeof e){if(""===e)return void r.addLayer(t,e);for(var

n=this.getMapLayers(),a=0;a<n.length;a++)if(e===n[a].id)return void r.addLayer(t,e);i.warn(["Trying to add layer with *below* value",e,"referencing a layer that does not exist","or that does not yet exist."].join(" "))}r.addLayer(t)},_.project=function(t){return this.map.project(new n.LngLat(t[0],t[1]))},_.getView=function(){var t=this.map,e=t.getCenter(),r={lon:e.lng,lat:e.lat},n=t.getCanvas(),i=parseInt(n.style.width),a=parseInt(n.style.height);return{center:r,zoom:t.getZoom(),bearing:t.getBearing(),pitch:t.getPitch(),_derived:{coordinates:[t.unproject([0,0]).toArray(),t.unproject([i,0]).toArray(),t.unproject([i,a]).toArray(),t.unproject([0,a]).toArray()]}}},_.getViewEdits=function(t){for(var e=this.id,r=["center","zoom","bearing","pitch"],n={},i=0;i<r.length;i++){var a=r[i];n[e+"."+a]=t[a]}return n},_.getViewEditsWithDerived=function(t){var e=this.id,r=this.getViewEdits(t);return r[e+"._derived"]=t._derived,r},e.exports=b},{"../../components/dragelement":385,"../../components/dragelement/helpers":384,"../../components/fx":406,"../../lib":503,"../../lib/geo_location_utils":496,"../../registry":638,"../cartesian/axes":554,"../cartesian/select":575,"./constants":611,"./layers":614,"mapbox-gl/dist/mapbox-gl-unminified":239}],618:[function(t,e,r){"use strict";e.exports=function(t){var e=t.editType;return{t:{valType:"number",dflt:0,editType:e},r:{valType:"number",dflt:0,editType:e},b:{valType:"number",dflt:0,editType:e},l:{valType:"number",dflt:0,editType:e},editType:e}}},{}],619:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("d3-time-format").timeFormatLocale,a=t("d3-format").formatLocale,o=t("fast-isnumeric"),s=t("../registry"),l=t("../plot_api/plot_schema"),c=t("../plot_api/plot_template"),u=t("../lib"),f=t("../components/color"),h=t("../constants/numerical").BADNUM,p=t("./cartesian/axis_ids"),d=t("./cartesian/handle_outline").clearSelect,g=t("./animation_attributes"),v=t("./frame_attributes"),m=t("../plots/get_data").getModuleCalcData,y=u.relinkPrivateKeys,x=u._,b=e.exports={};u.extendFlat(b,s),b.attributes=t("./attributes"),b.attributes.type.values=b.allTypes,b.fontAttrs=t("./font_attributes"),b.layoutAttributes=t("./layout_attributes"),b.fontWeight="normal";var _=b.transformsRegistry,w=t("./command");b.executeAPICommand=w.executeAPICommand,b.computeAPICommandBindings=w.computeAPICommandBindings,b.manageCommandObserver=w.manageCommandObserver,b.hasSimpleAPICommandBindings=w.hasSimpleAPICommandBindings,b.redrawText=function(t){return t=u.getGraphDiv(t),new Promise((function(e){setTimeout((function(){t._fullLayout&&(s.getComponentMethod("annotations","draw")(t),s.getComponentMethod("legend","draw")(t),s.getComponentMethod("colorbar","draw")(t),e(b.previousPromises(t)))}),300)}))},b.resize=function(t){var e;t=u.getGraphDiv(t);var r=new Promise((function(r,n){t&&!u.isHidden(t)||n(new Error("Resize must be passed a displayed plot div element.")),t._redrawTimer&&clearTimeout(t._redrawTimer),t._resolveResize&&(e=t._resolveResize),t._resolveResize=r,t._redrawTimer=setTimeout((function(){if(!t.layout||t.layout.width&&t.layout.height||u.isHidden(t))r(t);else{delete t.layout.width,delete t.layout.height;var e=t.changed;t.autoplay=!0,s.call("relayout",t,{autosize:!0}).then((function(){t.changed=e,t._resolveResize===r&&(delete t._resolveResize,r(t))}))}}),100)}));return e&&e(r),r},b.previousPromises=function(t){if((t._promises||[]).length)return Promise.all(t._promises).then((function(){t._promises=[]}))},b.addLinks=function(t){if(t._context.showLink||t._context.showSources){var e=t._fullLayout,r=u.ensureSingle(e._paper,"text","js-plot-link-container",(function(t){t.style({"font-family":'"Open Sans", Arial, sans-serif',"font-size":"12px",fill:f.defaultLine,"pointer-events":"all"}).each((function(){var t=n.select(this);t.append("tspan").classed("js-link-to-tool",!0),t.append("tspan").classed("js-link-spacer",!0),t.append("tspan").classed("js-sourcelinks",!0)}))})),i=r.node(),a={y:e._paper.attr("height")-9};document.body.contains(i)&&i.getComputedTextLength()>=e.width-20?(a["text-anchor"]="start",a.x=5):(a["text-anchor"]="end",a.x=e._paper.attr("width")-7),r.attr(a);var o=r.select(".js-link-to-tool"),s=r.select(".js-link-spacer"),l=r.select(".js-sourcelinks");t._context.showSources&&t._context.showSources(t),t._context.showLink&&function(t,e){e.text("");var r=e.append("a").attr({"xlink:xlink:href":"#",class:"link--impt link--embedview","font-weight":"bold"}).text(t._context.linkText+" "+String.fromCharCode(187));if(t._context.sendData)r.on("click",(function(){b.sendDataToCloud(t)}));else{var n=window.location.pathname.split("/"),i=window.location.search;r.attr({"xlink:xlink:show":"new","xlink:xlink:href

":"/"+n[2].split(".")[0]+"/"+n[1]+i})}(t,o),s.text(o.text()&&l.text()?" - ":"")}},b.sendDataToCloud=function(t){var e=(window.PLOTLYENV||{}).BASE_URL||t._context.plotlyServerURL;if(e){t.emit("plotly_beforeexport");var r=n.select(t).append("div").attr("id","hiddenform").style("display","none"),i=r.append("form").attr({action:e+"/external",method:"post",target:"_blank"});return i.append("input").attr({type:"text",name:"data"}).node().value=b.graphJson(t,!1,"keepdata"),i.node().submit(),r.remove(),t.emit("plotly_afterexport"),!1}};var T=["days","shortDays","months","shortMonths","periods","dateTime","date","time","decimal","thousands","grouping","currency"],k=["year","month","dayMonth","dayMonthYear"];function A(t,e){var r=t._context.locale;r||(r="en-US");var n=!1,i={};function a(t){for(var r=!0,a=0;a<e.length;a++){var o=e[a];i[o]||(t[o]?i[o]=t[o]:r=!1)}r&&(n=!0)}for(var o=0;o<2;o++){for(var l=t._context.locales,c=0;c<2;c++){var u=(l[r]||{}).format;if(u&&(a(u),n))break;l=s.localeRegistry}var f=r.split("-")[0];if(n||f===r)break;r=f}return n||a(s.localeRegistry.en.format),i}function M(t,e){var r={_fullLayout:e},n="x"===t._id.charAt(0),i=t._mainAxis._anchorAxis,a="",o="",s="";if(i&&(s=i._mainAxis._id,a=n?t._id+s:s+t._id),!a||!e._plots[a]){a="";for(var l=t._counterAxes,c=0;c<l.length;c++){var u=l[c],f=n?t._id+u:u+t._id;o||(o=f);var h=p.getFromId(r,u);if(s&&h.overlaying===s){a=f;break}}}return a||o}function S(t){var e=t.transforms;if(Array.isArray(e)&&e.length)for(var r=0;r<e.length;r++){var n=e[r],i=n._module||_[n.type];if(i&&i.makesData)return!0}return!1}function E(t,e,r,n){for(var i=t.transforms,a=[t],o=0;o<i.length;o++){var s=i[o],l=_[s.type];l&&l.transform&&(a=l.transform(a,{transform:s,fullTrace:t,fullData:e,layout:r,fullLayout:n,transformIndex:o}))}return a}function L(t){return"string"==typeof t&&"px"===t.substr(t.length-2)&&parseFloat(t)}function C(t){var e=t.margin;if(!t._size){var r=t._size={l:Math.round(e.l),r:Math.round(e.r),t:Math.round(e.t),b:Math.round(e.b),p:Math.round(e.pad)};r.w=Math.round(t.width)-r.l-r.r,r.h=Math.round(t.height)-r.t-r.b}t._pushmargin||(t._pushmargin={}),t._pushmarginIds||(t._pushmarginIds={})}b.supplyDefaults=function(t,e){var r=e&&e.skipUpdateCalc,n=t._fullLayout||{};if(n._skipDefaults)delete n._skipDefaults;else{var o,l=t._fullLayout={},c=t.layout||{},f=t._fullData||[],h=t._fullData=[],p=t.data||[],g=t.calcdata||[],v=t._context||{};t._transitionData||b.createTransitionData(t),l._dfltTitle={plot:x(t,"Click to enter Plot title"),x:x(t,"Click to enter X axis title"),y:x(t,"Click to enter Y axis title"),colorbar:x(t,"Click to enter Colorscale title"),annotation:x(t,"new text")},l._traceWord=x(t,"trace");var m=A(t,T);if(l._mapboxAccessToken=v.mapboxAccessToken,n._initialAutoSizeIsDone){var _=n.width,w=n.height;b.supplyLayoutGlobalDefaults(c,l,m),c.width||(l.width=_),c.height||(l.height=w),b.sanitizeMargins(l)}else{b.supplyLayoutGlobalDefaults(c,l,m);var M=!c.width||!c.height,S=l.autosize,E=v.autosizable;M&&(S||E)?b.plotAutoSize(t,c,l):M&&b.sanitizeMargins(l),!S&&M&&(c.width=l.width,c.height=l.height)}l._d3locale=function(t,e){return t.decimal=e.charAt(0),t.thousands=e.charAt(1),{numberFormat:function(e){try{e=a(t).format(u.adjustFormat(e))}catch(t){return u.warnBadFormat(e),u.noFormat}return e},timeFormat:i(t).utcFormat}}(m,l.separators),l._extraFormat=A(t,k),l._initialAutoSizeIsDone=!0,l._dataLength=p.length,l._modules=[],l._visibleModules=[],l._basePlotModules=[];var L=l._subplots=function(){var t,e,r=s.collectableSubplotTypes,n={};if(!r){r=[];var i=s.subplotsRegistry;for(var a in i){var o=i[a].attr;if(o&&(r.push(a),Array.isArray(o)))for(e=0;e<o.length;e++)u.pushUnique(r,o[e])}}for(t=0;t<r.length;t++)n[r[t]]=[];return n}(),P=l._splomAxes={x:{},y:{}},I=l._splomSubplots={};l._splomGridDflt={},l._scatterStackOpts={},l._firstScatter={},l._alignmentOpts={},l._colorAxes={},l._requestRangeslider={},l._traceUids=function(t,e){var r,n,i=e.length,a=[];for(r=0;r<t.length;r++){var o=t[r]._fullInput;o!==n&&a.push(o),n=o}var s=a.length,l=new Array(i),c={};function f(t,e){l[e]=t,c[t]=1}function h(t,e){if(t&&"string"==typeof t&&!c[t])return f(t,e),!0}for(r=0;r<i;r++){var p=e[r].uid;"number"==typeof p&&(p=String(p)),h(p,r)||r<s&&h(a[r].uid,r)||f(u.randstr(c),r)}return l}(f,p),l._globalTransforms=(t._context||{}).globalTransforms,b.supplyDataDefaults(p,h,c,l);var

O=Object.keys(P.x),z=Object.keys(P.y);if(O.length>1&&z.length>1){for(s.getComponentMethod("grid","sizeDefaults")(c,l),o=0;o<O.length;o++)u.pushUnique(L.xaxis,O[o]);for(o=0;o<z.length;o++)u.pushUnique(L.yaxis,z[o]);for(var D in
I)u.pushUnique(L.cartesian,D)}if(l._has=b._hasPlotType.bind(l),f.length===h.length)for(o=0;o<h.length;o++)y(h[o],f[o]);b.supplyLayoutModuleDefaults(c,l,h,t._transitionData);var
R=l._visibleModules,F=[];for(o=0;o<R.length;o++){var
B=R[o].crossTraceDefaults;B&&u.pushUnique(F,B)}for(o=0;o<F.length;o++)F[o](h,l);l._hasOnlyLargeSploms=1===l._basePlotModules.length&&"splom"===l._basePlotModules[0].name&&O.length>15&&z.length>15&&0===l.shapes.length&&0===l.images.length,b.linkSubplots(h,l,f,n),b.cleanPlot(h,l,f,n);var
N=!(!n._has||!n._has("gl2d")),j=!(!l._has||!l._has("gl2d")),U=!(!n._has||!n._has("cartesian"))||N,V=!(!l._has||!l._has("cartesian"))||j;U&&!V?n._bgLayer.remove():V&&!U&&(l._shouldCreateBgLayer=!0),n._zoomlayer&&!t._dragging&&d({_fullLayout:n}),function(t,e){var r,n=[];e.meta&&(r=e._meta={meta:e.meta,layout:{meta:e.meta}});for(var i=0;i<t.length;i++){var
a=t[i];a.meta?n[a.index]=a._meta={meta:a.meta}:e.meta&&(a._meta={meta:e.meta}),e.meta&&(a._meta.layout={meta:e.meta})}n.length&&(r||(r=e._meta={}),r.data=n)}(h,l),y(l,n),s.getComponentMethod("colorscale","crossTraceDefaults")(h,l),l._preGUI||(l._preGUI={}),l._tracePreGUI||(l._tracePreGUI={});var
q,H=l._tracePreGUI,G={};for(q in
H)G[q]="old";for(o=0;o<h.length;o++)G[q=h[o]._fullInput.uid]||(H[q]={},G[q]="new";for(q in
G)"old"===G[q]&&delete
H[q];C(l),s.getComponentMethod("rangeslider","makeData")(l),r||g.length!==h.length||b.supplyDefaultsUpdateCalc(g,h)}},b.supplyDefaultsUpdateCalc=function(t,e){for(var r=0;r<e.length;r++){var
n=e[r],i=(t[r]||[])[0];if(i&&i.trace){var a=i.trace;if(a._hasCalcTransform){var
o,s,l,c=a._arrayAttrs;for(o=0;o<c.length;o++)s=c[o],l=u.nestedProperty(a,s).get().slice(),u.nestedProperty(n,s).set(l)}i.trace=n}}},b.createTransitionData=function(t){t._transitionData||(t._transitionData={}),t._transitionData._frames||(t._transitionData._frames=[]),t._transitionData._frameHash||(t._transitionData._frameHash={}),t._transitionData._counter||(t._transitionData._counter=0),t._transitionData._interruptCallbacks||(t._transitionData._interruptCallbacks=[])},b._hasPlotType=function(t){var
e,r=this._basePlotModules||[];for(e=0;e<r.length;e++)if(r[e].name===t)return!0;var
n=this._modules||[];for(e=0;e<n.length;e++){var i=n[e].name;if(i===t)return!0;var
a=s.modules[i];if(a&&a.categories[t])return!0}return!1},b.cleanPlot=function(t,e,r,n){var
i,a,o=n._basePlotModules||[];for(i=0;i<o.length;i++){var s=o[i];s.clean&&s.clean(t,e,r,n)}var
l=n._has&&n._has("gl"),c=e._has&&e._has("gl");l&&!c&&void
0!==n._glcontainer&&(n._glcontainer.selectAll(".gl-canvas").remove(),n._glcontainer.selectAll(".no-webgl").remove(),n._glcanvas=null);var u=!!n._infolayer;t:for(i=0;i<r.length;i++){var
f=r[i].uid;for(a=0;a<t.length;a++)if(f===t[a].uid)continue
t;u&&n._infolayer.select(".cb"+f).remove()}},b.linkSubplots=function(t,e,r,n){var
i,a,o=n._plots||{},l=e._plots={},c=e._subplots,f={_fullData:t,_fullLayout:e},h=c.cartesian.concat(c.gl2d||[]);for(i=0;i<h.length;i++){var
d,g=h[i],v=o[g],m=p.getFromId(f,g,"x"),y=p.getFromId(f,g,"y");for(v?d=l[g]=v:(d=l[g]={}).id=g,m._counterAxes.push(y._id),y._counterAxes.push(m._id),m._subplotsWith.push(g),y._subplotsWith.push(g),d.xaxis=m,d.yaxis=y,d._hasClipOnAxisFalse=!1,a=0;a<t.length;a++){var
x=t[a];if(x.xaxis===d.xaxis._id&&x.yaxis===d.yaxis._id&&!1===x.cliponaxis){d._hasClipOnAxisFalse=!0;break}}var b,_=p.list(f,null,!0);for(i=0;i<_.length;i++){var
w=null;(b=_[i]).overlaying&&(w=p.getFromId(f,b.overlaying))&&w.overlaying&&(b.overlaying=!1,w=null),b._mainAxis=w||b,w&&(b.domain=w.domain.slice()),b._anchorAxis="free"===b.anchor?null:p.getFromId(f,b.anchor)}for(i=0;i<_.length;i++)if((b=_[i])._counterAxes.sort(p.idSort),b._subplotsWith.sort(u.subplotSort),b._mainSubplot=M(b,e),b._counterAxes.length&&(b.spikemode&&-1!==b.spikemode.indexOf("across")||b.automargin&&b.mirror&&"free"!==b.anchor||s.getComponentMethod("rang

eslider","isVisible")(b))){var T=1,k=0;for(a=0;a<b._counterAxes.length;a++){var A=p.getFromId(f,b._counterAxes[a]);T=Math.min(T,A.domain[0]),k=Math.max(k,A.domain[1])}T<k&&(b._counterDomainMin=T,b._counterDomainMax=k)}},b.clearExpandedTraceDefaultColors=function(t){var e,r,n;for(r=[],(e=t._module._colorAttrs)||(t._module._colorAttrs=e=[],l.crawl(t._module.attributes,(function(t,n,i,a){r[a]=n,r.length=a+1,"color"===t.valType&&void 0===t.dflt&&e.push(r.join("."))}))),n=0;n<e.length;n++)u.nestedProperty(t,"_input."+e[n]).get()||u.nestedProperty(t,e[n]).set(null)},b.supplyDataDefaults=function(t,e,r,n){var i,a,o,l=n._modules,f=n._visibleModules,h=n._basePlotModules,p=0,d=0;function g(t){e.push(t);var r=t._module;r&&(u.pushUnique(l,r),!0===t.visible&&u.pushUnique(f,r),u.pushUnique(h,t._module.basePlotModule),p++,!1!==t._input.visible&&d++)}n._transformModules=[];var v={},m=[],x=(r.template||{}).data||{},_=c.traceTemplater(x);for(i=0;i<t.length;i++){if(o=t[i],(a=_.newTrace(o)).uid=n._traceUids[i],b.supplyTraceDefaults(o,a,d,n,i),a.index=i,a._input=o,a._expandedIndex=p,a.transforms&&a.transforms.length)for(var w=!1!==o.visible&&!1===a.visible,T=E(a,e,r,n),k=0;k<T.length;k++){var A=T[k],M={_template:a._template,type:a.type,uid:a.uid+k};w&&!1===A.visible&&delete A.visible,b.supplyTraceDefaults(A,M,p,n,i),y(M,A),M.index=i,M._input=o,M._fullInput=a,M._expandedIndex=p,M._expandedInput=A,g(M)}else a._fullInput=a,a._expandedInput=a,g(a);s.traceIs(a,"carpetAxis")&&(v[a.carpet]=a),s.traceIs(a,"carpetDependent")&&m.push(i)}for(i=0;i<m.length;i++)if((a=e[m[i]]).visible){var S=v[a.carpet];a._carpet=S,S&&S.visible?(a.xaxis=S.xaxis,a.yaxis=S.yaxis):a.visible=!1}},b.supplyAnimationDefaults=function(t){var e;t=t||{};var r={};function n(e,n){return u.coerce(t||{},r,g,e,n)}if(n("mode"),n("direction"),n("fromcurrent"),Array.isArray(t.frame))for(r.frame=[],e=0;e<t.frame.length;e++)r.frame[e]=b.supplyAnimationFrameDefaults(t.frame[e]||{});else r.frame=b.supplyAnimationFrameDefaults(t.frame||{});if(Array.isArray(t.transition))for(r.transition=[],e=0;e<t.transition.length;e++)r.transition[e]=b.supplyAnimationTransitionDefaults(t.transition[e]||{});else r.transition=b.supplyAnimationTransitionDefaults(t.transition||{});return r},b.supplyAnimationFrameDefaults=function(t){var e={};function r(r,n){return u.coerce(t||{},e,g.frame,r,n)}return r("duration"),r("redraw"),e},b.supplyAnimationTransitionDefaults=function(t){var e={};function r(r,n){return u.coerce(t||{},e,g.transition,r,n)}return r("duration"),r("easing"),e},b.supplyFrameDefaults=function(t){var e={};function r(r,n){return u.coerce(t,e,v,r,n)}return r("group"),r("name"),r("traces"),r("baseframe"),r("data"),r("layout"),e},b.supplyTraceDefaults=function(t,e,r,n,i){var a,o=n.colorway||f.defaults,l=o[r%o.length];function c(r,n){return u.coerce(t,e,b.attributes,r,n)}var h=c("visible");c("type"),c("name",n._traceWord+" "+i),c("uirevision",n.uirevision);var p=b.getModule(e);if(e._module=p,p){var d=p.basePlotModule,g=d.attr,v=d.attributes;if(g&&v){var m=n._subplots,y="";if(h||"gl2d"!==d.name){if(Array.isArray(g))for(a=0;a<g.length;a++){var x=g[a],_=u.coerce(t,e,v,x);m[x]&&u.pushUnique(m[x],_),y+=_}else y=u.coerce(t,e,v,g);m[d.name]&&u.pushUnique(m[d.name],y)}}}return h&&(c("customdata"),c("ids"),c("meta"),s.traceIs(e,"showLegend")?(u.coerce(t,e,p.attributes.showlegend?p.attributes:b.attributes,"showlegend"),c("legendgroup"),c("legendgrouptitle.text"),c("legendrank"),e._dfltShowLegend=!0):e._dfltShowLegend=!1,p&&p.supplyDefaults(t,e,l,n),s.traceIs(e,"noOpacity")||c("opacity"),s.traceIs(e,"notLegendIsolatable")&&(e.visible=!!e.visible),s.traceIs(e,"noHover")||(e.hovertemplate||u.coerceHoverinfo(t,e,n),"parcats"!==e.type&&s.getComponentMethod("fx","supplyDefaults")(t,e,l,n)),p&&p.selectPoints&&c("selectedpoints"),b.supplyTransformDefaults(t,e,n)),e},b.hasMakesDataTransform=S,b.supplyTransformDefaults=function(t,e,r){if(e._length||S(t)){var n=r._globalTransforms||[],i=r._transformModules||[];if(Array.isArray(t.transforms)||0!==n.length)for(var a=t.transforms||[],o=n.concat(a),s=e.transforms=[],l=0;l<o.length;l++){var c,f=o[l],h=f.type,p=_[h],d=!(f._module&&f._module===p),g=p&&"function"==typeof p.transform;p||u.warn("Unrecognized transform type "+h+".",p&&p.supplyDefaults&&(d||g)?((c=p.supplyDefaults(f,e,r,t)).type=h,c._module=p,u.pushUnique(i,p)):c=u.extendFlat({},f),s.push(c)}},b.supplyLayoutGlobalDefaults=function(t,e,r){function n(r,n){return

u.coerce(t,e,b.layoutAttributes,r,n)}var
i=t.template;u.isPlainObject(i)&&(e.template=i,e._template=i.layout,e._dataTemplate=i.data),n("autotypenumbers")
;var
a=u.coerceFont(n,"font"),o=a.size;u.coerceFont(n,"title.font",u.extendFlat({},a,{size:Math.round(1.4*o)})),n("title.t
ext",e._dfltTitle.plot),n("title.xref"),n("title.yref"),n("title.x"),n("title.y"),n("title.xanchor"),n("title.yanchor"),n("title.
pad.t"),n("title.pad.r"),n("title.pad.b"),n("title.pad.l"),n("uniformtext.mode")&&n("uniformtext.minsize"),n("autosiz
e",!(t.width&&t.height)),n("width"),n("height"),n("margin.l"),n("margin.r"),n("margin.t"),n("margin.b"),n("margin.p
ad"),n("margin.autoexpand"),t.width&&t.height&&b.sanitizeMargins(e),s.getComponentMethod("grid","sizeDefaul
ts")(t,e),n("paper_bgcolor"),n("separators",r.decimal+r.thousands),n("hidesources"),n("colorway"),n("datarevision");
var
l=n("uirevision");n("editrevision",l),n("selectionrevision",l),s.getComponentMethod("modebar","supplyLayoutDefa
ults")(t,e),s.getComponentMethod("shapes","supplyDrawNewShapeDefaults")(t,e,n),n("meta"),u.isPlainObject(t.tra
nsition)&&(n("transition.duration"),n("transition.easing"),n("transition.ordering")),s.getComponentMethod("calenda
rs","handleDefaults")(t,e,"calendar"),s.getComponentMethod("fx","supplyLayoutGlobalDefaults")(t,e,n)},b.plotAut
oSize=function(t,e,r){var
n,i,a=t._context||{},s=a.frameMargins,l=u.isPlotDiv(t);if(l&&t.emit("plotly_autosize"),a.fillFrame)n=window.inner
Width,i=window.innerHeight,document.body.style.overflow="hidden";else{var
c=l?window.getComputedStyle(t):{};if(n=L(c.width)||L(c.maxWidth)||r.width,i=L(c.height)||L(c.maxHeight)||r.heig
ht,o(s)&&s>0){var f=1-2*s;n=Math.round(f*n),i=Math.round(f*i)}}var
h=b.layoutAttributes.width.min,p=b.layoutAttributes.height.min;n<h&&(n=h),i<p&&(i=p);var
d=!e.width&&Math.abs(r.width-n)>1,g=!e.height&&Math.abs(r.height-
i)>1;(g||d)&&(d&&(r.width=n),g&&(r.height=i)),t._initialAutoSize||(t._initialAutoSize={width:n,height:i}),b.sanitiz
eMargins(r)},b.supplyLayoutModuleDefaults=function(t,e,r,n){var
i,a,o,l=s.componentsRegistry,c=e._basePlotModules,f=s.subplotsRegistry.cartesian;for(i in
l)(o=l[i]).includeBasePlot&&o.includeBasePlot(t,e);for(var h in
c.length||c.push(f),e._has("cartesian")&&(s.getComponentMethod("grid","contentDefaults")(t,e),f.finalizeSubplots(t
,e)),e._subplots)e._subplots[h].sort(u.subplotSort);for(a=0;a<c.length;a++)(o=c[a]).supplyLayoutDefaults&&o.suppl
yLayoutDefaults(t,e,r);var
p=e._modules;for(a=0;a<p.length;a++)(o=p[a]).supplyLayoutDefaults&&o.supplyLayoutDefaults(t,e,r);var
d=e._transformModules;for(a=0;a<d.length;a++)(o=d[a]).supplyLayoutDefaults&&o.supplyLayoutDefaults(t,e,r,n);
for(i in l)(o=l[i]).supplyLayoutDefaults&&o.supplyLayoutDefaults(t,e,r)},b.purge=function(t){var
e=t._fullLayout||{};void 0!==e._glcontainer&&(e._glcontainer.selectAll(".gl-
canvas").remove(),e._glcontainer.remove(),e._glcanvas=null),e._modeBar&&e._modeBar.destroy(),t._transitionDat
a&&(t._transitionData._interruptCallbacks&&(t._transitionData._interruptCallbacks.length=0),t._transitionData._an
imationRaf&&window.cancelAnimationFrame(t._transitionData._animationRaf)),u.clearThrottle(),u.clearResponsiv
e(t),delete t.data,delete t.layout,delete t._fullData,delete t._fullLayout,delete t.calcdata,delete t.empty,delete
t.fid,delete t.undoqueue,delete t.undonum,delete t.autoplay,delete t.changed,delete t._promises,delete
t._redrawTimer,delete t._hmlumcount,delete t._hmpixcount,delete t._transitionData,delete t._transitioning,delete
t._initialAutoSize,delete t._transitioningWithDuration,delete t._dragging,delete t._dragged,delete t._dragdata,delete
t._hoverdata,delete t._snapshotInProgress,delete t._editing,delete t._mouseDownTime,delete
t._legendMouseDownTime,t.removeAllListeners&&t.removeAllListeners()},b.style=function(t){var
e,r=t._fullLayout._visibleModules,n=[];for(e=0;e<r.length;e++){var
i=r[e];i.style&&u.pushUnique(n,i.style)}for(e=0;e<n.length;e++)n[e](t)},b.sanitizeMargins=function(t){if(t&&t.mar
gin){var e,r=t.width,n=t.height,i=t.margin,a=r-(i.l+i.r),o=n-(i.t+i.b);a<0&&(e=(r-
1)/(i.l+i.r),i.l=Math.floor(e*i.l),i.r=Math.floor(e*i.r)),o<0&&(e=(n-
1)/(i.t+i.b),i.t=Math.floor(e*i.t),i.b=Math.floor(e*i.b))}},b.clearAutoMarginIds=function(t){t._fullLayout._pushmar
ginIds={}},b.allowAutoMargin=function(t,e){t._fullLayout._pushmarginIds[e]=1},b.autoMargin=function(t,e,r){va
r n=t._fullLayout,i=n.width,a=n.height,o=n.margin,s=u.constrain(i-o.l-o.r,2,64),l=u.constrain(a-o.t-

o.b,2,64),c=Math.max(0,i-s),f=Math.max(0,a-
l),h=n._pushmargin,p=n._pushmarginIds;if(!1!==o.autoexpand){if(r){var d=r.pad;if(void
0===d&&(d=Math.min(12,o.l,o.r,o.t,o.b)),c){var g=(r.l+r.r)/c;g>1&&(r.l/=g,r.r/=g)}if(f){var
v=(r.t+r.b)/f;v>1&&(r.t/=v,r.b/=v)}var m=void 0!==r.xl?r.xl:r.x,y=void 0!==r.xr?r.xr:r.x,x=void
0!==r.yt?r.yt:r.y,_=void
0!==r.yb?r.yb:r.y;h[e]={l:{val:m,size:r.l+d},r:{val:y,size:r.r+d},b:{val:_,size:r.b+d},t:{val:x,size:r.t+d}},p[e]=1}els
e delete h[e],delete p[e];if(!n._replotting)return b.doAutoMargin(t)}},b.doAutoMargin=function(t){var
e=t._fullLayout,r=e.width,n=e.height;e._size||(e._size={}),C(e);var
i=e._size,a=e.margin,l=u.extendFlat({},i),c=a.l,f=a.r,h=a.t,d=a.b,g=e._pushmargin,v=e._pushmarginIds;if(!1!==e.m
argin.autoexpand){for(var m in g)v[m]||delete g[m];for(var y in
g.base={l:{val:0,size:c},r:{val:1,size:f},t:{val:1,size:h},b:{val:0,size:d}},g){var
x=g[y].l||{},_=g[y].b||{},w=x.val,T=x.size,k=_.val,A=_.size;for(var M in g){if(o(T)&&g[M].r){var
S=g[M].r.val,E=g[M].r.size;if(S>w){var L=(T*S+(E-r)*w)/(S-w),P=(E*(1-w)+(T-r)*(1-S))/(S-
w);L+P>c+f&&(c=L,f=P)}}if(o(A)&&g[M].t){var I=g[M].t.val,O=g[M].t.size;if(I>k){var z=(A*I+(O-n)*k)/(I-
k),D=(O*(1-k)+(A-n)*(1-I))/(I-k);z+D>d+h&&(d=z,h=D)}}}}var R=u.constrain(r-a.l-a.r,2,64),F=u.constrain(n-
a.t-a.b,2,64),B=Math.max(0,r-R),N=Math.max(0,n-F);if(B){var j=(c+f)/B;j>1&&(c/=j,f/=j)}if(N){var
U=(d+h)/N;U>1&&(d/=U,h/=U)}if(i.l=Math.round(c),i.r=Math.round(f),i.t=Math.round(h),i.b=Math.round(d),i.p=
Math.round(a.pad),i.w=Math.round(r)-i.l-i.r,i.h=Math.round(n)-i.t-
i.b,!e._replotting&&b.didMarginChange(l,i)){"_redrawFromAutoMarginCount"in
e?e._redrawFromAutoMarginCount++:e._redrawFromAutoMarginCount=1;var
V=3*(1+Object.keys(v).length);if(e._redrawFromAutoMarginCount<V)return
s.call("_doPlot",t);e._size=l,u.warn("Too many auto-margin redraws.")}!function(t){var
e=p.list(t,"",!0);["_adjustTickLabelsOverflow","_hideCounterAxisInsideTickLabels"].forEach((function(t){for(var
r=0;r<e.length;r++){var n=e[r][t];n&&n()}}))}(t)};var P=["l","r","t","b","p","w","h"];function I(t,e,r){var
n=!1,i=[b.previousPromises,function(){if(t._transitionData)return t._transitioning=!1,function(t){var
e=Promise.resolve();if(!t)return e;for(;t.length;)e=e.then(t.shift());return
e}(t._transitionData._interruptCallbacks)},r.prepareFn,b.rehover,function(){return
t.emit("plotly_transitioning",[]),new
Promise((function(i){t._transitioning=!0,e.duration>0&&(t._transitioningWithDuration=!0),t._transitionData._interr
uptCallbacks.push((function(){n=!0})),r.redraw&&t._transitionData._interruptCallbacks.push((function(){return
s.call("redraw",t)})),t._transitionData._interruptCallbacks.push((function(){t.emit("plotly_transitioninterrupted",[])}
));var a=0,o=0;function l(){return a++,function(){var
e;o++,n||o!==a||(e=i,t._transitionData&&(function(t){if(t)for(;t.length;)t.shift()}(t._transitionData._interruptCallback
s),Promise.resolve().then((function(){if(r.redraw)return
s.call("redraw",t)})).then((function(){t._transitioning=!1,t._transitioningWithDuration=!1,t.emit("plotly_transitioned
",[])})).then(e)))}}r.runFn(l),setTimeout(l())}))],a=u.syncOrAsync(i,t);return
a&&a.then||(a=Promise.resolve()),a.then((function(){return t}))}b.didMarginChange=function(t,e){for(var
r=0;r<P.length;r++){var n=P[r],i=t[n],a=e[n];if(!o(i)||Math.abs(a-
i)>1)return!0}return!1},b.graphJson=function(t,e,r,n,i,a){(i&&e&&!t._fullData||i&&!e&&!t._fullLayout)&&b.suppl
yDefaults(t);var o=i?t._fullData:t.data,s=i?t._fullLayout:t.layout,l=(t._transitionData||{})._frames;function
c(t,e){if("function"==typeof t)return e?"_function_":null;if(u.isPlainObject(t)){var n,i={};return
Object.keys(t).sort().forEach((function(a){if(-1===["_","["].indexOf(a.charAt(0)))if("function"!=typeof
t[a]){if("keepdata"===r){if("src"===a.substr(a.length-3))return}else
if("keepstream"===r){if("string"==typeof(n=t[a+"src"])&&n.indexOf(":")>0&&!u.isPlainObject(t.stream))return}el
se if("keepall"!==r&&"string"==typeof(n=t[a+"src"])&&n.indexOf(":")>0)return;i[a]=c(t[a],e)}else
e&&(i[a]="_function")})),i}return Array.isArray(t)?t.map((function(t){return
c(t,e)})):u.isTypedArray(t)?u.simpleMap(t,u.identity):u.isJSDate(t)?u.ms2DateTimeLocal(+t):t}var
f={data:(o||[]).map((function(t){var r=c(t);return e&&delete r.fit,r}))};if(!e&&(f.layout=c(s),i)){var

h=s._size;f.layout.computed={margin:{b:h.b,l:h.l,r:h.r,t:h.t}}}return
l&&(f.frames=c(l)),a&&(f.config=c(t._context,!0)),"object"===n?f:JSON.stringify(f)},b.modifyFrames=function(t,e){var
r,n,i,a=t._transitionData._frames,o=t._transitionData._frameHash;for(r=0;r<e.length;r++)switch((n=e[r]).type){case "replace":i=n.value;var s=(a[n.index]||{}).name,l=i.name;a[n.index]=o[l]=i,l!==s&&(delete o[s],o[l]=i);break;case"insert":o[(i=n.value).name]=i,a.splice(n.index,0,i);break;case"delete":delete o[(i=a[n.index]).name],a.splice(n.index,1)}return Promise.resolve()},b.computeFrame=function(t,e){var r,n,i,a,o=t._transitionData._frameHash;if(!e)throw new Error("computeFrame must be given a string frame name");var s=o[e.toString()];if(!s)return!1;for(var l=[s],c=[s.name];s.baseframe&&(s=o[s.baseframe.toString()])&&-1===c.indexOf(s.name);)l.push(s),c.push(s.name);for(var u={};s=l.pop();)if(s.layout&&(u.layout=b.extendLayout(u.layout,s.layout)),s.data){if(u.data||(u.data=[]),!(n=s.traces))for(n=[],r=0;r<s.data.length;r++)n[r]=r;for(u.traces||(u.traces=[]),r=0;r<s.data.length;r++)null!=(i=n[r])&&(-1===(a=u.traces.indexOf(i))&&(a=u.data.length,u.traces[a]=i),u.data[a]=b.extendTrace(u.data[a],s.data[r]))}return u},b.recomputeFrameHash=function(t){for(var e=t._transitionData._frameHash={},r=t._transitionData._frames,n=0;n<r.length;n++){var i=r[n];i&&i.name&&(e[i.name]=i)}},b.extendObjectWithContainers=function(t,e,r){var n,i,a,o,s,l,c,f=u.extendDeepNoArrays({},e||{}),h=u.expandObjectPaths(f),p={};if(r&&r.length)for(a=0;a<r.length;a++)void 0===(i=(n=u.nestedProperty(h,r[a])).get())?u.nestedProperty(p,r[a]).set(null):(n.set(null),u.nestedProperty(p,r[a]).set(i));if(t=u.extendDeepNoArrays(t||{},h),r&&r.length)for(a=0;a<r.length;a++)if(l=u.nestedProperty(p,r[a]).get()){for(c=(s=u.nestedProperty(t,r[a])).get(),Array.isArray(c)||(c=[],s.set(c)),o=0;o<l.length;o++){var d=l[o];c[o]=null===d?null:b.extendObjectWithContainers(c[o],d)}s.set(c)}return t},b.dataArrayContainers=["transforms","dimensions"],b.layoutArrayContainers=s.layoutArrayContainers,b.extendTrace=function(t,e){return b.extendObjectWithContainers(t,e,b.dataArrayContainers)},b.extendLayout=function(t,e){return b.extendObjectWithContainers(t,e,b.layoutArrayContainers)},b.transition=function(t,e,r,n,i,a){var o={redraw:i.redraw},s={},l=[];return o.prepareFn=function(){for(var i=Array.isArray(e)?e.length:0,a=n.slice(0,i),o=0;o<a.length;o++){var c=a[o],f=t._fullData[c]._module;if(f){if(f.animatable){var h=f.basePlotModule.name;s[h]||(s[h]=[]),s[h].push(c)}t.data[a[o]]=b.extendTrace(t.data[a[o]],e[o])}}var p=u.expandObjectPaths(u.extendDeepNoArrays({},r)),d=/^[xy]axis[0-9]*$/;for(var g in p)d.test(g)&&delete p[g].range;b.extendLayout(t.layout,p),delete t.calcdata,b.supplyDefaults(t),b.doCalcdata(t);var v=u.expandObjectPaths(r);if(v){var m=t._fullLayout._plots;for(var y in m){var x=m[y],_=x.xaxis,w=x.yaxis,T=_.range.slice(),k=w.range.slice(),A=null,M=null,S=null,E=null;Array.isArray(v[_._name+".range"])?A=v[_._name+".range"].slice():Array.isArray((v[_._name]||{}).range)&&(A=v[_._name].range.slice()),Array.isArray(v[w._name+".range"])?M=v[w._name+".range"].slice():Array.isArray((v[w._name]||{}).range)&&(M=v[w._name].range.slice()),T&&A&&(_.r2l(T[0])!==_.r2l(A[0])||_.r2l(T[1])!==_.r2l(A[1]))&&(S={xr0:T,xr1:A}),k&&M&&(w.r2l(k[0])!==w.r2l(M[0])||w.r2l(k[1])!==w.r2l(M[1]))&&(E={yr0:k,yr1:M}),(S||E)&&l.push(u.extendFlat({plotinfo:x},S,E))}}return Promise.resolve()},o.runFn=function(e){var n,i,o=t._fullLayout._basePlotModules,c=l.length;if(r)for(i=0;i<o.length;i++)o[i].transitionAxes&&o[i].transitionAxes(t,l,a,e);for(var f in c?((n=u.extendFlat({},a)).duration=0,delete s.cartesian):n=a,s){var h=s[f];t._fullData[h[0]]._module.basePlotModule.plot(t,h,n,e)}},I(t,a,o)},b.transitionFromReact=function(t,e,r,n){var i=t._fullLayout,a=i.transition,o={},s=[];return o.prepareFn=function(){var t=i._plots;for(var a in o.redraw=!1,"some"===e.anim&&(o.redraw=!0),"some"===r.anim&&(o.redraw=!0),t){var l=t[a],c=l.xaxis,f=l.yaxis,h=n[c._name].range.slice(),p=n[f._name].range.slice(),d=c.range.slice(),g=f.range.slice();c.setScale(),f.setScale();var v=null,m=null;c.r2l(h[0])===c.r2l(d[0])&&c.r2l(h[1])===c.r2l(d[1])||(v={xr0:h,xr1:d}),f.r2l(p[0])===f.r2l(g[0])&&

f.r2l(p[1])===f.r2l(g[1])||(m={yr0:p,yr1:g}),(v||m)&&s.push(u.extendFlat({plotinfo:l},v,m))}return Promise.resolve()},o.runFn=function(r){for(var n,i,o,l=t._fullData,c=t._fullLayout._basePlotModules,f=[],h=0;h<l.length;h++)f.push(h);function p(){if(t._fullLayout)for(var e=0;e<c.length;e++)c[e].transitionAxes&&c[e].transitionAxes(t,s,n,r)}function d(){if(t._fullLayout)for(var e=0;e<c.length;e++)c[e].plot(t,o,i,r)}s.length&&e.anim?"traces first"===a.ordering?(n=u.extendFlat({},a,{duration:0}),o=f,i=a,setTimeout(p,a.duration),d()):(n=a,o=null,i=u.extendFlat({},a,{duration:0}),setTimeout(d,n.duration),p()):s.length?(n=a,p()):e.anim&&(o=f,i=a,d())},I(t,a,o)},b.doCalcdata=function(t,e){var r,n,i,a,o=p.list(t),c=t._fullData,f=t._fullLayout,d=new Array(c.length),g=(t.calcdata||[]).slice();for(t.calcdata=d,f._numBoxes=0,f._numViolins=0,f._violinScaleGroupStats={},t._hmpixcount=0,t._hmlumcount=0,f._piecolormap={},f._sunburstcolormap={},f._treemapcolormap={},f._icicclecolormap={},f._funnelareacolormap={},i=0;i<c.length;i++)Array.isArray(e)&&-1===e.indexOf(i)&&(d[i]=g[i]);for(i=0;i<c.length;i++)(r=c[i])._arrayAttrs=l.findArrayAttributes(r),r._extremes={};var v=f._subplots.polar||[];for(i=0;i<v.length;i++)o.push(f[v[i]].radialaxis,f[v[i]].angularaxis);for(var m in f._colorAxes){var y=f[m];!1!==y.cauto&&(delete y.cmin,delete y.cmax)}var x=!1;function b(e){if(r=c[e],n=r._module,!0===r.visible&&r.transforms){if(n&&n.calc){var i=n.calc(t,r);i[0]&&i[0].t&&i[0].t._scene&&delete i[0].t._scene.dirty}for(a=0;a<r.transforms.length;a++){var o=r.transforms[a];(n=_[o.type])&&n.calcTransform&&(r._hasCalcTransform=!0,x=!0,n.calcTransform(t,r,o))}}}function w(e,i){if(r=c[e],!!(n=r._module).isContainer===i){var o=[];if(!0===r.visible&&0!==r._length){delete r._indexToPoints;var s=r.transforms||[];for(a=s.length-1;a>=0;a--)if(s[a].enabled){r._indexToPoints=s[a]._indexToPoints;break}n&&n.calc&&(o=n.calc(t,r))}Array.isArray(o)&&o[0]||(o=[{x:h,y:h}]),o[0].t||(o[0].t={}),o[0].trace=r,d[e]=o}}for(z(o,c,f),i=0;i<c.length;i++)w(i,!0);for(i=0;i<c.length;i++)b(i);for(x&&z(o,c,f),i=0;i<c.length;i++)w(i,!0);for(i=0;i<c.length;i++)w(i,!1);D(t);var T=function(t,e){var r,n,i,a,o,l=[];function c(t,r,n){var i=r._id.charAt(0);if("histogram2dcontour"===t){var a=r._counterAxes[0],o=p.getFromId(e,a),s="x"===i||"x"===a&&"category"===o.type,l="y"===i||"y"===a&&"category"===o.type;return function(t,e){return 0===t||0===e||s&&t===n[e].length-1||l&&e===n.length-1?-1:("y"===i?e:t)-1}}return function(t,e){return"y"===i?e:t}}var f={min:function(t){return u.aggNums(Math.min,null,t)},max:function(t){return u.aggNums(Math.max,null,t)},sum:function(t){return u.aggNums((function(t,e){return t+e}),null,t)},total:function(t){return u.aggNums((function(t,e){return t+e}),null,t)},mean:function(t){return u.mean(t)},median:function(t){return u.median(t)}};for(r=0;r<t.length;r++){var h=t[r];if("category"===h.type){var d=h.categoryorder.match(O);if(d){var g=d[1],v=d[2],m=h._id.charAt(0),y="x"===m,x=[];for(n=0;n<h._categories.length;n++)x.push([h._categories[n],[]]);for(n=0;n<h._traceIndices.length;n++){var b=h._traceIndices[n],_=e._fullData[b];if(!0===_.visible){var w=_.type;s.traceIs(_,"histogram")&&(delete _._xautoBinFinished,delete _._yautoBinFinished);var T="splom"===w,k="scattergl"===w,A=e.calcdata[b];for(i=0;i<A.length;i++){var M,S,E=A[i];if(T){var L=_._axesDim[h._id];if(!y){var C=_._diag[L][0];C&&(h=e._fullLayout[p.id2name(C)])}var P=E.trace.dimensions[L].values;for(a=0;a<P.length;a++)for(M=h._categoriesMap[P[a]],o=0;o<E.trace.dimensions.length;o++)if(o!==L){var I=E.trace.dimensions[o];x[M][1].push(I.values[a])}}else if(k){for(a=0;a<E.t.x.length;a++)y?(M=E.t.x[a],S=E.t.y[a]):(M=E.t.y[a],S=E.t.x[a]),x[M][1].push(S);E.t&&E.t._scene&&delete E.t._scene.dirty}else if(E.hasOwnProperty("z")){S=E.z;var z=c(_.type,h,S);for(a=0;a<S.length;a++)for(o=0;o<S[a].length;o++)(M=z(o,a))+1&&x[M][1].push(S[a][o])}else for(void 0===(M=E.p)&&(M=E[m]),void 0===(S=E.s)&&(S=E.v),void 0===S&&(S=y?E.y:E.x),Array.isArray(S)||(S=void 0===S?[]:[S]),a=0;a<S.length;a++)x[M][1].push(S[a])}}}h._categoriesValue=x;var D=[];for(n=0;n<x.length;n++)D.push([x[n][0],f[g](x[n][1])]);D.sort((function(t,e){return t[1]-e[1]})),h._categoriesAggregatedValue=D,h._initialCategories=D.map((function(t){return t[0]})),"descending"===v&&h._initialCategories.reverse(),l=l.concat(h.sortByInitialCategories())}}}return l}(o,t);if(T.length){for(f._numBoxes=0,f._numViolins=0,i=0;i<T.length;i++)w(T[i],!0);for(i=0;i<T.length;i++)w(T[i],!1);D(t)}s.getComponentMethod("fx","calc")(t),s.getComponentMethod("errorbars","calc")(t)};var

O=/(total|sum|min|max|mean|median) (ascending|descending)/;function z(t,e,r){var n={};function i(t){t.clearCalc(),"multicategory"===t.type&&t.setupMultiCategory(e),n[t._id]=1}u.simpleMap(t,i);for(var a=r._axisMatchGroups||[],o=0;o<a.length;o++)for(var s in a[o])n[s]||i(r[p.id2name(s)])}function D(t){var e,r,n,i=t._fullLayout,a=i._visibleModules,o={};for(r=0;r<a.length;r++){var s=a[r],l=s.crossTraceCalc;if(l){var c=s.basePlotModule.name;o[c]?u.pushUnique(o[c],l):o[c]=[l]}}for(n in o){var f=o[n],h=i._subplots[n];if(Array.isArray(h))for(e=0;e<h.length;e++){var p=h[e],d="cartesian"===n?i._plots[p]:i[p];for(r=0;r<f.length;r++)f[r](t,d,p)}else for(r=0;r<f.length;r++)f[r](t)}}b.rehover=function(t){t._fullLayout._rehover&&t._fullLayout._rehover()},b.redrag=function(t){t._fullLayout._redrag&&t._fullLayout._redrag()},b.generalUpdatePerTraceModule=function(t,e,r,n){var i,a=e.traceHash,o={};for(i=0;i<r.length;i++){var s=r[i],l=s[0].trace;l.visible&&(o[l.type]=o[l.type]||[],o[l.type].push(s))}for(var c in a)if(!o[c]){var f=a[c][0];f[0].trace.visible=!1,o[c]=[f]}for(var h in o){var p=o[h];p[0][0].trace._module.plot(t,e,u.filterVisible(p),n)}e.traceHash=o},b.plotBasePlot=function(t,e,r,n,i){var a=s.getModule(t),o=m(e.calcdata,a)[0];a.plot(e,o,n,i)},b.cleanBasePlot=function(t,e,r,n,i){var a=i._has&&i._has(t),o=r._has&&r._has(t);a&&!o&&i["_"+t+"layer"].selectAll("g.trace").remove()}},{"../components/color":366,"../constants/numerical":479,"../lib":503,"../plot_api/plot_schema":542,"../plot_api/plot_template":543,"../plots/get_data":593,"../registry":638,"./animation_attributes":548,"./attributes":550,"./cartesian/axis_ids":558,"./cartesian/handle_outline":565,"./command":583,"./font_attributes":585,"./frame_attributes":586,"./layout_attributes":610,"@plotly/d3":58,"d3-format":112,"d3-time-format":120,"fast-isnumeric":190}],620:[function(t,e,r){"use strict";e.exports={attr:"subplot",name:"polar",axisNames:["angularaxis","radialaxis"],axisName2dataArray:{angularaxis:"theta",radialaxis:"r"},layerNames:["draglayer","plotbg","backplot","angular-grid","radial-grid","frontplot","angular-line","radial-line","angular-axis","radial-axis"],radialDragBoxSize:50,angularDragBoxSize:30,cornerLen:25,cornerHalfWidth:2,MINDRAG:8,MINZOOM:20,OFFEDGE:20}},{}],621:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../lib/polygon").tester,a=n.findIndexOfMin,o=n.isAngleInsideSector,s=n.angleDelta,l=n.angleDist;function c(t,e,r,n){var i,a,o=n[0],s=n[1],l=f(Math.sin(e)-Math.sin(t)),c=f(Math.cos(e)-Math.cos(t)),u=Math.tan(r),h=f(1/u),p=l/c,d=s-p*o;return h?l&&c?a=u*(i=d/(u-p)):c?(i=s*h,a=s):(i=o,a=o*u):l&&c?(i=0,a=d):c?(i=0,a=s):i=a=NaN,[i,a]}function u(t,e,r,i){return n.isFullCircle([e,r])?function(t,e){var r,n=e.length,i=new Array(n+1);for(r=0;r<n;r++){var a=e[r];i[r]=[t*Math.cos(a),t*Math.sin(a)]}return i[r]=i[0].slice(),i}(t,i):function(t,e,r,i){var s,u,f=i.length,h=[];function p(e){return[t*Math.cos(e),t*Math.sin(e)]}function d(t,e,r){return c(t,e,r,p(t))}function g(t){return n.mod(t,f)}function v(t){return o(t,[e,r])}var m=a(i,(function(t){return v(t)?l(t,e):1/0})),y=d(i[m],i[g(m-1)],e);for(h.push(y),s=m,u=0;u<f;s++,u++){var x=i[g(s)];if(!v(x))break;h.push(p(x))}var b=a(i,(function(t){return v(t)?l(t,r):1/0})),_=d(i[b],i[g(b+1)],r);return h.push(_),h.push([0,0]),h.push(h[0].slice()),h}(t,e,r,i)}function f(t){return Math.abs(t)>1e-10?t:0}function h(t,e,r){e=e||0,r=r||0;for(var n=t.length,i=new Array(n),a=0;a<n;a++){var o=t[a];i[a]=[e+o[0],r-o[1]]}return i}e.exports={isPtInsidePolygon:function(t,e,r,n,a){if(!o(e,n))return!1;var s,l;r[0]<r[1]?(s=r[0],l=r[1]):(s=r[1],l=r[0]);var c=i(u(s,n[0],n[1],a)),f=i(u(l,n[0],n[1],a)),h=[t*Math.cos(e),t*Math.sin(e)];return f.contains(h)&&!c.contains(h)},findPolygonOffset:function(t,e,r,n){for(var i=1/0,a=1/0,o=u(t,e,r,n),s=0;s<o.length;s++){var l=o[s];i=Math.min(i,l[0]),a=Math.min(a,-l[1])}return[i,a]},findEnclosingVertexAngles:function(t,e){var r=a(e,(function(e){var r=s(e,t);return r>0?r:1/0})),i=n.mod(r+1,e.length);return[e[r],e[i]]},findIntersectionXY:c,findXYatLength:function(t,e,r,n){var i=-e*r,a=e*e+1,o=2*(e*i-r),s=i*i+r*r-t*t,l=Math.sqrt(o*o-4*a*s),c=(-o+l)/(2*a),u=(-o-l)/(2*a);return[[c,e*c+i+n],[u,e*u+i+n]]},clampTiny:f,pathPolygon:function(t,e,r,n,i,a){return"M"+h(u(t,e,r,n),i,a).join("L")},pathPolygonAnnulus:function(t,e,r,n,i,a,o){var s,l;t<e?(s=t,l=e):(s=e,l=t);var c=h(u(s,r,n,i),a,o);return"M"+h(u(l,r,n,i),a,o).reverse().join("L")+"M"+c.join("L")}}},{"../../lib":503,"../../lib/polygon":515}],622:[function(t,e,r){"use strict";var n=t("../get_data").getSubplotCalcData,i=t("../../lib").counterRegex,a=t("./polar"),o=t("./constants"),s=o.attr,l=o.name

,c=i(l),u={};u[s]={valType:"subplotid",dflt:l,editType:"calc"},e.exports={attr:s,name:l,idRoot:l,idRegex:c,attrRegex:c,attributes:u,layoutAttributes:t("./layout_attributes"),supplyLayoutDefaults:t("./layout_defaults"),plot:function(t){for(var e=t._fullLayout,r=t.calcdata,i=e._subplots[l],o=0;o<i.length;o++){var s=i[o],c=n(r,l,s),u=e[s]._subplot;u||(u=a(t,s),e[s]._subplot=u),u.plot(c,e,t._promises)}},clean:function(t,e,r,n){for(var i=n._subplots[l]||[],a=n._has&&n._has("gl"),o=e._has&&e._has("gl"),s=a&&!o,c=0;c<i.length;c++){var u=i[c],f=n[u]._subplot;if(!e[u]&&f)for(var h in f.framework.remove(),f.layers["radial-axis-title"].remove(),f.clipPaths)f.clipPaths[h].remove();s&&f._scene&&(f._scene.destroy(),f._scene=null)}},toSVG:t("../cartesian").toSVG}},{"../../lib":503,"../cartesian":568,"../get_data":593,"./constants":620,"./layout_attributes":623,"./layout_defaults":624,"./polar":625}],623:[function(t,e,r){"use strict";var n=t("../../components/color/attributes"),i=t("../cartesian/layout_attributes"),a=t("../domain").attributes,o=t("../../lib").extendFlat,s=t("../../plot_api/edit_types").overrideAll,l=s({color:i.color,showline:o({},i.showline,{dflt:!0}),linecolor:i.linecolor,linewidth:i.linewidth,showgrid:o({},i.showgrid,{dflt:!0}),gridcolor:i.gridcolor,gridwidth:i.gridwidth,griddash:i.griddash},"plot","from-root"),c=s({tickmode:i.tickmode,nticks:i.nticks,tick0:i.tick0,dtick:i.dtick,tickvals:i.tickvals,ticktext:i.ticktext,ticks:i.ticks,ticklen:i.ticklen,tickwidth:i.tickwidth,tickcolor:i.tickcolor,ticklabelstep:i.ticklabelstep,showticklabels:i.showticklabels,showtickprefix:i.showtickprefix,tickprefix:i.tickprefix,showticksuffix:i.showticksuffix,ticksuffix:i.ticksuffix,showexponent:i.showexponent,exponentformat:i.exponentformat,minexponent:i.minexponent,separatethousands:i.separatethousands,tickfont:i.tickfont,tickangle:i.tickangle,tickformat:i.tickformat,tickformatstops:i.tickformatstops,layer:i.layer},"plot","from-root"),u={visible:o({},i.visible,{dflt:!0}),type:o({},i.type,{values:["-","linear","log","date","category"]}),autotypenumbers:i.autotypenumbers,autorange:o({},i.autorange,{editType:"plot"}),rangemode:{valType:"enumerated",values:["tozero","nonnegative","normal"],dflt:"tozero",editType:"calc"},range:o({},i.range,{items:[{valType:"any",editType:"plot",impliedEdits:{"^autorange":!1}},{valType:"any",editType:"plot",impliedEdits:{"^autorange":!1}}],editType:"plot"}),categoryorder:i.categoryorder,categoryarray:i.categoryarray,angle:{valType:"angle",editType:"plot"},side:{valType:"enumerated",values:["clockwise","counterclockwise"],dflt:"clockwise",editType:"plot"},title:{text:o({},i.title.text,{editType:"plot",dflt:""}),font:o({},i.title.font,{editType:"plot"}),editType:"plot"},hoverformat:i.hoverformat,uirevision:{valType:"any",editType:"none"},editType:"calc",_deprecated:{title:i._deprecated.title,titlefont:i._deprecated.titlefont}};o(u,l,c);var f={visible:o({},i.visible,{dflt:!0}),type:{valType:"enumerated",values:["-","linear","category"],dflt:"-",editType:"calc",_noTemplating:!0},autotypenumbers:i.autotypenumbers,categoryorder:i.categoryorder,categoryarray:i.categoryarray,thetaunit:{valType:"enumerated",values:["radians","degrees"],dflt:"degrees",editType:"calc"},period:{valType:"number",editType:"calc",min:0},direction:{valType:"enumerated",values:["counterclockwise","clockwise"],dflt:"counterclockwise",editType:"calc"},rotation:{valType:"angle",editType:"calc"},hoverformat:i.hoverformat,uirevision:{valType:"any",editType:"none"},editType:"calc"};o(f,l,c),e.exports={domain:a({name:"polar",editType:"plot"}),sector:{valType:"info_array",items:[{valType:"number",editType:"plot"},{valType:"number",editType:"plot"}],dflt:[0,360],editType:"plot"},hole:{valType:"number",min:0,max:1,dflt:0,editType:"plot"},bgcolor:{valType:"color",editType:"plot",dflt:n.background},radialaxis:u,angularaxis:f,gridshape:{valType:"enumerated",values:["circular","linear"],dflt:"circular",editType:"plot"},uirevision:{valType:"any",editType:"none"},editType:"calc"}},{"../../components/color/attributes":365,"../../lib":503,"../../plot_api/edit_types":536,"../cartesian/layout_attributes":569,"../domain":584}],624:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../components/color"),a=t("../../plot_api/plot_template"),o=t("../subplot_defaults"),s=t("../get_data").getSubplotData,l=t("../cartesian/tick_value_defaults"),c=t("../cartesian/tick_mark_defaults"),u=t("../cartesian/tick_label_defaults"),f=t("../cartesian/prefix_suffix_defaults"),h=t("../cartesian/category_order_defaults"),p=t("../cartesian/line_grid_defaults"),d=t("../cartesian/axis_autotype"),g=t("./layout_attributes"),v=t("./set_convert"),m=t("./constants"),y=m.axisNames;function x(t,e,r,o){var d=r("bgcolor");o.bgColor=i.combine(d,o.paper_bgcolor);var x=r("sector");r("hole");var _,w=s(o.fullData,m.name,o.id),T=o.layoutOut;function k(t,e){return r(_+"."+t,e)}for(var A=0;A<y.length;A++){_=y[A],n.isPlainObject(t[_])||(t[_]={});var M=t[_],S=a.newContainer(e,_);S._id=S._name=_,S._attr=o.id+"."+_,S._traceIndices=w.map((function(t){return t._expandedIndex}));var E=m.axisName2dataArray[_],L=b(M,S,k,w,E,o);h(M,S,k,{axData:w,dataAttr:E});var

C=k("visible");switch(v(S,e,T),k("uirevision",e.uirevision),S._m=1,_){case"radialaxis":var P=k("autorange",!S.isValidRange(M.range));M.autorange=P,!P||"linear"!==L&&"-"!==L||k("rangemode"),"reversed"===P&&(S._m=-1),k("range"),S.cleanRange("range",{dfltRange:[0,1]});break;case"angularaxis":if("date"===L){n.log("Polar plots do not support date angular axes yet.");for(var I=0;I<w.length;I++)w[I].visible=!1;L=M.type=S.type="linear"}k("linear"===L?"thetaunit":"period");var O=k("direction");k("rotation",{counterclockwise:0,clockwise:90}[O])}if(f(M,S,k,S.type,{tickSuffixDflt:"degrees"===S.thetaunit?"°":void 0}),C){var z,D,R,F,B=o.font||{};D=(z=k("color"))===M.color?z:B.color,R=B.size,F=B.family,l(M,S,k,S.type),u(M,S,k,S.type,{font:{color:D,size:R,family:F}}),c(M,S,k,{outerTicks:!0}),p(M,S,k,{dfltColor:z,bgColor:o.bgColor,blend:60,showLine:!0,showGrid:!0,noZeroLine:!0,attributes:g[_]}),k("layer"),"radialaxis"===_&&(k("side"),k("angle",x[0]),k("title.text"),n.coerceFont(k,"title.font",{color:D,size:n.bigFont(R),family:F}))}"category"!==L&&k("hoverformat"),S._input=M}"category"===e.angularaxis.type&&r("gridshape")}function b(t,e,r,n,i,a){var o=r("autotypenumbers",a.autotypenumbersDflt);if("-"===r("type")){for(var s,l=0;l<n.length;l++)if(n[l].visible){s=n[l];break}s&&s[i]&&(e.type=d(s[i],"gregorian",{noMultiCategory:!0,autotypenumbers:o})),"-"===e.type?e.type="linear":t.type=e.type}return e.type}e.exports=function(t,e,r){o(t,e,r,{type:m.name,attributes:g,handleDefaults:x,font:e.font,autotypenumbersDflt:e.autotypenumbers,paper_bgcolor:e.paper_bgcolor,fullData:r,layoutOut:e})}},{"../../components/color":366,"../../lib":503,"../../plot_api/plot_template":543,"../cartesian/axis_autotype":555,"../cartesian/category_order_defaults":559,"../cartesian/line_grid_defaults":571,"../cartesian/prefix_suffix_defaults":573,"../cartesian/tick_label_defaults":578,"../cartesian/tick_mark_defaults":579,"../cartesian/tick_value_defaults":580,"../get_data":593,"../subplot_defaults":632,"./constants":620,"./layout_attributes":623,"./set_convert":626}],625:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("tinycolor2"),a=t("../../registry"),o=t("../../lib"),s=o.strRotate,l=o.strTranslate,c=t("../../components/color"),u=t("../../components/drawing"),f=t("../plots"),h=t("../../plots/cartesian/axes"),p=t("../cartesian/set_convert"),d=t("./set_convert"),g=t("../cartesian/autorange").doAutoRange,v=t("../cartesian/dragbox"),m=t("../../components/dragelement"),y=t("../../components/fx"),x=t("../../components/titles"),b=t("../cartesian/select").prepSelect,_=t("../cartesian/select").selectOnClick,w=t("../cartesian/select").clearSelect,T=t("../../lib/setcursor"),k=t("../../lib/clear_gl_canvases"),A=t("../../plot_api/subroutines").redrawReglTraces,M=t("../../constants/alignment").MID_SHIFT,S=t("./constants"),E=t("./helpers"),L=t("../smith/helpers"),C=L.smith,P=L.reactanceArc,I=L.resistanceArc,O=L.smithTransform,z=o._,D=o.mod,R=o.deg2rad,F=o.rad2deg;function B(t,e,r){this.isSmith=r||!1,this.id=e,this.gd=t,this._hasClipOnAxisFalse=null,this.vangles=null,this.radialAxisAngle=null,this.traceHash={},this.layers={},this.clipPaths={},this.clipIds={},this.viewInitial={};var n=t._fullLayout,i="clip"+n._uid+e;this.clipIds.forTraces=i+"-for-traces",this.clipPaths.forTraces=n._clips.append("clipPath").attr("id",this.clipIds.forTraces),this.clipPaths.forTraces.append("path"),this.framework=n["_"+(r?"smith":"polar")+"layer"].append("g").attr("class",e),this.getHole=function(t){return this.isSmith?0:t.hole},this.getSector=function(t){return this.isSmith?[0,360]:t.sector},this.getRadial=function(t){return this.isSmith?t.realaxis:t.radialaxis},this.getAngular=function(t){return this.isSmith?t.imaginaryaxis:t.angularaxis},r||(this.radialTickLayout=null,this.angularTickLayout=null)}var N=B.prototype;function j(t){var e=t.ticks+String(t.ticklen)+String(t.showticklabels);return"side"in t&&(e+=t.side),e}function U(t,e){return e[o.findIndexOfMin(e,(function(e){return o.angleDist(t,e)}))]}function V(t,e,r){return e?(t.attr("display",null),t.attr(r)):t&&t.attr("display","none"),t}e.exports=function(t,e,r){return new B(t,e,r)},N.plot=function(t,e){for(var r=this,n=e[r.id],i=!1,a=0;a<t.length;a++)if(!1===t[a][0].trace.cliponaxis){i=!0;break}r._hasClipOnAxisFalse=i,r.updateLayers(e,n),r.updateLayout(e,n),f.generalUpdatePerTraceModule(r.gd,r,t,n),r.updateFx(e,n),r.isSmith&&(delete n.realaxis.range,delete n.imaginaryaxis.range)},N.updateLayers=function(t,e){var r=this,i=r.layers,a=r.getRadial(e),s=r.getAngular(e),l=S.layerNames,c=l.indexOf("frontplot"),u=l.slice(0,c),f="below traces"===s.layer,h="below traces"===o.layer;f&&u.push("angular-line"),h&&u.push("radial-

line"),f&&u.push("angular-axis"),h&&u.push("radial-axis"),u.push("frontplot"),f||u.push("angular-line"),h||u.push("radial-line"),f||u.push("angular-axis"),h||u.push("radial-axis");var p=(i?"smith":"polar")+"sublayer",d=r.framework.selectAll("."+p).data(u,String);d.enter().append("g").attr("class",(function(t){return p+" "+t})).each((function(t){var e=a[t]=n.select(this);switch(t){case"frontplot":i||e.append("g").classed("barlayer",!0),e.append("g").classed("scatterlayer",!0);break;case"backplot":e.append("g").classed("maplayer",!0);break;case"plotbg":a.bg=e.append("path");break;case"radial-grid":case"angular-grid":e.style("fill","none");break;case"radial-line":e.append("line").style("fill","none");break;case"angular-line":e.append("path").style("fill","none")}})),d.order()},N.updateLayout=function(t,e){var r=this,n=r.layers,i=t._size,a=r.getRadial(e),o=r.getAngular(e),s=e.domain.x,f=e.domain.y;r.xOffset=i.l+i.w*s[0],r.yOffset=i.t+i.h*(1-f[1]);var h=r.xLength=i.w*(s[1]-s[0]),p=r.yLength=i.h*(f[1]-f[0]),d=r.getSector(e);r.sectorInRad=d.map(R);var g,v,m,y,x,b=r.sectorBBox=function(t){var e,r=t[0],n=t[1]-r,i=D(r,360),a=i+n,o=Math.cos(R(i)),s=Math.sin(R(i)),l=Math.cos(R(a)),c=Math.sin(R(a));return e=i<=90&&a>=90||i>90&&a>=450?1:s<=0&&c<=0?0:Math.max(s,c),[i<=180&&a>=180||i>180&&a>=540?-1:o>=0&&l>=0?0:Math.min(o,l),i<=270&&a>=270||i>270&&a>=630?-1:s>=0&&c>=0?0:Math.min(s,c),a>=360?1:o<=0&&l<=0?0:Math.max(o,l),e]}(d),_=b[2]-b[0],w=b[3]-b[1],T=p/h,k=Math.abs(w/_);T>k?(g=h,x=(p-(v=h*k))/i.h/2,m=[s[0],s[1]],y=[f[0]+x,f[1]-x]):(v=p,x=(h-(g=p/k))/i.w/2,m=[s[0]+x,s[1]-x],y=[f[0],f[1]]),r.xLength2=g,r.yLength2=v,r.xDomain2=m,r.yDomain2=y;var A,M=r.xOffset2=i.l+i.w*m[0],S=r.yOffset2=i.t+i.h*(1-y[1]),E=r.radius=g/_,L=r.innerRadius=r.getHole(e)*E,C=r.cx=M-E*b[0],P=r.cy=S+E*b[3],I=r.cxx=C-M,O=r.cyy=P-S,z=a.side;"counterclockwise"===z?(A=z,z="top"):"clockwise"===z&&(A=z,z="bottom"),r.radialAxis=r.mockAxis(t,e,a,{_id:"x",side:z,_trueSide:A,domain:[L/i.w,E/i.w]}),r.angularAxis=r.mockAxis(t,e,o,{side:"right",domain:[0,Math.PI],autorange:!1}),r.doAutoRange(t,e),r.updateAngularAxis(t,e),r.updateRadialAxis(t,e),r.updateRadialAxisTitle(t,e),r.xaxis=r.mockCartesianAxis(t,e,{_id:"x",domain:m}),r.yaxis=r.mockCartesianAxis(t,e,{_id:"y",domain:y});var F=r.pathSubplot();r.clipPaths.forTraces.select("path").attr("d",F).attr("transform",l(I,O)),n.frontplot.attr("transform",l(M,S)).call(u.setClipUrl,r._hasClipOnAxisFalse?null:r.clipIds.forTraces,r.gd),n.bg.attr("d",F).attr("transform",l(C,P)).call(c.fill,e.bgcolor)},N.mockAxis=function(t,e,r,n){var i=o.extendFlat({},r,n);return d(i,e,t),i},N.mockCartesianAxis=function(t,e,r){var n=this,i=n.isSmith,a=r._id,s=o.extendFlat({type:"linear"},r);p(s,t);var l={x:[0,2],y:[1,3]};return s.setRange=function(){var t=n.sectorBBox,r=l[a],i=n.radialAxis._rl,o=(i[1]-i[0])/(1-n.getHole(e));s.range=[t[r[0]]*o,t[r[1]]*o]},s.isPtWithinRange="x"!==a||i?function(){return!0}:function(t){return n.isPtInside(t)},s.setRange(),s.setScale(),s},N.doAutoRange=function(t,e){var r=this,n=r.gd,i=r.radialAxis,a=r.getRadial(e);g(n,i);var o=i.range;a.range=o.slice(),a._input.range=o.slice(),i._rl=[i.r2l(o[0],null,"gregorian"),i.r2l(o[1],null,"gregorian")]},N.updateRadialAxis=function(t,e){var r=this,n=r.gd,i=r.layers,a=r.radius,u=r.innerRadius,f=r.cx,p=r.cy,d=r.getRadial(e),g=D(r.getSector(e)[0],360),v=r.radialAxis,m=u<a,y=r.isSmith;y||(r.fillViewInitialKey("radialaxis.angle",d.angle),r.fillViewInitialKey("radialaxis.range",v.range.slice()),v.setGeometry()),"auto"===v.tickangle&&g>90&&g<=270&&(v.tickangle=180);var x=y?function(t){var e=O(r,C([t.x,0]));return l(e[0]-f,e[1]-p)}:function(t){return l(v.l2p(t.x)+u,0)},b=y?function(t){return I(r,t.x,-1/0,1/0)}:function(t){return r.pathArc(v.r2p(t.x)+u)},_=j(d);if(r.radialTickLayout!==_&&(i["radial-axis"].selectAll(".xtick").remove(),r.radialTickLayout=_),m){v.setScale();var w=0,T=y?(v.tickvals||[]).filter((function(t){return t>=0})).map((function(t){return h.tickText(v,t,!0,!1)})):h.calcTicks(v),k=y?T:h.clipEnds(v,T),A=h.getTickSigns(v)[2];y&&(("top"===v.ticks&&"bottom"===v.side||"bottom"===v.ticks&&"top"===v.side)&&(A=-A),"top"===v.ticks&&"top"===v.side&&(w=-v.ticklen),"bottom"===v.ticks&&"bottom"===v.side&&(w=v.ticklen)),h.drawTicks(n,v,{vals:T,layer:i["radial-

axis"],path:h.makeTickPath(v,0,A),transFn:x,crisp:!1}),h.drawGrid(n,v,{vals:k,layer:i["radial-grid"],path:b,transFn:o.noop,crisp:!1}),h.drawLabels(n,v,{vals:T,layer:i["radial-axis"],transFn:x,labelFns:h.makeLabelFns(v,w)})}var M=r.radialAxisAngle=r.vangles?F(U(R(d.angle),r.vangles)):d.angle,S=l(f,p),E=S+s(-M);V(i["radial-axis"],m&&(d.showticklabels||d.ticks),{transform:E}),V(i["radial-grid"],m&&d.showgrid,{transform:y?"":S}),V(i["radial-line"].select("line"),m&&d.showline,{x1:y?-a:u,y1:0,x2:a,y2:0,transform:E}).attr("stroke-width",d.linewidth).call(c.stroke,d.linecolor)},N.updateRadialAxisTitle=function(t,e,r){if(!this.isSmith){var n=this,i=n.gd,a=n.radius,o=n.cx,s=n.cy,l=n.getRadial(e),c=n.id+"title",f=0;if(l.title){var h=u.bBox(n.layers["radial-axis"].node()).height,p=l.title.font.size,d=l.side;f="top"===d?p:"counterclockwise"===d?-(h+.4*p):h+.8*p}var g=void 0!==r?r:n.radialAxisAngle,v=R(g),m=Math.cos(v),y=Math.sin(v),b=o+a/2*m+f*y,_=s-a/2*y+f*m;n.layers["radial-axis-title"]=x.draw(i,c,{propContainer:l,propName:n.id+".radialaxis.title",placeholder:z(i,"Click to enter radial axis title"),attributes:{x:b,y:_,"text-anchor":"middle"},transform:{rotate:-g}})}},N.updateAngularAxis=function(t,e){var r=this,n=r.gd,i=r.layers,a=r.radius,u=r.innerRadius,f=r.cx,p=r.cy,d=r.getAngular(e),g=r.angularAxis,v=r.isSmith;v||(r.fillViewInitialKey("angularaxis.rotation",d.rotation),g.setGeometry(),g.setScale());var m=v?function(t){var e=O(r,C([0,t.x]));return Math.atan2(e[0]-f,e[1]-p)-Math.PI/2}:function(t){return g.t2g(t.x)};"linear"===g.type&&"radians"===g.thetaunit&&(g.tick0=F(g.tick0),g.dtick=F(g.dtick));var y=function(t){return l(f+a*Math.cos(t),p-a*Math.sin(t))},x=v?function(t){var e=O(r,C([0,t.x]));return l(e[0],e[1])}:function(t){return y(m(t))},b=v?function(t){var e=O(r,C([0,t.x])),n=Math.atan2(e[0]-f,e[1]-p)-Math.PI/2;return l(e[0],e[1])+s(-F(n))}:function(t){var e=m(t);return y(e)+s(-F(e))},_=v?function(t){return P(r,t.x,0,1/0)}:function(t){var e=m(t),r=Math.cos(e),n=Math.sin(e);return"M"+[f+u*r,p-u*n]+"L"+[f+a*r,p-a*n]},w=h.makeLabelFns(g,0).labelStandoff,T={xFn:function(t){var e=m(t);return Math.cos(e)*w},yFn:function(t){var e=m(t),r=Math.sin(e)>0?.2:1;return-Math.sin(e)*(w+t.fontSize*r)+Math.abs(Math.cos(e))*(t.fontSize*M)},anchorFn:function(t){var e=m(t),r=Math.cos(e);return Math.abs(r)<.1?"middle":r>0?"start":"end"},heightFn:function(t,e,r){var n=m(t);return-.5*(1+Math.sin(n))*r}},k=j(d);r.angularTickLayout!==k&&(i["angular-axis"].selectAll("."+g._id+"tick").remove(),r.angularTickLayout=k);var A,S=v?[1/0].concat(g.tickvals||[]).map((function(t){return h.tickText(g,t,!0,!1)})):h.calcTicks(g);if(v&&(S[0].text="",S[0].fontSize*=1.75),"linear"===e.gridshape?(A=S.map(m),o.angleDelta(A[0],A[1])<0&&(A=A.slice().reverse())):A=null,r.vangles=A,"category"===g.type&&(S=S.filter((function(t){return o.isAngleInsideSector(m(t),r.sectorInRad)}))),g.visible){var E="inside"===g.ticks?-1:1,L=(g.linewidth||1)/2;h.drawTicks(n,g,{vals:S,layer:i["angular-axis"],path:"M"+E*L+",0h"+E*g.ticklen,transFn:b,crisp:!1}),h.drawGrid(n,g,{vals:S,layer:i["angular-grid"],path:_,transFn:o.noop,crisp:!1}),h.drawLabels(n,g,{vals:S,layer:i["angular-axis"],repositionOnUpdate:!0,transFn:x,labelFns:T})}V(i["angular-line"].select("path"),d.showline,{d:r.pathSubplot(),transform:l(f,p)}).attr("stroke-width",d.linewidth).call(c.stroke,d.linecolor)},N.updateFx=function(t,e){this.gd._context.staticPlot||(!this.isSmith&&(this.updateAngularDrag(t),this.updateRadialDrag(t,e,0),this.updateRadialDrag(t,e,1)),this.updateHoverAndMainDrag(t))},N.updateHoverAndMainDrag=function(t){var e,r,s=this,c=s.isSmith,u=s.gd,f=s.layers,h=t._zoomlayer,p=S.MINZOOM,d=S.OFFEDGE,g=s.radius,x=s.innerRadius,T=s.cx,k=s.cy,A=s.cxx,M=s.cyy,L=s.sectorInRad,C=s.vangles,P=s.radialAxis,I=E.clampTiny,O=E.findXYatLength,z=E.findEnclosingVertexAngles,D=S.cornerHalfWidth,R=S.cornerLen/2,F=v.makeDragger(f,"path","maindrag",!1===t.dragmode?"none":"crosshair");n.select(F).attr("d",s.pathSubplot()).attr("transform",l(T,k)),F.onmousemove=function(t){y.hover(u,t,s.id),u._fullLayout._lasthover=F,u._fullLayout._hoversubplot=s.id},F.onmouseout=function(t){u._dragging||m.unhover(u,t)};var B,N,j,U,V,q,H,G,Y,W={element:F,gd:u,subplot:s.id,plotinfo:{id:s.id,xaxis:s.xaxis,yaxis:s.yaxis},xaxes:[s.xaxis],yaxes:[s.yaxis]};function X(t,e){return Math.sqrt(t*t+e*e)}function Z(t,e){return X(t-A,e-M)}function J(t,e){return

Math.atan2(M-e,t-A)}function K(t,e){return[t*Math.cos(e),t*Math.sin(-e)]}function Q(t,e){if(0===t)return s.pathSector(2*D);var r=R/t,n=e-r,i=e+r,a=Math.max(0,Math.min(t,g)),o=a-D,l=a+D;return"M"+K(o,n)+"A"+[o,o]+" 0,0,0 "+K(o,i)+"L"+K(l,i)+"A"+[l,l]+" 0,0,1 "+K(l,n)+"Z"}function $(t,e,r){if(0===t)return s.pathSector(2*D);var n,i,a=K(t,e),o=K(t,r),l=I((a[0]+o[0])/2),c=I((a[1]+o[1])/2);if(l&&c){var u=c/l,f=-1/u,h=O(D,u,l,c);n=O(R,f,h[0][0],h[0][1]),i=O(R,f,h[1][0],h[1][1])}else{var p,d;c?(p=R,d=D):(p=D,d=R),n=[[l-p,c-d],[l+p,c-d]],i=[[l-p,c+d],[l+p,c+d]]}return"M"+n.join("L")+"L"+i.reverse().join("L")+"Z"}function tt(t,e){return e=Math.max(Math.min(e,g),x),t<d?t=0:g-t<d?t=g:e<d?e=0:g-e<d&&(e=g),Math.abs(e-t)>p?(t<e?(j=t,U=e):(j=e,U=t),!0):(j=null,U=null,!1)}function et(t,e){t=t||V,e=e||"M0,0Z",G.attr("d",t),Y.attr("d",e),v.transitionZoombox(G,Y,q,H),q=!0;var r={};ot(r),u.emit("plotly_relayouting",r)}function rt(t,n){var i,a,o=B+(t*=e),l=N+(n*=r),c=Z(B,N),u=Math.min(Z(o,l),g),f=J(B,N);tt(c,u)&&(i=V+s.pathSector(U),j&&(i+=s.pathSector(j)),a=Q(j,f)+Q(U,f)),et(i,a)}function nt(t,e,r,n){var i=E.findIntersectionXY(r,n,r,[t-A,M-e]);return X(i[0],i[1])}function it(t,e){var r,n,i=B+t,a=N+e,o=J(B,N),l=J(i,a),c=z(o,C),u=z(l,C);tt(nt(B,N,c[0],c[1]),Math.min(nt(i,a,u[0],u[1]),g))&&(r=V+s.pathSector(U),j&&(r+=s.pathSector(j)),n=[$(j,c[0],c[1]),$(U,c[0],c[1])].join(" ")),et(r,n)}function at(){if(v.removeZoombox(u),null!==j&&null!==U){var t={};ot(t),v.showDoubleClickNotifier(u),a.call("_guiRelayout",u,t)}}function ot(t){var e=P._rl,r=(e[1]-e[0])/(1-x/g)/g,n=[e[0]+(j-x)*r,e[0]+(U-x)*r];t[s.id+".radialaxis.range"]=n}function st(t,e){var r=u._fullLayout.clickmode;if(v.removeZoombox(u),2===t){var n={};for(var i in s.viewInitial)n[s.id+"."+i]=s.viewInitial[i];u.emit("plotly_doubleclick",null),a.call("_guiRelayout",u,n)}r.indexOf("select")>-1&&1===t&&_(e,u,[s.xaxis],[s.yaxis],s.id,W),r.indexOf("event")>-1&&y.click(u,e,s.id)}W.prepFn=function(t,n,a){var l=u._fullLayout.dragmode,f=F.getBoundingClientRect();u._fullLayout._calcInverseTransform(u);var p=u._fullLayout._invTransform;e=u._fullLayout._invScaleX,r=u._fullLayout._invScaleY;var d=o.apply3DTransform(p)(n-f.left,a-f.top);if(B=d[0],N=d[1],C){var m=E.findPolygonOffset(g,L[0],L[1],C);B+=A+m[0],N+=M+m[1]}switch(l){case"zoom":W.clickFn=st,c||(W.moveFn=C?it:rt,W.doneFn=at,function(){j=null,U=null,V=s.pathSubplot(),q=!1;var t=u._fullLayout[s.id];H=i(t.bgcolor).getLuminance(),(G=v.makeZoombox(h,H,T,k,V)).attr("fill-rule","evenodd"),Y=v.makeCorners(h,T,k),w(u)}());break;case"select":case"lasso":b(t,n,a,W,l)}},m.init(W)},N.updateRadialDrag=function(t,e,r){var i=this,c=i.gd,u=i.layers,f=i.radius,h=i.innerRadius,p=i.cx,d=i.cy,g=i.radialAxis,y=S.radialDragBoxSize,x=y/2;if(g.visible){var b,_,T,M=R(i.radialAxisAngle),E=g._rl,L=E[0],C=E[1],P=E[r],I=.75*(E[1]-E[0])/(1-i.getHole(e))/f;r?(b=p+(f+x)*Math.cos(M),_=d-(f+x)*Math.sin(M),T="radialdrag"):(b=p+(h-x)*Math.cos(M),_=d-(h-x)*Math.sin(M),T="radialdrag-inner");var O,z,D,B=v.makeRectDragger(u,T,"crosshair",-x,-x,y,y),N={element:B,gd:c};!1===t.dragmode&&(N.dragmode=!1),V(n.select(B),g.visible&&h<f,{transform:l(b,_)}),N.prepFn=function(){O=null,z=null,D=null,N.moveFn=j,N.doneFn=q,w(c)},N.clampFn=function(t,e){return Math.sqrt(t*t+e*e)<S.MINDRAG&&(t=0,e=0),[t,e]},m.init(N)}function j(t,e){if(O)O(t,e);else{var n=[t,-e],a=[Math.cos(M),Math.sin(M)],s=Math.abs(o.dot(n,a)/Math.sqrt(o.dot(n,n)));isNaN(s)||(O=s<.5?H:G)}var l={};(function(t){null!==z?t[i.id+".radialaxis.angle"]=z:null!==D&&(t[i.id+".radialaxis.range["+r+"]"]=D)})(l),c.emit("plotly_relayouting",l)}function q(){null!==z?a.call("_guiRelayout",c,i.id+".radialaxis.angle",z):null!==D&&a.call("_guiRelayout",c,i.id+".radialaxis.range["+r+"]",D)}function H(t,e){if(0!==r){var n=b+t,a=_+e;z=Math.atan2(d-a,n-p),i.vangles&&(z=U(z,i.vangles)),z=F(z);var o=l(p,d)+s(-z);u["radial-axis"].attr("transform",o),u["radial-line"].select("line").attr("transform",o);var c=i.gd._fullLayout,f=c[i.id];i.updateRadialAxisTitle(c,f,z)}}function G(t,e){var n=o.dot([t,-e],[Math.cos(M),Math.sin(M)]);if(D=P-I*n,I>0==(r?D>L:D<C)){var s=c._fullLayout,l=s[i.id];g.range[r]=D,g._rl[r]=D,i.updateRadialAxis(s,l),i.xaxis.setRange(),i.xaxis.setScale(),i.yaxis.setRange(),i.yaxis.setScale();var u=!1;for(var f in i.traceHash){var

h=i.traceHash[f],p=o.filterVisible(h);h[0][0].trace._module.plot(c,i,p,l),a.traceIs(f,"gl")&&p.length&&(u=!0)}u&&(k(c),A(c))}else D=null}},N.updateAngularDrag=function(t){var e=this,r=e.gd,i=e.layers,c=e.radius,f=e.angularAxis,h=e.cx,p=e.cy,d=e.cxx,g=e.cyy,y=S.angularDragBoxSize,x=v.makeDragger(i,"path","angulardrag",!1===t.dragmode?"none":"move"),b={element:x,gd:r};function _(t,e){return Math.atan2(g+y-e,t-d-y)}!1===t.dragmode?b.dragmode=!1:n.select(x).attr("d",e.pathAnnulus(c,c+y)).attr("transform",l(h,p)).call(T,"move");var M,E,L,C,P,I,O=i.frontplot.select(".scatterlayer").selectAll(".trace"),z=O.selectAll(".point"),D=O.selectAll(".textpoint");function R(c,v){var m=e.gd._fullLayout,y=m[e.id],x=_(M+c*t._invScaleX,E+v*t._invScaleY),b=F(x-I);if(C=L+b,i.frontplot.attr("transform",l(e.xOffset2,e.yOffset2)+s([-b,d,g])),e.vangles){P=e.radialAxisAngle+b;var w=l(h,p)+s(-b),T=l(h,p)+s(-P);i.bg.attr("transform",w),i["radial-grid"].attr("transform",w),i["radial-axis"].attr("transform",T),i["radial-line"].select("line").attr("transform",T),e.updateRadialAxisTitle(m,y,P)}else e.clipPaths.forTraces.select("path").attr("transform",l(d,g)+s(b));z.each((function(){var t=n.select(this),e=u.getTranslate(t);t.attr("transform",l(e.x,e.y)+s([b]))})),D.each((function(){var t=n.select(this),e=t.select("text"),r=u.getTranslate(t);t.attr("transform",s([b,e.attr("x"),e.attr("y")])+l(r.x,r.y))})),f.rotation=o.modHalf(C,360),e.updateAngularAxis(m,y),e._hasClipOnAxisFalse&&!o.isFullCircle(e.sectorInRad)&&O.call(u.hideOutsideRangePoints,e);var S=!1;for(var R in e.traceHash)if(a.traceIs(R,"gl")){var N=e.traceHash[R],j=o.filterVisible(N);N[0][0].trace._module.plot(r,e,j,y),j.length&&(S=!0)}S&&(k(r),A(r));var U={};B(U),r.emit("plotly_relayouting",U)}function B(t){t[e.id+".angularaxis.rotation"]=C,e.vangles&&(t[e.id+".radialaxis.angle"]=P)}function N(){D.select("text").attr("transform",null);var t={};B(t),a.call("_guiRelayout",r,t)}b.prepFn=function(n,i,a){var s=t[e.id];L=s.angularaxis.rotation;var l=x.getBoundingClientRect();M=i-l.left,E=a-l.top,r._fullLayout._calcInverseTransform(r);var c=o.apply3DTransform(t._invTransform)(M,E);M=c[0],E=c[1],I=_(M,E),b.moveFn=R,b.doneFn=N,w(r)},e.vangles&&!o.isFullCircle(e.sectorInRad)&&(b.prepFn=o.noop,T(n.select(x),null)),m.init(b)},N.isPtInside=function(t){if(this.isSmith)return!0;var e=this.sectorInRad,r=this.vangles,n=this.angularAxis.c2g(t.theta),i=this.radialAxis,a=i.c2l(t.r),s=i._rl;return(r?E.isPtInsidePolygon:o.isPtInsideSector)(a,n,s,e,r)},N.pathArc=function(t){var e=this.sectorInRad,r=this.vangles;return(r?E.pathPolygon:o.pathArc)(t,e[0],e[1],r)},N.pathSector=function(t){var e=this.sectorInRad,r=this.vangles;return(r?E.pathPolygon:o.pathSector)(t,e[0],e[1],r)},N.pathAnnulus=function(t,e){var r=this.sectorInRad,n=this.vangles;return(n?E.pathPolygonAnnulus:o.pathAnnulus)(t,e,r[0],r[1],n)},N.pathSubplot=function(){var t=this.innerRadius,e=this.radius;return t?this.pathAnnulus(t,e):this.pathSector(e)},N.fillViewInitialKey=function(t,e){t in this.viewInitial||(this.viewInitial[t]=e)}},{"../../components/color":366,"../../components/dragelement":385,"../../components/drawing":388,"../../components/fx":406,"../../components/titles":464,"../../constants/alignment":471,"../../lib":503,"../../lib/clear_gl_canvases":487,"../../lib/setcursor":524,"../../plot_api/subroutines":544,"../../plots/cartesian/axes":554,"../../registry":638,"../cartesian/autorange":553,"../cartesian/dragbox":563,"../cartesian/select":575,"../cartesian/set_convert":576,"../plots":619,"../smith/helpers":628,"./constants":620,"./helpers":621,"./set_convert":626,"@plotly/d3":58,tinycolor2:312}],626:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../cartesian/set_convert"),a=n.deg2rad,o=n.rad2deg;function s(t,e){var r=t.type;if("linear"===r){var i=t.d2c,s=t.c2d;t.d2c=function(t,e){return function(t,e){return"degrees"===e?a(t):t}(i(t),e)},t.c2d=function(t,e){return s(function(t,e){return"degrees"===e?o(t):t}(t,e))}}t.makeCalcdata=function(e,i){var a,o,s=e[i],l=e._length,c=function(r){return t.d2c(r,e.thetaunit)};if(s){if(n.isTypedArray(s)&&"linear"===r){if(l===s.length)return s;if(s.subarray)return s.subarray(0,l)}for(a=new Array(l),o=0;o<l;o++)a[o]=c(s[o])}else{var u=i+"0",f="d"+i,h=u in e?c(e[u]):0,p=e[f]?c(e[f]):(t.period||2*Math.PI)/l;for(a=new Array(l),o=0;o<l;o++)a[o]=h+o*p}return

a},t.setGeometry=function(){var i,s,l,c,u=e.sector,f=u.map(a),h={clockwise:-1,counterclockwise:1}[t.direction],p=a(t.rotation),d=function(t){return h*t+p},g=function(t){return(t-p)/h};switch(r){case"linear":s=i=n.identity,c=a,l=o,t.range=n.isFullCircle(f)?[u[0],u[0]+360]:f.map(g).map(o);break;case"category":var v=t._categories.length,m=t.period?Math.max(t.period,v):v;0===m&&(m=1),s=c=function(t){return 2*t*Math.PI/m},i=l=function(t){return t*m/Math.PI/2},t.range=[0,m]}t.c2g=function(t){return d(s(t))},t.g2c=function(t){return i(g(t))},t.t2g=function(t){return d(c(t))},t.g2t=function(t){return l(g(t))}}}e.exports=function(t,e,r){switch(i(t,r),t._id){case"x":case"radialaxis":!function(t,e){var r=e._subplot;t.setGeometry=function(){var e=t._rl[0],n=t._rl[1],i=r.innerRadius,a=(r.radius-i)/(n-e),o=i/a,s=e>n?function(t){return t<=0}:function(t){return t>=0};t.c2g=function(r){var n=t.c2l(r)-e;return(s(n)?n:0)+o},t.g2c=function(r){return t.l2c(r+e-o)},t.g2p=function(t){return t*a},t.c2p=function(e){return t.g2p(t.c2g(e))}}}(t,e);break;case"angularaxis":s(t,e)}}},{"../../lib":503,"../cartesian/set_convert":576}],627:[function(t,e,r){"use strict";e.exports={attr:"subplot",name:"smith",axisNames:["realaxis","imaginaryaxis"],axisName2dataArray:{imaginaryaxis:"imag",realaxis:"real"}}},{}],628:[function(t,e,r){"use strict";function n(t){return t<0?-1:t>0?1:0}function i(t){var e=t[0],r=t[1];if(!isFinite(e)||!isFinite(r))return[1,0];var n=(e+1)*(e+1)+r*r;return[(e*e+r*r-1)/n,2*r/n]}function a(t,e){var r=e[0],n=e[1];return[r*t.radius+t.cx,-n*t.radius+t.cy]}function o(t,e){return e*t.radius}e.exports={smith:i,reactanceArc:function(t,e,r,n){var s=a(t,i([r,e])),l=s[0],c=s[1],u=a(t,i([n,e])),f=u[0],h=u[1];if(0===e)return["M"+l+","+c,"L"+f+","+h].join(" ");var p=o(t,1/Math.abs(e));return["M"+l+","+c,"A"+p+","+p+" 0 0,"+(e<0?1:0)+" "+f+","+h].join(" ")},resistanceArc:function(t,e,r,s){var l=o(t,1/(e+1)),c=a(t,i([e,r])),u=c[0],f=c[1],h=a(t,i([e,s])),p=h[0],d=h[1];if(n(r)!==n(s)){var g=a(t,i([e,0]));return["M"+u+","+f,"A"+l+","+l+" 0 0,"+(0<r?0:1)+" "+g[0]+","+g[1],"A"+l+","+l+" 0 0,"+(s<0?0:1)+p+","+d].join(" ")}return["M"+u+","+f,"A"+l+","+l+" 0 0,"+(s<r?0:1)+" "+p+","+d].join(" ")},smithTransform:a}},{}],629:[function(t,e,r){"use strict";var n=t("../get_data").getSubplotCalcData,i=t("../../lib").counterRegex,a=t("../polar/polar"),o=t("./constants"),s=o.attr,l=o.name,c=i(l),u={};u[s]={valType:"subplotid",dflt:l,editType:"calc"},e.exports={attr:s,name:l,idRoot:l,idRegex:c,attrRegex:c,attributes:u,layoutAttributes:t("./layout_attributes"),supplyLayoutDefaults:t("./layout_defaults"),plot:function(t){for(var e=t._fullLayout,r=t.calcdata,i=e._subplots[l],o=0;o<i.length;o++){var s=i[o],c=n(r,l,s),u=e[s]._subplot;u||(u=a(t,s,!0),e[s]._subplot=u),u.plot(c,e,t._promises)}},clean:function(t,e,r,n){for(var i=n._subplots[l]||[],a=0;a<i.length;a++){var o=i[a],s=n[o]._subplot;if(!e[o]&&s)for(var c in s.framework.remove(),s.clipPaths)s.clipPaths[c].remove()}},toSVG:t("../cartesian").toSVG}},{"../../lib":503,"../cartesian":568,"../get_data":593,"../polar/polar":625,"./constants":627,"./layout_attributes":630,"./layout_defaults":631}],630:[function(t,e,r){"use strict";var n=t("../../components/color/attributes"),i=t("../cartesian/layout_attributes"),a=t("../domain").attributes,o=t("../../lib").extendFlat,s=t("../../plot_api/edit_types").overrideAll,l=s({color:i.color,showline:o({},i.showline,{dflt:!0}),linecolor:i.linecolor,linewidth:i.linewidth,showgrid:o({},i.showgrid,{dflt:!0}),gridcolor:i.gridcolor,gridwidth:i.gridwidth,griddash:i.griddash},"plot","from-root"),c=s({ticklen:i.ticklen,tickwidth:o({},i.tickwidth,{dflt:2}),tickcolor:i.tickcolor,showticklabels:i.showticklabels,showtickprefix:i.showtickprefix,tickprefix:i.tickprefix,showticksuffix:i.showticksuffix,ticksuffix:i.ticksuffix,tickfont:i.tickfont,tickformat:i.tickformat,hoverformat:i.hoverformat,layer:i.layer},"plot","from-root"),u=o({visible:o({},i.visible,{dflt:!0}),tickvals:{dflt:[.2,.5,1,2,5],valType:"data_array",editType:"plot"},tickangle:o({},i.tickangle,{dflt:90}),ticks:{valType:"enumerated",values:["top","bottom",""],editType:"ticks"},side:{valType:"enumerated",values:["top","bottom"],dflt:"top",editType:"plot"},editType:"calc"},l,c),f=o({visible:o({},i.visible,{dflt:!0}),tickvals:{valType:"data_array",editType:"plot"},ticks:i.ticks,editType:"calc"},l,c);e.exports={domain:a({name:"smith",editType:"plot"}),bgcolor:{valType:"color",editType:"plot",dflt:n.background},realaxis:u,imaginaryaxis:f,editType:"calc"}},{"../../components/color/attributes":365,"../../lib":503,"../../plot_api/edit_types":536,"../cartesian/layout_attributes":569,"../domain":584}],631:[function(t,e,r){"use strict";var

n,i,a,o=t("../../lib"),s=t("../../components/color"),l=t("../../plot_api/plot_template"),c=t("../subplot_defaults"),u=t("../get_data").getSubplotData,f=t("../cartesian/prefix_suffix_defaults"),h=t("../cartesian/tick_label_defaults"),p=t("../cartesian/line_grid_defaults"),d=t("../cartesian/set_convert"),g=t("./layout_attributes"),v=t("./constants"),m=v.axisNames,y=(n=function(t){return t.slice().reverse().map((function(t){return-t})).concat([0]).concat(t)},i=String,a={},function(t){var e=i?i(t):t;if(e in a)return a[e];var r=n(t);return a[e]=r,r});function x(t,e,r,n){var i=r("bgcolor");n.bgColor=s.combine(i,n.paper_bgcolor);var a,c=u(n.fullData,v.name,n.id),x=n.layoutOut;function b(t,e){return r(a+"."+t,e)}for(var _=0;_<m.length;_++){a=m[_],o.isPlainObject(t[a])||(t[a]={});var w=t[a],T=l.newContainer(e,a);T._id=T._name=a,T._attr=n.id+"."+a,T._traceIndices=c.map((function(t){return t._expandedIndex}));var k=b("visible");if(T.type="linear",d(T,x),f(w,T,b,T.type),k){var A,M,S,E,L="realaxis"===a;L&&b("side"),L?b("tickvals"):b("tickvals",y(e.realaxis.tickvals||g.realaxis.tickvals.dflt));var C=n.font||{};k&&(M=(A=b("color"))===w.color?A:C.color,S=C.size,E=C.family),h(w,T,b,T.type,{noTicklabelstep:!0,noAng:!L,noExp:!0,font:{color:M,size:S,family:E}}),o.coerce2(t,e,g,a+".ticklen"),o.coerce2(t,e,g,a+".tickwidth"),o.coerce2(t,e,g,a+".tickcolor",e.color),b("ticks")||(delete e[a].ticklen,delete e[a].tickwidth,delete e[a].tickcolor),p(w,T,b,{dfltColor:A,bgColor:n.bgColor,blend:60,showLine:!0,showGrid:!0,noZeroLine:!0,attributes:g[a]}),b("layer")}b("hoverformat"),delete T.type,T._input=w}e.exports=function(t,e,r){c(t,e,r,{noUirevision:!0,type:v.name,attributes:g,handleDefaults:x,font:e.font,paper_bgcolor:e.paper_bgcolor,fullData:r,layoutOut:e})}},{"../../components/color":366,"../../lib":503,"../../plot_api/plot_template":543,"../cartesian/line_grid_defaults":571,"../cartesian/prefix_suffix_defaults":573,"../cartesian/set_convert":576,"../cartesian/tick_label_defaults":578,"../get_data":593,"../subplot_defaults":632,"./constants":627,"./layout_attributes":630}],632:[function(t,e,r){"use strict";var n=t("../lib"),i=t("../plot_api/plot_template"),a=t("./domain").defaults;e.exports=function(t,e,r,o){var s,l,c=o.type,u=o.attributes,f=o.handleDefaults,h=o.partition||"x",p=e._subplots[c],d=p.length,g=d&&p[0].replace(/\d+$/,"");function v(t,e){return n.coerce(s,l,u,t,e)}for(var m=0;m<d;m++){var y=p[m];s=t[y]?t[y]:t[y]={},l=i.newContainer(e,y,g),o.noUirevision||v("uirevision",e.uirevision);var x={};x[h]=[m/d,(m+1)/d],a(l,e,v,x),o.id=y,f(s,l,v,o)}}},{"../lib":503,"../plot_api/plot_template":543,"./domain":584}],633:[function(t,e,r){"use strict";var n=t("../constants/docs");function i(t){var e=t.description?"\n\n"+t.description:"",r=t.keys||[];if(r.length>0){for(var n=[],i=0;i<r.length;i++)n[i]="`"+r[i]+"`";e+="\n\nFinally, the template string has access to ",e+=1===r.length?"variable "+n[0]:"variables "+n.slice(0,-1).join(", ")+" and "+n.slice(-1)+"."}return e}n.FORMAT_LINK,n.DATE_FORMAT_LINK,r.hovertemplateAttrs=function(t,e){t=t||{},i(e=e||{});var r={valType:"string",dflt:"",editType:t.editType||"none"};return!1!==t.arrayOk&&(r.arrayOk=!0),r},r.texttemplateAttrs=function(t,e){t=t||{},i(e=e||{});var r={valType:"string",dflt:"",editType:t.editType||"calc"};return!1!==t.arrayOk&&(r.arrayOk=!0),r}},{"../constants/docs":474}],634:[function(t,e,r){"use strict";var n=t("./ternary"),i=t("../../plots/get_data").getSubplotCalcData,a=t("../../lib").counterRegex,o="ternary";r.name=o;var s=r.attr="subplot";r.idRoot=o,r.idRegex=r.attrRegex=a(o),(r.attributes={})[s]={valType:"subplotid",dflt:"ternary",editType:"calc"},r.layoutAttributes=t("./layout_attributes"),r.supplyLayoutDefaults=t("./layout_defaults"),r.plot=function(t){for(var e=t._fullLayout,r=t.calcdata,a=e._subplots.ternary,s=0;s<a.length;s++){var l=a[s],c=i(r,o,l),u=e[l]._subplot;u||(u=new n({id:l,graphDiv:t,container:e._ternarylayer.node()},e),e[l]._subplot=u),u.plot(c,e,t._promises)}},r.clean=function(t,e,r,n){for(var i=n._subplots.ternary||[],a=0;a<i.length;a++){var o=i[a],s=n[o]._subplot;!e[o]&&s&&(s.plotContainer.remove(),s.clipDef.remove(),s.clipDefRelative.remove(),s.layers["a-title"].remove(),s.layers["b-title"].remove(),s.layers["c-title"].remove())}}},{"../../lib":503,"../../plots/get_data":593,"./layout_attributes":635,"./layout_defaults":636,"./ternary":637}],635:[function(t,e,r){"use strict";var n=t("../../components/color/attributes"),i=t("../domain").attributes,a=t("../cartesian/layout_attributes"),o=t("../../plot_

api/edit_types").overrideAll,s=t("../../lib/extend").extendFlat,l={title:{text:a.title.text,font:a.title.font},color:a.color,tickmode:a.tickmode,nticks:s({},a.nticks,{dflt:6,min:1}),tick0:a.tick0,dtick:a.dtick,tickvals:a.tickvals,ticktext:a.ticktext,ticks:a.ticks,ticklen:a.ticklen,tickwidth:a.tickwidth,tickcolor:a.tickcolor,ticklabelstep:a.ticklabelstep,showticklabels:a.showticklabels,showtickprefix:a.showtickprefix,tickprefix:a.tickprefix,showticksuffix:a.showticksuffix,ticksuffix:a.ticksuffix,showexponent:a.showexponent,exponentformat:a.exponentformat,minexponent:a.minexponent,separatethousands:a.separatethousands,tickfont:a.tickfont,tickangle:a.tickangle,tickformat:a.tickformat,tickformatstops:a.tickformatstops,hoverformat:a.hoverformat,showline:s({},a.showline,{dflt:!0}),linecolor:a.linecolor,linewidth:a.linewidth,showgrid:s({},a.showgrid,{dflt:!0}),gridcolor:a.gridcolor,gridwidth:a.gridwidth,griddash:a.griddash,layer:a.layer,min:{valType:"number",dflt:0,min:0},_deprecated:{title:a._deprecated.title,titlefont:a._deprecated.titlefont}},c=e.exports=o({domain:i({name:"ternary"}),bgcolor:{valType:"color",dflt:n.background},sum:{valType:"number",dflt:1,min:0},aaxis:l,baxis:l,caxis:l},"plot","from-root");c.uirevision={valType:"any",editType:"none"},c.aaxis.uirevision=c.baxis.uirevision=c.caxis.uirevision={valType:"any",editType:"none"}},{"../../components/color/attributes":365,"../../lib/extend":493,"../../plot_api/edit_types":536,"../cartesian/layout_attributes":569,"../domain":584}],636:[function(t,e,r){"use strict";var n=t("../../components/color"),i=t("../../plot_api/plot_template"),a=t("../../lib"),o=t("../subplot_defaults"),s=t("../cartesian/tick_label_defaults"),l=t("../cartesian/prefix_suffix_defaults"),c=t("../cartesian/tick_mark_defaults"),u=t("../cartesian/tick_value_defaults"),f=t("../cartesian/line_grid_defaults"),h=t("./layout_attributes"),p=["aaxis","baxis","caxis"];function d(t,e,r,a){var o,s,l,c=r("bgcolor"),u=r("sum");a.bgColor=n.combine(c,a.paper_bgcolor);for(var f=0;f<p.length;f++)s=t[o=p[f]]||{},(l=i.newContainer(e,o))._name=o,g(s,l,a,e);var h=e.aaxis,d=e.baxis,v=e.caxis;h.min+d.min+v.min>=u&&(h.min=0,d.min=0,v.min=0,t.aaxis&&delete t.aaxis.min,t.baxis&&delete t.baxis.min,t.caxis&&delete t.caxis.min)}function g(t,e,r,n){var i=h[e._name];function o(r,n){return a.coerce(t,e,i,r,n)}o("uirevision",n.uirevision),e.type="linear";var p=o("color"),d=p!==i.color.dflt?p:r.font.color,g=e._name.charAt(0).toUpperCase(),v="Component "+g,m=o("title.text",v);e._hovertitle=m===v?m:g,a.coerceFont(o,"title.font",{family:r.font.family,size:a.bigFont(r.font.size),color:d}),o("min"),u(t,e,o,"linear"),l(t,e,o,"linear"),s(t,e,o,"linear"),c(t,e,o,{outerTicks:!0}),o("showticklabels")&&(a.coerceFont(o,"tickfont",{family:r.font.family,size:r.font.size,color:d}),o("tickangle"),o("tickformat")),f(t,e,o,{dfltColor:p,bgColor:r.bgColor,blend:60,showLine:!0,showGrid:!0,noZeroLine:!0,attributes:i}),o("hoverformat"),o("layer")}e.exports=function(t,e,r){o(t,e,r,{type:"ternary",attributes:h,handleDefaults:d,font:e.font,paper_bgcolor:e.paper_bgcolor})}},{"../../components/color":366,"../../lib":503,"../../plot_api/plot_template":543,"../cartesian/line_grid_defaults":571,"../cartesian/prefix_suffix_defaults":573,"../cartesian/tick_label_defaults":578,"../cartesian/tick_mark_defaults":579,"../cartesian/tick_value_defaults":580,"../subplot_defaults":632,"./layout_attributes":635}],637:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("tinycolor2"),a=t("../../registry"),o=t("../../lib"),s=o.strTranslate,l=o._,c=t("../../components/color"),u=t("../../components/drawing"),f=t("../cartesian/set_convert"),h=t("../../lib/extend").extendFlat,p=t("../plots"),d=t("../cartesian/axes"),g=t("../../components/dragelement"),v=t("../../components/fx"),m=t("../../components/dragelement/helpers"),y=m.freeMode,x=m.rectMode,b=t("../../components/titles"),_=t("../cartesian/select").prepSelect,w=t("../cartesian/select").selectOnClick,T=t("../cartesian/select").clearSelect,k=t("../cartesian/select").clearSelectionsCache,A=t("../cartesian/constants");function M(t,e){this.id=t.id,this.graphDiv=t.graphDiv,this.init(e),this.makeFramework(e),this.aTickLayout=null,this.bTickLayout=null,this.cTickLayout=null}e.exports=M;var S=M.prototype;S.init=function(t){this.container=t._ternarylayer,this.defs=t._defs,this.layoutId=t._uid,this.traceHash={},this.layers={}},S.plot=function(t,e){var r=this,n=e[r.id],i=e._size;r._hasClipOnAxisFalse=!1;for(var a=0;a<t.length;a++)if(!1===t[a][0].trace.cliponaxis){r._hasClipOnAxisFalse=!0;break}r.updateLayers(n),r.adjustLayout(n,i),p.generalUpdatePerTraceModule(r.graphDiv,r,t,n),r.layers.plotbg.select("path").call(c.fill,n.bgcolor)},S.makeFramework=function(t){var e=this,r=e.graphDiv,n=t[e.id],i=e.clipId="clip"+e.layoutId+e.id,a=e.clipIdRelative="clip-relative"+e.layoutId+e.id;e.clipDef=o.ensureSingleById(t._clips,"clipPath",i,(function(t){t.append("path").attr("d","M0,0Z")})),e.clipDefRelative=o.ensureSingleById(t._clips,"clipPath",a,(function(t){t.append("path").attr("d","M0,0

Z")})),e.plotContainer=o.ensureSingle(e.container,"g",e.id),e.updateLayers(n),u.setClipUrl(e.layers.backplot,i,r),u.setClipUrl(e.layers.grids,i,r)},S.updateLayers=function(t){var e=this.layers,r=["draglayer","plotbg","backplot","grids"];"below traces"===t.aaxis.layer&&r.push("aaxis","aline"),"below traces"===t.baxis.layer&&r.push("baxis","bline"),"below traces"===t.caxis.layer&&r.push("caxis","cline"),r.push("frontplot"),"above traces"===t.aaxis.layer&&r.push("aaxis","aline"),"above traces"===t.baxis.layer&&r.push("baxis","bline"),"above traces"===t.caxis.layer&&r.push("caxis","cline");var i=this.plotContainer.selectAll("g.toplevel").data(r,String),a=["agrid","bgrid","cgrid"];i.enter().append("g").attr("class",(function(t){return"toplevel "+t})).each((function(t){var r=n.select(this);e[t]=r,"frontplot"===t?r.append("g").classed("scatterlayer",!0):"backplot"===t?r.append("g").classed("maplayer",!0):"plotbg"===t?r.append("path").attr("d","M0,0Z"):"aline"===t||"bline"===t||"cline"===t?r.append("path"):"grids"===t&&a.forEach((function(t){e[t]=r.append("g").classed("grid "+t,!0)}))})),i.order()};var E=Math.sqrt(4/3);S.adjustLayout=function(t,e){var r,n,i,a,o,l,p=this,d=t.domain,g=(d.x[0]+d.x[1])/2,v=(d.y[0]+d.y[1])/2,m=d.x[1]-d.x[0],y=d.y[1]-d.y[0],x=m*e.w,b=y*e.h,_=t.sum,w=t.aaxis.min,T=t.baxis.min,k=t.caxis.min;x>E*b?i=(a=b)*E:a=(i=x)/E,o=m*i/x,l=y*a/b,r=e.l+e.w*g-i/2,n=e.t+e.h*(1-v)-a/2,p.x0=r,p.y0=n,p.w=i,p.h=a,p.sum=_,p.xaxis={type:"linear",range:[w+2*k-_,_-w-2*T],domain:[g-o/2,g+o/2],_id:"x"},f(p.xaxis,p.graphDiv._fullLayout),p.xaxis.setScale(),p.xaxis.isPtWithinRange=function(t){return t.a>=p.aaxis.range[0]&&t.a<=p.aaxis.range[1]&&t.b>=p.baxis.range[1]&&t.b<=p.baxis.range[0]&&t.c>=p.caxis.range[1]&&t.c<=p.caxis.range[0]},p.yaxis={type:"linear",range:[w,_-T-k],domain:[v-l/2,v+l/2],_id:"y"},f(p.yaxis,p.graphDiv._fullLayout),p.yaxis.setScale(),p.yaxis.isPtWithinRange=function(){return!0};var A=p.yaxis.domain[0],M=p.aaxis=h({},t.aaxis,{range:[w,_-T-k],side:"left",tickangle:(+t.aaxis.tickangle||0)-30,domain:[A,A+l*E],anchor:"free",position:0,_id:"y",_length:i});f(M,p.graphDiv._fullLayout),M.setScale();var S=p.baxis=h({},t.baxis,{range:[_-w-k,T],side:"bottom",domain:p.xaxis.domain,anchor:"free",position:0,_id:"x",_length:i});f(S,p.graphDiv._fullLayout),S.setScale();var L=p.caxis=h({},t.caxis,{range:[_-w-T,k],side:"right",tickangle:(+t.caxis.tickangle||0)+30,domain:[A,A+l*E],anchor:"free",position:0,_id:"y",_length:i});f(L,p.graphDiv._fullLayout),L.setScale();var C="M"+r+","+(n+a)+"h"+i+"l-"+i/2+",-"+a+"Z";p.clipDef.select("path").attr("d",C),p.layers.plotbg.select("path").attr("d",C);var P="M0,"+a+"h"+i+"l-"+i/2+",-"+a+"Z";p.clipDefRelative.select("path").attr("d",P);var I=s(r,n);p.plotContainer.selectAll(".scatterlayer,.maplayer").attr("transform",I),p.clipDefRelative.select("path").attr("transform",null);var O=s(r-S._offset,n+a);p.layers.baxis.attr("transform",O),p.layers.bgrid.attr("transform",O);var z=s(r+i/2,n)+"rotate(30)"+s(0,-M._offset);p.layers.aaxis.attr("transform",z),p.layers.agrid.attr("transform",z);var D=s(r+i/2,n)+"rotate(-30)"+s(0,-L._offset);p.layers.caxis.attr("transform",D),p.layers.cgrid.attr("transform",D),p.drawAxes(!0),p.layers.aline.select("path").attr("d",M.showline?"M"+r+","+(n+a)+"l"+i/2+",-"+a:"M0,0").call(c.stroke,M.linecolor||"#000").style("stroke-width",(M.linewidth||0)+"px"),p.layers.bline.select("path").attr("d",S.showline?"M"+r+","+(n+a)+"h"+i:"M0,0").call(c.stroke,S.linecolor||"#000").style("stroke-width",(S.linewidth||0)+"px"),p.layers.cline.select("path").attr("d",L.showline?"M"+(r+i/2)+","+n+"l"+i/2+","+a:"M0,0").call(c.stroke,L.linecolor||"#000").style("stroke-width",(L.linewidth||0)+"px"),p.graphDiv._context.staticPlot||p.initInteractions(),u.setClipUrl(p.layers.frontplot,p._hasClipOnAxisFalse?null:p.clipId,p.graphDiv)},S.drawAxes=function(t){var e=this,r=e.graphDiv,n=e.id.substr(7)+"title",i=e.layers,a=e.aaxis,o=e.baxis,s=e.caxis;if(e.drawAx(a),e.drawAx(o),e.drawAx(s),t){var c=Math.max(a.showticklabels?a.tickfont.size/2:0,(s.showticklabels?.75*s.tickfont.size:0)+("outside"===s.ticks?.87*s.ticklen:0)),u=(o.showticklabels?o.tickfont.size:0)+("outside"===o.ticks?o.ticklen:0)+3;i["a-

title"]=b.draw(r,"a"+n,{propContainer:a,propName:e.id+".aaxis.title",placeholder:l(r,"Click to enter Component A title"),attributes:{x:e.x0+e.w/2,y:e.y0-a.title.font.size/3-c,"text-anchor":"middle"}}),i["b-title"]=b.draw(r,"b"+n,{propContainer:o,propName:e.id+".baxis.title",placeholder:l(r,"Click to enter Component B title"),attributes:{x:e.x0-u,y:e.y0+e.h+.83*o.title.font.size+u,"text-anchor":"middle"}}),i["c-title"]=b.draw(r,"c"+n,{propContainer:s,propName:e.id+".caxis.title",placeholder:l(r,"Click to enter Component C title"),attributes:{x:e.x0+e.w+u,y:e.y0+e.h+.83*s.title.font.size+u,"text-anchor":"middle"}})}},S.drawAx=function(t){var e,r=this,n=r.graphDiv,i=t._name,a=i.charAt(0),s=t._id,l=r.layers[i],c=a+"tickLayout",u=(e=t).ticks+String(e.ticklen)+String(e.showticklabels);r[c]!==u&&(l.selectAll("."+s+"tick").remove(),r[c]=u),t.setScale();var f=d.calcTicks(t),h=d.clipEnds(t,f),p=d.makeTransTickFn(t),g=d.getTickSigns(t)[2],v=o.deg2rad(30),m=g*(t.linewidth||1)/2,y=g*t.ticklen,x=r.w,b=r.h,_="b"===a?"M0,"+m+"l"+Math.sin(v)*y+","+Math.cos(v)*y:"M"+m+",0l"+Math.cos(v)*y+","+-Math.sin(v)*y,w={a:"M0,0l"+b+",-"+x/2,b:"M0,0l-"+x/2+",-"+b,c:"M0,0l-"+b+","+x/2}[a];d.drawTicks(n,t,{vals:"inside"===t.ticks?h:f,layer:l,path:_,transFn:p,crisp:!1}),d.drawGrid(n,t,{vals:h,layer:r.layers[a+"grid"],path:w,transFn:p,crisp:!1}),d.drawLabels(n,t,{vals:f,layer:l,transFn:p,labelFns:d.makeLabelFns(t,0,30)})};var L=A.MINZOOM/2+.87,C="m-0.87,.5h"+L+"v3h-"+(L+5.2)+"l"+(L/2+2.6)+",-"+(.87*L+4.5)+"l2.6,1.5l-"+L/2+","+.87*L+"Z",P="m0.87,.5h-"+L+"v3h"+(L+5.2)+"l-"+(L/2+2.6)+",-"+(.87*L+4.5)+"l-2.6,1.5l"+L/2+","+.87*L+"Z",I="m0,1l"+L/2+","+.87*L+"l2.6,-1.5l-"+(L/2+2.6)+",-"+(.87*L+4.5)+"l-"+(L/2+2.6)+","+(.87*L+4.5)+"l2.6,1.5l"+L/2+",-"+.87*L+"Z",O=!0;function z(t){n.select(t).selectAll(".zoombox,.js-zoombox-backdrop,.js-zoombox-menu,.zoombox-corners").remove()}S.clearSelect=function(){k(this.dragOptions),T(this.dragOptions.gd)},S.initInteractions=function(){var t,e,r,n,f,h,p,d,m,b,T,k,M=this,S=M.layers.plotbg.select("path").node(),L=M.graphDiv,D=L._fullLayout._zoomlayer;function R(t){var e={};return e[M.id+".aaxis.min"]=t.a,e[M.id+".baxis.min"]=t.b,e[M.id+".caxis.min"]=t.c,e}function F(t,e){var r=L._fullLayout.clickmode;z(L),2===t&&(L.emit("plotly_doubleclick",null),a.call("_guiRelayout",L,R({a:0,b:0,c:0}))),r.indexOf("select")>-1&&1===t&&w(e,L,[M.xaxis],[M.yaxis],M.id,M.dragOptions),r.indexOf("event")>-1&&v.click(L,e,M.id)}function B(t,e){return 1-e/M.h}function N(t,e){return 1-(t+(M.h-e)/Math.sqrt(3))/M.w}function j(t,e){return(t-(M.h-e)/Math.sqrt(3))/M.w}function U(i,a){var o=r+i*t,s=n+a*e,l=Math.max(0,Math.min(1,B(0,n),B(0,s))),c=Math.max(0,Math.min(1,N(r,n),N(o,s))),u=Math.max(0,Math.min(1,j(r,n),j(o,s))),g=(l/2+u)*M.w,v=(1-l/2-c)*M.w,y=(g+v)/2,x=v-g,_=(1-l)*M.h,w=_-x/E;x<A.MINZOOM?(p=f,T.attr("d",m),k.attr("d","M0,0Z")):(p={a:f.a+l*h,b:f.b+c*h,c:f.c+u*h},T.attr("d",m+"M"+g+","+_+"H"+v+"L"+y+","+w+"L"+g+","+_+"Z"),k.attr("d","M"+r+","+n+"m0.5,0.5h5v-2h-5v-5h-2v5h-5v2h5v5h2ZM"+g+","+_+C+"M"+v+","+_+P+"M"+y+","+w+I)),b||(T.transition().style("fill",d>.2?"rgba(0,0,0,0.4)":"rgba(255,255,255,0.3)").duration(200),k.transition().style("opacity",1).duration(200),b=!0),L.emit("plotly_relayouting",R(p))}function V(){z(L),p!==f&&(a.call("_guiRelayout",L,R(p)),O&&L.data&&L._context.showTips&&(o.notifier(l(L,"Double-click to zoom back out"),"long"),O=!1))}function q(t,e){var r=t/M.xaxis._m,n=e/M.yaxis._m,i=[(p={a:f.a-n,b:f.b+(r+n)/2,c:f.c-(r-n)/2}).a,p.b,p.c].sort(o.sorterAsc),a=i.indexOf(p.a),l=i.indexOf(p.b),c=i.indexOf(p.c);i[0]<0&&(i[1]+i[0]/2<0?(i[2]+=i[0]+i[1],i[0]=i[1]=0):(i[2]+=i[0]/2,i[1]+=i[0]/2,i[0]=0),p={a:i[a],b:i[l],c:i[c]},e=(f.a-p.a)*M.yaxis._m,t=(f.c-p.c-f.b+p.b)*M.xaxis._m);var h=s(M.x0+t,M.y0+e);M.plotContainer.selectAll(".scatterlayer,.maplayer").attr("transform",h);var d=s(-t,-e);M.clipDefRelative.select("path").attr("transform",d),M.aaxis.range=[p.a,M.sum-p.b-p.c],M.baxis.range=[M.sum-p.a-p.c,p.b],M.caxis.range=[M.sum-p.a-p.b,p.c],M.drawAxes(!1),M._hasClipOnAxisFalse&&M.plotContainer.select(".scatterlayer").selectAll(".trace").call(u.hideOutsideRangePoints,M),L.emit("plotly_relayouting",R(p))}function H(){a.call("_guiRelayout",L,R(p))}this.dragOptions={element:S,gd:L,plotinfo:{id:M.id,domain:L._fullLayout[M.id].domain,xaxis:M.xaxis,yaxis:M.yaxis},subplot:M.id,prepFn:function(a,l,u){M.dragOptions.xaxes=[M.xaxis],M.dra

gOptions.yaxes=[M.yaxis],t=L._fullLayout._invScaleX,e=L._fullLayout._invScaleY;var g=M.dragOptions.dragmode=L._fullLayout.dragmode;y(g)?M.dragOptions.minDrag=1:M.dragOptions.minDrag=void 0,"zoom"===g?(M.dragOptions.moveFn=U,M.dragOptions.clickFn=F,M.dragOptions.doneFn=V,function(t,e,a){var l=S.getBoundingClientRect();r=e-l.left,n=a-l.top,L._fullLayout._calcInverseTransform(L);var u=L._fullLayout._invTransform,g=o.apply3DTransform(u)(r,n);r=g[0],n=g[1],f={a:M.aaxis.range[0],b:M.baxis.range[1],c:M.caxis.range[1]},p=f,h=M.aaxis.range[1]-f.a,d=i(M.graphDiv._fullLayout[M.id].bgcolor).getLuminance(),m="M0,"+M.h+"L"+M.w/2+",0L"+M.w+","+M.h+"Z",b=!1,T=D.append("path").attr("class","zoombox").attr("transform",s(M.x0,M.y0)).style({fill:d>.2?"rgba(0,0,0,0)":"rgba(255,255,255,0)","stroke-width":0}).attr("d",m),k=D.append("path").attr("class","zoombox-corners").attr("transform",s(M.x0,M.y0)).style({fill:c.background,stroke:c.defaultLine,"stroke-width":1,opacity:0}).attr("d","M0,0Z"),M.clearSelect(L)}(0,l,u)):"pan"===g?(M.dragOptions.moveFn=q,M.dragOptions.clickFn=F,M.dragOptions.doneFn=H,f={a:M.aaxis.range[0],b:M.baxis.range[1],c:M.caxis.range[1]},p=f,M.clearSelect(L)):(x(g)||y(g))&&_(a,l,u,M.dragOptions,g)}},S.onmousemove=function(t){v.hover(L,t,M.id),L._fullLayout._lasthover=S,L._fullLayout._hoversubplot=M.id},S.onmouseout=function(t){L._dragging||g.unhover(L,t)},g.init(this.dragOptions)}},{"../../components/color":366,"../../components/dragelement":385,"../../components/dragelement/helpers":384,"../../components/drawing":388,"../../components/fx":406,"../../components/titles":464,"../../lib":503,"../../lib/extend":493,"../../registry":638,"../cartesian/axes":554,"../cartesian/constants":561,"../cartesian/select":575,"../cartesian/set_convert":576,"../plots":619,"@plotly/d3":58,tinycolor2:312}],638:[function(t,e,r){"use strict";var n=t("./lib/loggers"),i=t("./lib/noop"),a=t("./lib/push_unique"),o=t("./lib/is_plain_object"),s=t("./lib/dom").addStyleRule,l=t("./lib/extend"),c=t("./plots/attributes"),u=t("./plots/layout_attributes"),f=l.extendFlat,h=l.extendDeepAll;function p(t){var e=t.name,i=t.categories,a=t.meta;if(r.modules[e])n.log("Type "+e+" already registered");else{r.subplotsRegistry[t.basePlotModule.name]||function(t){var e=t.name;if(r.subplotsRegistry[e])n.log("Plot type "+e+" already registered.");else for(var i in m(t),r.subplotsRegistry[e]=t,r.componentsRegistry)b(i,t.name)}(t.basePlotModule);for(var o={},l=0;l<i.length;l++)o[i[l]]=!0,r.allCategories[i[l]]=!0;for(var c in r.modules[e]={_module:t,categories:o},a&&Object.keys(a).length&&(r.modules[e].meta=a),r.allTypes.push(e),r.componentsRegistry)y(c,e);t.layoutAttributes&&f(r.traceLayoutAttributes,t.layoutAttributes);var u=t.basePlotModule,h=u.name;if("mapbox"===h){var p=u.constants.styleRules;for(var d in p)s(".js-plotly-plot .plotly .mapboxgl-"+d,p[d])}"geo"!==h&&"mapbox"!==h||void 0!==window.PlotlyGeoAssets||(window.PlotlyGeoAssets={topojson:{}})}function d(t){if("string"!=typeof t.name)throw new Error("Component module *name* must be a string.");var e=t.name;for(var n in r.componentsRegistry[e]=t,t.layoutAttributes&&(t.layoutAttributes._isLinkedToArray&&a(r.layoutArrayContainers,e),m(t)),r.modules)y(e,n);for(var i in r.subplotsRegistry)b(e,i);for(var o in r.transformsRegistry)x(e,o);t.schema&&t.schema.layout&&h(u,t.schema.layout)}function g(t){if("string"!=typeof t.name)throw new Error("Transform module *name* must be a string.");var e="Transform module "+t.name,i="function"==typeof t.transform,a="function"==typeof t.calcTransform;if(!i&&!a)throw new Error(e+" is missing a *transform* or *calcTransform* method.");for(var s in i&&a&&n.log([e+" has both a *transform* and *calcTransform* methods.","Please note that all *transform* methods are executed","before all *calcTransform* methods."].join(" ")),o(t.attributes)||n.log(e+" registered without an *attributes* object."),"function"!=typeof t.supplyDefaults&&n.log(e+" registered without a *supplyDefaults* method."),r.transformsRegistry[t.name]=t,r.componentsRegistry)x(s,t.name)}function v(t){var e=t.name,n=e.split("-")[0],i=t.dictionary,a=t.format,o=i&&Object.keys(i).length,s=a&&Object.keys(a).length,l=r.localeRegistry,c=l[e];if(c||(l[e]=c={}),n!==e){var u=l[n];u||(l[n]=u={}),o&&u.dictionary===c.dictionary&&(u.dictionary=i),s&&u.format===c.format&&(u.format=a)}o&&(c.dictionary=i),s&&(c.format=a)}function m(t){if(t.layoutAttributes){var e=t.layoutAttributes._arrayAttrRegexps;if(e)for(var n=0;n<e.length;n++)a(r.layoutArrayRegexes,e[n])}}function

y(t,e){var n=r.componentsRegistry[t].schema;if(n&&n.traces){var
i=n.traces[e];i&&h(r.modules[e]._module.attributes,i)}}function x(t,e){var
n=r.componentsRegistry[t].schema;if(n&&n.transforms){var
i=n.transforms[e];i&&h(r.transformsRegistry[e].attributes,i)}}function b(t,e){var
n=r.componentsRegistry[t].schema;if(n&&n.subplots){var
i=r.subplotsRegistry[e],a=i.layoutAttributes,o="subplot"===i.attr?i.name:i.attr;Array.isArray(o)&&(o=o[0]);var
s=n.subplots[o];a&&s&&h(a,s)}}function _(t){return"object"==typeof
t&&(t=t.type),t}r.modules={},r.allCategories={},r.allTypes=[],r.subplotsRegistry={},r.transformsRegistry={},r.co
mponentsRegistry={},r.layoutArrayContainers=[],r.layoutArrayRegexes=[],r.traceLayoutAttributes={},r.localeRegi
stry={},r.apiMethodRegistry={},r.collectableSubplotTypes=null,r.register=function(t){if(r.collectableSubplotTypes
=null,!t)throw new Error("No argument passed to Plotly.register.");t&&!Array.isArray(t)&&(t=[t]);for(var
e=0;e<t.length;e++){var n=t[e];if(!n)throw new Error("Invalid module was attempted to be
registered!");switch(n.moduleType){case"trace":p(n);break;case"transform":g(n);break;case"component":d(n);break
;case"locale":v(n);break;case"apiMethod":var i=n.name;r.apiMethodRegistry[i]=n.fn;break;default:throw new
Error("Invalid module was attempted to be registered!")}}},r.getModule=function(t){var
e=r.modules[_(t)];return!!e&&e._module},r.traceIs=function(t,e){if("various"===(t=_(t)))return!1;var
i=r.modules[t];return i||(t&&n.log("Unrecognized trace type
"+t+"."),i=r.modules[c.type.dflt]),!!i.categories[e]},r.getTransformIndices=function(t,e){for(var
r=[],n=t.transforms||[],i=0;i<n.length;i++)n[i].type===e&&r.push(i);return r},r.hasTransform=function(t,e){for(var
r=t.transforms||[],n=0;n<r.length;n++)if(r[n].type===e)return!0;return!1},r.getComponentMethod=function(t,e){var
n=r.componentsRegistry[t];return n&&n[e]||i},r.call=function(){var
t=arguments[0],e=[].slice.call(arguments,1);return
r.apiMethodRegistry[t].apply(null,e)}},{"./lib/dom":491,"./lib/extend":493,"./lib/is_plain_object":504,"./lib/loggers"
:507,"./lib/noop":512,"./lib/push_unique":518,"./plots/attributes":550,"./plots/layout_attributes":610}],639:[function(
t,e,r){"use strict";var n=t("../registry"),i=t("../lib"),a=i.extendFlat,o=i.extendDeep;function s(t){var
e;switch(t){case"themes__thumb":e={autosize:!0,width:150,height:150,title:{text:""},showlegend:!1,margin:{l:5,r:5
,t:5,b:5,pad:0},annotations:[]};break;case"thumbnail":e={title:{text:""},hidesources:!0,showlegend:!1,borderwidth:0
,bordercolor:"",margin:{l:1,r:1,t:1,b:1,pad:0},annotations:[]};break;default:e={}}return
e}e.exports=function(t,e){var
r,i,l=t.data,c=t.layout,u=o([],l),f=o({},c,s(e.tileClass)),h=t._context||{};if(e.width&&(f.width=e.width),e.height&&(f
.height=e.height),"thumbnail"===e.tileClass||"themes__thumb"===e.tileClass){f.annotations=[];var
p=Object.keys(f);for(r=0;r<p.length;r++)i=p[r],["xaxis","yaxis","zaxis"].indexOf(i.slice(0,5))>-
1&&(f[p[r]].title={text:""});for(r=0;r<u.length;r++){var
d=u[r];d.showscale=!1,d.marker&&(d.marker.showscale=!1),n.traceIs(d,"pie-
like")&&(d.textposition="none")}}if(Array.isArray(e.annotations))for(r=0;r<e.annotations.length;r++)f.annotations.
push(e.annotations[r]);var g=Object.keys(f).filter((function(t){return t.match(/^scene\d*$/)}));if(g.length){var
v={};for("thumbnail"===e.tileClass&&(v={title:{text:""},showaxeslabels:!1,showticklabels:!1,linetickenable:!1}),r
=0;r<g.length;r++){var
m=f[g[r]];m.xaxis||(m.xaxis={}),m.yaxis||(m.yaxis={}),m.zaxis||(m.zaxis={}),a(m.xaxis,v),a(m.yaxis,v),a(m.zaxis,v
),m._scene=null}}var y=document.createElement("div");e.tileClass&&(y.className=e.tileClass);var
x={gd:y,td:y,layout:f,data:u,config:{staticPlot:void 0===e.staticPlot||e.staticPlot,plotGlPixelRatio:void
0===e.plotGlPixelRatio?2:e.plotGlPixelRatio,displaylogo:e.displaylogo||!1,showLink:e.showLink||!1,showTips:e.sh
owTips||!1,mapboxAccessToken:h.mapboxAccessToken}};return"transparent"!==e.setBackground&&(x.config.set
Background=e.setBackground||"opaque"),x.gd.defaultLayout=s(e.tileClass),x}},{"../lib":503,"../registry":638}],640:
[function(t,e,r){"use strict";var
n=t("../lib"),i=t("../plot_api/to_image"),a=t("./filesaver"),o=t("./helpers");e.exports=function(t,e){var r;return
n.isPlainObject(t)||(r=n.getGraphDiv(t)),(e=e||{}).format=e.format||"png",e.width=e.width||null,e.height=e.height||nu
ll,e.imageDataOnly=!0,new Promise((function(s,l){r&&r._snapshotInProgress&&l(new Error("Snapshotting

already in progress.")),n.isIE()&&"svg"!==e.format&&l(new Error(o.MSG_IE_BAD_FORMAT)),r&&(r._snapshotInProgress=!0);var c=i(t,e),u=e.filename||t.fn||"newplot";u+="."+e.format.replace("-","."),c.then((function(t){return r&&(r._snapshotInProgress=!1),a(t,u,e.format)})).then((function(t){s(t)})).catch((function(t){r&&(r._snapshotInProgress=!1),l(t)}))}))}},{"../lib":503,"../plot_api/to_image":546,"./filesaver":641,"./helpers":642}],641:[function(t,e,r){"use strict";var n=t("../lib"),i=t("./helpers");e.exports=function(t,e,r){var a=document.createElement("a"),o="download"in a;return new Promise((function(s,l){var c,u;if(n.isIE())return c=i.createBlob(t,"svg"),window.navigator.msSaveBlob(c,e),c=null,s(e);if(o)return c=i.createBlob(t,r),u=i.createObjectURL(c),a.href=u,a.download=e,document.body.appendChild(a),a.click(),document.body.removeChild(a),i.revokeObjectURL(u),c=null,s(e);if(n.isSafari()){var f="svg"===r?",":"base64,";return i.octetStream(f+encodeURIComponent(t)),s(e)}l(new Error("download error"))}))}},{"../lib":503,"./helpers":642}],642:[function(t,e,r){"use strict";var n=t("../registry");r.getDelay=function(t){return t._has&&(t._has("gl3d")||t._has("gl2d")||t._has("mapbox"))?500:0},r.getRedrawFunc=function(t){return function(){n.getComponentMethod("colorbar","draw")(t)}},r.encodeSVG=function(t){return"data:image/svg+xml,"+encodeURIComponent(t)},r.encodeJSON=function(t){return"data:application/json,"+encodeURIComponent(t)};var i=window.URL||window.webkitURL;r.createObjectURL=function(t){return i.createObjectURL(t)},r.revokeObjectURL=function(t){return i.revokeObjectURL(t)},r.createBlob=function(t,e){if("svg"===e)return new window.Blob([t],{type:"image/svg+xml;charset=utf-8"});if("full-json"===e)return new window.Blob([t],{type:"application/json;charset=utf-8"});var r=function(t){for(var e=t.length,r=new ArrayBuffer(e),n=new Uint8Array(r),i=0;i<e;i++)n[i]=t.charCodeAt(i);return r}(window.atob(t));return new window.Blob([r],{type:"image/"+e})},r.octetStream=function(t){document.location.href="data:application/octet-stream"+t},r.IMAGE_URL_PREFIX=/^data:image\/\w+base64,/,r.MSG_IE_BAD_FORMAT="Sorry IE does not support downloading from canvas. Try {format:'svg'} instead."},{"../registry":638}],643:[function(t,e,r){"use strict";var n=t("./helpers"),i={getDelay:n.getDelay,getRedrawFunc:n.getRedrawFunc,clone:t("./cloneplot"),toSVG:t("./tosvg"),svgToImg:t("./svgtoimg"),toImage:t("./toimage"),downloadImage:t("./download")};e.exports=i},{"./cloneplot":639,"./download":640,"./helpers":642,"./svgtoimg":644,"./toimage":645,"./tosvg":646}],644:[function(t,e,r){"use strict";var n=t("../lib"),i=t("events").EventEmitter,a=t("./helpers");e.exports=function(t){var e=t.emitter||new i,r=new Promise((function(i,o){var s=window.Image,l=t.svg,c=t.format||"png";if(n.isIE()&&"svg"!==c){var u=new Error(a.MSG_IE_BAD_FORMAT);return o(u),t.promise?r:e.emit("error",u)}var f,h,p=t.canvas,d=t.scale||1,g=t.width||300,v=t.height||150,m=d*g,y=d*v,x=p.getContext("2d",{willReadFrequently:!0}),b=new s;"svg"===c||n.isSafari()?h=a.encodeSVG(l):(f=a.createBlob(l,"svg"),h=a.createObjectURL(f)),p.width=m,p.height=y,b.onload=function(){var r;switch(f=null,a.revokeObjectURL(h),"svg"!==c&&x.drawImage(b,0,0,m,y),c){case"jpeg":r=p.toDataURL("image/jpeg");break;case"png":r=p.toDataURL("image/png");break;case"webp":r=p.toDataURL("image/webp");break;case"svg":r=h;break;default:var n="Image format is not jpeg, png, svg or webp.";if(o(new Error(n)),!t.promise)return e.emit("error",n)}i(r),t.promise||e.emit("success",r)},b.onerror=function(r){if(f=null,a.revokeObjectURL(h),o(r),!t.promise)return e.emit("error",r)},b.src=h}));return t.promise?r:e}},{"../lib":503,"./helpers":642,events:84}],645:[function(t,e,r){"use strict";var n=t("events").EventEmitter,i=t("../registry"),a=t("../lib"),o=t("./helpers"),s=t("./cloneplot"),l=t("./tosvg"),c=t("./svgtoimg");e.exports=function(t,e){var r=new n,u=s(t,{format:"png"}),f=u.gd;f.style.position="absolute",f.style.left="-5000px",document.body.appendChild(f);var h=o.getRedrawFunc(f);return i.call("_doPlot",f,u.data,u.layout,u.config).then(h).then((function(){var t=o.getDelay(f._fullLayout);setTimeout((function(){var t=l(f),n=document.createElement("canvas");n.id=a.randstr(),(r=c({format:e.format,width:f._fullLayout.width,height:

f._fullLayout.height,canvas:n,emitter:r,svg:t})).clean=function(){f&&document.body.removeChild(f)}}),t)})).catch((function(t){r.emit("error",t)})),r}},{"../lib":503,"../registry":638,"./cloneplot":639,"./helpers":642,"./svgtoimg":644,"./tosvg":646,events:84}],646:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../lib"),a=t("../components/drawing"),o=t("../components/color"),s=t("../constants/xmlns_namespaces"),l=/"/g,c="TOBESTRIPPED",u=new RegExp('("TOBESTRIPPED)|(TOBESTRIPPED")',"g");e.exports=function(t,e,r){var f,h=t._fullLayout,p=h._paper,d=h._toppaper,g=h.width,v=h.height;p.insert("rect",":first-child").call(a.setRect,0,0,g,v).call(o.fill,h.paper_bgcolor);var m=h._basePlotModules||[];for(f=0;f<m.length;f++){var y=m[f];y.toSVG&&y.toSVG(t)}if(d){var x=d.node().childNodes,b=Array.prototype.slice.call(x);for(f=0;f<b.length;f++){var _=b[f];_.childNodes.length&&p.node().appendChild(_)}}h._draggers&&h._draggers.remove(),p.node().style.background="",p.selectAll("text").attr({"data-unformatted":null,"data-math":null}).each((function(){var t=n.select(this);if("hidden"!==this.style.visibility&&"none"!==this.style.display){t.style({visibility:null,display:null});var e=this.style.fontFamily;e&&-1!==e.indexOf("")&&t.style("font-family",e.replace(l,c))}else t.remove()})),p.selectAll(".gradient_filled,.pattern_filled").each((function(){var t=n.select(this),e=this.style.fill;e&&-1!==e.indexOf("url(")&&t.style("fill",e.replace(l,c));var r=this.style.stroke;r&&-1!==r.indexOf("url(")&&t.style("stroke",r.replace(l,c))})),"pdf"!==e&&"eps"!==e||p.selectAll("#MathJax_SVG_glyphs path").attr("stroke-width",0),p.node().setAttributeNS(s.xmlns,"xmlns",s.svg),p.node().setAttributeNS(s.xmlns,"xmlns:xlink",s.xlink),"svg"===e&&r&&(p.attr("width",r*g),p.attr("height",r*v),p.attr("viewBox","0 0 "+g+" "+v));var w,T=(new window.XMLSerializer).serializeToString(p.node());return T=(w=T=function(t){var e=n.select("body").append("div").style({display:"none"}).html(""),r=t.replace(/(&[^;]*;)/gi,(function(t){return"<"===t?"<":"&rt;"===t?">":-1!==t.indexOf("<")||-1!==t.indexOf(">")?"":e.html(t).text()}));return e.remove(),r}(T),T=w.replace(/&(?!\w+;|\#[0-9]+;| \#x[0-9A-F]+;)/g,"&")).replace(u,""),i.isIE()&&(T=(T=(T=T.replace(/"/gi,"")).replace(/(\('#)([^']*)('\))/gi,"('#$2')")).replace(/(\\')/gi,"")),T}},{"../components/color":366,"../components/drawing":388,"../constants/xmlns_namespaces":480,"../lib":503,"@plotly/d3":58}],647:[function(t,e,r){"use strict";var n=t("../../lib");e.exports=function(t,e){for(var r=0;r<t.length;r++)t[r].i=r;n.mergeArray(e.text,t,"tx"),n.mergeArray(e.hovertext,t,"htx");var i=e.marker;if(i){n.mergeArray(i.opacity,t,"mo",!0),n.mergeArray(i.color,t,"mc");var a=i.line;a&&(n.mergeArray(a.color,t,"mlc"),n.mergeArrayCastPositive(a.width,t,"mlw"))}}},{"../../lib":503}],648:[function(t,e,r){"use strict";var n=t("../scatter/attributes"),i=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,a=t("../../plots/template_attributes").hovertemplateAttrs,o=t("../../plots/template_attributes").texttemplateAttrs,s=t("../../components/colorscale/attributes"),l=t("../../plots/font_attributes"),c=t("./constants"),u=t("../../components/drawing/attributes").pattern,f=t("../../lib/extend").extendFlat,h=l({editType:"calc",arrayOk:!0,colorEditType:"style"}),p=f({},n.marker.line.width,{dflt:0}),d=f({width:p,editType:"calc"},s("marker.line")),g=f({line:d,editType:"calc"},s("marker"),{opacity:{valType:"number",arrayOk:!0,dflt:1,min:0,max:1,editType:"style"},pattern:u});e.exports={x:n.x,x0:n.x0,dx:n.dx,y:n.y,y0:n.y0,dy:n.dy,xperiod:n.xperiod,yperiod:n.yperiod,xperiod0:n.xperiod0,yperiod0:n.yperiod0,xperiodalignment:n.xperiodalignment,yperiodalignment:n.yperiodalignment,xhoverformat:i("x"),yhoverformat:i("y"),text:n.text,texttemplate:o({editType:"plot"},{keys:c.eventDataKeys}),hovertext:n.hovertext,hovertemplate:a({},{keys:c.eventDataKeys}),textposition:{valType:"enumerated",values:["inside","outside","auto","none"],dflt:"auto",arrayOk:!0,editType:"calc"},insidetextanchor:{valType:"enumerated",values:["end","middle","start"],dflt:"end",editType:"plot"},textangle:{valType:"angle",dflt:"auto",editType:"plot"},textfont:f({},h,{}),insidetextfont:f({},h,{}),outsidetextfont:f({},h,{}),constraintext:{valType:"enumerated",values:["inside","outside","both","none"],dflt:"both",editType:"calc"},cliponaxis:f({},n.cliponaxis,{}),orientation:{valType:"enumerated",values:["v","h"],editType:"calc+clearAxisTypes"},base:{valType:"any",dflt:null,arrayOk:!0,editType:"calc"},offset:{valType:"number",dflt:null,arrayOk:!0,editType:"calc"},width:{valType:"number",dflt:null,min:0,arrayOk:!0,editType:"calc"},marker:g,offsetgroup:{valType:"string",dflt:"",e

ditType:"calc"},alignmentgroup:{valType:"string",dflt:"",editType:"calc"},selected:{marker:{opacity:n.selected.marker.opacity,color:n.selected.marker.color,editType:"style"},textfont:n.selected.textfont,editType:"style"},unselected:{marker:{opacity:n.unselected.marker.opacity,color:n.unselected.marker.color,editType:"style"},textfont:n.unselected.textfont,editType:"style"},_deprecated:{bardir:{valType:"enumerated",editType:"calc",values:["v","h"]}}}},{"../../components/colorscale/attributes":373,"../../components/drawing/attributes":387,"../../lib/extend":493,"../../plots/cartesian/axis_format_attributes":557,"../../plots/font_attributes":585,"../../plots/template_attributes":633,"../scatter/attributes":927,"./constants":650}],649:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes"),i=t("../../plots/cartesian/align_period"),a=t("../../components/colorscale/helpers").hasColorscale,o=t("../../components/colorscale/calc"),s=t("./arrays_to_calcdata"),l=t("../scatter/calc_selection");e.exports=function(t,e){var r,c,u,f,h,p,d=n.getFromId(t,e.xaxis||"x"),g=n.getFromId(t,e.yaxis||"y"),v={msUTC:!(!e.base&&0!==e.base)};"h"===e.orientation?(r=d.makeCalcdata(e,"x",v),u=g.makeCalcdata(e,"y"),f=i(e,g,"y",u),h=!!e.yperiodalignment,p="y"):(r=g.makeCalcdata(e,"y",v),u=d.makeCalcdata(e,"x"),f=i(e,d,"x",u),h=!!e.xperiodalignment,p="x"),c=f.vals;for(var m=Math.min(c.length,r.length),y=new Array(m),x=0;x<m;x++)y[x]={p:c[x],s:r[x]},h&&(y[x].orig_p=u[x],y[x][p+"End"]=f.ends[x],y[x][p+"Start"]=f.starts[x]),e.ids&&(y[x].id=String(e.ids[x]));return a(e,"marker")&&o(t,e,{vals:e.marker.color,containerStr:"marker",cLetter:"c"}),a(e,"marker.line")&&o(t,e,{vals:e.marker.line.color,containerStr:"marker.line",cLetter:"c"}),s(y,e),l(y,e),y}},{"../../components/colorscale/calc":374,"../../components/colorscale/helpers":377,"../../plots/cartesian/align_period":551,"../../plots/cartesian/axes":554,"../scatter/calc_selection":929,"./arrays_to_calcdata":647}],650:[function(t,e,r){"use strict";e.exports={TEXTPAD:3,eventDataKeys:["value","label"]}},{}],651:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib").isArrayOrTypedArray,a=t("../../constants/numerical").BADNUM,o=t("../../registry"),s=t("../../plots/cartesian/axes"),l=t("../../plots/cartesian/constraints").getAxisGroup,c=t("./sieve.js");function u(t,e,r,o,u){if(o.length){var b,_,w,T;switch(function(t,e){var r,a;for(r=0;r<e.length;r++){var o,s=e[r],l=s[0].trace,c="funnel"===l.type?l._base:l.base,u="h"===l.orientation?l.xcalendar:l.ycalendar,f="category"===t.type||"multicategory"===t.type?function(){return null}:t.d2c;if(i(c)){for(a=0;a<Math.min(c.length,s.length);a++)o=f(c[a],0,u),n(o)?(s[a].b=+o,s[a].hasB=1):s[a].b=0;for(;a<s.length;a++)s[a].b=0}else{o=f(c,0,u);var h=n(o);for(o=h?o:0,a=0;a<s.length;a++)s[a].b=o,h&&(s[a].hasB=1)}}}(r,o),u.mode){case"overlay":f(e,r,o,u);break;case"group":for(b=[],_=[],w=0;w<o.length;w++)void 0===(T=o[w])[0].trace.offset?_.push(T):b.push(T);_.length&&function(t,e,r,n,i){var o=new c(n,{posAxis:e,sepNegVal:!1,overlapNoMerge:!i.norm});(function(t,e,r,n){for(var i=t._fullLayout,a=r.positions,o=r.distinctPositions,s=r.minDiff,c=r.traces,u=c.length,f=a.length!==o.length,h=s*(1-n.gap),v=l(i,e._id)+c[0][0].trace.orientation,m=i._alignmentOpts[v]||{},y=0;y<u;y++){var x,b,_=c[y],w=_[0].trace,T=m[w.alignmentgroup]||{},k=Object.keys(T.offsetGroups||{}).length,A=(x=k?h/k:f?h/u:h)*(1-(n.groupgap||0));b=k?((2*w._offsetIndex+1-k)*x-A)/2:f?((2*y+1-u)*x-A)/2:-A/2;var M=_[0].t;M.barwidth=A,M.poffset=b,M.bargroupwidth=h,M.bardelta=s}r.binWidth=c[0][0].t.barwidth/100,p(r),d(e,r),g(e,r,f)})(t,e,o,i),function(t,e){for(var r=t.traces,n=0;n<r.length;n++){var i=r[n];if(void 0===i[0].trace.base)for(var o=new c([i],{posAxis:e,sepNegVal:!0,overlapNoMerge:!0}),s=0;s<i.length;s++){var l=i[s];if(l.p!==a){var u=o.put(l.p,l.b+l.s);u&&(l.b=u)}}}}(o,e),i.norm?(m(o),y(r,o,i)):v(r,o)}(t,e,r,_,u),b.length&&f(e,r,b,u);break;case"stack":case"relative":for(b=[],_=[],w=0;w<o.length;w++)void 0===(T=o[w])[0].trace.base?_.push(T):b.push(T);_.length&&function(t,e,r,n,i){var o=new c(n,{posAxis:e,sepNegVal:"relative"===i.mode,overlapNoMerge:!(i.norm||"stack"===i.mode||"relative"===i.mode)});h(e,o,i),function(t,e,r){var n,i,o,l,c,u,f=x(t),h=e.traces;for(l=0;l<h.length;l++)if("funnel"===(i=(n=h[l])[0].trace).type)for(c=0;c<n.length;c++)(u=n[c]).s!==a&&e.put(u.p,-.5*u.s);for(l=0;l<h.length;l++){o="funnel"===(i=(n=h[l])[0].trace).type;var

p=[];for(c=0;c<n.length;c++)if((u=n[c]).s!==a){var d;d=o?u.s:u.s+u.b;var g=e.put(u.p,d),v=g+d;u.b=g,u[f]=v,r.norm||(p.push(v),u.hasB&&p.push(g))}r.norm||(i._extremes[t._id]=s.findExtremes(t,p,{tozero:!0,padded:!0}))}(r,o,i);for(var l=0;l<n.length;l++)for(var u=n[l],f=0;f<u.length;f++){var p=u[f];p.s!==a&&p.b+p.s===o.get(p.p,p.s)&&(p._outmost=!0)}i.norm&&y(r,o,i)}(0,e,r,_,u),b.length&&f(e,r,b,u)}!function(t,e){var r,i,a,o=x(e),s={},l=1/0,c=-1/0;for(r=0;r<t.length;r++)for(a=t[r],i=0;i<a.length;i++){var u=a[i].p;n(u)&&(l=Math.min(l,u),c=Math.max(c,u))}var f=1e4/(c-l),h=s.round=function(t){return String(Math.round(f*(t-l)))};for(r=0;r<t.length;r++){(a=t[r])[0].t.extents=s;var p=a[0].t.poffset,d=Array.isArray(p);for(i=0;i<a.length;i++){var g=a[i],v=g[o]-g.w/2;if(n(v)){var m=g[o]+g.w/2,y=h(g.p);s[y]?s[y]=[Math.min(v,s[y][0]),Math.max(m,s[y][1])]:s[y]=[v,m]}g.p0=g.p+(d?p[i]:p),g.p1=g.p0+g.w,g.s0=g.b,g.s1=g.s0+g.s}}}(o,e)}}function f(t,e,r,n){for(var i=0;i<r.length;i++){var a=r[i],o=new c([a],{posAxis:t,sepNegVal:!1,overlapNoMerge:!n.norm});h(t,o,n),n.norm?(m(o),y(e,o,n)):v(e,o)}}function h(t,e,r){for(var n=e.minDiff,i=e.traces,a=n*(1-r.gap),o=a*(1-(r.groupgap||0)),s=-o/2,l=0;l<i.length;l++){var c=i[l][0].t;c.barwidth=o,c.poffset=s,c.bargroupwidth=a,c.bardelta=n}e.binWidth=i[0][0].t.barwidth/100,p(e),d(t,e),g(t,e)}function p(t){var e,r,a=t.traces;for(e=0;e<a.length;e++){var o,s=a[e],l=s[0],c=l.trace,u=l.t,f=c._offset||c.offset,h=u.poffset;if(i(f)){for(o=Array.prototype.slice.call(f,0,s.length),r=0;r<o.length;r++)n(o[r])||(o[r]=h);for(r=o.length;r<s.length;r++)o.push(h);u.poffset=o}else void 0!==f&&(u.poffset=f);var p=c._width||c.width,d=u.barwidth;if(i(p)){var g=Array.prototype.slice.call(p,0,s.length);for(r=0;r<g.length;r++)n(g[r])||(g[r]=d);for(r=g.length;r<s.length;r++)g.push(d);if(u.barwidth=g,void 0===f){for(o=[],r=0;r<s.length;r++)o.push(h+(d-g[r])/2);u.poffset=o}}else void 0!==p&&(u.barwidth=p,void 0===f&&(u.poffset=h+(d-p)/2))}}function d(t,e){for(var r=e.traces,n=x(t),i=0;i<r.length;i++)for(var a=r[i],o=a[0].t,s=o.poffset,l=Array.isArray(s),c=o.barwidth,u=Array.isArray(c),f=0;f<a.length;f++){var h=a[f],p=h.w=u?c[f]:c;h[n]=h.p+(l?s[f]:s)+p/2}}function g(t,e,r){var n=e.traces,i=e.minDiff/2;s.minDtick(t,e.minDiff,e.distinctPositions[0],r);for(var a=0;a<n.length;a++){var o,l,c,u,f=n[a],h=f[0],p=h.trace,d=[];for(u=0;u<f.length;u++)l=(o=f[u]).p-i,c=o.p+i,d.push(l,c);if(p.width||p.offset){var g=h.t,v=g.poffset,m=g.barwidth,y=Array.isArray(v),x=Array.isArray(m);for(u=0;u<f.length;u++){o=f[u];var b=y?v[u]:v,_=x?m[u]:m;c=(l=o.p+b)+_,d.push(l,c)}}p._extremes[t._id]=s.findExtremes(t,d,{padded:!1})}}function v(t,e){for(var r=e.traces,n=x(t),i=0;i<r.length;i++){for(var a=r[i],o=a[0].trace,l=[],c=!1,u=0;u<a.length;u++){var f=a[u],h=f.b,p=h+f.s;f[n]=p,l.push(p),f.hasB&&l.push(h),f.hasB&&f.b||(c=!0)}o._extremes[t._id]=s.findExtremes(t,l,{tozero:c,padded:!0})}}function m(t){for(var e=t.traces,r=0;r<e.length;r++)for(var n=e[r],i=0;i<n.length;i++){var o=n[i];o.s!==a&&t.put(o.p,o.b+o.s)}}function y(t,e,r){var i=e.traces,o=x(t),l="fraction"===r.norm?1:100,c=l/1e9,u=t.l2c(t.c2l(0)),f="stack"===r.mode?l:u;function h(e){return n(t.c2l(e))&&(e<u-c||e>f+c||!n(u))}for(var p=0;p<i.length;p++){for(var d=i[p],g=d[0].trace,v=[],m=!1,y=!1,b=0;b<d.length;b++){var _=d[b];if(_.s!==a){var w=Math.abs(l/e.get(_.p,_.s));_.b*=w,_.s*=w;var T=_.b,k=T+_.s;_[o]=k,v.push(k),y=y||h(k),_.hasB&&(v.push(T),y=y||h(T)),_.hasB&&_.b||(m=!0)}}g._extremes[t._id]=s.findExtremes(t,v,{tozero:m,padded:y})}}function x(t){return t._id.charAt(0)}e.exports={crossTraceCalc:function(t,e){for(var r=e.xaxis,n=e.yaxis,i=t._fullLayout,a=t._fullData,s=t.calcdata,l=[],c=[],f=0;f<a.length;f++){var h=a[f];if(!0===h.visible&&o.traceIs(h,"bar")&&h.xaxis===r._id&&h.yaxis===n._id&&("h"===h.orientation?l.push(s[f]):c.push(s[f]),h._computePh))for(var p=t.calcdata[f],d=0;d<p.length;d++)"function"==typeof p[d].ph0&&(p[d].ph0=p[d].ph0()),"function"==typeof p[d].ph1&&(p[d].ph1=p[d].ph1())}var g={xCat:"category"===r.type||"multicategory"===r.type,yCat:"category"===n.type||"multicategory"===n.type,mode:i.barmode,norm:i.barnorm,gap:i.bargap,groupgap:i.bargroupgap};u(t,r,n,c,g),u(t,n,r,l,g)},setGroupPositions:u}},{"../../constants/numerical":479,"../../lib":503,"../../plots/cartesian/axes":554,"../../plots/cartesian/constraints":562,"../../registry":638,"./sieve.js":661,"fast-isnumeric":190}],652:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../components/color"),a=t("../../registry"),o=t("../scatter/xy_defaults"),s=t("../scatter/period_defa

ults"),l=t("./style_defaults"),c=t("../../plots/cartesian/constraints").getAxisGroup,u=t("./attributes"),f=n.coerceFont;function h(t,e,r,n){var
i=e.orientation,a=e[{v:"x",h:"y"}[i]+"axis"],o=c(r,a)+i,s=r._alignmentOpts||{},l=n("alignmentgroup"),u=s[o];u||(u=s[o]={});var f=u[l];f?f.traces.push(e):f=u[l]={traces:[e],alignmentIndex:Object.keys(u).length,offsetGroups:{}};var h=n("offsetgroup"),p=f.offsetGroups,d=p[h];h&&(d||(d=p[h]={offsetIndex:Object.keys(p).length}),e._offsetIndex=d.offsetIndex)}function p(t,e,r,i,a,o){var
s=!(!1===(o=o||{}).moduleHasSelected),l=!(!1===o.moduleHasUnselected),c=!(!1===o.moduleHasConstrain),u=!(!1===o.moduleHasCliponaxis),h=!(!1===o.moduleHasTextangle),p=!(!1===o.moduleHasInsideanchor),d=!!o.hasPathbar,g=Array.isArray(a)||"auto"===a,v=g||"inside"===a,m=g||"outside"===a;if(v||m){var
y=f(i,"textfont",r.font),x=n.extendFlat({},y),b=!(t.textfont&&t.textfont.color);if(b&&delete
x.color,f(i,"insidetextfont",x),d){var _=n.extendFlat({},y);b&&delete
.color,f(i,"pathbar.textfont",)}m&&f(i,"outsidetextfont",y),s&&i("selected.textfont.color"),l&&i("unselected.textfont.color"),c&&i("constraintext"),u&&i("cliponaxis"),h&&i("textangle"),i("texttemplate")}v&&p&&i("insidetextanchor")}e.exports={supplyDefaults:function(t,e,r,c){function f(r,i){return
n.coerce(t,e,u,r,i)}if(o(t,e,c,f)){s(t,e,c,f),f("xhoverformat"),f("yhoverformat"),f("orientation",e.x&&!e.y?"h":"v"),f("base"),f("offset"),f("width"),f("text"),f("hovertext"),f("hovertemplate");var
h=f("textposition");p(t,0,c,f,h,{moduleHasSelected:!0,moduleHasUnselected:!0,moduleHasConstrain:!0,moduleHasCliponaxis:!0,moduleHasTextangle:!0,moduleHasInsideanchor:!0}),l(t,e,f,r,c);var
d=(e.marker.line||{}).color,g=a.getComponentMethod("errorbars","supplyDefaults");g(t,e,d||i.defaultLine,{axis:"y"}),g(t,e,d||i.defaultLine,{axis:"x",inherit:"y"}),n.coerceSelectionMarkerOpacity(e,f)}else
e.visible=!1},crossTraceDefaults:function(t,e){var r;function i(t){return
n.coerce(r._input,r,u,t)}if("group"===e.barmode)for(var
a=0;a<t.length;a++)"bar"===(r=t[a]).type&&h(r._input,r,e,i)},handleGroupingDefaults:h,handleText:p}},{"../../components/color":366,"../../lib":503,"../../plots/cartesian/constraints":562,"../../registry":638,"../scatter/period_defaults":947,"../scatter/xy_defaults":954,"./attributes":648,"./style_defaults":663}],653:[function(t,e,r){"use
strict";e.exports=function(t,e,r){return t.x="xVal"in e?e.xVal:e.x,t.y="yVal"in
e?e.yVal:e.y,e.xa&&(t.xaxis=e.xa),e.ya&&(t.yaxis=e.ya),"h"===r.orientation?(t.label=t.y,t.value=t.x):(t.label=t.x,t.value=t.y),t}},{}],654:[function(t,e,r){"use strict";var n=t("fast-
isnumeric"),i=t("tinycolor2"),a=t("../../lib").isArrayOrTypedArray;r.coerceString=function(t,e,r){if("string"==typeof e){if(e||!t.noBlank)return e}else if(("number"==typeof e||!0===e)&&!t.strict)return String(e);return void
0!==r?r:t.dflt},r.coerceNumber=function(t,e,r){if(n(e)){e=+e;var i=t.min,a=t.max;if(!(void 0!==i&&e<i||void
0!==a&&e>a))return e}return void 0!==r?r:t.dflt},r.coerceColor=function(t,e,r){return i(e).isValid()?e:void
0!==r?r:t.dflt},r.coerceEnumerated=function(t,e,r){return t.coerceNumber&&(e=+e),-
1!==t.values.indexOf(e)?e:void 0!==r?r:t.dflt},r.getValue=function(t,e){var r;return
Array.isArray(t)?e<t.length&&(r=t[e]):r=t,r},r.getLineWidth=function(t,e){return
0<e.mlw?e.mlw:a(t.marker.line.width)?0:t.marker.line.width}},{"../../lib":503,"fast-
isnumeric":190,tinycolor2:312}],655:[function(t,e,r){"use strict";var
n=t("../../components/fx"),i=t("../../registry"),a=t("../../components/color"),o=t("../../lib").fillText,s=t("./helpers").getLineWidth,l=t("../../plots/cartesian/axes").hoverLabelText,c=t("../../constants/numerical").BADNUM;function
u(t,e,r,i,a){var
s,u,f,h,p,d,g,v=t.cd,m=v[0].trace,y=v[0].t,x="closest"===i,b="waterfall"===m.type,_=t.maxHoverDistance,w=t.maxSpikeDistance;"h"===m.orientation?(s=r,u=e,f="y",h="x",p=z,d=I):(s=e,u=r,f="x",h="y",d=z,p=I);var
T=m[f+"period"],k=x||T;function A(t){return S(t,-1)}function M(t){return S(t,1)}function S(t,e){var r=t.w;return
t[f]+e*r/2}function E(t){return t[f+"End"]-t[f+"Start"]}var L=x?A:T?function(t){return t.p-
E(t)/2}:function(t){return Math.min(A(t),t.p-y.bardelta/2)},C=x?M:T?function(t){return
t.p+E(t)/2}:function(t){return Math.max(M(t),t.p+y.bardelta/2)};function P(t,e,r){return
a.finiteRange&&(r=0),n.inbox(t-s,e-s,r+Math.min(1,Math.abs(e-t)/g)-1)}function I(t){return P(L(t),C(t),_)}function
O(t){var e=t[h];if(b){var r=Math.abs(t.rawS)||0;u>0?e+=r:u<0&&(e-=r)}return e}function z(t){var

e=u,r=t.b,i=O(t);return n.inbox(r-e,i-e,_+(i-e)/(i-r)-1)}var D=t[f+"a"],R=t[h+"a"];g=Math.abs(D.r2c(D.range[1])-D.r2c(D.range[0]));var F=n.getDistanceFunction(i,p,d,(function(t){return(p(t)+d(t))/2}));if(n.getClosest(v,F,t),!1!==t.index&&v[t.index].p!==c){k||(L=function(t){return Math.min(A(t),t.p-y.bargroupwidth/2)},C=function(t){return Math.max(M(t),t.p+y.bargroupwidth/2)});var B=v[t.index],N=m.base?B.b+B.s:B.s;t[h+"0"]=t[h+"1"]=R.c2p(B[h],!0),t[h+"LabelVal"]=N;var j=y.extents[y.extents.round(B.p)];t[f+"0"]=D.c2p(x?L(B):j[0],!0),t[f+"1"]=D.c2p(x?C(B):j[1],!0);var U=void 0!==B.orig_p;return t[f+"LabelVal"]=U?B.orig_p:B.p,t.labelLabel=l(D,t[f+"LabelVal"],m[f+"hoverformat"]),t.valueLabel=l(R,t[h+"LabelVal"],m[h+"hoverformat"]),t.baseLabel=l(R,B.b,m[h+"hoverformat"]),t.spikeDistance=(function(t){var e=u,r=t.b,i=O(t);return n.inbox(r-e,i-e,w+(i-e)/(i-r)-1)}(B)+function(t){return P(A(t),M(t),w)}(B))/2,t[f+"Spike"]=D.c2p(B.p,!0),o(B,m,t),t.hovertemplate=m.hovertemplate,t}function f(t,e){var r=e.mcc||t.marker.color,n=e.mlcc||t.marker.line.color,i=s(t,e);return a.opacity(r)?r:a.opacity(n)&&i?n:void 0}e.exports={hoverPoints:function(t,e,r,n,a){var o=u(t,e,r,n,a);if(o){var s=o.cd,l=s[0].trace,c=s[o.index];return o.color=f(l,c),i.getComponentMethod("errorbars","hoverInfo")(c,l,o),[o]}},hoverOnBars:u,getTraceColor:f}},{"../../components/color":366,"../../components/fx":406,"../../constants/numerical":479,"../../lib":503,"../../plots/cartesian/axes":554,"../../registry":638,"./helpers":654}],656:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),layoutAttributes:t("./layout_attributes"),supplyDefaults:t("./defaults").supplyDefaults,crossTraceDefaults:t("./defaults").crossTraceDefaults,supplyLayoutDefaults:t("./layout_defaults"),calc:t("./calc"),crossTraceCalc:t("./cross_trace_calc").crossTraceCalc,colorbar:t("../scatter/marker_colorbar"),arraysToCalcdata:t("./arrays_to_calcdata"),plot:t("./plot").plot,style:t("./style").style,styleOnSelect:t("./style").styleOnSelect,hoverPoints:t("./hover").hoverPoints,eventData:t("./event_data"),selectPoints:t("./select"),moduleType:"trace",name:"bar",basePlotModule:t("../../plots/cartesian"),categories:["bar-like","cartesian","svg","bar","oriented","errorBarsOK","showLegend","zoomScale"],animatable:!0,meta:{}}},{"../../plots/cartesian":568,"../scatter/marker_colorbar":945,"./arrays_to_calcdata":647,"./attributes":648,"./calc":649,"./cross_trace_calc":651,"./defaults":652,"./event_data":653,"./hover":655,"./layout_attributes":657,"./layout_defaults":658,"./plot":659,"./select":660,"./style":662}],657:[function(t,e,r){"use strict";e.exports={barmode:{valType:"enumerated",values:["stack","group","overlay","relative"],dflt:"group",editType:"calc"},barnorm:{valType:"enumerated",values:["","fraction","percent"],dflt:"",editType:"calc"},bargap:{valType:"number",min:0,max:1,editType:"calc"},bargroupgap:{valType:"number",min:0,max:1,dflt:0,editType:"calc"}}},{}],658:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../plots/cartesian/axes"),a=t("../../lib"),o=t("./layout_attributes");e.exports=function(t,e,r){function s(r,n){return a.coerce(t,e,o,r,n)}for(var l=!1,c=!1,u=!1,f={},h=s("barmode"),p=0;p<r.length;p++){var d=r[p];if(n.traceIs(d,"bar")&&d.visible){if(l=!0,"group"===h){var g=d.xaxis+d.yaxis;f[g]&&(u=!0),f[g]=!0}d.visible&&"histogram"===d.type&&"category"!==i.getFromId({_fullLayout:e},d["v"===d.orientation?"xaxis":"yaxis"]).type&&(c=!0)}}l?("overlay"!==h&&s("barnorm"),s("bargap",c&&!u?0:.2),s("bargroupgap")):delete e.barmode}},{"../../lib":503,"../../plots/cartesian/axes":554,"../../registry":638,"./layout_attributes":657}],659:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("fast-isnumeric"),a=t("../../lib"),o=t("../../lib/svg_text_utils"),s=t("../../components/color"),l=t("../../components/drawing"),c=t("../../registry"),u=t("../../plots/cartesian/axes").tickText,f=t("./uniform_text"),h=f.recordMinTextSize,p=f.clearMinTextSize,d=t("./style"),g=t("./helpers"),v=t("./constants"),m=t("./attributes"),y=m.text,x=m.textposition,b=t("../../components/fx/helpers").appendArrayPointValue,_=v.TEXTPAD;function w(t){return t.id}function T(t){if(t.ids)return w}function k(t,e){return t<e?1:-1}function A(t,e,r,n){var i;return!e.uniformtext.mode&&M(r)?(n&&(i=n()),t.transition().duration(r.duration).ease(r.easing).each("end",(function(){i&&i()})).each("interrupt",(function(){i&&i()}))):t}function M(t){return t&&t.duration>0}function S(t){return"auto"===t?0:t}function E(t,e){var r=Math.PI/180*e,n=Math.abs(Math.sin(r)),i=Math.abs(Math.cos(r));return{x:t.width*i+t.height*n,y:t.width*n+t.hei

ght*i}}function L(t,e,r,n,i,a){var
o=!!a.isHorizontal,s=!!a.constrained,l=a.angle||0,c=a.anchor||"end",u="end"===c,f="start"===c,h=((a.leftToRight||0
)+1)/2,p=1-h,d=i.width,g=i.height,v=Math.abs(e-t),m=Math.abs(n-r),y=v>2*_&&m>2*_?_:0;v-=2*y,m-=2*y;var
x=S(l);"auto"!==l||d<=v&&g<=m||!(d>v||g>m)||(d>m||g>v)&&d<g==v<m||(x+=90);var
b=E(i,x),w=1;s&&(w=Math.min(1,v/b.x,m/b.y));var T=i.left*p+i.right*h,A=(i.top+i.bottom)/2,M=(t+_)*p+(e-
_)*h,L=(r+n)/2,C=0,P=0;if(f||u){var I=(o?b.x:b.y)/2,O=o?k(t,e):k(r,n);o?f?(M=t+O*y,C=-O*I):(M=e-
O*y,C=O*I):f?(L=r+O*y,P=-O*I):(L=n-
O*y,P=O*I)}return{textX:T,textY:A,targetX:M,targetY:L,anchorX:C,anchorY:P,scale:w,rotate:x}}e.exports={plot:
function(t,e,r,f,v,m){var
w=e.xaxis,C=e.yaxis,P=t._fullLayout;v||(v={mode:P.barmode,norm:P.barmode,gap:P.bargap,groupgap:P.bargroupg
ap},p("bar",P));var I=a.makeTraceGroups(f,r,"trace bars").each((function(r){var
c=n.select(this),f=r[0].trace,p="waterfall"===f.type,I="funnel"===f.type,O="bar"===f.type||I,z=0;p&&f.connector.
visible&&"between"===f.connector.mode&&(z=f.connector.line.width/2);var
D="h"===f.orientation,R=M(v),F=a.ensureSingle(c,"g","points"),B=T(f),N=F.selectAll("g.point").data(a.identity,B)
;N.enter().append("g").classed("point",!0),N.exit().remove(),N.each((function(c,p){var
T,M,I=n.select(this),F=function(t,e,r,n){var i=[],a=[],o=n?e:r,s=n?r:e;return
i[0]=o.c2p(t.s0,!0),a[0]=s.c2p(t.p0,!0),i[1]=o.c2p(t.s1,!0),a[1]=s.c2p(t.p1,!0),n?[i,a]:[a,i]}(c,w,C,D),B=F[0][0],N=F[
0][1],j=F[1][0],U=F[1][1],V=0==(D?N-B:U-
j);if(V&&O&&g.getLineWidth(f,c)&&(V=!1),V||(V=!(i(B)&&i(N)&&i(j)&&i(U))),c.isBlank=V,V&&(D?N=B:U=
j),z&&!V&&(D?(B-=k(B,N)*z,N+=k(B,N)*z):(j-=k(j,U)*z,U+=k(j,U)*z)),"waterfall"===f.type){if(!V){var
q=f[c.dir].marker;T=q.line.width,M=q.color}}else T=g.getLineWidth(f,c),M=c.mc||f.marker.color;function H(t){var
e=n.round(T/2%1,2);return 0===v.gap&&0===v.groupgap?n.round(Math.round(t)-
e,2):t}if(!t._context.staticPlot){var G=s.opacity(M)<1||T>.01?H:function(t,e,r){return r&&t===e?t:Math.abs(t-
e)>=2?H(t):t>e?Math.ceil(t):Math.floor(t)};B=G(B,N,D),N=G(N,B,D),j=G(j,U,!D),U=G(U,j,!D)}var
Y=A(a.ensureSingle(I,"path"),P,v,m);if(Y.style("vector-effect","non-scaling-stroke").attr("d",isNaN((N-B)*(U-
j))||V&&t._context.staticPlot?"M0,0Z":"M"+B+","+j+"V"+U+"H"+N+"V"+j+"Z").call(l.setClipUrl,e.layerClipId,t),
!P.uniformtext.mode&&R){var
W=l.makePointStyleFns(f);l.singlePointStyle(c,Y,f,W,t)}(function(t,e,r,n,i,s,c,f,p,v,m){var
w,T=e.xaxis,M=e.yaxis,C=t._fullLayout;function P(e,r,n){return a.ensureSingle(e,"text").text(r).attr({class:"bartext
bartext-"+w,"text-anchor":"middle","data-notex":1}).call(l.font,n).call(o.convertToTspans,t)}var
I=n[0].trace,O="h"===I.orientation,z=function(t,e,r,n,i){var o,s=e[0].trace;return
o=s.texttemplate?function(t,e,r,n,i){var o=e[0].trace,s=a.castOption(o,r,"texttemplate");if(!s)return"";var
l,c,f,h,p="histogram"===o.type,d="waterfall"===o.type,g="funnel"===o.type,v="h"===o.orientation;function
m(t){return u(c,c.c2l(t),!0).text}function y(t){return
u(h,h.c2l(t),!0).text}v?(l="y",c=i,f="x",h=n):(l="x",c=n,f="y",h=i);var
x=e[r],_={};_.label=x.p,_.labelLabel=_[l+"Label"]=m(x.p);var
w=a.castOption(o,x.i,"text");(0===w||w)&&(_.text=w),_.value=x.s,_.valueLabel=_[f+"Label"]=y(x.s);var
T={};b(T,o,x.i),(p||void 0===T.x)&&(T.x=v?_.value:_.label),(p||void 0===T.y)&&(T.y=v?_.label:_.value),(p||void
0===T.xLabel)&&(T.xLabel=v?_.valueLabel:_.labelLabel),(p||void
0===T.yLabel)&&(T.yLabel=v?_.labelLabel:_.valueLabel),d&&(_.delta=+x.rawS||x.s,_.deltaLabel=y(_.delta),_.fin
al=x.v,_.finalLabel=y(_.final),_.initial=_.final-
.delta,.initialLabel=y(_.initial)),g&&(_.value=x.s,_.valueLabel=y(_.value),_.percentInitial=x.begR,_.percentInitia
lLabel=a.formatPercent(x.begR),_.percentPrevious=x.difR,_.percentPreviousLabel=a.formatPercent(x.difR),_.perce
ntTotal=x.sumR,_.percenTotalLabel=a.formatPercent(x.sumR));var k=a.castOption(o,x.i,"customdata");return
k&&(_.customdata=k),a.texttemplateString(s,_,t._d3locale,T,_,o._meta||{})}(t,e,r,n,i):s.textinfo?function(t,e,r,n){va
r i=t[0].trace,o="h"===i.orientation,s="waterfall"===i.type,l="funnel"===i.type;function c(t){return
u(o?n:r,t,!0).text}function f(t){return u(o?r:n,+t,!0).text}var
h,p=i.textinfo,d=t[e],g=p.split("+"),v=[],m=function(t){return-

1!==g.indexOf(t)};if(m("label")&&v.push(c(t[e].p)),m("text")&&(0===(h=a.castOption(i,d.i,"text"))||h)&&v.push(h),s){var y=+d.rawS||d.s,x=d.v,b=x-y;m("initial")&&v.push(f(b)),m("delta")&&v.push(f(y)),m("final")&&v.push(f(x))}if(l){m("value")&&v.push(f(d.s));var _=0;m("percent initial")&&_++,m("percent previous")&&_++,m("percent total")&&_++;var w=_>1;m("percent initial")&&(h=a.formatPercent(d.begR),w&&(h+=" of initial"),v.push(h)),m("percent previous")&&(h=a.formatPercent(d.difR),w&&(h+=" of previous"),v.push(h)),m("percent total")&&(h=a.formatPercent(d.sumR),w&&(h+=" of total"),v.push(h))}return v.join("<br>")}(e,r,n,i):g.getValue(s.text,r),g.coerceString(y,o)}(C,n,i,T,M);w=function(t,e){var r=g.getValue(t.textposition,e);return g.coerceEnumerated(x,r)}(I,i);var D="stack"===v.mode||"relative"===v.mode,R=n[i],F=!D||R._outmost;if(z&&"none"!==w&&(!R.isBlank&&s!==c&&f!==p||"auto"!==w&&"inside"!==w)){var B=C.font,N=d.getBarColor(n[i],I),j=d.getInsideTextFont(I,i,B,N),U=d.getOutsideTextFont(I,i,B),V=r.datum();O?"log"===T.type&&V.s0<=0&&(s=T.range[0]<T.range[1]?0:T._length):"log"===M.type&&V.s0<=0&&(f=M.range[0]<M.range[1]?M._length:0);var q,H,G,Y,W,X=Math.abs(c-s)-2*_,Z=Math.abs(p-f)-2*_;if("outside"===w&&(F||R.hasB||(w="inside")),"auto"===w&&(F?(w="inside",q=P(r,z,W=a.ensureUniformFontSize(t,j)),G=(H=l.bBox(q.node())).width,Y=H.height,G>0&&Y>0&&(G<=X&&Y<=Z||G<=Z&&Y<=X||(O?X>=G*(Z/Y):Z>=Y*(X/G)))?w="inside":(w="outside",q.remove(),q=null)):w="inside"),!q){var J=(q=P(r,z,W=a.ensureUniformFontSize(t,"outside"===w?U:j))).attr("transform");if(q.attr("transform",""),G=(H=l.bBox(q.node())).width,Y=H.height,q.attr("transform",J),G<=0||Y<=0)return void q.remove()}var K,Q=I.textangle;(K="outside"===w?function(t,e,r,n,i,a){var o,s=!!a.isHorizontal,l=!!a.constrained,c=a.angle||0,u=i.width,f=i.height,h=Math.abs(e-t),p=Math.abs(n-r);o=s?p>2*_?_:0:h>2*_?_:0;var d=1;l&&(d=s?Math.min(1,p/f):Math.min(1,h/u));var g=S(c),v=E(i,g),m=(s?v.x:v.y)/2,y=(i.left+i.right)/2,x=(i.top+i.bottom)/2,b=(t+e)/2,w=(r+n)/2,T=0,A=0,M=s?k(e,t):k(r,n);return s?(b=e-M*o,T=M*m):(w=n+M*o,A=-M*m),{textX:y,textY:x,targetX:b,targetY:w,anchorX:T,anchorY:A,scale:d,rotate:g}}(s,c,f,p,H,{isHorizontal:O,constrained:"both"===I.constraintext||"outside"===I.constraintext,angle:Q}):L(s,c,f,p,H,{isHorizontal:O,constrained:"both"===I.constraintext||"inside"===I.constraintext,angle:Q,anchor:I.insidetextanchor})).fontSize=W.size,h("histogram"===I.type?"bar":I.type,K,C),R.transform=K,A(q,C,v,m).attr("transform",a.getTextTransform(K))}else r.select("text").remove()})(t,e,I,r,p,B,N,j,U,v,m),e.layerClipId&&l.hideOutsideRangePoint(c,I.select("text"),w,C,f.xcalendar,f.ycalendar)}));var j=!1===f.cliponaxis;l.setClipUrl(c,j?null:e.layerClipId,t)}));c.getComponentMethod("errorbars","plot")(t,I,e,v)},toMoveInsideBar:L}},{"../../components/color":366,"../../components/drawing":388,"../../components/fx/helpers":402,"../../lib":503,"../../lib/svg_text_utils":529,"../../plots/cartesian/axes":554,"../../registry":638,"./attributes":648,"./constants":650,"./helpers":654,"./style":662,"./uniform_text":664,"@plotly/d3":58,"fast-isnumeric":190}],660:[function(t,e,r){"use strict";function n(t,e,r,n,i){var a=e.c2p(n?t.s0:t.p0,!0),o=e.c2p(n?t.s1:t.p1,!0),s=r.c2p(n?t.p0:t.s0,!0),l=r.c2p(n?t.p1:t.s1,!0);return i?[(a+o)/2,(s+l)/2]:n?[o,(s+l)/2]:[(a+o)/2,l]}e.exports=function(t,e){var r,i=t.cd,a=t.xaxis,o=t.yaxis,s=i[0].trace,l="funnel"===s.type,c="h"===s.orientation,u=[];if(!1===e)for(r=0;r<i.length;r++)i[r].selected=0;else for(r=0;r<i.length;r++){var f=i[r],h="ct"in f?f.ct:n(f,a,o,c,l);e.contains(h,!1,r,t)?(u.push({pointNumber:r,x:a.c2d(f.x),y:o.c2d(f.y)}),f.selected=1):f.selected=0}return u}},{}],661:[function(t,e,r){"use strict";e.exports=a;var n=t("../../lib").distinctVals,i=t("../../constants/numerical").BADNUM;function a(t,e){this.traces=t,this.sepNegVal=e.sepNegVal,this.overlapNoMerge=e.overlapNoMerge;for(var r=1/0,a=[],o=0;o<t.length;o++){for(var s=t[o],l=0;l<s.length;l++){var c=s[l];c.p!==i&&a.push(c.p)}s[0]&&s[0].width1&&(r=Math.min(s[0].width1,r))}this.positions=a;var u=n(a);this.distinctPositions=u.vals,1===u.vals.length&&r!==1/0?this.minDiff=r:this.minDiff=Math.min(u.minDiff,r);var f=(e.posAxis||{}).type;"category"!==f&&"multicategory"!==f||(this.minDiff=1),this.binWidth=this.minDiff,this.bins

={}}a.prototype.put=function(t,e){var r=this.getLabel(t,e),n=this.bins[r]||0;return this.bins[r]=n+e,n},a.prototype.get=function(t,e){var r=this.getLabel(t,e);return this.bins[r]||0},a.prototype.getLabel=function(t,e){return(e<0&&this.sepNegVal?"v":"^")+(this.overlapNoMerge?t:Math.round(t/this.binWidth))}},{"../../constants/numerical":479,"../../lib":503}],662:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../components/color"),a=t("../../components/drawing"),o=t("../../lib"),s=t("../../registry"),l=t("./uniform_text").resizeText,c=t("./attributes"),u=c.textfont,f=c.insidetextfont,h=c.outsidetextfont,p=t("./helpers");function d(t,e,r){a.pointStyle(t.selectAll("path"),e,r),g(t,e,r)}function g(t,e,r){t.selectAll("text").each((function(t){var i=n.select(this),s=o.ensureUniformFontSize(r,v(i,t,e,r));a.font(i,s)}))}function v(t,e,r,n){var i=n._fullLayout.font,a=r.textfont;if(t.classed("bartext-inside")){var o=_(e,r);a=y(r,e.i,i,o)}else t.classed("bartext-outside")&&(a=x(r,e.i,i));return a}function m(t,e,r){return b(u,t.textfont,e,r)}function y(t,e,r,n){var a=m(t,e,r);return(void 0===t._input.textfont||void 0===t._input.textfont.color||Array.isArray(t.textfont.color)&&void 0===t.textfont.color[e])&&(a={color:i.contrast(n),family:a.family,size:a.size}),b(f,t.insidetextfont,e,a)}function x(t,e,r){var n=m(t,e,r);return b(h,t.outsidetextfont,e,n)}function b(t,e,r,n){e=e||{};var i=p.getValue(e.family,r),a=p.getValue(e.size,r),o=p.getValue(e.color,r);return{family:p.coerceString(t.family,i,n.family),size:p.coerceNumber(t.size,a,n.size),color:p.coerceColor(t.color,o,n.color)}}function _(t,e){return"waterfall"===e.type?e[t.dir].marker.color:t.mcc||t.mc||e.marker.color}e.exports={style:function(t){var e=n.select(t).selectAll("g.barlayer").selectAll("g.trace");l(t,e,"bar");var r=e.size(),i=t._fullLayout;e.style("opacity",(function(t){return t[0].trace.opacity})).each((function(t){("stack"===i.barmode&&r>1||0===i.bargap&&0===i.bargroupgap&&!t[0].trace.marker.line.width)&&n.select(this).attr("shape-rendering","crispEdges")})),e.selectAll("g.points").each((function(e){d(n.select(this),e[0].trace,t)})),s.getComponentMethod("errorbars","style")(e)},styleTextPoints:g,styleOnSelect:function(t,e,r){var i=e[0].trace;i.selectedpoints?function(t,e,r){a.selectedPointStyle(t.selectAll("path"),e),function(t,e,r){t.each((function(t){var i,s=n.select(this);if(t.selected){i=o.ensureUniformFontSize(r,v(s,t,e,r));var l=e.selected.textfont&&e.selected.textfont.color;l&&(i.color=l),a.font(s,i)}else a.selectedTextStyle(s,e)}))}(t.selectAll("text"),e,r)}(r,i,t):(d(r,i,t),s.getComponentMethod("errorbars","style")(r))},getInsideTextFont:y,getOutsideTextFont:x,getBarColor:_,resizeText:l}},{"../../components/color":366,"../../components/drawing":388,"../../lib":503,"../../registry":638,"./attributes":648,"./helpers":654,"./uniform_text":664,"@plotly/d3":58}],663:[function(t,e,r){"use strict";var n=t("../../components/color"),i=t("../../components/colorscale/helpers").hasColorscale,a=t("../../components/colorscale/defaults"),o=t("../../lib").coercePattern;e.exports=function(t,e,r,s,l){var c=r("marker.color",s),u=i(t,"marker");u&&a(t,e,l,r,{prefix:"marker.",cLetter:"c"}),r("marker.line.color",n.defaultLine),i(t,"marker.line")&&a(t,e,l,r,{prefix:"marker.line.",cLetter:"c"}),r("marker.line.width"),r("marker.opacity"),o(r,"marker.pattern",c,u),r("selected.marker.color"),r("unselected.marker.color")}},{"../../components/color":366,"../../components/colorscale/defaults":376,"../../components/colorscale/helpers":377,"../../lib":503}],664:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../lib");function a(t){return"_"+t+"Text_minsize"}e.exports={recordMinTextSize:function(t,e,r){if(r.uniformtext.mode){var n=a(t),i=r.uniformtext.minsize,o=e.scale*e.fontSize;e.hide=o<i,r[n]=r[n]||1/0,e.hide||(r[n]=Math.min(r[n],Math.max(o,i)))}},clearMinTextSize:function(t,e){e[a(t)]=void 0},resizeText:function(t,e,r){var a=t._fullLayout,o=a["_"+r+"Text_minsize"];if(o){var s,l="hide"===a.uniformtext.mode;switch(r){case"funnelarea":case"pie":case"sunburst":s="g.slice";break;case"treemap":case"icicle":s="g.slice, g.pathbar";break;default:s="g.points > g.point"}e.selectAll(s).each((function(t){var e=t.transform;e&&(e.scale=l&&e.hide?0:o/e.fontSize,n.select(this).select("text").attr("transform",i.getTextTransform(e)))}))}}}},{"../../lib":503,"@plotly/d3":58}],665:[function(t,e,r){"use strict";var n=t("../../plots/template_attributes").hovertemplateAttrs,i=t("../../lib/extend").extendFlat,a=t("../scatterpolar/attributes"),o=t("../bar/attributes");e.exports={r:a.r,theta:a.theta,r0:a.r0,dr:a.dr,theta0:a.theta0,dtheta:a.dtheta,thetaunit:a.thetaunit,base:i({},o.base,{}),offset:i({},o.offset,{}),width:i({},o.width,{}),text:i({},o.text,{}),hovertext:i({},o.hovertext,

{}),marker:o.marker,hoverinfo:a.hoverinfo,hovertemplate:n(),selected:o.selected,unselected:o.unselected}},{"../../lib/extend":493,"../../plots/template_attributes":633,"../bar/attributes":648,"../scatterpolar/attributes":1002}],666:[function(t,e,r){"use strict";var n=t("../../components/colorscale/helpers").hasColorscale,i=t("../../components/colorscale/calc"),a=t("../bar/arrays_to_calcdata"),o=t("../bar/cross_trace_calc").setGroupPositions,s=t("../scatter/calc_selection"),l=t("../../registry").traceIs,c=t("../../lib").extendFlat;e.exports={calc:function(t,e){for(var r=t._fullLayout,o=e.subplot,l=r[o].radialaxis,c=r[o].angularaxis,u=l.makeCalcdata(e,"r"),f=c.makeCalcdata(e,"theta"),h=e._length,p=new Array(h),d=u,g=f,v=0;v<h;v++)p[v]={p:g[v],s:d[v]};function m(t){var r=e[t];void 0!==r&&(e["_"+t]=Array.isArray(r)?c.makeCalcdata(e,t):c.d2c(r,e.thetaunit))}return"linear"===c.type&&(m("width"),m("offset")),n(e,"marker")&&i(t,e,{vals:e.marker.color,containerStr:"marker",cLetter:"c"}),n(e,"marker.line")&&i(t,e,{vals:e.marker.line.color,containerStr:"marker.line",cLetter:"c"}),a(p,e),s(p,e),p},crossTraceCalc:function(t,e,r){for(var n=t.calcdata,i=[],a=0;a<n.length;a++){var s=n[a],u=s[0].trace;!0===u.visible&&l(u,"bar")&&u.subplot===r&&i.push(s)}var f=c({},e.radialaxis,{_id:"x"}),h=e.angularaxis;o(t,h,f,i,{mode:e.barmode,norm:e.barnorm,gap:e.bargap,groupgap:e.bargroupgap})}}},{"../../components/colorscale/calc":374,"../../components/colorscale/helpers":377,"../../lib":503,"../../registry":638,"../bar/arrays_to_calcdata":647,"../bar/cross_trace_calc":651,"../scatter/calc_selection":929}],667:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../scatterpolar/defaults").handleRThetaDefaults,a=t("../bar/style_defaults"),o=t("./attributes");e.exports=function(t,e,r,s){function l(r,i){return n.coerce(t,e,o,r,i)}i(t,e,s,l)?(l("thetaunit"),l("base"),l("offset"),l("width"),l("text"),l("hovertext"),l("hovertemplate"),a(t,e,l,r,s),n.coerceSelectionMarkerOpacity(e,l)):e.visible=!1}},{"../../lib":503,"../bar/style_defaults":663,"../scatterpolar/defaults":1004,"./attributes":665}],668:[function(t,e,r){"use strict";var n=t("../../components/fx"),i=t("../../lib"),a=t("../bar/hover").getTraceColor,o=i.fillText,s=t("../scatterpolar/hover").makeHoverPointText,l=t("../../plots/polar/helpers").isPtInsidePolygon;e.exports=function(t,e,r){var c=t.cd,u=c[0].trace,f=t.subplot,h=f.radialAxis,p=f.angularAxis,d=f.vangles,g=d?l:i.isPtInsideSector,v=t.maxHoverDistance,m=p._period||2*Math.PI,y=Math.abs(h.g2p(Math.sqrt(e*e+r*r))),x=Math.atan2(r,e);if(h.range[0]>h.range[1]&&(x+=Math.PI),n.getClosest(c,(function(t){return g(y,x,[t.rp0,t.rp1],[t.thetag0,t.thetag1],d)?v+Math.min(1,Math.abs(t.thetag1-t.thetag0)/m)-1+(t.rp1-y)/(t.rp1-t.rp0)-1:1/0}),t),!1!==t.index){var b=c[t.index];t.x0=t.x1=b.ct[0],t.y0=t.y1=b.ct[1];var _=i.extendFlat({},b,{r:b.s,theta:b.p});return o(b,u,t),s(_,u,f,t),t.hovertemplate=u.hovertemplate,t.color=a(u,b),t.xLabelVal=t.yLabelVal=void 0,b.s<0&&(t.idealAlign="left"),[t]}}},{"../../components/fx":406,"../../lib":503,"../../plots/polar/helpers":621,"../bar/hover":655,"../scatterpolar/hover":1006}],669:[function(t,e,r){"use strict";e.exports={moduleType:"trace",name:"barpolar",basePlotModule:t("../../plots/polar"),categories:["polar","bar","showLegend"],attributes:t("./attributes"),layoutAttributes:t("./layout_attributes"),supplyDefaults:t("./defaults"),supplyLayoutDefaults:t("./layout_defaults"),calc:t("./calc").calc,crossTraceCalc:t("./calc").crossTraceCalc,plot:t("./plot"),colorbar:t("../scatter/marker_colorbar"),formatLabels:t("../scatterpolar/format_labels"),style:t("../bar/style").style,styleOnSelect:t("../bar/style").styleOnSelect,hoverPoints:t("./hover"),selectPoints:t("../bar/select"),meta:{}}},{"../../plots/polar":622,"../bar/select":660,"../bar/style":662,"../scatter/marker_colorbar":945,"../scatterpolar/format_labels":1005,"./attributes":665,"./calc":666,"./defaults":667,"./hover":668,"./layout_attributes":670,"./layout_defaults":671,"./plot":672}],670:[function(t,e,r){"use strict";e.exports={barmode:{valType:"enumerated",values:["stack","overlay"],dflt:"stack",editType:"calc"},bargap:{valType:"number",dflt:.1,min:0,max:1,editType:"calc"}},{}],671:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./layout_attributes");e.exports=function(t,e,r){var a,o={};function s(r,o){return n.coerce(t[a]||{},e[a],i,r,o)}for(var l=0;l<r.length;l++){var c=r[l];"barpolar"===c.type&&!0===c.visible&&(o[a=c.subplot]||(s("barmode"),s("bargap"),o[a]=1))}},{"../../lib":503,"./layout_attributes":670}],672:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("fast-isnumeric"),a=t("../../lib"),o=t("../../components/drawing"),s=t("../../plots/polar/helpers");e.exports=function(t,e,r){va

r l=e.xaxis,c=e.yaxis,u=e.radialAxis,f=e.angularAxis,h=function(t){var e=t.cxx,r=t.cyy;return t.vangles?function(n,i,o,l){var c,u;a.angleDelta(o,l)>0?(c=o,u=l):(c=l,u=o);var f=[s.findEnclosingVertexAngles(c,t.vangles)[0],(c+u)/2,s.findEnclosingVertexAngles(u,t.vangles)[1]];return s.pathPolygonAnnulus(n,i,c,u,f,e,r)}:function(t,n,i,o){return a.pathAnnulus(t,n,i,o,e,r)}}(e),p=e.layers.frontplot.select("g.barlayer");a.makeTraceGroups(p,r,"trace bars").each((function(){var r=n.select(this),s=a.ensureSingle(r,"g","points").selectAll("g.point").data(a.identity);s.enter().append("g").style("vector-effect","non-scaling-stroke").style("stroke-miterlimit",2).classed("point",!0),s.exit().remove(),s.each((function(t){var e,r=n.select(this),o=t.rp0=u.c2p(t.s0),s=t.rp1=u.c2p(t.s1),p=t.thetag0=f.c2g(t.p0),d=t.thetag1=f.c2g(t.p1);if(i(o)&&i(s)&&i(p)&&i(d)&&o!==s&&p!==d){var g=u.c2g(t.s1),v=(p+d)/2;t.ct=[l.c2p(g*Math.cos(v)),c.c2p(g*Math.sin(v))],e=h(o,s,p,d)}else e="M0,0Z";a.ensureSingle(r,"path").attr("d",e)})),o.setClipUrl(r,e._hasClipOnAxisFalse?e.clipIds.forTraces:null,t)}))}},{"../../components/drawing":388,"../../lib":503,"../../plots/polar/helpers":621,"@plotly/d3":58,"fast-isnumeric":190}],673:[function(t,e,r){"use strict";var n=t("../scatter/attributes"),i=t("../bar/attributes"),a=t("../../components/color/attributes"),o=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,s=t("../../plots/template_attributes").hovertemplateAttrs,l=t("../../lib/extend").extendFlat,c=n.marker,u=c.line;e.exports={y:{valType:"data_array",editType:"calc+clearAxisTypes"},x:{valType:"data_array",editType:"calc+clearAxisTypes"},x0:{valType:"any",editType:"calc+clearAxisTypes"},y0:{valType:"any",editType:"calc+clearAxisTypes"},dx:{valType:"number",editType:"calc"},dy:{valType:"number",editType:"calc"},xperiod:n.xperiod,yperiod:n.yperiod,xperiod0:n.xperiod0,yperiod0:n.yperiod0,xperiodalignment:n.xperiodalignment,yperiodalignment:n.yperiodalignment,xhoverformat:o("x"),yhoverformat:o("y"),name:{valType:"string",editType:"calc+clearAxisTypes"},q1:{valType:"data_array",editType:"calc+clearAxisTypes"},median:{valType:"data_array",editType:"calc+clearAxisTypes"},q3:{valType:"data_array",editType:"calc+clearAxisTypes"},lowerfence:{valType:"data_array",editType:"calc"},upperfence:{valType:"data_array",editType:"calc"},notched:{valType:"boolean",editType:"calc"},notchwidth:{valType:"number",min:0,max:.5,dflt:.25,editType:"calc"},notchspan:{valType:"data_array",editType:"calc"},boxpoints:{valType:"enumerated",values:["all","outliers","suspectedoutliers",!1],editType:"calc"},jitter:{valType:"number",min:0,max:1,editType:"calc"},pointpos:{valType:"number",min:-2,max:2,editType:"calc"},boxmean:{valType:"enumerated",values:[!0,"sd",!1],editType:"calc"},mean:{valType:"data_array",editType:"calc"},sd:{valType:"data_array",editType:"calc"},orientation:{valType:"enumerated",values:["v","h"],editType:"calc+clearAxisTypes"},quartilemethod:{valType:"enumerated",values:["linear","exclusive","inclusive"],dflt:"linear",editType:"calc"},width:{valType:"number",min:0,dflt:0,editType:"calc"},marker:{outliercolor:{valType:"color",dflt:"rgba(0, 0, 0, 0)",editType:"style"},symbol:l({},c.symbol,{arrayOk:!1,editType:"plot"}),opacity:l({},c.opacity,{arrayOk:!1,dflt:1,editType:"style"}),size:l({},c.size,{arrayOk:!1,editType:"calc"}),color:l({},c.color,{arrayOk:!1,editType:"style"}),line:{color:l({},u.color,{arrayOk:!1,dflt:a.defaultLine,editType:"style"}),width:l({},u.width,{arrayOk:!1,dflt:0,editType:"style"}),outliercolor:{valType:"color",editType:"style"},outlierwidth:{valType:"number",min:0,dflt:1,editType:"style"},editType:"style"},editType:"plot"},line:{color:{valType:"color",editType:"style"},width:{valType:"number",min:0,dflt:2,editType:"style"},editType:"plot"},fillcolor:n.fillcolor,whiskerwidth:{valType:"number",min:0,max:1,dflt:.5,editType:"calc"},offsetgroup:i.offsetgroup,alignmentgroup:i.alignmentgroup,selected:{marker:n.selected.marker,editType:"style"},unselected:{marker:n.unselected.marker,editType:"style"},text:l({},n.text,{}),hovertext:l({},n.hovertext,{}),hovertemplate:s({}),hoveron:{valType:"flaglist",flags:["boxes","points"],dflt:"boxes+points",editType:"style"}}},{"../../components/color/attributes":365,"../../lib/extend":493,"../../plots/cartesian/axis_format_attributes":557,"../../plots/template_attributes":633,"../bar/attributes":648,"../scatter/attributes":927}],674:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../plots/cartesian/axes"),a=t("../../plots/cartesian/align_period"),o=t("../../lib"),s=t("../../constants/numerical").BADNUM,l=o._;e.exports=function(t,e){var r,c,y,x,b,_,w,T=t._fullLayout,k=i.getFromId(t,e.xaxis||"x"),A=i.getFromId(t,e.yaxis||"y"),M=[],S="violin"===e.type

?"_numViolins":"_numBoxes";"h"===e.orientation?(y=k,x="x",b=A,_="y",w=!!e.yperiodalignment):(y=A,x="y",b=k,_="x",w=!!e.xperiodalignment);var E,L,C,P,I,O,z=function(t,e,r,i){var s,l=e+"0"in t;if(e in t||l&&"d"+e in t){var c=r.makeCalcdata(t,e);return[a(t,r,e,c).vals,c]}s=l?t[e+"0"]:"name"in t&&("category"===r.type||n(t.name)&&-1!==["linear","log"].indexOf(r.type)||o.isDateTime(t.name)&&"date"===r.type)?t.name:i;for(var u="multicategory"===r.type?r.r2c_just_indices(s):r.d2c(s,0,t[e+"calendar"]),f=t._length,h=new Array(f),p=0;p<f;p++)h[p]=u;return[h]}(e,_,b,T[S]),D=z[0],R=z[1],F=o.distinctVals(D,b),B=F.vals,N=F.minDiff/2,j="all"===(e.boxpoints||e.points)?o.identity:function(t){return t.v<E.lf||t.v>E.uf};if(e._hasPreCompStats){var U=e[x],V=function(t){return y.d2c((e[t]||[])[r])},q=1/0,H=-1/0;for(r=0;r<e._length;r++){var G=D[r];if(n(G)){if((E={}).pos=E[_]=G,w&&R&&(E.orig_p=R[r]),E.q1=V("q1"),E.med=V("median"),E.q3=V("q3"),L=[],U&&o.isArrayOrTypedArray(U[r]))for(c=0;c<U[r].length;c++)(O=y.d2c(U[r][c]))!==s&&(u(I={v:O,i:[r,c]},e,[r,c]),L.push(I));if(E.pts=L.sort(f),P=(C=E[x]=L.map(h)).length,E.med!==s&&E.q1!==s&&E.q3!==s&&E.med>=E.q1&&E.q3>=E.med){var Y=V("lowerfence");E.lf=Y!==s&&Y<=E.q1?Y:p(E,C,P);var W=V("upperfence");E.uf=W!==s&&W>=E.q3?W:d(E,C,P);var X=V("mean");E.mean=X!==s?X:P?o.mean(C,P):(E.q1+E.q3)/2;var Z=V("sd");E.sd=X!==s&&Z>=0?Z:P?o.stdev(C,P,E.mean):E.q3-E.q1,E.lo=g(E),E.uo=v(E);var J=V("notchspan");J=J!==s&&J>0?J:m(E,P),E.ln=E.med-J,E.un=E.med+J;var K=E.lf,Q=E.uf;e.boxpoints&&C.length&&(K=Math.min(K,C[0]),Q=Math.max(Q,C[P-1])),e.notched&&(K=Math.min(K,E.ln),Q=Math.max(Q,E.un)),E.min=K,E.max=Q}else{var $;o.warn(["Invalid input - make sure that q1 <= median <= q3","q1 = "+E.q1,"median = "+E.med,"q3 = "+E.q3].join("\n")),$=E.med!==s?E.med:E.q1!==s?E.q3!==s?(E.q1+E.q3)/2:E.q1:E.q3!==s?E.q3:0,E.med=$,E.q1=E.q3=$,E.lf=E.uf=$,E.mean=E.sd=$,E.ln=E.un=$,E.min=E.max=$}q=Math.min(q,E.min),H=Math.max(H,E.max),E.pts2=L.filter(j),M.push(E)}}e._extremes[y._id]=i.findExtremes(y,[q,H],{padded:!0})}else{var tt=y.makeCalcdata(e,x),et=function(t,e){for(var r=t.length,n=new Array(r+1),i=0;i<r;i++)n[i]=t[i]-e;return n[r]=t[r-1]+e,n}(B,N),rt=B.length,nt=function(t){for(var e=new Array(t),r=0;r<t;r++)e[r]=[];return e}(rt);for(r=0;r<e._length;r++)if(O=tt[r],n(O)){var it=o.findBin(D[r],et);it>=0&&it<rt&&(u(I={v:O,i:r},e,r),nt[it].push(I))}var at=1/0,ot=-1/0,st=e.quartilemethod,lt="exclusive"===st,ct="inclusive"===st;for(r=0;r<rt;r++)if(nt[r].length>0){var ut,ft;(E={}).pos=E[_]=B[r],L=E.pts=nt[r].sort(f),P=(C=E[x]=L.map(h)).length,E.min=C[0],E.max=C[P-1],E.mean=o.mean(C,P),E.sd=o.stdev(C,P,E.mean),E.med=o.interp(C,.5),P%2&&(lt||ct)?(lt?(ut=C.slice(0,P/2),ft=C.slice(P/2+1)):ct&&(ut=C.slice(0,P/2+1),ft=C.slice(P/2)),E.q1=o.interp(ut,.5),E.q3=o.interp(ft,.5)):(E.q1=o.interp(C,.25),E.q3=o.interp(C,.75)),E.lf=p(E,C,P),E.uf=d(E,C,P),E.lo=g(E),E.uo=v(E);var ht=m(E,P);E.ln=E.med-ht,E.un=E.med+ht,at=Math.min(at,E.ln),ot=Math.max(ot,E.un),E.pts2=L.filter(j),M.push(E)}e._extremes[y._id]=i.findExtremes(y,e.notched?tt.concat([at,ot]):tt,{padded:!0})}return function(t,e){if(o.isArrayOrTypedArray(e.selectedpoints))for(var r=0;r<t.length;r++){for(var n=t[r].pts||[],i={},a=0;a<n.length;a++)i[n[a].i]=a;o.tagSelected(n,e,i)}}(M,e),M.length>0?(M[0].t={num:T[S],dPos:N,posLetter:_,valLetter:x,labels:{med:l(t,"median:"),min:l(t,"min:"),q1:l(t,"q1:"),q3:l(t,"q3:"),max:l(t,"max:"),mean:"sd"===e.boxmean?l(t,"mean ± :"):l(t,"mean:"),lf:l(t,"lower fence:"),uf:l(t,"upper fence:")}},T[S]++,M):[{t:{empty:!0}}]};var c={text:"tx",hovertext:"htx"};function u(t,e,r){for(var n in c)o.isArrayOrTypedArray(e[n])&&(Array.isArray(r)?o.isArrayOrTypedArray(e[n][r[0]])&&(t[c[n]]=e[n][r[0]][r[1]]):t[c[n]]=e[n][r])}function f(t,e){return t.v-e.v}function h(t){return t.v}function p(t,e,r){return 0===r?t.q1:Math.min(t.q1,e[Math.min(o.findBin(2.5*t.q1-1.5*t.q3,e,!0)+1,r-1)])}function d(t,e,r){return 0===r?t.q3:Math.max(t.q3,e[Math.max(o.findBin(2.5*t.q3-1.5*t.q1,e),0)])}function g(t){return 4*t.q1-3*t.q3}function v(t){return 4*t.q3-3*t.q1}function m(t,e){return 0===e?0:1.57*(t.q3-t.q1)/Math.sqrt(e)}},{"../../constants/numerical":479,"../../lib":503,"../../plots/cartesian/align_period":551,"../../plots/cartesian/axes":554,"fast-isnumeric":190}],675:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes"),i=t("../../lib"),a=t("../../plots/cartesian/constraints").getAxisGroup,o=["v","h"];function s(t,e,r,o){var s,l,c,u=e.calcdata,f=e._fullLayout,h=o._id,p=h.charAt(0),d=[],g=0;for(s=0;s<r.length;s++)for(c=u[r[s]],l=0;l<c.lengt

h;l++)d.push(o.c2l(c[l].pos,!0)),g+=(c[l].pts2||[]).length;if(d.length){var v=i.distinctVals(d);"category"!==o.type&&"multicategory"!==o.type||(v.minDiff=1);var m=v.minDiff/2;n.minDtick(o,v.minDiff,v.vals[0],!0);var y=f["violin"===t?"_numViolins":"_numBoxes"],x="group"===f[t+"mode"]&&y>1,b=1-f[t+"gap"],_=1-f[t+"groupgap"];for(s=0;s<r.length;s++){var w,T,k,A,M,S,E=(c=u[r[s]])[0].trace,L=c[0].t,C=E.width,P=E.side;if(C)w=T=A=C/2,k=0;else if(w=m,x){var I=a(f,o._id)+E.orientation,O=(f._alignmentOpts[I]||{})[E.alignmentgroup]||{},z=Object.keys(O.offsetGroups||{}).length,D=z||y;T=w*b*_/D,k=2*w*(((z?E._offsetIndex:L.num)+.5)/D-.5)*b,A=w*b/D}else T=w*b*_,k=0,A=w;L.dPos=w,L.bPos=k,L.bdPos=T,L.wHover=A;var R,F,B,N,j,U,V=k+T,q=Boolean(C);if("positive"===P?(M=w*(C?1:.5),R=V,S=R=k):"negative"===P?(M=R=k,S=w*(C?1:.5),F=V):(M=S=w,R=F=V),(E.boxpoints||E.points)&&g>0){var H=E.pointpos,G=E.jitter,Y=E.marker.size/2,W=0;H+G>=0&&((W=V*(H+G))>M?(q=!0,j=Y,B=W):W>R&&(j=Y,B=M)),W<=M&&(B=M);var X=0;H-G<=0&&((X=-V*(H-G))>S?(q=!0,U=Y,N=X):X>F&&(U=Y,N=S)),X<=S&&(N=S)}else B=M,N=S;var Z=new Array(c.length);for(l=0;l<c.length;l++)Z[l]=c[l].pos;E._extremes[h]=n.findExtremes(o,Z,{padded:q,vpadminus:N,vpadplus:B,vpadLinearized:!0,ppadminus:{x:U,y:j}[p],ppadplus:{x:j,y:U}[p]})}}}e.exports={crossTraceCalc:function(t,e){for(var r=t.calcdata,n=e.xaxis,i=e.yaxis,a=0;a<o.length;a++){for(var l=o[a],c="h"===l?i:n,u=[],f=0;f<r.length;f++){var h=r[f],p=h[0].t,d=h[0].trace;!0!==d.visible||"box"!==d.type&&"candlestick"!==d.type||p.empty||(d.orientation||"v")!==l||d.xaxis!==n._id||d.yaxis!==i._id||u.push(f)}s("box",t,u,c)}},setPositionOffset:s}},{"../../lib":503,"../../plots/cartesian/axes":554,"../../plots/cartesian/constraints":562}],676:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../registry"),a=t("../../components/color"),o=t("../scatter/period_defaults"),s=t("../bar/defaults").handleGroupingDefaults,l=t("../../plots/cartesian/axis_autotype"),c=t("./attributes");function u(t,e,r,a){function o(t){var e=0;return t&&t.length&&(e+=1,n.isArrayOrTypedArray(t[0])&&t[0].length&&(e+=1)),e}function s(e){return n.validate(t[e],c[e])}var u,f=r("y"),h=r("x");if("box"===e.type){var p=r("q1"),d=r("median"),g=r("q3");e._hasPreCompStats=p&&p.length&&d&&d.length&&g&&g.length,u=Math.min(n.minRowLength(p),n.minRowLength(d),n.minRowLength(g))}var v,m,y=o(f),x=o(h),b=y&&n.minRowLength(f),_=x&&n.minRowLength(h),w=a.calendar,T={autotypenumbers:a.autotypenumbers};if(e._hasPreCompStats)switch(String(x)+String(y)){case"00":var k=s("x0")||s("dx");v=!s("y0")&&!s("dy")||k?"v":"h",m=u;break;case"10":v="v",m=Math.min(u,_);break;case"20":v="h",m=Math.min(u,h.length);break;case"01":v="h",m=Math.min(u,b);break;case"02":v="v",m=Math.min(u,f.length);break;case"12":v="v",m=Math.min(u,_,f.length);break;case"21":v="h",m=Math.min(u,h.length,b);break;case"11":m=0;break;case"22":var A,M=!1;for(A=0;A<h.length;A++)if("category"===l(h[A],w,T)){M=!0;break}if(M)v="v",m=Math.min(u,_,f.length);else{for(A=0;A<f.length;A++)if("category"===l(f[A],w,T)){M=!0;break}M?(v="h",m=Math.min(u,h.length,b)):(v="v",m=Math.min(u,_,f.length))}}else y>0?(v="v",m=x>0?Math.min(_,b):Math.min(b)):x>0?(v="h",m=Math.min(_)):m=0;if(m){e._length=m;var S=r("orientation",v);e._hasPreCompStats?"v"===S&&0===x?(r("x0",0),r("dx",1)):"h"===S&&0===y&&(r("y0",0),r("dy",1)):"v"===S&&0===x?r("x0"):"h"===S&&0===y&&r("y0"),i.getComponentMethod("calendars","handleTraceDefaults")(t,e,["x","y"],a)}else e.visible=!1}function f(t,e,r,i){var a=i.prefix,o=n.coerce2(t,e,c,"marker.outliercolor"),s=r("marker.line.outliercolor"),l="outliers";e._hasPreCompStats?l="all":(o||s)&&(l="suspectedoutliers");var u=r(a+"points",l);u?(r("jitter","all"===u?.3:0),r("pointpos","all"===u?-1.5:0),r("marker.symbol"),r("marker.opacity"),r("marker.size"),r("marker.color",e.line.color),r("marker.line.color"),r("marker.line.width"),"suspectedoutliers"===u&&(r("marker.line.outliercolor",e.marker.color),r("marker.line.outlierwidth")),r("selected.marker.color"),r("unselected.marker.color"),r("selected.marker.size"),r("unselected.marker.size"),r("text"),r("hovertext")):delete e.marker;var f=r("hoveron");"all"!==f&&-1===f.indexOf("points")||r("hovertemplate"),n.coerceSelectionMarkerOpacity(e,r)}e.exports={supplyDefaults:function(t,e,r,i){function s(r,i){return

n.coerce(t,e,c,r,i)}if(u(t,e,s,i),!1!==e.visible){o(t,e,i,s),s("xhoverformat"),s("yhoverformat");var l=e._hasPreCompStats;l&&(s("lowerfence"),s("upperfence")),s("line.color",(t.marker||{}).color||r),s("line.width"),s("fillcolor",a.addOpacity(e.line.color,.5));var h=!1;if(l){var p=s("mean"),d=s("sd");p&&p.length&&(h=!0,d&&d.length&&(h="sd"))}s("boxmean",h),s("whiskerwidth"),s("width"),s("quartilemethod");var g=!1;if(l){var v=s("notchspan");v&&v.length&&(g=!0)}else n.validate(t.notchwidth,c.notchwidth)&&(g=!0);s("notched",g)&&s("notchwidth"),f(t,e,s,{prefix:"box"})}},crossTraceDefaults:function(t,e){var r,i;function a(t){return n.coerce(i._input,i,c,t)}for(var o=0;o<t.length;o++){var l=(i=t[o]).type;"box"!==l&&"violin"!==l||(r=i._input,"group"===e[l+"mode"]&&s(r,i,e,a))}},handleSampleDefaults:u,handlePointsDefaults:f}},{"../../components/color":366,"../../lib":503,"../../plots/cartesian/axis_autotype":555,"../../registry":638,"../bar/defaults":652,"../scatter/period_defaults":947,"./attributes":673}],677:[function(t,e,r){"use strict";e.exports=function(t,e){return e.hoverOnBox&&(t.hoverOnBox=e.hoverOnBox),"xVal"in e&&(t.x=e.xVal),"yVal"in e&&(t.y=e.yVal),e.xa&&(t.xaxis=e.xa),e.ya&&(t.yaxis=e.ya),t}},{}],678:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes"),i=t("../../lib"),a=t("../../components/fx"),o=t("../../components/color"),s=i.fillText;function l(t,e,r,s){var l,c,u,f,h,p,d,g,v,m,y,x,b,_,w=t.cd,T=t.xa,k=t.ya,A=w[0].trace,M=w[0].t,S="violin"===A.type,E=[],L=M.bdPos,C=M.wHover,P=function(t){return u.c2l(t.pos)+M.bPos-u.c2l(p)};S&&"both"!==A.side?("positive"===A.side&&(v=function(t){var e=P(t);return a.inbox(e,e+C,m)},x=L,b=0),"negative"===A.side&&(v=function(t){var e=P(t);return a.inbox(e-C,e,m)},x=0,b=L)):(v=function(t){var e=P(t);return a.inbox(e-C,e+C,m)},x=b=L),_=S?function(t){return a.inbox(t.span[0]-h,t.span[1]-h,m)}:function(t){return a.inbox(t.min-h,t.max-h,m)},"h"===A.orientation?(h=e,p=r,d=_,g=v,l="y",u=k,c="x",f=T):(h=r,p=e,d=v,g=_,l="x",u=T,c="y",f=k);var I=Math.min(1,L/Math.abs(u.r2c(u.range[1])-u.r2c(u.range[0])));function O(t){return(d(t)+g(t))/2}m=t.maxHoverDistance-I,y=t.maxSpikeDistance-I;var z=a.getDistanceFunction(s,d,g,O);if(a.getClosest(w,z,t),!1===t.index)return[];var D=w[t.index],R=A.line.color,F=(A.marker||{}).color;o.opacity(R)&&A.line.width?t.color=R:o.opacity(F)&&A.boxpoints?t.color=F:t.color=A.fillcolor,t[l+"0"]=u.c2p(D.pos+M.bPos-b,!0),t[l+"1"]=u.c2p(D.pos+M.bPos+x,!0),t[l+"LabelVal"]=void 0!==D.orig_p?D.orig_p:D.pos;var B=l+"Spike";t.spikeDistance=O(D)*y/m,t[B]=u.c2p(D.pos,!0);var N={},j=["med","q1","q3","min","max"];(A.boxmean||(A.meanline||{}).visible)&&j.push("mean"),(A.boxpoints||A.points)&&j.push("lf","uf");for(var U=0;U<j.length;U++){var V=j[U];if(V in D&&!(D[V]in N)){N[D[V]]=!0;var q=D[V],H=f.c2p(q,!0),G=i.extendFlat({},t);G.attr=V,G[c+"0"]=G[c+"1"]=H,G[c+"LabelVal"]=q,G[c+"Label"]=(M.labels?M.labels[V]+" ":"")+n.hoverLabelText(f,q,A[c+"hoverformat"]),G.hoverOnBox=!0,"mean"===V&&"sd"in D&&"sd"===A.boxmean&&(G[c+"err"]=D.sd),t.name="",t.spikeDistance=void 0,t[B]=void 0,G.hovertemplate=!1,E.push(G)}}return E}function c(t,e,r){for(var n,o,l,c=t.cd,u=t.xa,f=t.ya,h=c[0].trace,p=u.c2p(e),d=f.c2p(r),g=a.quadrature((function(t){var e=Math.max(3,t.mrc||0);return Math.max(Math.abs(u.c2p(t.x)-p)-e,1-3/e)}),(function(t){var e=Math.max(3,t.mrc||0);return Math.max(Math.abs(f.c2p(t.y)-d)-e,1-3/e)})),v=!1,m=0;m<c.length;m++){o=c[m];for(var y=0;y<(o.pts||[]).length;y++){var x=g(l=o.pts[y]);x<=t.distance&&(t.distance=x,v=[m,y])}}if(!v)return!1;l=(o=c[v[0]]).pts[v[1]];var b=u.c2p(l.x,!0),_=f.c2p(l.y,!0),w=l.mrc||1;n=i.extendFlat({},t,{index:l.i,color:(h.marker||{}).color,name:h.name,x0:b-w,x1:b+w,y0:_-w,y1:_+w,spikeDistance:t.distance,hovertemplate:h.hovertemplate});var T,k=o.orig_p,A=void 0!==k?k:o.pos;return"h"===h.orientation?(T=f,n.xLabelVal=l.x,n.yLabelVal=A):(T=u,n.xLabelVal=A,n.yLabelVal=l.y),n[T._id.charAt(0)+"Spike"]=T.c2p(o.pos,!0),s(l,h,n),n}e.exports={hoverPoints:function(t,e,r,n){var i,a=t.cd[0].trace.hoveron,o=[];return-1!==a.indexOf("boxes")&&(o=o.concat(l(t,e,r,n))),-1!==a.indexOf("points")&&(i=c(t,e,r)),"closest"===n?i?[i]:o:i?(o.push(i),o):o},hoverOnBoxes:l,hoverOnPoints:c}},{"../../components/color":366,"../../components/fx":406,"../../lib":503,"../../plots/cartesian/axes":554}],679:[function(t,e,r){"use

strict";e.exports={attributes:t("./attributes"),layoutAttributes:t("./layout_attributes"),supplyDefaults:t("./defaults").supplyDefaults,crossTraceDefaults:t("./defaults").crossTraceDefaults,supplyLayoutDefaults:t("./layout_defaults").supplyLayoutDefaults,calc:t("./calc"),crossTraceCalc:t("./cross_trace_calc").crossTraceCalc,plot:t("./plot").plot,style:t("./style").style,styleOnSelect:t("./style").styleOnSelect,hoverPoints:t("./hover").hoverPoints,eventData:t("./event_data"),selectPoints:t("./select"),moduleType:"trace",name:"box",basePlotModule:t("../../plots/cartesian"),categories:["cartesian","svg","symbols","oriented","box-violin","showLegend","boxLayout","zoomScale"],meta:{}}},{"../../plots/cartesian":568,"./attributes":673,"./calc":674,"./cross_trace_calc":675,"./defaults":676,"./event_data":677,"./hover":678,"./layout_attributes":680,"./layout_defaults":681,"./plot":682,"./select":683,"./style":684}],680:[function(t,e,r){"use strict";e.exports={boxmode:{valType:"enumerated",values:["group","overlay"],dflt:"overlay",editType:"calc"},boxgap:{valType:"number",min:0,max:1,dflt:.3,editType:"calc"},boxgroupgap:{valType:"number",min:0,max:1,dflt:.3,editType:"calc"}}},{}],681:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../lib"),a=t("./layout_attributes");function o(t,e,r,i,a){for(var o=a+"Layout",s=!1,l=0;l<r.length;l++){var c=r[l];if(n.traceIs(c,o)){s=!0;break}}s&&(i(a+"mode"),i(a+"gap"),i(a+"groupgap"))}e.exports={supplyLayoutDefaults:function(t,e,r){o(0,0,r,(function(r,n){return i.coerce(t,e,a,r,n)}),"box")},_supply:o}},{"../../lib":503,"../../registry":638,"./layout_attributes":680}],682:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../lib"),a=t("../../components/drawing");function o(t,e,r,a){var o,s,l="h"===r.orientation,c=e.val,u=e.pos,f=!!u.rangebreaks,h=a.bPos,p=a.wdPos||0,d=a.bPosPxOffset||0,g=r.whiskerwidth||0,v=r.notched||!1,m=v?1-2*r.notchwidth:1;Array.isArray(a.bdPos)?(o=a.bdPos[0],s=a.bdPos[1]):(o=a.bdPos,s=a.bdPos);var y=t.selectAll("path.box").data("violin"!==r.type||r.box.visible?i.identity:[]);y.enter().append("path").style("vector-effect","non-scaling-stroke").attr("class","box"),y.exit().remove(),y.each((function(t){if(t.empty)return"M0,0Z";var e=u.c2l(t.pos+h,!0),a=u.l2p(e-o)+d,y=u.l2p(e+s)+d,x=f?(a+y)/2:u.l2p(e)+d,b=r.whiskerwidth,_=f?a*b+(1-b)*x:u.l2p(e-p)+d,w=f?y*b+(1-b)*x:u.l2p(e+p)+d,T=u.l2p(e-o*m)+d,k=u.l2p(e+s*m)+d,A=c.c2p(t.q1,!0),M=c.c2p(t.q3,!0),S=i.constrain(c.c2p(t.med,!0),Math.min(A,M)+1,Math.max(A,M)-1),E=void 0===t.lf||!1===r.boxpoints,L=c.c2p(E?t.min:t.lf,!0),C=c.c2p(E?t.max:t.uf,!0),P=c.c2p(t.ln,!0),I=c.c2p(t.un,!0);l?n.select(this).attr("d","M"+S+","+T+"V"+k+"M"+A+","+a+"V"+y+(v?"H"+P+"L"+S+","+k+"L"+I+","+y:"")+"H"+M+"V"+a+(v?"H"+I+"L"+S+","+T+"L"+P+","+a:"")+"ZM"+A+","+x+"H"+L+"M"+M+","+x+"H"+C+(0===g?"":"M"+L+","+_+"V"+w+"M"+C+","+_+"V"+w)):n.select(this).attr("d","M"+T+","+S+"H"+k+"M"+a+","+A+"H"+y+(v?"V"+P+"L"+k+","+S+"L"+y+","+I:"")+"V"+M+"H"+a+(v?"V"+I+"L"+T+","+S+"L"+a+","+P:"")+"ZM"+x+","+A+"V"+L+"M"+x+","+M+"V"+C+(0===g?"":"M"+_+","+L+"H"+w+"M"+_+","+C+"H"+w))}))}function s(t,e,r,n){var o=e.x,s=e.y,l=n.bdPos,c=n.bPos,u=r.boxpoints||r.points;i.seedPseudoRandom();var f=t.selectAll("g.points").data(u?function(t){return t.forEach((function(t){t.t=n,t.trace=r})),t}:[]);f.enter().append("g").attr("class","points"),f.exit().remove();var h=f.selectAll("path").data((function(t){var e,n,a=t.pts2,o=Math.max((t.max-t.min)/10,t.q3-t.q1),s=1e-9*o,f=.01*o,h=[],p=0;if(r.jitter){if(0===o)for(p=1,h=new Array(a.length),e=0;e<a.length;e++)h[e]=1;else for(e=0;e<a.length;e++){var d=Math.max(0,e-5),g=a[d].v,v=Math.min(a.length-1,e+5),m=a[v].v;"all"!==u&&(a[e].v<t.lf?m=Math.min(m,t.lf):g=Math.max(g,t.uf));var y=Math.sqrt(f*(v-d)/(m-g+s))||0;y=i.constrain(Math.abs(y),0,1),h.push(y),p=Math.max(y,p)}n=2*r.jitter/(p||1)}for(e=0;e<a.length;e++){var x=a[e],b=x.v,_=r.jitter?n*h[e]*(i.pseudoRandom()-.5):0,w=t.pos+c+l*(r.pointpos+_);"h"===r.orientation?(x.y=w,x.x=b):(x.x=w,x.y=b),"suspectedoutliers"===u&&b<t.uo&&b>t.lo&&(x.so=!0)}return a}));h.enter().append("path").classed("point",!0),h.exit().remove(),h.call(a.translatePoints,o,s)}function l(t,e,r,a){var o,s,l=e.val,c=e.pos,u=!!c.rangebreaks,f=a.bPos,h=a.bPosPxOffset||0,p=r.boxmean||(r.meanline||{}).visible;Array.isArray(a.bdPos)?(o=a.bdPos[0],s=a.bdPos[1]):(o=a.bdPos,s=a.bdPos);var d=t.selectAll("path.mean").data("box"===r.type&&r.boxmean||"violin"===r.type&&r.box.visible&&r.meanline.visi

ble?i.identity:[]);d.enter().append("path").attr("class","mean").style({fill:"none","vector-effect":"non-scaling-stroke"}),d.exit().remove(),d.each((function(t){var e=c.c2l(t.pos+f,!0),i=c.l2p(e-o)+h,a=c.l2p(e+s)+h,d=u?(i+a)/2:c.l2p(e)+h,g=l.c2p(t.mean,!0),v=l.c2p(t.mean-t.sd,!0),m=l.c2p(t.mean+t.sd,!0);"h"===r.orientation?n.select(this).attr("d","M"+g+","+i+"V"+a+("sd"===p?"m0,0L"+v+","+d+"L"+g+","+i+"L"+m+","+d+"Z":"")):n.select(this).attr("d","M"+i+","+g+"H"+a+("sd"===p?"m0,0L"+d+","+v+"L"+i+","+g+"L"+d+","+m+"Z":""))}))}e.exports={plot:function(t,e,r,a){var c=e.xaxis,u=e.yaxis;i.makeTraceGroups(a,r,"trace boxes").each((function(t){var e,r,i=n.select(this),a=t[0],f=a.t,h=a.trace;f.wdPos=f.bdPos*h.whiskerwidth,!0!==h.visible||f.empty?i.remove():("h"===h.orientation?(e=u,r=c):(e=c,r=u),o(i,{pos:e,val:r},h,f),s(i,{x:c,y:u},h,f),l(i,{pos:e,val:r},h,f))}))},plotBoxAndWhiskers:o,plotPoints:s,plotBoxMean:l}},{"../../components/drawing":388,"../../lib":503,"@plotly/d3":58}],683:[function(t,e,r){"use strict";e.exports=function(t,e){var r,n,i=t.cd,a=t.xaxis,o=t.yaxis,s=[];if(!1===e)for(r=0;r<i.length;r++)for(n=0;n<(i[r].pts||[]).length;n++)i[r].pts[n].selected=0;else for(r=0;r<i.length;r++)for(n=0;n<(i[r].pts||[]).length;n++){var l=i[r].pts[n],c=a.c2p(l.x),u=o.c2p(l.y);e.contains([c,u],null,l.i,t)?(s.push({pointNumber:l.i,x:a.c2d(l.x),y:o.c2d(l.y)}),l.selected=1):l.selected=0}return s}},{}],684:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../components/color"),a=t("../../components/drawing");e.exports={style:function(t,e,r){var o=r||n.select(t).selectAll("g.trace.boxes");o.style("opacity",(function(t){return t[0].trace.opacity})),o.each((function(e){var r=n.select(this),o=e[0].trace,s=o.line.width;function l(t,e,r,n){t.style("stroke-width",e+"px").call(i.stroke,r).call(i.fill,n)}var c=r.selectAll("path.box");if("candlestick"===o.type)c.each((function(t){if(!t.empty){var e=n.select(this),r=o[t.dir];l(e,r.line.width,r.line.color,r.fillcolor),e.style("opacity",o.selectedpoints&&!t.selected?.3:1)}}));else{l(c,s,o.line.color,o.fillcolor),r.selectAll("path.mean").style({"stroke-width":s,"stroke-dasharray":2*s+"px,"+s+"px"}).call(i.stroke,o.line.color);var u=r.selectAll("path.point");a.pointStyle(u,o,t)}}))},styleOnSelect:function(t,e,r){var n=e[0].trace,i=r.selectAll("path.point");n.selectedpoints?a.selectedPointStyle(i,n):a.pointStyle(i,n,t)}}},{"../../components/color":366,"../../components/drawing":388,"@plotly/d3":58}],685:[function(t,e,r){"use strict";var n=t("../../lib").extendFlat,i=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,a=t("../ohlc/attributes"),o=t("../box/attributes");function s(t){return{line:{color:n({},o.line.color,{dflt:t}),width:o.line.width,editType:"style"},fillcolor:o.fillcolor,editType:"style"}}e.exports={xperiod:a.xperiod,xperiod0:a.xperiod0,xperiodalignment:a.xperiodalignment,xhoverformat:i("x"),yhoverformat:i("y"),x:a.x,open:a.open,high:a.high,low:a.low,close:a.close,line:{width:n({},o.line.width,{}),editType:"style"},increasing:s(a.increasing.line.color.dflt),decreasing:s(a.decreasing.line.color.dflt),text:a.text,hovertext:a.hovertext,whiskerwidth:n({},o.whiskerwidth,{dflt:0}),hoverlabel:a.hoverlabel}},{"../../lib":503,"../../plots/cartesian/axis_format_attributes":557,"../box/attributes":673,"../ohlc/attributes":872}],686:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plots/cartesian/axes"),a=t("../../plots/cartesian/align_period"),o=t("../ohlc/calc").calcCommon;function s(t,e,r,n){return{min:r,q1:Math.min(t,n),med:n,q3:Math.max(t,n),max:e}}e.exports=function(t,e){var r=t._fullLayout,l=i.getFromId(t,e.xaxis),c=i.getFromId(t,e.yaxis),u=l.makeCalcdata(e,"x"),f=a(e,l,"x",u).vals,h=o(t,e,u,f,c,s);return h.length?(n.extendFlat(h[0].t,{num:r._numBoxes,dPos:n.distinctVals(f).minDiff/2,posLetter:"x",valLetter:"y"}),r._numBoxes++,h):[{t:{empty:!0}}]}},{"../../lib":503,"../../plots/cartesian/align_period":551,"../../plots/cartesian/axes":554,"../ohlc/calc":873}],687:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../components/color"),a=t("../ohlc/ohlc_defaults"),o=t("../scatter/period_defaults"),s=t("./attributes");function l(t,e,r,n){var a=r(n+".line.color");r(n+".line.width",e.line.width),r(n+".fillcolor",i.addOpacity(a,.5))}e.exports=function(t,e,r,i){function c(r,i){return n.coerce(t,e,s,r,i)}a(t,e,c,i)?(o(t,e,i,c,{x:!0}),c("xhoverformat"),c("yhoverformat"),c("line.width"),l(0,e,c,"increasing"),l(0,e,c,"decreasing"),c("text"),c("hovertext"),c("whiskerwidth"),i._requestRangeslider[e.xaxis]=!0):e.visible=!1}},{"../../components/color":366,"../../lib":503,"../ohlc/ohlc_defaults":877,"../scatter/period_defaults":947,"./attributes"

:685}],688:[function(t,e,r){"use
strict";e.exports={moduleType:"trace",name:"candlestick",basePlotModule:t("../../plots/cartesian"),categories:["cart
esian","svg","showLegend","candlestick","boxLayout"],meta:{},attributes:t("./attributes"),layoutAttributes:t("../box/
layout_attributes"),supplyLayoutDefaults:t("../box/layout_defaults").supplyLayoutDefaults,crossTraceCalc:t("../box/
cross_trace_calc").crossTraceCalc,supplyDefaults:t("./defaults"),calc:t("./calc"),plot:t("../box/plot").plot,layerName:
"boxlayer",style:t("../box/style").style,hoverPoints:t("../ohlc/hover").hoverPoints,selectPoints:t("../ohlc/select")}},{".
./../plots/cartesian":568,"../box/cross_trace_calc":675,"../box/layout_attributes":680,"../box/layout_defaults":681,"../
box/plot":682,"../box/style":684,"../ohlc/hover":875,"../ohlc/select":879,"./attributes":685,"./calc":686,"./defaults":68
7}],689:[function(t,e,r){"use strict";var
n=t("./axis_defaults"),i=t("../../plot_api/plot_template");e.exports=function(t,e,r,a,o){a("a")||(a("da"),a("a0")),a("b")||
(a("db"),a("b0")),function(t,e,r,a){["aaxis","baxis"].forEach((function(o){var
s=o.charAt(0),l=t[o]||{},c=i.newContainer(e,o),u={noTicklabelstep:!0,tickfont:"x",id:s+"axis",letter:s,font:e.font,na
me:o,data:t[s],calendar:e.calendar,dfltColor:a,bgColor:r.paper_bgcolor,autotypenumbersDflt:r.autotypenumbers,full
Layout:r};n(l,c,u),c._categories=c._categories||[],t[o]||"-
"===l.type||(t[o]={type:l.type})}))}(t,e,r,o)}},{"../../plot_api/plot_template":543,"./axis_defaults":694}],690:[functio
n(t,e,r){"use strict";var n=t("../../lib").isArrayOrTypedArray;function i(t,e){if(!n(t)||e>=10)return null;for(var
r=1/0,a=-1/0,o=t.length,s=0;s<o;s++){var l=t[s];if(n(l)){var
c=i(l,e+1);c&&(r=Math.min(c[0],r),a=Math.max(c[1],a))}else
r=Math.min(l,r),a=Math.max(l,a)}return[r,a]}e.exports=function(t){return
i(t,0)}},{"../../lib":503}],691:[function(t,e,r){"use strict";var
n=t("../../plots/font_attributes"),i=t("./axis_attributes"),a=t("../../components/color/attributes"),o=n({editType:"calc"}
);o.family.dflt='"Open Sans", verdana, arial, sans-
serif',o.size.dflt=12,o.color.dflt=a.defaultLine,e.exports={carpet:{valType:"string",editType:"calc"},x:{valType:"dat
a_array",editType:"calc+clearAxisTypes"},y:{valType:"data_array",editType:"calc+clearAxisTypes"},a:{valType:"
data_array",editType:"calc"},a0:{valType:"number",dflt:0,editType:"calc"},da:{valType:"number",dflt:1,editType:"
calc"},b:{valType:"data_array",editType:"calc"},b0:{valType:"number",dflt:0,editType:"calc"},db:{valType:"numb
er",dflt:1,editType:"calc"},cheaterslope:{valType:"number",dflt:1,editType:"calc"},aaxis:i,baxis:i,font:o,color:{valT
ype:"color",dflt:a.defaultLine,editType:"plot"},transforms:void
0}},{"../../components/color/attributes":365,"../../plots/font_attributes":585,"./axis_attributes":693}],692:[function(t,
e,r){"use strict";var n=t("../../lib").isArrayOrTypedArray;e.exports=function(t,e,r,i){var
a,o,s,l,c,u,f,h,p,d,g,v,m,y=n(r)?"a":"b",x=("a"===y?t.aaxis:t.baxis).smoothing,b="a"===y?t.a2i:t.b2j,_="a"===y?r:i,
w="a"===y?i:r,T="a"===y?e.a.length:e.b.length,k="a"===y?e.b.length:e.a.length,A=Math.floor("a"===y?t.b2j(w):t
.a2i(w)),M="a"===y?function(e){return t.evalxy([],e,A)}:function(e){return
t.evalxy([],A,e)};x&&(s=Math.max(0,Math.min(k-2,A)),l=A-s,o="a"===y?function(e,r){return
t.dxydi([],e,s,r,l)}:function(e,r){return t.dxydj([],s,e,l,r)});var S=b(_[0]),E=b(_[1]),L=S<E?1:-1,C=1e-8*(E-
S),P=L>0?Math.floor:Math.ceil,I=L>0?Math.ceil:Math.floor,O=L>0?Math.min:Math.max,z=L>0?Math.max:Math.
min,D=P(S+C),R=I(E-C),F=[[f=M(S)]];for(a=D;a*L<R*L;a+=L)c=[],g=z(S,a),m=(v=O(E,a+L))-
g,u=Math.max(0,Math.min(T-2,Math.floor(.5*(g+v)))),h=M(v),x&&(p=o(u,g-u),d=o(u,v-
u),c.push([f[0]+p[0]/3*m,f[1]+p[1]/3*m]),c.push([h[0]-d[0]/3*m,h[1]-d[1]/3*m])),c.push(h),F.push(c),f=h;return
F}},{"../../lib":503}],693:[function(t,e,r){"use strict";var
n=t("../../plots/font_attributes"),i=t("../../components/color/attributes"),a=t("../../plots/cartesian/layout_attributes"),o=
t("../../plots/cartesian/axis_format_attributes").descriptionWithDates,s=t("../../plot_api/edit_types").overrideAll,l=t("
./../components/drawing/attributes").dash,c=t("../../lib/extend").extendFlat;e.exports={color:{valType:"color",editTy
pe:"calc"},smoothing:{valType:"number",dflt:1,min:0,max:1.3,editType:"calc"},title:{text:{valType:"string",dflt:"",
editType:"calc"},font:n({editType:"calc"}),offset:{valType:"number",dflt:10,editType:"calc"},editType:"calc"},typ
e:{valType:"enumerated",values:["-","linear","date","category"],dflt:"-
",editType:"calc"},autotypenumbers:a.autotypenumbers,autorange:{valType:"enumerated",values:[!0,!1,"reversed"],
dflt:!0,editType:"calc"},rangemode:{valType:"enumerated",values:["normal","tozero","nonnegative"],dflt:"normal",

editType:"calc"},range:{valType:"info_array",editType:"calc",items:[{valType:"any",editType:"calc"},{valType:"any",editType:"calc"}]},fixedrange:{valType:"boolean",dflt:!1,editType:"calc"},cheatertype:{valType:"enumerated",values:["index","value"],dflt:"value",editType:"calc"},tickmode:{valType:"enumerated",values:["linear","array"],dflt:"array",editType:"calc"},nticks:{valType:"integer",min:0,dflt:0,editType:"calc"},tickvals:{valType:"data_array",editType:"calc"},ticktext:{valType:"data_array",editType:"calc"},showticklabels:{valType:"enumerated",values:["start","end","both","none"],dflt:"start",editType:"calc"},tickfont:n({editType:"calc"}),tickangle:{valType:"angle",dflt:"auto",editType:"calc"},tickprefix:{valType:"string",dflt:"",editType:"calc"},showtickprefix:{valType:"enumerated",values:["all","first","last","none"],dflt:"all",editType:"calc"},ticksuffix:{valType:"string",dflt:"",editType:"calc"},showticksuffix:{valType:"enumerated",values:["all","first","last","none"],dflt:"all",editType:"calc"},showexponent:{valType:"enumerated",values:["all","first","last","none"],dflt:"all",editType:"calc"},exponentformat:{valType:"enumerated",values:["none","e","E","power","SI","B"],dflt:"B",editType:"calc"},minexponent:{valType:"number",dflt:3,min:0,editType:"calc"},separatethousands:{valType:"boolean",dflt:!1,editType:"calc"},tickformat:{valType:"string",dflt:"",editType:"calc",description:o("tick label")},tickformatstops:s(a.tickformatstops,"calc","from-root"),categoryorder:{valType:"enumerated",values:["trace","category ascending","category descending","array"],dflt:"trace",editType:"calc"},categoryarray:{valType:"data_array",editType:"calc"},labelpadding:{valType:"integer",dflt:10,editType:"calc"},labelprefix:{valType:"string",editType:"calc"},labelsuffix:{valType:"string",dflt:"",editType:"calc"},showline:{valType:"boolean",dflt:!1,editType:"calc"},linecolor:{valType:"color",dflt:i.defaultLine,editType:"calc"},linewidth:{valType:"number",min:0,dflt:1,editType:"calc"},gridcolor:{valType:"color",editType:"calc"},gridwidth:{valType:"number",min:0,dflt:1,editType:"calc"},griddash:c({},l,{editType:"calc"}),showgrid:{valType:"boolean",dflt:!0,editType:"calc"},minorgridcount:{valType:"integer",min:0,dflt:0,editType:"calc"},minorgridwidth:{valType:"number",min:0,dflt:1,editType:"calc"},minorgriddash:c({},l,{editType:"calc"}),minorgridcolor:{valType:"color",dflt:i.lightLine,editType:"calc"},startline:{valType:"boolean",editType:"calc"},startlinecolor:{valType:"color",editType:"calc"},startlinewidth:{valType:"number",dflt:1,editType:"calc"},endline:{valType:"boolean",editType:"calc"},endlinewidth:{valType:"number",dflt:1,editType:"calc"},endlinecolor:{valType:"color",editType:"calc"},tick0:{valType:"number",min:0,dflt:0,editType:"calc"},dtick:{valType:"number",min:0,dflt:1,editType:"calc"},arraytick0:{valType:"integer",min:0,dflt:0,editType:"calc"},arraydtick:{valType:"integer",min:1,dflt:1,editType:"calc"},_deprecated:{title:{valType:"string",editType:"calc"},titlefont:n({editType:"calc"}),titleoffset:{valType:"number",dflt:10,editType:"calc"}},editType:"calc"}},{"../../components/color/attributes":365,"../../components/drawing/attributes":387,"../../lib/extend":493,"../../plot_api/edit_types":536,"../../plots/cartesian/axis_format_attributes":557,"../../plots/cartesian/layout_attributes":569,"../../plots/font_attributes":585}],694:[function(t,e,r){"use strict";var
n=t("./attributes"),i=t("../../components/color").addOpacity,a=t("../../registry"),o=t("../../lib"),s=t("../../plots/cartesian/tick_value_defaults"),l=t("../../plots/cartesian/tick_label_defaults"),c=t("../../plots/cartesian/prefix_suffix_defaults"),u=t("../../plots/cartesian/category_order_defaults"),f=t("../../plots/cartesian/set_convert"),h=t("../../plots/cartesian/axis_autotype");e.exports=function(t,e,r){var p=r.letter,d=r.font||{},g=n[p+"axis"];function v(r,n){return
o.coerce(t,e,g,r,n)}function m(r,n){return
o.coerce2(t,e,g,r,n)}r.name&&(e._name=r.name,e._id=r.name),v("autotypenumbers",r.autotypenumbersDflt);var
y=v("type");"-"===y&&(r.data&&function(t,e){if("-"===t.type){var
r=t[t._id.charAt(0)+"calendar"];t.type=h(e,r,{autotypenumbers:t.autotypenumbers})}}(e,r.data),"-"===e.type?e.type="linear":y=t.type=e.type),v("smoothing"),v("cheatertype"),v("showticklabels"),v("labelprefix",p+" =
"),v("labelsuffix"),v("showtickprefix"),v("showticksuffix"),v("separatethousands"),v("tickformat"),v("exponentformat"),v("minexponent"),v("showexponent"),v("categoryorder"),v("tickmode"),v("tickvals"),v("ticktext"),v("tick0"),v("dtick"),"array"===e.tickmode&&(v("arraytick0"),v("arraydtick")),v("labelpadding"),e._hovertitle=p,"date"===y&&a.getComponentMethod("calendars","handleDefaults")(t,e,"calendar",r.calendar),f(e,r.fullLayout),e.c2p=o.identity;var
x=v("color",r.dfltColor),b=x===t.color?x:d.color;v("title.text")&&(o.coerceFont(v,"title.font",{family:d.family,size:o.bigFont(d.size),color:b}),v("title.offset")),v("tickangle"),v("autorange",!e.isValidRange(t.range))&&v("rangemod

e"),v("range"),e.cleanRange(),v("fixedrange"),s(t,e,v,y),c(t,e,v,y,r),l(t,e,v,y,r),u(t,e,v,{data:r.data,dataAttr:p});var _=m("gridcolor",i(x,.3)),w=m("gridwidth"),T=m("griddash"),k=v("showgrid");k||(delete e.gridcolor,delete e.gridwidth,delete e.griddash);var A=m("startlinecolor",x),M=m("startlinewidth",w);v("startline",e.showgrid||!!A||!!M)||(delete e.startlinecolor,delete e.startlinewidth);var S=m("endlinecolor",x),E=m("endlinewidth",w);return v("endline",e.showgrid||!!S||!!E)||(delete e.endlinecolor,delete e.endlinewidth),k?(v("minorgridcount"),v("minorgridwidth",w),v("minorgriddash",T),v("minorgridcolor",i(_,.06)),e.minorgridcount||(delete e.minorgridwidth,delete e.minorgriddash,delete e.minorgridcolor)):(delete e.gridcolor,delete e.gridwidth,delete e.griddash),"none"===e.showticklabels&&(delete e.tickfont,delete e.tickangle,delete e.showexponent,delete e.exponentformat,delete e.minexponent,delete e.tickformat,delete e.showticksuffix,delete e.showtickprefix),e.showticksuffix||delete e.ticksuffix,e.showtickprefix||delete e.tickprefix,v("tickmode"),e}},{"../../components/color":366,"../../lib":503,"../../plots/cartesian/axis_autotype":555,"../../plots/cartesian/category_order_defaults":559,"../../plots/cartesian/prefix_suffix_defaults":573,"../../plots/cartesian/set_convert":576,"../../plots/cartesian/tick_label_defaults":578,"../../plots/cartesian/tick_value_defaults":580,"../../registry":638,"./attributes":691}],695:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes"),i=t("../../lib").isArray1D,a=t("./cheater_basis"),o=t("./array_minmax"),s=t("./calc_gridlines"),l=t("./calc_labels"),c=t("./calc_clippath"),u=t("../heatmap/clean_2d_array"),f=t("./smooth_fill_2d_array"),h=t("../heatmap/convert_column_xyz"),p=t("./set_convert");e.exports=function(t,e){var r=n.getFromId(t,e.xaxis),d=n.getFromId(t,e.yaxis),g=e.aaxis,v=e.baxis,m=e.x,y=e.y,x=[];m&&i(m)&&x.push("x"),y&&i(y)&&x.push("y"),x.length&&h(e,g,v,"a","b",x);var b=e._a=e._a||e.a,_=e._b=e._b||e.b;m=e._x||e.x,y=e._y||e.y;var w={};if(e._cheater){var T="index"===g.cheatertype?b.length:b,k="index"===v.cheatertype?_.length:_;m=a(T,k,e.cheaterslope)}e._x=m=u(m),e._y=y=u(y),f(m,b,_),f(y,b,_),p(e),e.setScale();var A=o(m),M=o(y),S=.5*(A[1]-A[0]),E=.5*(A[1]+A[0]),L=.5*(M[1]-M[0]),C=.5*(M[1]+M[0]),P=1.3;return A=[E-S*P,E+S*P],M=[C-L*P,C+L*P],e._extremes[r._id]=n.findExtremes(r,A,{padded:!0}),e._extremes[d._id]=n.findExtremes(d,M,{padded:!0}),s(e,"a","b"),s(e,"b","a"),l(e,g),l(e,v),w.clipsegments=c(e._xctrl,e._yctrl,g,v),w.x=m,w.y=y,w.a=b,w.b=_,[w]}},{"../../lib":503,"../../plots/cartesian/axes":554,"../heatmap/clean_2d_array":794,"../heatmap/convert_column_xyz":796,"./array_minmax":690,"./calc_clippath":696,"./calc_gridlines":697,"./calc_labels":698,"./cheater_basis":700,"./set_convert":713,"./smooth_fill_2d_array":714}],696:[function(t,e,r){"use strict";e.exports=function(t,e,r,n){var i,a,o,s=[],l=!!r.smoothing,c=!!n.smoothing,u=t[0].length-1,f=t.length-1;for(i=0,a=[],o=[];i<=u;i++)a[i]=t[0][i],o[i]=e[0][i];for(s.push({x:a,y:o,bicubic:l}),i=0,a=[],o=[];i<=f;i++)a[i]=t[i][u],o[i]=e[i][u];for(s.push({x:a,y:o,bicubic:c}),i=u,a=[],o=[];i>=0;i--)a[u-i]=t[f][i],o[u-i]=e[f][i];for(s.push({x:a,y:o,bicubic:l}),i=f,a=[],o=[];i>=0;i--)a[f-i]=t[i][0],o[f-i]=e[i][0];return s.push({x:a,y:o,bicubic:c}),s}},{}],697:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes"),i=t("../../lib/extend").extendFlat;e.exports=function(t,e,r){var a,o,s,l,c,u,f,h,p,d,g,v,m,y,x=t["_"+e],b=t[e+"axis"],_=b._gridlines=[],w=b._minorgridlines=[],T=b._boundarylines=[],k=t["_"+r],A=t[r+"axis"];"array"===b.tickmode&&(b.tickvals=x.slice());var M=t._xctrl,S=t._yctrl,E=M[0].length,L=M.length,C=t._a.length,P=t._b.length;n.prepTicks(b),"array"===b.tickmode&&delete b.tickvals;var I=b.smoothing?3:1;function O(n){var i,a,o,s,l,c,u,f,p,d,g,v,m=[],y=[],x={};if("b"===e)for(a=t.b2j(n),o=Math.floor(Math.max(0,Math.min(P-2,a))),s=a-o,x.length=P,x.crossLength=C,x.xy=function(e){return t.evalxy([],e,a)},x.dxy=function(e,r){return t.dxydi([],e,o,r,s)},i=0;i<C;i++)c=Math.min(C-2,i),u=i-c,f=t.evalxy([],i,a),A.smoothing&&i>0&&(p=t.dxydi([],i-1,o,0,s),m.push(l[0]+p[0]/3),y.push(l[1]+p[1]/3),d=t.dxydi([],i-1,o,1,s),m.push(f[0]-d[0]/3),y.push(f[1]-d[1]/3)),m.push(f[0]),y.push(f[1]),l=f;else for(i=t.a2i(n),c=Math.floor(Math.max(0,Math.min(C-2,i))),u=i-c,x.length=C,x.crossLength=P,x.xy=function(e){return t.evalxy([],i,e)},x.dxy=function(e,r){return t.dxydj([],c,e,u,r)},a=0;a<P;a++)o=Math.min(P-2,a),s=a-o,f=t.evalxy([],i,a),A.smoothing&&a>0&&(g=t.dxydj([],c,a-1,u,0),m.push(l[0]+g[0]/3),y.push(l[1]+g[1]/3),v=t.dxydj([],c,a-1,u,1),m.push(f[0]-v[0]/3),y.push(f[1]-

v[1]/3)),m.push(f[0]),y.push(f[1]),l=f;return
x.axisLetter=e,x.axis=b,x.crossAxis=A,x.value=n,x.constvar=r,x.index=h,x.x=m,x.y=y,x.smoothing=A.smoothing,x
}function z(n){var
i,a,o,s,l,c=[],u=[],f={};if(f.length=x.length,f.crossLength=k.length,"b"===e)for(o=Math.max(0,Math.min(P-
2,n)),l=Math.min(1,Math.max(0,n-o)),f.xy=function(e){return t.evalxy([],e,n)},f.dxy=function(e,r){return
t.dxydi([],e,o,r,l)},i=0;i<E;i++)c[i]=M[n*I][i],u[i]=S[n*I][i];else for(a=Math.max(0,Math.min(C-
2,n)),s=Math.min(1,Math.max(0,n-a)),f.xy=function(e){return t.evalxy([],n,e)},f.dxy=function(e,r){return
t.dxydj([],a,e,s,r)},i=0;i<L;i++)c[i]=M[i][n*I],u[i]=S[i][n*I];return
f.axisLetter=e,f.axis=b,f.crossAxis=A,f.value=x[n],f.constvar=r,f.index=n,f.x=c,f.y=u,f.smoothing=A.smoothing,f}i
f("array"===b.tickmode){for(l=5e-15,u=(c=[Math.floor((x.length-1-b.arraytick0)/b.arraydtick*(1+l)),Math.ceil(-
b.arraytick0/b.arraydtick/(1+l))].sort((function(t,e){return t-e})))[0]-
1,f=c[1]+1,h=u;h<f;h++)(o=b.arraytick0+b.arraydtick*h)<0||o>x.length-
1||_.push(i(z(o),{color:b.gridcolor,width:b.gridwidth,dash:b.griddash}));for(h=u;h<f;h++)if(s=b.arraytick0+b.arrayd
tick*h,g=Math.min(s+b.arraydtick,x.length-1),!(s<0||s>x.length-1||g<0||g>x.length-
1))for(v=x[s],m=x[g],a=0;a<b.minorgridcount;a++)(y=g-s)<=0||(d=v+(m-
v)*(a+1)/(b.minorgridcount+1)*(b.arraydtick/y))<x[0]||d>x[x.length-
1]||w.push(i(O(d),{color:b.minorgridcolor,width:b.minorgridwidth,dash:b.minorgriddash}));b.startline&&T.push(i(z
(0),{color:b.startlinecolor,width:b.startlinewidth})),b.endline&&T.push(i(z(x.length-
1),{color:b.endlinecolor,width:b.endlinewidth}))}else{for(l=5e-15,u=(c=[Math.floor((x[x.length-1]-
b.tick0)/b.dtick*(1+l)),Math.ceil((x[0]-b.tick0)/b.dtick/(1+l))].sort((function(t,e){return t-
e})))[0],f=c[1],h=u;h<=f;h++)p=b.tick0+b.dtick*h,_.push(i(O(p),{color:b.gridcolor,width:b.gridwidth,dash:b.gridda
sh}));for(h=u-
1;h<f+1;h++)for(p=b.tick0+b.dtick*h,a=0;a<b.minorgridcount;a++)(d=p+b.dtick*(a+1)/(b.minorgridcount+1))<x[0]
||d>x[x.length-
1]||w.push(i(O(d),{color:b.minorgridcolor,width:b.minorgridwidth,dash:b.minorgriddash}));b.startline&&T.push(i(
O(x[0]),{color:b.startlinecolor,width:b.startlinewidth})),b.endline&&T.push(i(O(x[x.length-
1]),{color:b.endlinecolor,width:b.endlinewidth}))}}},{"../../lib/extend":493,"../../plots/cartesian/axes":554}],698:[fu
nction(t,e,r){"use strict";var
n=t("../../plots/cartesian/axes"),i=t("../../lib/extend").extendFlat;e.exports=function(t,e){var
r,a,o,s=e._labels=[],l=e._gridlines;for(r=0;r<l.length;r++)o=l[r],-
1!==["start","both"].indexOf(e.showticklabels)&&(a=n.tickText(e,o.value),i(a,{prefix:void 0,suffix:void
0,endAnchor:!0,xy:o.xy(0),dxy:o.dxy(0,0),axis:o.axis,length:o.crossAxis.length,font:o.axis.tickfont,isFirst:0===r,is
Last:r===l.length-1}),s.push(a)),-
1!==["end","both"].indexOf(e.showticklabels)&&(a=n.tickText(e,o.value),i(a,{endAnchor:!1,xy:o.xy(o.crossLength
-1),dxy:o.dxy(o.crossLength-
2,1),axis:o.axis,length:o.crossAxis.length,font:o.axis.tickfont,isFirst:0===r,isLast:r===l.length-
1}),s.push(a))}},{"../../lib/extend":493,"../../plots/cartesian/axes":554}],699:[function(t,e,r){"use
strict";e.exports=function(t,e,r,n){var i=t[0]-e[0],a=t[1]-e[1],o=r[0]-e[0],s=r[1]-
e[1],l=Math.pow(i*i+a*a,.25),c=Math.pow(o*o+s*s,.25),u=(c*c*i-l*l*o)*n,f=(c*c*a-
l*l*s)*n,h=c*(l+c)*3,p=l*(l+c)*3;return[[e[0]+(h&&u/h),e[1]+(h&&f/h)],[e[0]-(p&&u/p),e[1]-
(p&&f/p)]]}},{}],700:[function(t,e,r){"use strict";var
n=t("../../lib").isArrayOrTypedArray;e.exports=function(t,e,r){var
i,a,o,s,l,c,u=[],f=n(t)?t.length:t,h=n(e)?e.length:e,p=n(t)?t:null,d=n(e)?e:null;p&&(o=(p.length-1)/(p[p.length-1]-
p[0])/(f-1)),d&&(s=(d.length-1)/(d[d.length-1]-d[0])/(h-1));var g=1/0,v=-1/0;for(a=0;a<h;a++)for(u[a]=[],l=d?(d[a]-
d[0])*s:a/(h-1),i=0;i<f;i++)c=(p?(p[i]-p[0])*o:i/(f-1))-l*r,g=Math.min(c,g),v=Math.max(c,v),u[a][i]=c;var m=1/(v-
g),y=-g*m;for(a=0;a<h;a++)for(i=0;i<f;i++)u[a][i]=m*u[a][i]+y;return
u}},{"../../lib":503}],701:[function(t,e,r){"use strict";var n=t("./catmull_rom"),i=t("../../lib").ensureArray;function
a(t,e,r){var n=-.5*r[0]+1.5*e[0],i=-

.5*r[1]+1.5*e[1];return[(2*n+t[0])/3,(2*i+t[1])/3]}e.exports=function(t,e,r,o,s,l){var c,u,f,h,p,d,g,v,m,y,x=r[0].length,b=r.length,_=s?3*x-2:x,w=l?3*b-2:b;for(t=i(t,w),e=i(e,w),f=0;f<w;f++)t[f]=i(t[f],_),e[f]=i(e[f],_);for(u=0,h=0;u<b;u++,h+=l?3:1)for(p=t[h],d=e[h],g=r[u],v=o[u],c=0,f=0;c<x;c++,f+=s?3:1)p[f]=g[c],d[f]=v[c];if(s)for(u=0,h=0;u<b;u++,h+=l?3:1){for(c=1,f=3;c<x-1;c++,f+=3)m=n([r[u][c-1],o[u][c-1]],[r[u][c],o[u][c]],[r[u][c+1],o[u][c+1]],s),t[h][f-1]=m[0][0],e[h][f-1]=m[0][1],t[h][f+1]=m[1][0],e[h][f+1]=m[1][1];y=a([t[h][0],e[h][0]],[t[h][2],e[h][2]],[t[h][3],e[h][3]]),t[h][1]=y[0],e[h][1]=y[1],y=a([t[h][_-1],e[h][_-1]],[t[h][_-3],e[h][_-3]],[t[h][_-4],e[h][_-4]]),t[h][_-2]=y[0],e[h][_-2]=y[1]}if(l)for(f=0;f<_;f++){for(h=3;h<w-3;h+=3)m=n([t[h-3][f],e[h-3][f]],[t[h][f],e[h][f]],[t[h+3][f],e[h+3][f]],l),t[h-1][f]=m[0][0],e[h-1][f]=m[0][1],t[h+1][f]=m[1][0],e[h+1][f]=m[1][1];y=a([t[0][f],e[0][f]],[t[2][f],e[2][f]],[t[3][f],e[3][f]]),t[1][f]=y[0],e[1][f]=y[1],y=a([t[w-1][f],e[w-1][f]],[t[w-3][f],e[w-3][f]],[t[w-4][f],e[w-4][f]]),t[w-2][f]=y[0],e[w-2][f]=y[1]}if(s&&l)for(h=1;h<w;h+=(h+1)%3==0?2:1){for(f=3;f<_-3;f+=3)m=n([t[h][f-3],e[h][f-3]],[t[h][f],e[h][f]],[t[h][f+3],e[h][f+3]],s),t[h][f-1]=.5*(t[h][f-1]+m[0][0]),e[h][f-1]=.5*(e[h][f-1]+m[0][1]),t[h][f+1]=.5*(t[h][f+1]+m[1][0]),e[h][f+1]=.5*(e[h][f+1]+m[1][1]);y=a([t[h][0],e[h][0]],[t[h][2],e[h][2]],[t[h][3],e[h][3]]),t[h][1]=.5*(t[h][1]+y[0]),e[h][1]=.5*(e[h][1]+y[1]),y=a([t[h][_-1],e[h][_-1]],[t[h][_-3],e[h][_-3]],[t[h][_-4],e[h][_-4]]),t[h][_-2]=.5*(t[h][_-2]+y[0]),e[h][_-2]=.5*(e[h][_-2]+y[1])}return[t,e]}},{"../../lib":503,"./catmull_rom":699}],702:[function(t,e,r){"use strict";e.exports={RELATIVE_CULL_TOLERANCE:1e-6}},{}],703:[function(t,e,r){"use strict";e.exports=function(t,e,r){return e&&r?function(e,r,n,i,a){var o,s,l,c,u,f;e||(e=[]),r*=3,n*=3;var h=i*i,p=1-i,d=p*p,g=p*i*2,v=-3*d,m=3*(d-g),y=3*(g-h),x=3*h,b=a*a,_=b*a,w=1-a,T=w*w,k=T*w;for(f=0;f<t.length;f++)o=v*(u=t[f])[n][r]+m*u[n][r+1]+y*u[n][r+2]+x*u[n][r+3],s=v*u[n+1][r]+m*u[n+1][r+1]+y*u[n+1][r+2]+x*u[n+1][r+3],l=v*u[n+2][r]+m*u[n+2][r+1]+y*u[n+2][r+2]+x*u[n+2][r+3],c=v*u[n+3][r]+m*u[n+3][r+1]+y*u[n+3][r+2]+x*u[n+3][r+3],e[f]=k*o+3*(T*a*s+w*b*l)+_*c;return e}:e?function(e,r,n,i,a){var o,s,l,c;e||(e=[]),r*=3;var u=i*i,f=1-i,h=f*f,p=f*i*2,d=-3*h,g=3*(h-p),v=3*(p-u),m=3*u,y=1-a;for(l=0;l<t.length;l++)o=d*(c=t[l])[n][r]+g*c[n][r+1]+v*c[n][r+2]+m*c[n][r+3],s=d*c[n+1][r]+g*c[n+1][r+1]+v*c[n+1][r+2]+m*c[n+1][r+3],e[l]=y*o+a*s;return e}:r?function(e,r,n,i,a){var o,s,l,c,u,f;e||(e=[]),n*=3;var h=a*a,p=h*a,d=1-a,g=d*d,v=g*d;for(u=0;u<t.length;u++)o=(f=t[u])[n][r+1]-f[n][r],s=f[n+1][r+1]-f[n+1][r],l=f[n+2][r+1]-f[n+2][r],c=f[n+3][r+1]-f[n+3][r],e[u]=v*o+3*(g*a*s+d*h*l)+p*c;return e}:function(e,r,n,i,a){var o,s,l,c;e||(e=[]);var u=1-a;for(l=0;l<t.length;l++)o=(c=t[l])[n][r+1]-c[n][r],s=c[n+1][r+1]-c[n+1][r],e[l]=u*o+a*s;return e}}},{}],704:[function(t,e,r){"use strict";e.exports=function(t,e,r){return e&&r?function(e,r,n,i,a){var o,s,l,c,u,f;e||(e=[]),r*=3,n*=3;var h=i*i,p=h*i,d=1-i,g=d*d,v=g*d,m=a*a,y=1-a,x=y*y,b=y*a*2,_=-3*x,w=3*(x-b),T=3*(b-m),k=3*m;for(f=0;f<t.length;f++)o=_*(u=t[f])[n][r]+w*u[n+1][r]+T*u[n+2][r]+k*u[n+3][r],s=_*u[n][r+1]+w*u[n+1][r+1]+T*u[n+2][r+1]+k*u[n+3][r+1],l=_*u[n][r+2]+w*u[n+1][r+2]+T*u[n+2][r+2]+k*u[n+3][r+2],c=_*u[n][r+3]+w*u[n+1][r+3]+T*u[n+2][r+3]+k*u[n+3][r+3],e[f]=v*o+3*(g*i*s+d*h*l)+p*c;return e}:e?function(e,r,n,i,a){var o,s,l,c,u,f;e||(e=[]),r*=3;var h=a*a,p=h*a,d=1-a,g=d*d,v=g*d;for(u=0;u<t.length;u++)o=(f=t[u])[n+1][r]-f[n][r],s=f[n+1][r+1]-f[n][r+1],l=f[n+1][r+2]-f[n][r+2],c=f[n+1][r+3]-f[n][r+3],e[u]=v*o+3*(g*a*s+d*h*l)+p*c;return e}:r?function(e,r,n,i,a){var o,s,l,c;e||(e=[]),n*=3;var u=1-i,f=a*a,h=1-a,p=h*h,d=h*a*2,g=-3*p,v=3*(p-d),m=3*(d-f),y=3*f;for(l=0;l<t.length;l++)o=g*(c=t[l])[n][r]+v*c[n+1][r]+m*c[n+2][r]+y*c[n+3][r],s=g*c[n][r+1]+v*c[n+1][r+1]+m*c[n+2][r+1]+y*c[n+3][r+1],e[l]=u*o+i*s;return e}:function(e,r,n,i,a){var o,s,l,c;e||(e=[]);var u=1-i;for(l=0;l<t.length;l++)o=(c=t[l])[n+1][r]-c[n][r],s=c[n+1][r+1]-c[n][r+1],e[l]=u*o+i*s;return e}}},{}],705:[function(t,e,r){"use strict";e.exports=function(t,e,r,n,i){var a=e-2,o=r-2;return n&&i?function(e,r,n){var i,s,l,c,u,f;e||(e=[]);var h=Math.max(0,Math.min(Math.floor(r),a)),p=Math.max(0,Math.min(Math.floor(n),o)),d=Math.max(0,Math.min(1,r-h)),g=Math.max(0,Math.min(1,n-p));h*=3,p*=3;var v=d*d,m=v*d,y=1-d,x=y*y,b=x*y,_=g*g,w=_*g,T=1-g,k=T*T,A=k*T;for(f=0;f<t.length;f++)i=b*(u=t[f])[p][h]+3*(x*d*u[p][h+1]+y*v*u[p][h+2])+m*u[p][h+3],s=b*u[

p+1][h]+3*(x*d*u[p+1][h+1]+y*v*u[p+1][h+2])+m*u[p+1][h+3],l=b*u[p+2][h]+3*(x*d*u[p+2][h+1]+y*v*u[p+2][h+2])+m*u[p+2][h+3],c=b*u[p+3][h]+3*(x*d*u[p+3][h+1]+y*v*u[p+3][h+2])+m*u[p+3][h+3],e[f]=A*i+3*(k*g*s+T*_*l)+w*c;return e}:n?function(e,r,n){e||(e=[]);var i,s,l,c,u,f,h=Math.max(0,Math.min(Math.floor(r),a)),p=Math.max(0,Math.min(Math.floor(n),o)),d=Math.max(0,Math.min(1,r-h)),g=Math.max(0,Math.min(1,n-p));h*=3;var v=d*d,m=v*d,y=1-d,x=y*y,b=x*y,_=1-g;for(u=0;u<t.length;u++)i=_*(f=t[u])[p][h]+g*f[p+1][h],s=_*f[p][h+1]+g*f[p+1][h+1],l=_*f[p][h+2]+g*f[p+1][h+1],c=_*f[p][h+3]+g*f[p+1][h+1],e[u]=b*i+3*(x*d*s+y*v*l)+m*c;return e}:i?function(e,r,n){e||(e=[]);var i,s,l,c,u,f,h=Math.max(0,Math.min(Math.floor(r),a)),p=Math.max(0,Math.min(Math.floor(n),o)),d=Math.max(0,Math.min(1,r-h)),g=Math.max(0,Math.min(1,n-p));p*=3;var v=g*g,m=v*g,y=1-g,x=y*y,b=x*y,_=1-d;for(u=0;u<t.length;u++)i=_*(f=t[u])[p][h]+d*f[p][h+1],s=_*f[p+1][h]+d*f[p+1][h+1],l=_*f[p+2][h]+d*f[p+2][h+1],c=_*f[p+3][h]+d*f[p+3][h+1],e[u]=b*i+3*(x*g*s+y*v*l)+m*c;return e}:function(e,r,n){e||(e=[]);var i,s,l,c,u=Math.max(0,Math.min(Math.floor(r),a)),f=Math.max(0,Math.min(Math.floor(n),o)),h=Math.max(0,Math.min(1,r-u)),p=Math.max(0,Math.min(1,n-f)),d=1-p,g=1-h;for(l=0;l<t.length;l++)i=g*(c=t[l])[f][u]+h*c[f][u+1],s=g*c[f+1][u]+h*c[f+1][u+1],e[l]=d*i+p*s;return e}}},{}],706:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./xy_defaults"),a=t("./ab_defaults"),o=t("./attributes"),s=t("../../components/color/attributes");e.exports=function(t,e,r,l){function c(r,i){return n.coerce(t,e,o,r,i)}e._clipPathId="clip"+e.uid+"carpet";var u=c("color",s.defaultLine);n.coerceFont(c,"font"),c("carpet"),a(t,e,l,c,u),e.a&&e.b?(e.a.length<3&&(e.aaxis.smoothing=0),e.b.length<3&&(e.baxis.smoothing=0),i(t,e,c)||(e.visible=!1),e._cheater&&c("cheaterslope")):e.visible=!1}},{"../../components/color/attributes":365,"../../lib":503,"./ab_defaults":689,"./attributes":691,"./xy_defaults":715}],707:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),plot:t("./plot"),calc:t("./calc"),animatable:!0,isContainer:!0,moduleType:"trace",name:"carpet",basePlotModule:t("../../plots/cartesian"),categories:["cartesian","svg","carpet","carpetAxis","notLegendIsolatable","noMultiCategory","noHover","noSortingByValue"],meta:{}}},{"../../plots/cartesian":568,"./attributes":691,"./calc":695,"./defaults":706,"./plot":712}],708:[function(t,e,r){"use strict";e.exports=function(t,e){for(var r,n=t._fullData.length,i=0;i<n;i++){var a=t._fullData[i];if(a.index!==e.index&&"carpet"===a.type&&(r||(r=a),a.carpet===e.carpet))return a}return r}},{}],709:[function(t,e,r){"use strict";e.exports=function(t,e,r){if(0===t.length)return"";var n,i=[],a=r?3:1;for(n=0;n<t.length;n+=a)i.push(t[n]+","+e[n]),r&&n<t.length-a&&(i.push("C"),i.push([t[n+1]+","+e[n+1],t[n+2]+","+e[n+2]+" "].join(" ")));return i.join(r?"":"L")}},{}],710:[function(t,e,r){"use strict";var n=t("../../lib").isArrayOrTypedArray;e.exports=function(t,e,r){var i;for(n(t)?t.length>e.length&&(t=t.slice(0,e.length)):t=[],i=0;i<e.length;i++)t[i]=r(e[i]);return t}},{"../../lib":503}],711:[function(t,e,r){"use strict";e.exports=function(t,e,r,n,i,a){var o=i[0]*t.dpdx(e),s=i[1]*t.dpdy(r),l=1,c=1;if(a){var u=Math.sqrt(i[0]*i[0]+i[1]*i[1]),f=Math.sqrt(a[0]*a[0]+a[1]*a[1]),h=(i[0]*a[0]+i[1]*a[1])/u/f;c=Math.max(0,h)}var p=180*Math.atan2(s,o)/Math.PI;return p<-90?(p+=180,l=-l):p>90&&(p-=180,l=-l),{angle:p,flip:l,p:t.c2p(n,e,r),offsetMultplier:c}}},{}],712:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../components/drawing"),a=t("./map_1d_array"),o=t("./makepath"),s=t("./orient_text"),l=t("../../lib/svg_text_utils"),c=t("../../lib"),u=c.strRotate,f=c.strTranslate,h=t("../../constants/alignment");function p(t,e,r,s,l,c){var u="const-"+l+"-lines",f=r.selectAll("."+u).data(c);f.enter().append("path").classed(u,!0).style("vector-effect","non-scaling-stroke"),f.each((function(r){var s=r,l=s.x,c=s.y,u=a([],l,t.c2p),f=a([],c,e.c2p),h="M"+o(u,f,s.smoothing);n.select(this).attr("d",h).style("stroke-width",s.width).style("stroke",s.color).style("stroke-dasharray",i.dashStyle(s.dash,s.width)).style("fill","none")})),f.exit().remove()}function d(t,e,r,a,o,c,h,p){var d=c.selectAll("text."+p).data(h);d.enter().append("text").classed(p,!0);var g=0,v={};return d.each((function(o,c){var h;if("auto"===o.axis.tickangle)h=s(a,e,r,o.xy,o.dxy);else{var

p=(o.axis.tickangle+180)*Math.PI/180;h=s(a,e,r,o.xy,[Math.cos(p),Math.sin(p)])}c||(v={angle:h.angle,flip:h.flip});var d=(o.endAnchor?-1:1)*h.flip,m=n.select(this).attr({"text-anchor":d>0?"start":"end","data-notex":1}).call(i.font,o.font).text(o.text).call(l.convertToTspans,t),y=i.bBox(this);m.attr("transform",f(h.p[0],h.p[1])+u(h.angle)+f(o.axis.labelpadding*d,.3*y.height)),g=Math.max(g,y.width+o.axis.labelpadding)})),d.exit().remove(),v.maxExtent=g,v}e.exports=function(t,e,r,i){var l=e.xaxis,u=e.yaxis,f=t._fullLayout._clips;c.makeTraceGroups(i,r,"trace").each((function(e){var r=n.select(this),i=e[0],h=i.trace,g=h.aaxis,v=h.baxis,y=c.ensureSingle(r,"g","minorlayer"),x=c.ensureSingle(r,"g","majorlayer"),b=c.ensureSingle(r,"g","boundarylayer"),_=c.ensureSingle(r,"g","labellayer");r.style("opacity",h.opacity),p(l,u,x,0,"a",g._gridlines),p(l,u,x,0,"b",v._gridlines),p(l,u,y,0,"a",g._minorgridlines),p(l,u,y,0,"b",v._minorgridlines),p(l,u,b,0,"a-boundary",g._boundarylines),p(l,u,b,0,"b-boundary",v._boundarylines);var w=d(t,l,u,h,0,_,g._labels,"a-label"),T=d(t,l,u,h,0,_,v._labels,"b-label");(function(t,e,r,n,i,a,o,l){var u,f,h,p,d=c.aggNums(Math.min,null,r.a),g=c.aggNums(Math.max,null,r.a),v=c.aggNums(Math.min,null,r.b),y=c.aggNums(Math.max,null,r.b);u=.5*(d+g),f=v,h=r.ab2xy(u,f,!0),p=r.dxyda_rough(u,f),void 0===o.angle&&c.extendFlat(o,s(r,i,a,h,r.dxydb_rough(u,f))),m(t,e,r,0,h,p,r.aaxis,i,a,o,"a-title"),u=d,f=.5*(v+y),h=r.ab2xy(u,f,!0),p=r.dxydb_rough(u,f),void 0===l.angle&&c.extendFlat(l,s(r,i,a,h,r.dxyda_rough(u,f))),m(t,e,r,0,h,p,r.baxis,i,a,l,"b-title")})(t,_,h,0,l,u,w,T),function(t,e,r,n,i){var s,l,u,f,h=r.select("#"+t._clipPathId);h.size()||(h=r.append("clipPath").classed("carpetclip",!0));var p=c.ensureSingle(h,"path","carpetboundary"),d=e.clipsegments,g=[];for(f=0;f<d.length;f++)s=d[f],l=a([],s.x,n.c2p),u=a([],s.y,i.c2p),g.push(o(l,u,s.bicubic));var v="M"+g.join("L")+"Z";h.attr("id",t._clipPathId),p.attr("d",v)}(h,i,f,l,u)}))};var g=h.LINE_SPACING,v=(1-h.MID_SHIFT)/g+1;function m(t,e,r,a,o,c,h,p,d,m,y){var x=[];h.title.text&&x.push(h.title.text);var b=e.selectAll("text."+y).data(x),_=m.maxExtent;b.enter().append("text").classed(y,!0),b.each((function(){var e=s(r,p,d,o,c);-1===["start","both"].indexOf(h.showticklabels)&&(_=0);var a=h.title.font.size;_+=a+h.title.offset;var y=(m.angle+(m.flip<0?180:0)-e.angle+450)%360,x=y>90&&y<270,b=n.select(this);b.text(h.title.text).call(l.convertToTspans,t),x&&(_=(-l.lineCount(b)+v)*g*a-_),b.attr("transform",f(e.p[0],e.p[1])+u(e.angle)+f(0,_)).attr("text-anchor","middle").call(i.font,h.title.font)})),b.exit().remove()}},{"../../components/drawing":388,"../../constants/alignment":471,"../../lib":503,"../../lib/svg_text_utils":529,"./makepath":709,"./map_1d_array":710,"./orient_text":711,"@plotly/d3":58}],713:[function(t,e,r){"use strict";var n=t("./constants"),i=t("../../lib/search").findBin,a=t("./compute_control_points"),o=t("./create_spline_evaluator"),s=t("./create_i_derivative_evaluator"),l=t("./create_j_derivative_evaluator");e.exports=function(t){var e=t._a,r=t._b,c=e.length,u=r.length,f=t.aaxis,h=t.baxis,p=e[0],d=e[c-1],g=r[0],v=r[u-1],m=e[e.length-1]-e[0],y=r[r.length-1]-r[0],x=m*n.RELATIVE_CULL_TOLERANCE,b=y*n.RELATIVE_CULL_TOLERANCE;p-=x,d+=x,g-=b,v+=b,t.isVisible=function(t,e){return t>p&&t<d&&e>g&&e<v},t.isOccluded=function(t,e){return t<p||t>d||e<g||e>v},t.setScale=function(){var e=t._x,r=t._y,n=a(t._xctrl,t._yctrl,e,r,f.smoothing,h.smoothing);t._xctrl=n[0],t._yctrl=n[1],t.evalxy=o([t._xctrl,t._yctrl],c,u,f.smoothing,h.smoothing),t.dxydi=s([t._xctrl,t._yctrl],f.smoothing,h.smoothing),t.dxydj=l([t._xctrl,t._yctrl],f.smoothing,h.smoothing)},t.i2a=function(t){var r=Math.max(0,Math.floor(t[0]),c-2),n=t[0]-r;return(1-n)*e[r]+n*e[r+1]},t.j2b=function(t){var e=Math.max(0,Math.floor(t[1]),c-2),n=t[1]-e;return(1-n)*r[e]+n*r[e+1]},t.ij2ab=function(e){return[t.i2a(e[0]),t.j2b(e[1])]},t.a2i=function(t){var r=Math.max(0,Math.min(i(t,e),c-2)),n=e[r],a=e[r+1];return Math.max(0,Math.min(c-1,r+(t-n)/(a-n)))},t.b2j=function(t){var e=Math.max(0,Math.min(i(t,r),u-2)),n=r[e],a=r[e+1];return Math.max(0,Math.min(u-1,e+(t-n)/(a-n)))},t.ab2ij=function(e){return[t.a2i(e[0]),t.b2j(e[1])]},t.i2c=function(e,r){return t.evalxy([],e,r)},t.ab2xy=function(n,i,a){if(!a&&(n<e[0]||n>e[c-1]||i<r[0]||i>r[u-1]))return[!1,!1];var o=t.a2i(n),s=t.b2j(i),l=t.evalxy([],o,s);if(a){var f,h,p,d,g=0,v=0,m=[];n<e[0]?(f=0,h=0,g=(n-e[0])/(e[1]-e[0])):n>e[c-1]?(f=c-2,h=1,g=(n-e[c-1])/(e[c-1]-e[c-2])):h=o-(f=Math.max(0,Math.min(c-2,Math.floor(o)))),i<r[0]?(p=0,d=0,v=(i-r[0])/(r[1]-r[0])):i>r[u-1]?(p=u-2,d=1,v=(i-r[u-1])/(r[u-1]-r[u-2])):d=s-

(p=Math.max(0,Math.min(u-
2,Math.floor(s)))),g&&(t.dxydi(m,f,p,h,d),l[0]+=m[0]*g,l[1]+=m[1]*g),v&&(t.dxydj(m,f,p,h,d),l[0]+=m[0]*v,l[1]+
=m[1]*v)}return
l},t.c2p=function(t,e,r){return[e.c2p(t[0]),r.c2p(t[1])]},t.p2x=function(t,e,r){return[e.p2c(t[0]),r.p2c(t[1])]},t.dadi=fu
nction(t){var r=Math.max(0,Math.min(e.length-2,t));return e[r+1]-e[r]},t.dbdj=function(t){var
e=Math.max(0,Math.min(r.length-2,t));return r[e+1]-r[e]},t.dxyda=function(e,r,n,i){var
a=t.dxydi(null,e,r,n,i),o=t.dadi(e,n);return[a[0]/o,a[1]/o]},t.dxydb=function(e,r,n,i){var
a=t.dxydj(null,e,r,n,i),o=t.dbdj(r,i);return[a[0]/o,a[1]/o]},t.dxyda_rough=function(e,r,n){var
i=m*(n||.1),a=t.ab2xy(e+i,r,!0),o=t.ab2xy(e-i,r,!0);return[.5*(a[0]-o[0])/i,.5*(a[1]-
o[1])/i]},t.dxydb_rough=function(e,r,n){var i=y*(n||.1),a=t.ab2xy(e,r+i,!0),o=t.ab2xy(e,r-i,!0);return[.5*(a[0]-
o[0])/i,.5*(a[1]-o[1])/i]},t.dpdx=function(t){return t._m},t.dpdy=function(t){return
t._m}}},{"../../lib/search":523,"./compute_control_points":701,"./constants":702,"./create_i_derivative_evaluator":7
03,"./create_j_derivative_evaluator":704,"./create_spline_evaluator":705}],714:[function(t,e,r){"use strict";var
n=t("../../lib");e.exports=function(t,e,r){var i,a,o,s=[],l=[],c=t[0].length,u=t.length;function f(e,r){var
n,i=0,a=0;return e>0&&void 0!==(n=t[r][e-1])&&(a++,i+=n),e<c-1&&void
0!==(n=t[r][e+1])&&(a++,i+=n),r>0&&void 0!==(n=t[r-1][e])&&(a++,i+=n),r<u-1&&void
0!==(n=t[r+1][e])&&(a++,i+=n),i/Math.max(1,a)}var
h,p,d,g,v,m,y,x,b,_,w,T=0;for(i=0;i<c;i++)for(a=0;a<u;a++)void
0===t[a][i]&&(s.push(i),l.push(a),t[a][i]=f(i,a)),T=Math.max(T,Math.abs(t[a][i]));if(!s.length)return t;var
k=0,A=0,M=s.length;do{for(k=0,o=0;o<M;o++){i=s[o],a=l[o];var
S,E,L,C,P,I,O=0,z=0;0===i?(L=e[P=Math.min(c-1,2)],C=e[1],S=t[a][P],z+=(E=t[a][1])+(E-S)*(e[0]-C)/(C-
L),O++):i===c-1&&(L=e[P=Math.max(0,c-3)],C=e[c-2],S=t[a][P],z+=(E=t[a][c-2])+(E-S)*(e[c-1]-C)/(C-
L),O++),(0===i||i===c-1)&&a>0&&a<u-1&&(h=r[a+1]-r[a],z+=((p=r[a]-r[a-1])*t[a+1][i]+h*t[a-
1][i])/(p+h),O++),0===a?(L=r[I=Math.min(u-1,2)],C=r[1],S=t[I][i],z+=(E=t[1][i])+(E-S)*(r[0]-C)/(C-
L),O++):a===u-1&&(L=r[I=Math.max(0,u-3)],C=r[u-2],S=t[I][i],z+=(E=t[u-2][i])+(E-S)*(r[u-1]-C)/(C-
L),O++),(0===a||a===u-1)&&i>0&&i<c-1&&(h=e[i+1]-e[i],z+=((p=e[i]-e[i-1])*t[a][i+1]+h*t[a][i-
1])/(p+h),O++),O?z/=O:(d=e[i+1]-e[i],g=e[i]-e[i-1],x=(v=r[a+1]-r[a])*(m=r[a]-r[a-
1])*(v+m),z=((y=d*g*(d+g))*(m*t[a+1][i]+v*t[a-1][i])+x*(g*t[a][i+1]+d*t[a][i-
1]))/(x*(g+d)+y*(m+v))),k+=(_=(b=z-
t[a][i])/T)*_,w=O?0:.85,t[a][i]+=b*(1+w)}k=Math.sqrt(k)}while(A++<100&&k>1e-5);return n.log("Smoother
converged to",k,"after",A,"iterations"),t}},{"../../lib":503}],715:[function(t,e,r){"use strict";var
n=t("../../lib").isArray1D;e.exports=function(t,e,r){var
i=r("x"),a=i&&i.length,o=r("y"),s=o&&o.length;if(!a&&!s)return!1;if(e._cheater=!i,a&&!n(i)||s&&!n(o))e._length=
null;else{var
l=a?i.length:1/0;s&&(l=Math.min(l,o.length)),e.a&&e.a.length&&(l=Math.min(l,e.a.length)),e.b&&e.b.length&&(l
=Math.min(l,e.b.length)),e._length=l}return!0}},{"../../lib":503}],716:[function(t,e,r){"use strict";var
n=t("../../plots/template_attributes").hovertemplateAttrs,i=t("../scattergeo/attributes"),a=t("../../components/colorscal
e/attributes"),o=t("../../plots/attributes"),s=t("../../components/color/attributes").defaultLine,l=t("../../lib/extend").exte
ndFlat,c=i.marker.line;e.exports=l({locations:{valType:"data_array",editType:"calc"},locationmode:i.locationmode,
z:{valType:"data_array",editType:"calc"},geojson:l({},i.geojson,{}),featureidkey:i.featureidkey,text:l({},i.text,{}),h
overtext:l({},i.hovertext,{}),marker:{line:{color:l({},c.color,{dflt:s}),width:l({},c.width,{dflt:1}),editType:"calc"},
opacity:{valType:"number",arrayOk:!0,min:0,max:1,dflt:1,editType:"style"},editType:"calc"},selected:{marker:{op
acity:i.selected.marker.opacity,editType:"plot"},editType:"plot"},unselected:{marker:{opacity:i.unselected.marker.o
pacity,editType:"plot"},editType:"plot"},hoverinfo:l({},o.hoverinfo,{editType:"calc",flags:["location","z","text","na
me"]}),hovertemplate:n(),showlegend:l({},o.showlegend,{dflt:!1})},a("",{cLetter:"z",editTypeOverride:"calc"}))},{
"../../components/color/attributes":365,"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plots/att
ributes":550,"../../plots/template_attributes":633,"../scattergeo/attributes":969}],717:[function(t,e,r){"use strict";var
n=t("fast-

isnumeric"),i=t("../../constants/numerical").BADNUM,a=t("../../components/colorscale/calc"),o=t("../scatter/arrays_to_calcdata"),s=t("../scatter/calc_selection");function l(t){return t&&"string"==typeof t}e.exports=function(t,e){var r,c=e._length,u=new Array(c);r=e.geojson?function(t){return l(t)||n(t)}:l;for(var f=0;f<c;f++){var h=u[f]={},p=e.locations[f],d=e.z[f];r(p)&&n(d)?(h.loc=p,h.z=d):(h.loc=null,h.z=i),h.index=f}return o(u,e),a(t,e,{vals:e.z,containerStr:"",cLetter:"z"}),s(u,e),u}},{"../../components/colorscale/calc":374,"../../constants/numerical":479,"../scatter/arrays_to_calcdata":926,"../scatter/calc_selection":929,"fast-isnumeric":190}],718:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../components/colorscale/defaults"),a=t("./attributes");e.exports=function(t,e,r,o){function s(r,i){return n.coerce(t,e,a,r,i)}var l=s("locations"),c=s("z");if(l&&l.length&&n.isArrayOrTypedArray(c)&&c.length){e._length=Math.min(l.length,c.length);var u,f=s("geojson");("string"==typeof f&&""!==f||n.isPlainObject(f))&&(u="geojson-id"),"geojson-id"===s("locationmode",u)&&s("featureidkey"),s("text"),s("hovertext"),s("hovertemplate"),s("marker.line.width")&&s("marker.line.color"),s("marker.opacity"),i(t,e,o,s,{prefix:"",cLetter:"z"}),n.coerceSelectionMarkerOpacity(e,s)}else e.visible=!1}},{"../../components/colorscale/defaults":376,"../../lib":503,"./attributes":716}],719:[function(t,e,r){"use strict";e.exports=function(t,e,r,n,i){t.location=e.location,t.z=e.z;var a=n[i];return a.fIn&&a.fIn.properties&&(t.properties=a.fIn.properties),t.ct=a.ct,t}},{}],720:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes"),i=t("./attributes"),a=t("../../lib").fillText;e.exports=function(t,e,r){var o,s,l,c,u=t.cd,f=u[0].trace,h=t.subplot,p=[e,r],d=[e+360,r];for(s=0;s<u.length;s++)if(c=!1,(o=u[s])._polygons){for(l=0;l<o._polygons.length;l++)o._polygons[l].contains(p)&&(c=!c),o._polygons[l].contains(d)&&(c=!c);if(c)break}if(c&&o)return t.x0=t.x1=t.xa.c2p(o.ct),t.y0=t.y1=t.ya.c2p(o.ct),t.index=o.index,t.location=o.loc,t.z=o.z,t.zLabel=n.tickText(h.mockAxis,h.mockAxis.c2l(o.z),"hover").text,t.hovertemplate=o.hovertemplate,function(t,e,r){if(!e.hovertemplate){var n=r.hi||e.hoverinfo,o=String(r.loc),s="all"===n?i.hoverinfo.flags:n.split("+"),l=-1!==s.indexOf("name"),c=-1!==s.indexOf("location"),u=-1!==s.indexOf("z"),f=-1!==s.indexOf("text"),h=[];!l&&c?t.nameOverride=o:(l&&(t.nameOverride=e.name),c&&h.push(o)),u&&h.push(t.zLabel),f&&a(r,e,h),t.extraText=h.join("<br>")}}(t,f,o),[t]}},{"../../lib":503,"../../plots/cartesian/axes":554,"./attributes":716}],721:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),colorbar:t("../heatmap/colorbar"),calc:t("./calc"),calcGeoJSON:t("./plot").calcGeoJSON,plot:t("./plot").plot,style:t("./style").style,styleOnSelect:t("./style").styleOnSelect,hoverPoints:t("./hover"),eventData:t("./event_data"),selectPoints:t("./select"),moduleType:"trace",name:"choropleth",basePlotModule:t("../../plots/geo"),categories:["geo","noOpacity","showLegend"],meta:{}}},{"../../plots/geo":589,"../heatmap/colorbar":795,"./attributes":716,"./calc":717,"./defaults":718,"./event_data":719,"./hover":720,"./plot":722,"./select":723,"./style":724}],722:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../lib"),a=t("../../lib/geo_location_utils"),o=t("../../lib/topojson_utils").getTopojsonFeatures,s=t("../../plots/cartesian/autorange").findExtremes,l=t("./style").style;e.exports={calcGeoJSON:function(t,e){for(var r=t[0].trace,n=e[r.geo],i=n._subplot,l=r.locationmode,c=r._length,u="geojson-id"===l?a.extractTraceFeature(t):o(r,i.topojson),f=[],h=[],p=0;p<c;p++){var d=t[p],g="geojson-id"===l?d.fOut:a.locationToFeature(l,d.loc,u);if(g){d.geojson=g,d.ct=g.properties.ct,d._polygons=a.feature2polygons(g);var v=a.computeBbox(g);f.push(v[0],v[2]),h.push(v[1],v[3])}else d.geojson=null}if("geojson"===n.fitbounds&&"geojson-id"===l){var m=a.computeBbox(a.getTraceGeojson(r));f=[m[0],m[2]],h=[m[1],m[3]]}var y={padded:!0};r._extremes.lon=s(n.lonaxis._ax,f,y),r._extremes.lat=s(n.lataxis._ax,h,y)},plot:function(t,e,r){var a=e.layers.backplot.select(".choroplethlayer");i.makeTraceGroups(a,r,"trace choropleth").each((function(e){var r=n.select(this).selectAll("path.choroplethlocation").data(i.identity);r.enter().append("path").classed("choroplethlocation",!0),r.exit().remove(),l(t,e)}))}}},{"../../lib":503,"../../lib/geo_location_utils":496,"../../lib/topojson_utils":532,"../../plots/cartesian/autorange":553,"./style":724,"@plotly/d3":58}],723:[function(t,e,r){"use strict";e.exports=function(t,e){var

r,n,i,a,o,s=t.cd,l=t.xaxis,c=t.yaxis,u=[];if(!1===e)for(r=0;r<s.length;r++)s[r].selected=0;else for(r=0;r<s.length;r++)(i=(n=s[r]).ct)&&(a=l.c2p(i),o=c.c2p(i),e.contains([a,o],null,r,t)?(u.push({pointNumber:r,lon:i[0],lat:i[1]}),n.selected=1):n.selected=0);return u}},{}],724:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../components/color"),a=t("../../components/drawing"),o=t("../../components/colorscale");function s(t,e){var r=e[0].trace,s=e[0].node3.selectAll(".choroplethlocation"),l=r.marker||{},c=l.line||{},u=o.makeColorScaleFuncFromTrace(r);s.each((function(t){n.select(this).attr("fill",u(t.z)).call(i.stroke,t.mlc||c.color).call(a.dashLine,"",t.mlw||c.width||0).style("opacity",l.opacity)})),a.selectedPointStyle(s,r,t)}e.exports={style:function(t,e){e&&s(t,e)},styleOnSelect:function(t,e){var r=e[0].node3,n=e[0].trace;n.selectedpoints?a.selectedPointStyle(r.selectAll(".choroplethlocation"),n,t):s(t,e)}}},{"../../components/color":366,"../../components/colorscale":378,"../../components/drawing":388,"@plotly/d3":58}],725:[function(t,e,r){"use strict";var n=t("../choropleth/attributes"),i=t("../../components/colorscale/attributes"),a=t("../../plots/template_attributes").hovertemplateAttrs,o=t("../../plots/attributes"),s=t("../../lib/extend").extendFlat;e.exports=s({locations:{valType:"data_array",editType:"calc"},z:{valType:"data_array",editType:"calc"},geojson:{valType:"any",editType:"calc"},featureidkey:s({},n.featureidkey,{}),below:{valType:"string",editType:"plot"},text:n.text,hovertext:n.hovertext,marker:{line:{color:s({},n.marker.line.color,{editType:"plot"}),width:s({},n.marker.line.width,{editType:"plot"}),editType:"calc"},opacity:s({},n.marker.opacity,{editType:"plot"}),editType:"calc"},selected:{marker:{opacity:s({},n.selected.marker.opacity,{editType:"plot"}),editType:"plot"},editType:"plot"},unselected:{marker:{opacity:s({},n.unselected.marker.opacity,{editType:"plot"}),editType:"plot"},editType:"plot"},hoverinfo:n.hoverinfo,hovertemplate:a({},{keys:["properties"]}),showlegend:s({},o.showlegend,{dflt:!1})},i("",{cLetter:"z",editTypeOverride:"calc"}))},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plots/attributes":550,"../../plots/template_attributes":633,"../choropleth/attributes":716}],726:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib"),a=t("../../components/colorscale"),o=t("../../components/drawing"),s=t("../../lib/geojson_utils").makeBlank,l=t("../../lib/geo_location_utils");function c(t){var e,r=t[0].trace,n=r._opts;if(r.selectedpoints){for(var a=o.makeSelectedPointStyleFns(r),s=0;s<t.length;s++){var l=t[s];l.fOut&&(l.fOut.properties.mo2=a.selectedOpacityFn(l))}e={type:"identity",property:"mo2"}}else e=i.isArrayOrTypedArray(r.marker.opacity)?{type:"identity",property:"mo"}:r.marker.opacity;return i.extendFlat(n.fill.paint,{"fill-opacity":e}),i.extendFlat(n.line.paint,{"line-opacity":e}),n}e.exports={convert:function(t){var e=t[0].trace,r=!0===e.visible&&0!==e._length,o={layout:{visibility:"none"},paint:{}},u={layout:{visibility:"none"},paint:{}},f=e._opts={fill:o,line:u,geojson:s()};if(!r)return f;var h=l.extractTraceFeature(t);if(!h)return f;var p,d,g,v=a.makeColorScaleFuncFromTrace(e),m=e.marker,y=m.line||{};i.isArrayOrTypedArray(m.opacity)&&(p=function(t){var e=t.mo;return n(e)?+i.constrain(e,0,1):0}),i.isArrayOrTypedArray(y.color)&&(d=function(t){return t.mlc}),i.isArrayOrTypedArray(y.width)&&(g=function(t){return t.mlw});for(var x=0;x<t.length;x++){var b=t[x],_=b.fOut;if(_){var w=_.properties;w.fc=v(b.z),p&&(w.mo=p(b)),d&&(w.mlc=d(b)),g&&(w.mlw=g(b)),b.ct=w.ct,b._polygons=l.feature2polygons(_)}}var T=p?{type:"identity",property:"mo"}:m.opacity;return i.extendFlat(o.paint,{"fill-color":{type:"identity",property:"fc"},"fill-opacity":T}),i.extendFlat(u.paint,{"line-color":d?{type:"identity",property:"mlc"}:y.color,"line-width":g?{type:"identity",property:"mlw"}:y.width,"line-opacity":T}),o.layout.visibility="visible",u.layout.visibility="visible",f.geojson={type:"FeatureCollection",features:h},c(t),f},convertOnSelect:c}},{"../../components/colorscale":378,"../../components/drawing":388,"../../lib":503,"../../lib/geo_location_utils":496,"../../lib/geojson_utils":497,"fast-isnumeric":190}],727:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../components/colorscale/defaults"),a=t("./attributes");e.exports=function(t,e,r,o){function s(r,i){return n.coerce(t,e,a,r,i)}var l=s("locations"),c=s("z"),u=s("geojson");n.isArrayOrTypedArray(l)&&l.length&&n.isArrayOrTypedArray(c)&&c.length&&("string"==typeof u&&""!==u||n.isPlainObject(u))?(s("featureidkey"),e._length=Math.min(l.length,c.length),s("below"),s("text"),s("ho

vertext"),s("hovertemplate"),s("marker.line.width")&&s("marker.line.color"),s("marker.opacity"),i(t,e,o,s,{prefix:"",cLetter:"z"}),n.coerceSelectionMarkerOpacity(e,s)):e.visible=!1}},{"../../components/colorscale/defaults":376,"../../lib":503,"./attributes":725}],728:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),colorbar:t("../heatmap/colorbar"),calc:t("../choropleth/calc"),plot:t("./plot"),hoverPoints:t("../choropleth/hover"),eventData:t("../choropleth/event_data"),selectPoints:t("../choropleth/select"),styleOnSelect:function(t,e){e&&e[0].trace._glTrace.updateOnSelect(e)},getBelow:function(t,e){for(var r=e.getMapLayers(),n=r.length-2;n>=0;n--){var i=r[n].id;if("string"==typeof i&&0===i.indexOf("water"))for(var a=n+1;a<r.length;a++)if("string"==typeof(i=r[a].id)&&-1===i.indexOf("plotly-"))return i}},moduleType:"trace",name:"choroplethmapbox",basePlotModule:t("../../plots/mapbox"),categories:["mapbox","gl","noOpacity","showLegend"],meta:{hr_name:"choropleth_mapbox"}}},{"../../plots/mapbox":613,"../choropleth/calc":717,"../choropleth/event_data":719,"../choropleth/hover":720,"../choropleth/select":723,"../heatmap/colorbar":795,"./attributes":725,"./defaults":727,"./plot":729}],729:[function(t,e,r){"use strict";var n=t("./convert").convert,i=t("./convert").convertOnSelect,a=t("../../plots/mapbox/constants").traceLayerPrefix;function o(t,e){this.type="choroplethmapbox",this.subplot=t,this.uid=e,this.sourceId="source-"+e,this.layerList=[["fill",a+e+"-fill"],["line",a+e+"-line"]],this.below=null}var s=o.prototype;s.update=function(t){this._update(n(t))},s.updateOnSelect=function(t){this._update(i(t))},s._update=function(t){var e=this.subplot,r=this.layerList,n=e.belowLookup["trace-"+this.uid];e.map.getSource(this.sourceId).setData(t.geojson),n!==this.below&&(this._removeLayers(),this._addLayers(t,n),this.below=n);for(var i=0;i<r.length;i++){var a=r[i],o=a[0],s=a[1],l=t[o];e.setOptions(s,"setLayoutProperty",l.layout),"visible"===l.layout.visibility&&e.setOptions(s,"setPaintProperty",l.paint)}},s._addLayers=function(t,e){for(var r=this.subplot,n=this.layerList,i=this.sourceId,a=0;a<n.length;a++){var o=n[a],s=o[0],l=t[s];r.addLayer({type:s,id:o[1],source:i,layout:l.layout,paint:l.paint},e)}},s._removeLayers=function(){for(var t=this.subplot.map,e=this.layerList,r=e.length-1;r>=0;r--)t.removeLayer(e[r][1])},s.dispose=function(){var t=this.subplot.map;this._removeLayers(),t.removeSource(this.sourceId)},e.exports=function(t,e){var r=e[0].trace,i=new o(t,r.uid),a=i.sourceId,s=n(e),l=i.below=t.belowLookup["trace-"+r.uid];return t.map.addSource(a,{type:"geojson",data:s.geojson}),i._addLayers(s,l),e[0].trace._glTrace=i,i}},{"../../plots/mapbox/constants":611,"./convert":726}],730:[function(t,e,r){"use strict";var n=t("../../components/colorscale/attributes"),i=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,a=t("../../plots/template_attributes").hovertemplateAttrs,o=t("../mesh3d/attributes"),s=t("../../plots/attributes"),l=t("../../lib/extend").extendFlat,c={x:{valType:"data_array",editType:"calc+clearAxisTypes"},y:{valType:"data_array",editType:"calc+clearAxisTypes"},z:{valType:"data_array",editType:"calc+clearAxisTypes"},u:{valType:"data_array",editType:"calc"},v:{valType:"data_array",editType:"calc"},w:{valType:"data_array",editType:"calc"},sizemode:{valType:"enumerated",values:["scaled","absolute"],editType:"calc",dflt:"scaled"},sizeref:{valType:"number",editType:"calc",min:0},anchor:{valType:"enumerated",editType:"calc",values:["tip","tail","cm","center"],dflt:"cm"},text:{valType:"string",dflt:"",arrayOk:!0,editType:"calc"},hovertext:{valType:"string",dflt:"",arrayOk:!0,editType:"calc"},hovertemplate:a({editType:"calc"},{keys:["norm"]}),uhoverformat:i("u",1),vhoverformat:i("v",1),whoverformat:i("w",1),xhoverformat:i("x"),yhoverformat:i("y"),zhoverformat:i("z"),showlegend:l({},s.showlegend,{dflt:!1})};l(c,n("",{colorAttr:"u/v/wnorm",showScaleDflt:!0,editTypeOverride:"calc"})),["opacity","lightposition","lighting"].forEach((function(t){c[t]=o[t]})),c.hoverinfo=l({},s.hoverinfo,{editType:"calc",flags:["x","y","z","u","v","w","norm","text","name"],dflt:"x+y+z+norm+text+name"}),c.transforms=void 0,e.exports=c},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plots/attributes":550,"../../plots/cartesian/axis_format_attributes":557,"../../plots/template_attributes":633,"../mesh3d/attributes":867}],731:[function(t,e,r){"use strict";var n=t("../../components/colorscale/calc");e.exports=function(t,e){for(var r=e.u,i=e.v,a=e.w,o=Math.min(e.x.length,e.y.length,e.z.length,r.length,i.length,a.length),s=-

1/0,l=1/0,c=0;c<o;c++){var
u=r[c],f=i[c],h=a[c],p=Math.sqrt(u*u+f*f+h*h);s=Math.max(s,p),l=Math.min(l,p)}e._len=o,e._normMax=s,n(t,e,{vals:[l,s],containerStr:"",cLetter:"c"})}},{"../../components/colorscale/calc":374}],732:[function(t,e,r){"use strict";var n=t("../../../stackgl_modules").gl_cone3d,i=t("../../../stackgl_modules").gl_cone3d.createConeMesh,a=t("../../lib").simpleMap,o=t("../../lib/gl_format_color").parseColorScale,s=t("../../components/colorscale").extractOpts,l=t("../../plots/gl3d/zip3");function c(t,e){this.scene=t,this.uid=e,this.mesh=null,this.data=null}var
u=c.prototype;u.handlePick=function(t){if(t.object===this.mesh){var
e=t.index=t.data.index,r=this.data.x[e],n=this.data.y[e],i=this.data.z[e],a=this.data.u[e],o=this.data.v[e],s=this.data.w[e];t.traceCoordinate=[r,n,i,a,o,s,Math.sqrt(a*a+o*o+s*s)];var l=this.data.hovertext||this.data.text;return
Array.isArray(l)&&void 0!==l[e]?t.textLabel=l[e]:l&&(t.textLabel=l),!0}};var
f={xaxis:0,yaxis:1,zaxis:2},h={tip:1,tail:0,cm:.25,center:.5},p={tip:1,tail:1,cm:.75,center:.5};function d(t,e){var
r=t.fullSceneLayout,i=t.dataScale,c={};function u(t,e){var n=r[e],o=i[f[e]];return a(t,(function(t){return
n.d2l(t)*o}))}c.vectors=l(u(e.u,"xaxis"),u(e.v,"yaxis"),u(e.w,"zaxis"),e._len),c.positions=l(u(e.x,"xaxis"),u(e.y,"yaxis"),u(e.z,"zaxis"),e._len);var
d=s(e);c.colormap=o(e),c.vertexIntensityBounds=[d.min/e._normMax,d.max/e._normMax],c.coneOffset=h[e.anchor],"scaled"===e.sizemode?c.coneSize=e.sizeref||.5:c.coneSize=e.sizeref&&e._normMax?e.sizeref/e._normMax:.5;var g=n(c),v=e.lightposition;return
g.lightPosition=[v.x,v.y,v.z],g.ambient=e.lighting.ambient,g.diffuse=e.lighting.diffuse,g.specular=e.lighting.specular,g.roughness=e.lighting.roughness,g.fresnel=e.lighting.fresnel,g.opacity=e.opacity,e._pad=p[e.anchor]*g.vectorScale*g.coneScale*e._normMax,g}u.update=function(t){this.data=t;var
e=d(this.scene,t);this.mesh.update(e)},u.dispose=function(){this.scene.glplot.remove(this.mesh),this.mesh.dispose()},e.exports=function(t,e){var r=t.glplot.gl,n=d(t,e),a=i(r,n),o=new c(t,e.uid);return
o.mesh=a,o.data=e,a._trace=o,t.glplot.add(a),o}},{"../../../stackgl_modules":1124,"../../components/colorscale":378,"../../lib":503,"../../lib/gl_format_color":499,"../../plots/gl3d/zip3":609}],733:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../components/colorscale/defaults"),a=t("./attributes");e.exports=function(t,e,r,o){function s(r,i){return n.coerce(t,e,a,r,i)}var
l=s("u"),c=s("v"),u=s("w"),f=s("x"),h=s("y"),p=s("z");l&&l.length&&c&&c.length&&u&&u.length&&f&&f.length&&h&&h.length&&p&&p.length?(s("sizeref"),s("sizemode"),s("anchor"),s("lighting.ambient"),s("lighting.diffuse"),s("lighting.specular"),s("lighting.roughness"),s("lighting.fresnel"),s("lightposition.x"),s("lightposition.y"),s("lightposition.z"),i(t,e,o,s,{prefix:"",cLetter:"c"}),s("text"),s("hovertext"),s("hovertemplate"),s("uhoverformat"),s("vhoverformat"),s("whoverformat"),s("xhoverformat"),s("yhoverformat"),s("zhoverformat"),e._length=null):e.visible=!1}},{"../../components/colorscale/defaults":376,"../../lib":503,"./attributes":730}],734:[function(t,e,r){"use strict";e.exports={moduleType:"trace",name:"cone",basePlotModule:t("../../plots/gl3d"),categories:["gl3d","showLegend"],attributes:t("./attributes"),supplyDefaults:t("./defaults"),colorbar:{min:"cmin",max:"cmax"},calc:t("./calc"),plot:t("./convert"),eventData:function(t,e){return
t.norm=e.traceCoordinate[6],t},meta:{}}},{"../../plots/gl3d":598,"./attributes":730,"./calc":731,"./convert":732,"./defaults":733}],735:[function(t,e,r){"use strict";var
n=t("../heatmap/attributes"),i=t("../scatter/attributes"),a=t("../../plots/cartesian/axis_format_attributes"),o=a.axisHoverFormat,s=a.descriptionOnlyNumbers,l=t("../../components/colorscale/attributes"),c=t("../../components/drawing/attributes").dash,u=t("../../plots/font_attributes"),f=t("../../lib/extend").extendFlat,h=t("../../constants/filter_ops"),p=h.COMPARISON_OPS2,d=h.INTERVAL_OPS,g=i.line;e.exports=f({z:n.z,x:n.x,x0:n.x0,dx:n.dx,y:n.y,y0:n.y0,dy:n.dy,xperiod:n.xperiod,yperiod:n.yperiod,xperiod0:i.xperiod0,yperiod0:i.yperiod0,xperiodalignment:n.xperiodalignment,yperiodalignment:n.yperiodalignment,text:n.text,hovertext:n.hovertext,transpose:n.transpose,xtype:n.xtype,ytype:n.ytype,xhoverformat:o("x"),yhoverformat:o("y"),zhoverformat:o("z",1),hovertemplate:n.hovertemplate,texttemplate:f({},n.texttemplate,{}),textfont:f({},n.textfont,{}),hoverongaps:n.hoverongaps,connectgaps:f({},n.connectgaps,{}),fillcolor:{valType:"color",editType:"calc"},autocontour:{valType:"boolean",dflt:!0,editType:"calc",impliedEdits:{"contours.start":void 0,"contours.end":void 0,"contours.size":void
0}},ncontours:{valType:"integer",dflt:15,min:1,editType:"calc"},contours:{type:{valType:"enumerated",values:["le

vels","constraint"],dflt:"levels",editType:"calc"},start:{valType:"number",dflt:null,editType:"plot",impliedEdits:{"^autocontour":!1}},end:{valType:"number",dflt:null,editType:"plot",impliedEdits:{"^autocontour":!1}},size:{valType:"number",dflt:null,min:0,editType:"plot",impliedEdits:{"^autocontour":!1}},coloring:{valType:"enumerated",values:["fill","heatmap","lines","none"],dflt:"fill",editType:"calc"},showlines:{valType:"boolean",dflt:!0,editType:"plot"},showlabels:{valType:"boolean",dflt:!1,editType:"plot"},labelfont:u({editType:"plot",colorEditType:"style"}),labelformat:{valType:"string",dflt:"",editType:"plot",description:s("contour label")},operation:{valType:"enumerated",values:[].concat(p).concat(d),dflt:"=",editType:"calc"},value:{valType:"any",dflt:0,editType:"calc"},editType:"calc",impliedEdits:{autocontour:!1}},line:{color:f({},g.color,{editType:"style+colorbars"}),width:{valType:"number",min:0,editType:"style+colorbars"},dash:c,smoothing:f({},g.smoothing,{}),editType:"plot"}},l("",{cLetter:"z",autoColorDflt:!1,editTypeOverride:"calc"}))},{"../../components/colorscale/attributes":373,"../../components/drawing/attributes":387,"../../constants/filter_ops":475,"../../lib/extend":493,"../../plots/cartesian/axis_format_attributes":557,"../../plots/font_attributes":585,"../heatmap/attributes":792,"../scatter/attributes":927}],736:[function(t,e,r){"use strict";var n=t("../../components/colorscale"),i=t("../heatmap/calc"),a=t("./set_contours"),o=t("./end_plus");e.exports=function(t,e){var r=i(t,e),s=r[0].z;a(e,s);var l,c=e.contours,u=n.extractOpts(e);if("heatmap"===c.coloring&&u.auto&&!1===e.autocontour){var f=c.start,h=o(c),p=c.size||1,d=Math.floor((h-f)/p)+1;isFinite(p)||(p=1,d=1);var g=f-p/2;l=[g,g+d*p]}else l=s;return n.calc(t,e,{vals:l,cLetter:"z"}),r}},{"../../components/colorscale":378,"../heatmap/calc":793,"./end_plus":746,"./set_contours":754}],737:[function(t,e,r){"use strict";e.exports=function(t,e){var r,n=t[0],i=n.z;switch(e.type){case"levels":var a=Math.min(i[0][0],i[0][1]);for(r=0;r<t.length;r++){var o=t[r];o.prefixBoundary=!o.edgepaths.length&&(a>o.level||o.starts.length&&a===o.level)}break;case"constraint":if(n.prefixBoundary=!1,n.edgepaths.length)return;var s=n.x.length,l=n.y.length,c=-1/0,u=1/0;for(r=0;r<l;r++)u=Math.min(u,i[r][0]),u=Math.min(u,i[r][s-1]),c=Math.max(c,i[r][0]),c=Math.max(c,i[r][s-1]);for(r=1;r<s-1;r++)u=Math.min(u,i[0][r]),u=Math.min(u,i[l-1][r]),c=Math.max(c,i[0][r]),c=Math.max(c,i[l-1][r]);var f,h,p=e.value;switch(e._operation){case">":p>c&&(n.prefixBoundary=!0);break;case"<":(p<u||n.starts.length&&p===u)&&(n.prefixBoundary=!0);break;case"[]":f=Math.min(p[0],p[1]),((h=Math.max(p[0],p[1]))<u||f>c||n.starts.length&&h===u)&&(n.prefixBoundary=!0);break;case"][":f=Math.min(p[0],p[1]),h=Math.max(p[0],p[1]),f<u&&h>c&&(n.prefixBoundary=!0)}}}},{}],738:[function(t,e,r){"use strict";var n=t("../../components/colorscale"),i=t("./make_color_map"),a=t("./end_plus");e.exports={min:"zmin",max:"zmax",calc:function(t,e,r){var o=e.contours,s=e.line,l=o.size||1,c=o.coloring,u=i(e,{isColorbar:!0});if("heatmap"===c){var f=n.extractOpts(e);r._fillgradient=f.reversescale?n.flipScale(f.colorscale):f.colorscale,r._zrange=[f.min,f.max]}else"fill"===c&&(r._fillcolor=u);r._line={color:"lines"===c?u:s.color,width:!1!==o.showlines?s.width:0,dash:s.dash},r._levels={start:o.start,end:a(o),size:l}}}},{"../../components/colorscale":378,"./end_plus":746,"./make_color_map":751}],739:[function(t,e,r){"use strict";e.exports={BOTTOMSTART:[1,9,13,104,713],TOPSTART:[4,6,7,104,713],LEFTSTART:[8,12,14,208,1114],RIGHTSTART:[2,3,11,208,1114],NEWDELTA:[null,[-1,0],[0,-1],[-1,0],[1,0],null,[0,-1],[-1,0],[0,1],[0,1],null,[0,1],[1,0],[1,0],[0,-1]],CHOOSESADDLE:{104:[4,1],208:[2,8],713:[7,13],1114:[11,14]},SADDLEREMAINDER:{1:4,2:8,4:1,7:13,8:2,11:14,13:7,14:11},LABELDISTANCE:2,LABELINCREASE:10,LABELMIN:3,LABELMAX:10,LABELOPTIMIZER:{EDGECOST:1,ANGLECOST:1,NEIGHBORCOST:5,SAMELEVELFACTOR:10,SAMELEVELDISTANCE:5,MAXCOST:100,INITIALSEARCHPOINTS:10,ITERATIONS:5}}},{}],740:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("./label_defaults"),a=t("../../components/color"),o=a.addOpacity,s=a.opacity,l=t("../../constants/filter_ops"),c=l.CONSTRAINT_REDUCTION,u=l.COMPARISON_OPS2;e.exports=function(t,e,r,a,l,f){var h,p,d,g=e.contours,v=r("contours.operation");g._operation=c[v],function(t,e){var r;-1===u.indexOf(e.operation)?(t("contours.value",[0,1]),Array.isArray(e.value)?e.value.length>2?e.value=e.value.slice(2):0===e.length?e.value=[0,1]:e.length<2?(r=parseFloat(e.value[0]),e.value=[r,r+1]):e.value=[parseFloat(e.value[

0]),parseFloat(e.value[1])]:n(e.value)&&(r=parseFloat(e.value),e.value=[r,r+1])):(t("contours.value",0),n(e.value)||(Array.isArray(e.value)?e.value=parseFloat(e.value[0]):e.value=0))}(r,g),"="===v?h=g.showlines=!0:(h=r("contours.showlines"),d=r("fillcolor",o((t.line||{}).color||l,.5))),h&&(p=r("line.color",d&&s(d)?o(e.fillcolor,1):l),r("line.width",2),r("line.dash")),r("line.smoothing"),i(r,a,p,f)}},{"../../components/color":366,"../../constants/filter_ops":475,"./label_defaults":750,"fast-isnumeric":190}],741:[function(t,e,r){"use strict";var n=t("../../constants/filter_ops"),i=t("fast-isnumeric");function a(t,e){var r,a=Array.isArray(e);function o(t){return i(t)?+t:null}return-1!==n.COMPARISON_OPS2.indexOf(t)?r=o(a?e[0]:e):-1!==n.INTERVAL_OPS.indexOf(t)?r=a?[o(e[0]),o(e[1])]:[o(e),o(e)]:-1!==n.SET_OPS.indexOf(t)&&(r=a?e.map(o):[o(e)]),r}function o(t){return function(e){e=a(t,e);var r=Math.min(e[0],e[1]),n=Math.max(e[0],e[1]);return{start:r,end:n,size:n-r}}}function s(t){return function(e){return{start:e=a(t,e),end:1/0,size:1/0}}}e.exports={"[]":o("[]"),"][":o("]["),">":s(">"),"<":s("<"),"=":s("=")}},{"../../constants/filter_ops":475,"fast-isnumeric":190}],742:[function(t,e,r){"use strict";e.exports=function(t,e,r,n){var i=n("contours.start"),a=n("contours.end"),o=!1===i||!1===a,s=r("contours.size");!(o?e.autocontour=!0:r("autocontour",!1))&&s||r("ncontours")}},{}],743:[function(t,e,r){"use strict";var n=t("../../lib");function i(t){return n.extendFlat({},t,{edgepaths:n.extendDeep([],t.edgepaths),paths:n.extendDeep([],t.paths),starts:n.extendDeep([],t.starts)})}e.exports=function(t,e){var r,a,o,s=function(t){return t.reverse()},l=function(t){return t};switch(e){case"=":case"<":return t;case">":for(1!==t.length&&n.warn("Contour data invalid for the specified inequality operation."),a=t[0],r=0;r<a.edgepaths.length;r++)a.edgepaths[r]=s(a.edgepaths[r]);for(r=0;r<a.paths.length;r++)a.paths[r]=s(a.paths[r]);for(r=0;r<a.starts.length;r++)a.starts[r]=s(a.starts[r]);return t;case"][":var c=s;s=l,l=c;case"[]":for(2!==t.length&&n.warn("Contour data invalid for the specified inequality range operation."),a=i(t[0]),o=i(t[1]),r=0;r<a.edgepaths.length;r++)a.edgepaths[r]=s(a.edgepaths[r]);for(r=0;r<a.paths.length;r++)a.paths[r]=s(a.paths[r]);for(r=0;r<a.starts.length;r++)a.starts[r]=s(a.starts[r]);for(;o.edgepaths.length;)a.edgepaths.push(l(o.edgepaths.shift()));for(;o.paths.length;)a.paths.push(l(o.paths.shift()));for(;o.starts.length;)a.starts.push(l(o.starts.shift()));return[a]}}},{"../../lib":503}],744:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../heatmap/xyz_defaults"),a=t("../scatter/period_defaults"),o=t("./constraint_defaults"),s=t("./contours_defaults"),l=t("./style_defaults"),c=t("../heatmap/label_defaults"),u=t("./attributes");e.exports=function(t,e,r,f){function h(r,i){return n.coerce(t,e,u,r,i)}if(i(t,e,h,f)){a(t,e,f,h),h("xhoverformat"),h("yhoverformat"),h("text"),h("hovertext"),h("hoverongaps"),h("hovertemplate");var p="constraint"===h("contours.type");h("connectgaps",n.isArray1D(e.z)),p?o(t,e,h,f,r):(s(t,e,h,(function(r){return n.coerce2(t,e,u,r)})),l(t,e,h,f)),e.contours&&"heatmap"===e.contours.coloring&&c(h,f)}else e.visible=!1}},{"../../lib":503,"../heatmap/label_defaults":802,"../heatmap/xyz_defaults":807,"../scatter/period_defaults":947,"./attributes":735,"./constraint_defaults":740,"./contours_defaults":742,"./style_defaults":756}],745:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./constraint_mapping"),a=t("./end_plus");e.exports=function(t,e,r){for(var o="constraint"===t.type?i[t._operation](t.value):t,s=o.size,l=[],c=a(o),u=r.trace._carpetTrace,f=u?{xaxis:u.aaxis,yaxis:u.baxis,x:r.a,y:r.b}:{xaxis:e.xaxis,yaxis:e.yaxis,x:r.x,y:r.y},h=o.start;h<c;h+=s)if(l.push(n.extendFlat({level:h,crossings:{},starts:[],edgepaths:[],paths:[],z:r.z,smoothing:r.trace.line.smoothing},f)),l.length>1e3){n.warn("Too many contours, clipping at 1000",t);break}return l}},{"../../lib":503,"./constraint_mapping":741,"./end_plus":746}],746:[function(t,e,r){"use strict";e.exports=function(t){return t.end+t.size/1e6}},{}],747:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./constants");function a(t,e,r,n){return Math.abs(t[0]-e[0])<r&&Math.abs(t[1]-e[1])<n}function o(t,e,r,o,l){var c,u=e.join(","),f=t.crossings[u],h=function(t,e,r){var n=0,a=0;return t>20&&e?208===t||1114===t?n=0===r[0]?1:-1:a=0===r[1]?1:-1:-1!==i.BOTTOMSTART.indexOf(t)?a=1:-1!==i.LEFTSTART.indexOf(t)?n=1:-1!==i.TOPSTART.indexOf(t)?a=-1:n=-1,[n,a]}(f,r,e),p=[s(t,e,[-h[0],-h[1]])],d=t.z.length,g=t.z[0].length,v=e.slice(),m=h.slice();for(c=0;c<1e4;c++){if(f>20?(f=i.CHOOSESADDLE[f][(h[0]||h[1])<0?0:1],t.crossings[u]=i.SADDLEREMAINDER[f]):delete

t.crossings[u],!(h=i.NEWDELTA[f])){n.log("Found bad marching index:",f,e,t.level);break}p.push(s(t,e,h)),e[0]+=h[0],e[1]+=h[1],u=e.join(","),a(p[p.length-1],p[p.length-2],o,l)&&p.pop();var y=h[0]&&(e[0]<0||e[0]>g-2)||h[1]&&(e[1]<0||e[1]>d-2);if(e[0]===v[0]&&e[1]===v[1]&&h[0]===m[0]&&h[1]===m[1]||r&&y)break;f=t.crossings[u]}1e4===c&&n.log("Infinite loop in contour?");var x,b,_,w,T,k,A,M,S,E,L,C,P,I,O,z=a(p[0],p[p.length-1],o,l),D=0,R=.2*t.smoothing,F=[],B=0;for(c=1;c<p.length;c++)D+=(C=p[c],P=p[c-1],I=void 0,O=void 0,I=C[2]-P[2],O=C[3]-P[3],A=Math.sqrt(I*I+O*O)),F.push(A);var N=D/F.length*R;function j(t){return p[t%p.length]}for(c=p.length-2;c>=B;c--)if((x=F[c])<N){for(_=0,b=c-1;b>=B&&x+F[b]<N;b--)x+=F[b];if(z&&c===p.length-2)for(_=0;_<b&&x+F[_]<N;_++)x+=F[_];T=c-b+_+1,k=Math.floor((c+b+_+2)/2),w=z||c!==p.length-2?z||-1!==b?T%2?j(k):[(j(k)[0]+j(k+1)[0])/2,(j(k)[1]+j(k+1)[1])/2]:p[0]:p[p.length-1],p.splice(b+1,c-b+1,w),c=b+1,_&&(B=_),z&&(c===p.length-2?p[_]=p[p.length-1]:0===c&&(p[p.length-1]=p[0]))}for(p.splice(0,B),c=0;c<p.length;c++)p[c].length=2;if(!(p.length<2))if(z)p.pop(),t.paths.push(p);else{r||n.log("Unclosed interior contour?",t.level,v.join(","),p.join("L"));var U=!1;for(M=0;M<t.edgepaths.length;M++)if(E=t.edgepaths[M],!U&&a(E[0],p[p.length-1],o,l)){p.pop(),U=!0;var V=!1;for(S=0;S<t.edgepaths.length;S++)if(a((L=t.edgepaths[S])[L.length-1],p[0],o,l)){V=!0,p.shift(),t.edgepaths.splice(M,1),S===M?t.paths.push(p.concat(L)):(S>M&&S--,t.edgepaths[S]=L.concat(p,E));break}V||(t.edgepaths[M]=p.concat(E))}for(M=0;M<t.edgepaths.length&&!U;M++)a((E=t.edgepaths[M])[E.length-1],p[0],o,l)&&(p.shift(),t.edgepaths[M]=E.concat(p),U=!0);U||t.edgepaths.push(p)}}function s(t,e,r){var n=e[0]+Math.max(r[0],0),i=e[1]+Math.max(r[1],0),a=t.z[i][n],o=t.xaxis,s=t.yaxis;if(r[1]){var l=(t.level-a)/(t.z[i][n+1]-a),c=(1!==l?(1-l)*o.c2l(t.x[n]):0)+(0!==l?l*o.c2l(t.x[n+1]):0);return[o.c2p(o.l2c(c),!0),s.c2p(t.y[i],!0),n+l,i]}var u=(t.level-a)/(t.z[i+1][n]-a),f=(1!==u?(1-u)*s.c2l(t.y[i]):0)+(0!==u?u*s.c2l(t.y[i+1]):0);return[o.c2p(t.x[n],!0),s.c2p(s.l2c(f),!0),n,i+u]}e.exports=function(t,e,r){var i,a,s,l;for(e=e||.01,r=r||.01,a=0;a<t.length;a++){for(s=t[a],l=0;l<s.starts.length;l++)o(s,s.starts[l],"edge",e,r);for(i=0;Object.keys(s.crossings).length&&i<1e4;)i++,o(s,Object.keys(s.crossings)[0].split(",").map(Number),void 0,e,r);1e4===i&&n.log("Infinite loop in contour?")}}},{"../../lib":503,"./constants":739}],748:[function(t,e,r){"use strict";var n=t("../../components/color"),i=t("../heatmap/hover");e.exports=function(t,e,r,a,o){o||(o={}),o.isContour=!0;var s=i(t,e,r,a,o);return s&&s.forEach((function(t){var e=t.trace;"constraint"===e.contours.type&&(e.fillcolor&&n.opacity(e.fillcolor)?t.color=n.addOpacity(e.fillcolor,1):e.contours.showlines&&n.opacity(e.line.color)&&(t.color=n.addOpacity(e.line.color,1)))})),s}},{"../../components/color":366,"../heatmap/hover":799}],749:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),calc:t("./calc"),plot:t("./plot").plot,style:t("./style"),colorbar:t("./colorbar"),hoverPoints:t("./hover"),moduleType:"trace",name:"contour",basePlotModule:t("../../plots/cartesian"),categories:["cartesian","svg","2dMap","contour","showLegend"],meta:{}}},{"../../plots/cartesian":568,"./attributes":735,"./calc":736,"./colorbar":738,"./defaults":744,"./hover":748,"./plot":753,"./style":755}],750:[function(t,e,r){"use strict";var n=t("../../lib");e.exports=function(t,e,r,i){if(i||(i={}),t("contours.showlabels")){var a=e.font;n.coerceFont(t,"contours.labelfont",{family:a.family,size:a.size,color:r}),t("contours.labelformat")}!1!==i.hasHover&&t("zhoverformat")}},{"../../lib":503}],751:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../components/colorscale"),a=t("./end_plus");e.exports=function(t){var e=t.contours,r=e.start,o=a(e),s=e.size||1,l=Math.floor((o-r)/s)+1,c="lines"===e.coloring?0:1,u=i.extractOpts(t);isFinite(s)||(s=1,l=1);var f,h,p=u.reversescale?i.flipScale(u.colorscale):u.colorscale,d=p.length,g=new Array(d),v=new Array(d);if("heatmap"===e.coloring){var m=u.min,y=u.max;for(h=0;h<d;h++)f=p[h],g[h]=f[0]*(y-m)+m,v[h]=f[1];var x=n.extent([m,y,e.start,e.start+s*(l-

1)]),b=x[m<y?0:1],_=x[m<y?1:0];b!==m&&(g.splice(0,0,b),v.splice(0,0,v[0])),_!==y&&(g.push(_),v.push(v[v.length-1]))}else for(h=0;h<d;h++)f=p[h],g[h]=(f[0]*(l+c-1)-c/2)*s+r,v[h]=f[1];return i.makeColorScaleFunc({domain:g,range:v},{noNumericCheck:!0})}},{"../../components/colorscale":378,"./end_plus":746,"@plotly/d3":58}],752:[function(t,e,r){"use strict";var n=t("./constants");function i(t,e){var r=(e[0][0]>t?0:1)+(e[0][1]>t?0:2)+(e[1][1]>t?0:4)+(e[1][0]>t?0:8);return 5===r||10===r?t>(e[0][0]+e[0][1]+e[1][0]+e[1][1])/4?5===r?713:1114:5===r?104:208:15===r?0:r}e.exports=function(t){var e,r,a,o,s,l,c,u,f,h=t[0].z,p=h.length,d=h[0].length,g=2===p||2===d;for(r=0;r<p-1;r++)for(o=[],0===r&&(o=o.concat(n.BOTTOMSTART)),r===p-2&&(o=o.concat(n.TOPSTART)),e=0;e<d-1;e++)for(a=o.slice(),0===e&&(a=a.concat(n.LEFTSTART)),e===d-2&&(a=a.concat(n.RIGHTSTART)),s=e+","+r,l=[[h[r][e],h[r][e+1]],[h[r+1][e],h[r+1][e+1]]],f=0;f<t.length;f++)(c=i((u=t[f]).level,l))&&(u.crossings[s]=c,-1!==a.indexOf(c)&&(u.starts.push([e,r]),g&&-1!==a.indexOf(c,a.indexOf(c)+1)&&u.starts.push([e,r])))},{"./constants":739}],753:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../lib"),a=t("../../components/drawing"),o=t("../../components/colorscale"),s=t("../../lib/svg_text_utils"),l=t("../../plots/cartesian/axes"),c=t("../../plots/cartesian/set_convert"),u=t("../heatmap/plot"),f=t("./make_crossings"),h=t("./find_all_paths"),p=t("./empty_pathinfo"),d=t("./convert_to_constraints"),g=t("./close_boundaries"),v=t("./constants"),m=v.LABELOPTIMIZER;function y(t,e){var r,n,o,s,l,c,u,f="",h=0,p=t.edgepaths.map((function(t,e){return e})),d=!0;function g(t){return Math.abs(t[1]-e[2][1])<.01}function v(t){return Math.abs(t[0]-e[0][0])<.01}function m(t){return Math.abs(t[0]-e[2][0])<.01}for(;p.length;){for(c=a.smoothopen(t.edgepaths[h],t.smoothing),f+=d?c:c.replace(/^M/,"L"),p.splice(p.indexOf(h),1),r=t.edgepaths[h][t.edgepaths[h].length-1],s=-1,o=0;o<4;o++){if(!r){i.log("Missing end?",h,t);break}for(u=r,Math.abs(u[1]-e[0][1])<.01&&!m(r)?n=e[1]:v(r)?n=e[0]:g(r)?n=e[3]:m(r)&&(n=e[2]),l=0;l<t.edgepaths.length;l++){var y=t.edgepaths[l][0];Math.abs(r[0]-n[0])<.01?Math.abs(r[0]-y[0])<.01&&(y[1]-r[1])*(n[1]-y[1])>=0&&(n=y,s=l):Math.abs(r[1]-n[1])<.01?Math.abs(r[1]-y[1])<.01&&(y[0]-r[0])*(n[0]-y[0])>=0&&(n=y,s=l):i.log("endpt to newendpt is not vert. or horz.",r,n,y)}if(r=n,s>=0)break;f+="L"+n}if(s===t.edgepaths.length){i.log("unclosed perimeter path");break}h=s,(d=-1===p.indexOf(h))&&(h=p[0],f+="Z")}for(h=0;h<t.paths.length;h++)f+=a.smoothclosed(t.paths[h],t.smoothing);return f}function x(t,e,r,n){var a=e.width/2,o=e.height/2,s=t.x,l=t.y,c=t.theta,u=Math.cos(c)*a,f=Math.sin(c)*a,h=(s>n.center?n.right-s:s-n.left)/(u+Math.abs(Math.sin(c)*o)),p=(l>n.middle?n.bottom-l:l-n.top)/(Math.abs(f)+Math.cos(c)*o);if(h<1||p<1)return 1/0;var d=m.EDGECOST*(1/(h-1)+1/(p-1));d+=m.ANGLECOST*c*c;for(var g=s-u,v=l-f,y=s+u,x=l+f,b=0;b<r.length;b++){var _=r[b],w=Math.cos(_.theta)*_.width/2,T=Math.sin(_.theta)*_.width/2,k=2*i.segmentDistance(g,v,y,x,_.x-w,_.y-T,_.x+w,_.y+T)/(e.height+_.height),A=_.level===e.level,M=A?m.SAMELEVELDISTANCE:1;if(k<=M)return 1/0;d+=m.NEIGHBORCOST*(A?m.SAMELEVELFACTOR:1)/(k-M)}return d}function b(t){var e,r,n=t.trace._emptypoints,i=[],a=t.z.length,o=t.z[0].length,s=[];for(e=0;e<o;e++)s.push(1);for(e=0;e<a;e++)i.push(s.slice());for(e=0;e<n.length;e++)i[(r=n[e])[0]][r[1]]=0;return t.zmask=i,i}r.plot=function(t,e,o,s){var l=e.xaxis,c=e.yaxis;i.makeTraceGroups(s,o,"contour").each((function(o){var s=n.select(this),m=o[0],x=m.trace,_=m.x,w=m.y,T=x.contours,k=p(T,e,m),A=i.ensureSingle(s,"g","heatmapcoloring"),M=[];"heatmap"===T.coloring&&(M=[o]),u(t,e,M,A),f(k),h(k);var S=l.c2p(_[0],!0),E=l.c2p(_[_.length-1],!0),L=c.c2p(w[0],!0),C=c.c2p(w[w.length-1],!0),P=[[S,C],[E,C],[E,L],[S,L]],I=k;"constraint"===T.type&&(I=d(k,T._operation)),function(t,e,r){var n=i.ensureSingle(t,"g","contourbg").selectAll("path").data("fill"===r.coloring?[0]:[]);n.enter().append("path"),n.exit().remove(),n.attr("d","M"+e.join("L")+"Z").style("stroke","none")}(s,P,T),function(t,e,r,a){var o="fill"===a.coloring||"constraint"===a.type&&"="!==a._operation,s="M"+r.join("L")+"Z";o&&g(e,a);var l=i.ensureSingle(t,"g","contourfill").selectAll("path").data(o?e:[]);l.enter().append("path"),l.exit().remove(),l.each((function(t){var

e=(t.prefixBoundary?s:"")+y(t,r);e?n.select(this).attr("d",e).style("stroke","none"):n.select(this).remove()}))}(s,I,P,T),function(t,e,o,s,l){var
c=i.ensureSingle(t,"g","contourlines"),u=!1!==l.showlines,f=l.showlabels,h=u&&f,p=r.createLines(c,u||f,e),d=r.createLineClip(c,h,o,s.trace.uid),g=t.selectAll("g.contourlabels").data(f?[0]:[]);if(g.exit().remove(),g.enter().append("g").classed("contourlabels",!0),f){var m=[],y=[];i.clearLocationCache();var
x=r.labelFormatter(o,s),b=a.tester.append("text").attr("data-notex",1).call(a.font,l.labelfont),_=e[0].xaxis,w=e[0].yaxis,T=_._length,k=w._length,A=_.range,M=w.range,S=i.aggNums(Math.min,null,s.x),E=i.aggNums(Math.max,null,s.x),L=i.aggNums(Math.min,null,s.y),C=i.aggNums(Math.max,null,s.y),P=Math.max(_.c2p(S,!0),0),I=Math.min(_.c2p(E,!0),T),O=Math.max(w.c2p(C,!0),0),z=Math.min(w.c2p(L,!0),k),D={};A[0]<A[1]?(D.left=P,D.right=I):(D.left=I,D.right=P),M[0]<M[1]?(D.top=O,D.bottom=z):(D.top=z,D.bottom=O),D.middle=(D.top+D.bottom)/2,D.center=(D.left+D.right)/2,m.push([[D.left,D.top],[D.right,D.top],[D.right,D.bottom],[D.left,D.bottom]]);var
R=Math.sqrt(T*T+k*k),F=v.LABELDISTANCE*R/Math.max(1,e.length/v.LABELINCREASE);p.each((function(t){var e=r.calcTextOpts(t.level,x,b,o);n.select(this).selectAll("path").each((function(){var
t=i.getVisibleSegment(this,D,e.height/2);if(t&&!(t.len<(e.width+e.height)*v.LABELMIN))for(var
n=Math.min(Math.ceil(t.len/F),v.LABELMAX),a=0;a<n;a++){var
o=r.findBestTextLocation(this,t,e,y,D);if(!o)break;r.addLabelData(o,e,y,m)}}))})),b.remove(),r.drawLabels(g,y,o,d,h?m:null)}f&&!u&&p.remove()}(s,k,t,m,T),function(t,e,r,n,o){var
s=n.trace,l=r._fullLayout._clips,c="clip"+s.uid,u=l.selectAll("#"+c).data(s.connectgaps?[]:[0]);if(u.enter().append("clipPath").classed("contourclip",!0).attr("id",c),u.exit().remove(),!1===s.connectgaps){var
p={level:.9,crossings:{},starts:[],edgepaths:[],paths:[],xaxis:e.xaxis,yaxis:e.yaxis,x:n.x,y:n.y,z:b(n),smoothing:0};f([p]),h([p]),g([p],{type:"levels"}),i.ensureSingle(u,"path","").attr("d",(p.prefixBoundary?"M"+o.join("L")+"Z":"")+y(p,o))}else c=null;a.setClipUrl(t,c,r)}(s,e,t,m,P)}))},r.createLines=function(t,e,r){var
n=r[0].smoothing,i=t.selectAll("g.contourlevel").data(e?r:[]);if(i.exit().remove(),i.enter().append("g").classed("contourlevel",!0),e){var o=i.selectAll("path.openline").data((function(t){return
t.pedgepaths||t.edgepaths}));o.exit().remove(),o.enter().append("path").classed("openline",!0),o.attr("d",(function(t){return a.smoothopen(t,n)})).style("stroke-miterlimit",1).style("vector-effect","non-scaling-stroke");var
s=i.selectAll("path.closedline").data((function(t){return
t.ppaths||t.paths}));s.exit().remove(),s.enter().append("path").classed("closedline",!0),s.attr("d",(function(t){return a.smoothclosed(t,n)})).style("stroke-miterlimit",1).style("vector-effect","non-scaling-stroke")}return
i},r.createLineClip=function(t,e,r,n){var
i=e?"clipline"+n:null,o=r._fullLayout._clips.selectAll("#"+i).data(e?[0]:[]);return
o.exit().remove(),o.enter().append("clipPath").classed("contourlineclip",!0).attr("id",i),a.setClipUrl(t,i,r),o},r.labelFormatter=function(t,e){var
r=t._fullLayout,n=e.trace,i=n.contours,a={type:"linear",_id:"ycontour",showexponent:"all",exponentformat:"B"};if(i.labelformat)a.tickformat=i.labelformat,c(a,r);else{var
s=o.extractOpts(n);if(s&&s.colorbar&&s.colorbar._axis)a=s.colorbar._axis;else{if("constraint"===i.type){var
u=i.value;Array.isArray(u)?a.range=[u[0],u[u.length-1]]:a.range=[u,u]}else a.range=[i.start,i.end],a.nticks=(i.end-i.start)/i.size;a.range[0]===a.range[1]&&(a.range[1]+=a.range[0]||1),a.nticks||(a.nticks=1e3),c(a,r),l.prepTicks(a),a._tmin=null,a._tmax=null}}return function(t){return l.tickText(a,t).text}},r.calcTextOpts=function(t,e,r,n){var
i=e(t);r.text(i).call(s.convertToTspans,n);var
o=r.node(),l=a.bBox(o,!0);return{text:i,width:l.width,height:l.height,fontSize:+o.style["font-size"].replace("px",""),level:t,dy:(l.top+l.bottom)/2}},r.findBestTextLocation=function(t,e,r,n,a){var
o,s,l,c,u,f=r.width;e.isClosed?(s=e.len/m.INITIALSEARCHPOINTS,o=e.min+s/2,l=e.max):(s=(e.len-f)/(m.INITIALSEARCHPOINTS+1),o=e.min+s+f/2,l=e.max-(s+f)/2);for(var
h=1/0,p=0;p<m.ITERATIONS;p++){for(var d=o;d<l;d+=s){var
g=i.getTextLocation(t,e.total,d,f),v=x(g,r,n,a);v<h&&(h=v,u=g,c=d)}if(h>2*m.MAXCOST)break;p&&(s/=2),l=(o=c-s/2)+1.5*s}if(h<=m.MAXCOST)return u},r.addLabelData=function(t,e,r,n){var

i=e.fontSize,a=e.width+i/3,o=Math.max(0,e.height-
i/3),s=t.x,l=t.y,c=t.theta,u=Math.sin(c),f=Math.cos(c),h=function(t,e){return[s+t*f-e*u,l+t*u+e*f]},p=[h(-a/2,-
o/2),h(-a/2,o/2),h(a/2,o/2),h(a/2,-
o/2)];r.push({text:e.text,x:s,y:l,dy:e.dy,theta:c,level:e.level,width:a,height:o}),n.push(p)},r.drawLabels=function(t,e,
r,a,o){var l=t.selectAll("text").data(e,(function(t){return
t.text+","+t.x+","+t.y+","+t.theta}));if(l.exit().remove(),l.enter().append("text").attr({"data-notex":1,"text-
anchor":"middle"}).each((function(t){var e=t.x+Math.sin(t.theta)*t.dy,i=t.y-
Math.cos(t.theta)*t.dy;n.select(this).text(t.text).attr({x:e,y:i,transform:"rotate("+180*t.theta/Math.PI+" "+e+"
"+i+")"})}).call(s.convertToTspans,r)})),o){for(var
c="",u=0;u<o.length;u++)c+="M"+o[u].join("L")+"Z";i.ensureSingle(a,"path","").attr("d",c)}}},{"../../components/colorscale":378,"../../components/drawing":388,"../../lib":503,"../../lib/svg_text_utils":529,"../../plots/cartesian/axes":554,"../../plots/cartesian/set_convert":576,"../heatmap/plot":804,"./close_boundaries":737,"./constants":739,"./convert_to_constraints":743,"./empty_pathinfo":745,"./find_all_paths":747,"./make_crossings":752,"@plotly/d3":58}],754:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes"),i=t("../../lib");function a(t,e,r){var
i={type:"linear",range:[t,e]};return n.autoTicks(i,(e-t)/(r||15)),i}e.exports=function(t,e){var
r=t.contours;if(t.autocontour){var o=t.zmin,s=t.zmax;(t.zauto||void
0===o)&&(o=i.aggNums(Math.min,null,e)),(t.zauto||void 0===s)&&(s=i.aggNums(Math.max,null,e));var
l=a(o,s,t.ncontours);r.size=l.dtick,r.start=n.tickFirst(l),l.range.reverse(),r.end=n.tickFirst(l),r.start===o&&(r.start+=r.size),r.end===s&&(r.end-
=r.size),r.start>r.end&&(r.start=r.end=(r.start+r.end)/2),t._input.contours||(t._input.contours={}),i.extendFlat(t._input.contours,{start:r.start,end:r.end,size:r.size}),t._input.autocontour=!0}else if("constraint"!==r.type){var
c,u=r.start,f=r.end,h=t._input.contours;u>f&&(r.start=h.start=f,f=r.end=h.end=u,u=r.start),r.size>0||(c=u===f?1:a(u,
f,t.ncontours).dtick,h.size=r.size=c)}}},{"../../lib":503,"../../plots/cartesian/axes":554}],755:[function(t,e,r){"use
strict";var
n=t("@plotly/d3"),i=t("../../components/drawing"),a=t("../heatmap/style"),o=t("./make_color_map");e.exports=function(t){var e=n.select(t).selectAll("g.contour");e.style("opacity",(function(t){return
t[0].trace.opacity})),e.each((function(t){var
e=n.select(this),r=t[0].trace,a=r.contours,s=r.line,l=a.size||1,c=a.start,u="constraint"===a.type,f=!u&&"lines"===a.coloring,h=!u&&"fill"===a.coloring,p=f||h?o(r):null;e.selectAll("g.contourlevel").each((function(t){n.select(this).selectAll("path").call(i.lineGroupStyle,s.width,f?p(t.level):s.color,s.dash)}));var
d=a.labelfont;if(e.selectAll("g.contourlabels
text").each((function(t){i.font(n.select(this),{family:d.family,size:d.size,color:d.color||(f?p(t.level):s.color)})})),u)e.selectAll("g.contourfill path").style("fill",r.fillcolor);else if(h){var g;e.selectAll("g.contourfill
path").style("fill",(function(t){return void 0===g&&(g=t.level),p(t.level+.5*l)})),void
0===g&&(g=c),e.selectAll("g.contourbg path").style("fill",p(g-
.5*l))}})),a(t)}},{"../../components/drawing":388,"../heatmap/style":805,"./make_color_map":751,"@plotly/d3":58}
],756:[function(t,e,r){"use strict";var
n=t("../../components/colorscale/defaults"),i=t("./label_defaults");e.exports=function(t,e,r,a,o){var
s,l=r("contours.coloring"),c="";"fill"===l&&(s=r("contours.showlines")),!1!==s&&("lines"!==l&&(c=r("line.color"
,"#000")),r("line.width",.5),r("line.dash")),"none"!==l&&(!0!==t.showlegend&&(e.showlegend=!1),e._dfltShowLegend=!1,n(t,e,a,r,{prefix:"",cLetter:"z"})),r("line.smoothing"),i(r,a,c,o)}},{"../../components/colorscale/defaults":376,
"./label_defaults":750}],757:[function(t,e,r){"use strict";var
n=t("../heatmap/attributes"),i=t("../contour/attributes"),a=t("../../components/colorscale/attributes"),o=t("../../lib/extend").extendFlat,s=i.contours;e.exports=o({carpet:{valType:"string",editType:"calc"},z:n.z,a:n.x,a0:n.x0,da:n.dx,b:n.y,b0:n.y0,db:n.dy,text:n.text,hovertext:n.hovertext,transpose:n.transpose,atype:n.xtype,btype:n.ytype,fillcolor:i.fillcolor,autocontour:i.autocontour,ncontours:i.ncontours,contours:{type:s.type,start:s.start,end:s.end,size:s.size,coloring:{
valType:"enumerated",values:["fill","lines","none"],dflt:"fill",editType:"calc"},showlines:s.showlines,showlabels:s.showlabels,labelfont:s.labelfont,labelformat:s.labelformat,operation:s.operation,value:s.value,editType:"calc",implied

Edits:{autocontour:!1}},line:{color:i.line.color,width:i.line.width,dash:i.line.dash,smoothing:i.line.smoothing,editType:"plot"},transforms:void 0},a("",{cLetter:"z",autoColorDflt:!1}))},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../contour/attributes":735,"../heatmap/attributes":792}],758:[function(t,e,r){"use strict";var n=t("../../components/colorscale/calc"),i=t("../../lib"),a=t("../heatmap/convert_column_xyz"),o=t("../heatmap/clean_2d_array"),s=t("../heatmap/interp2d"),l=t("../heatmap/find_empties"),c=t("../heatmap/make_bound_array"),u=t("./defaults"),f=t("../carpet/lookup_carpetid"),h=t("../contour/set_contours");e.exports=function(t,e){var r=e._carpetTrace=f(t,e);if(r&&r.visible&&"legendonly"!==r.visible){if(!e.a||!e.b){var p=t.data[r.index],d=t.data[e.index];d.a||(d.a=p.a),d.b||(d.b=p.b),u(d,e,e._defaultColor,t._fullLayout)}var g=function(t,e){var r,u,f,h,p,d,g,v=e._carpetTrace,m=v.aaxis,y=v.baxis;m._minDtick=0,y._minDtick=0,i.isArray1D(e.z)&&a(e,m,y,"a","b",["z"]),r=e._a=e._a||e.a,h=e._b=e._b||e.b,r=r?m.makeCalcdata(e,"_a"):[],h=h?y.makeCalcdata(e,"_b"):[],u=e.a0||0,f=e.da||1,p=e.b0||0,d=e.db||1,g=e._z=o(e._z||e.z,e.transpose),e._emptypoints=l(g),s(g,e._emptypoints);var x=i.maxRowLength(g),b="scaled"===e.xtype?"":r,_=c(e,b,u,f,x,m),w="scaled"===e.ytype?"":h,T={a:_,b:c(e,w,p,d,g.length,y),z:g};return"levels"===e.contours.type&&"none"!==e.contours.coloring&&n(t,e,{vals:g,containerStr:"",cLetter:"z"}),[T]}(t,e);return h(e,e._z),g}}},{"../../components/colorscale/calc":374,"../../lib":503,"../carpet/lookup_carpetid":708,"../contour/set_contours":754,"../heatmap/clean_2d_array":794,"../heatmap/convert_column_xyz":796,"../heatmap/find_empties":798,"../heatmap/interp2d":801,"../heatmap/make_bound_array":803,"./defaults":759}],759:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../heatmap/xyz_defaults"),a=t("./attributes"),o=t("../contour/constraint_defaults"),s=t("../contour/contours_defaults"),l=t("../contour/style_defaults");e.exports=function(t,e,r,c){function u(r,i){return n.coerce(t,e,a,r,i)}if(u("carpet"),t.a&&t.b){if(!i(t,e,u,c,"a","b"))return void(e.visible=!1);u("text"),"constraint"===u("contours.type")?o(t,e,u,c,r,{hasHover:!1}):(s(t,e,u,(function(r){return n.coerce2(t,e,a,r)})),l(t,e,u,c,{hasHover:!1}))}else e._defaultColor=r,e._length=null}},{"../../lib":503,"../contour/constraint_defaults":740,"../contour/contours_defaults":742,"../contour/style_defaults":756,"../heatmap/xyz_defaults":807,"./attributes":757}],760:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),colorbar:t("../contour/colorbar"),calc:t("./calc"),plot:t("./plot"),style:t("../contour/style"),moduleType:"trace",name:"contourcarpet",basePlotModule:t("../../plots/cartesian"),categories:["cartesian","svg","carpet","contour","symbols","showLegend","hasLines","carpetDependent","noHover","noSortingByValue"],meta:{}}},{"../../plots/cartesian":568,"../contour/colorbar":738,"../contour/style":755,"./attributes":757,"./calc":758,"./defaults":759,"./plot":761}],761:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../carpet/map_1d_array"),a=t("../carpet/makepath"),o=t("../../components/drawing"),s=t("../../lib"),l=t("../contour/make_crossings"),c=t("../contour/find_all_paths"),u=t("../contour/plot"),f=t("../contour/constants"),h=t("../contour/convert_to_constraints"),p=t("../contour/empty_pathinfo"),d=t("../contour/close_boundaries"),g=t("../carpet/lookup_carpetid"),v=t("../carpet/axis_aligned_line");function m(t,e,r,i,a,l,c){var h=s.ensureSingle(t,"g","contourlines"),p=!1!==a.showlines,d=a.showlabels,g=p&&d,v=u.createLines(h,p||d,e),m=u.createLineClip(h,g,r,i.trace.uid),_=t.selectAll("g.contourlabels").data(d?[0]:[]);if(_.exit().remove(),_.enter().append("g").classed("contourlabels",!0),d){var w=l.xaxis,T=l.yaxis,k=w._length,A=T._length,M=[[[0,0],[k,0],[k,A],[0,A]]],S=[];s.clearLocationCache();var E=u.labelFormatter(r,i),L=o.tester.append("text").attr("data-notex",1).call(o.font,a.labelfont),C={left:0,right:k,center:k/2,top:0,bottom:A,middle:A/2},P=Math.sqrt(k*k+A*A),I=f.LABELDISTANCE*P/Math.max(1,e.length/f.LABELINCREASE);v.each((function(t){var e=u.calcTextOpts(t.level,E,L,r);n.select(this).selectAll("path").each((function(r){var n=this,i=s.getVisibleSegment(n,C,e.height/2);if(i&&(function(t,e,r,n,i,a){for(var o,s=0;s<r.pedgepaths.length;s++)e===r.pedgepaths[s]&&(o=r.edgepaths[s]);if(o){var l=i.a[0],c=i.a[i.a.length-1],u=i.b[0],f=i.b[i.b.length-1],h=y(t,0,1),p=y(t,n.total,n.total-1),d=v(o[0],h),g=n.total-v(o[o.length-1],p);n.min<d&&(n.min=d),n.max>g&&(n.max=g),n.len=n.max-n.min}function v(t,e){var

r,n=0,o=.1;return(Math.abs(t[0]-l)<o||Math.abs(t[0]-
c)<o)&&(r=x(i.dxydb_rough(t[0],t[1],o)),n=Math.max(n,a*b(e,r)/2)),(Math.abs(t[1]-u)<o||Math.abs(t[1]-
f)<o)&&(r=x(i.dxyda_rough(t[0],t[1],o)),n=Math.max(n,a*b(e,r)/2)),n}(n,r,t,i,c,e.height),!(i.len<(e.width+e.height)
*f.LABELMIN)))for(var a=Math.min(Math.ceil(i.len/I),f.LABELMAX),o=0;o<a;o++){var
l=u.findBestTextLocation(n,i,e,S,C);if(!l)break;u.addLabelData(l,e,S,M)}}))}),L.remove(),u.drawLabels(_,S,r,m,g?
M:null)}d&&!p&&v.remove()}function y(t,e,r){var n=t.getPointAtLength(e),i=t.getPointAtLength(r),a=i.x-
n.x,o=i.y-n.y,s=Math.sqrt(a*a+o*o);return[a/s,o/s]}function x(t){var
e=Math.sqrt(t[0]*t[0]+t[1]*t[1]);return[t[0]/e,t[1]/e]}function b(t,e){var r=Math.abs(t[0]*e[0]+t[1]*e[1]);return
Math.sqrt(1-r*r)/r}function _(t,e,r,i,a,l,c,u,f,h,p){var g="fill"===h;g&&d(a,t.contours);var
m=s.ensureSingle(e,"g","contourfill").selectAll("path").data(g?a:[]);m.enter().append("path"),m.exit().remove(),m.e
ach((function(t){var e=(t.prefixBoundary?p:"")+function(t,e,r,n,i,a,l,c){var
u,f,h,p,d,g,m,y="",x=e.edgepaths.map((function(t,e){return e})),b=!0,_=1e-4*Math.abs(r[0][0]-r[2][0]),w=1e-
4*Math.abs(r[0][1]-r[2][1]);function T(t){return Math.abs(t[1]-r[0][1])<w}function k(t){return Math.abs(t[1]-
r[2][1])<w}function A(t){return Math.abs(t[0]-r[0][0])<_}function M(t){return Math.abs(t[0]-r[2][0])<_}function
S(t,e){var
r,n,o,s,u="";for(T(t)&&!M(t)||k(t)&&!A(t)?(s=i.aaxis,o=v(i,a,[t[0],e[0]],.5*(t[1]+e[1]))):(s=i.baxis,o=v(i,a,.5*(t[0]+e
[0]),[t[1],e[1]])),r=1;r<o.length;r++)for(u+=s.smoothing?"C":"L",n=0;n<o[r].length;n++){var
f=o[r][n];u+=[l.c2p(f[0]),c.c2p(f[1])]+" "}return u}for(u=0,f=null;x.length;){var
E=e.edgepaths[u][0];for(f&&(y+=S(f,E)),m=o.smoothopen(e.edgepaths[u].map(n),e.smoothing),y+=b?m:m.replace(
/^M/,"L"),x.splice(x.indexOf(u),1),f=e.edgepaths[u][e.edgepaths[u].length-1],d=-
1,p=0;p<4;p++){if(!f){s.log("Missing
end?",u,e);break}for(T(f)&&!M(f)?h=r[1]:A(f)?h=r[0]:k(f)?h=r[3]:M(f)&&(h=r[2]),g=0;g<e.edgepaths.length;g++)
{var L=e.edgepaths[g][0];Math.abs(f[0]-h[0])<_?Math.abs(f[0]-L[0])<_&&(L[1]-f[1])*(h[1]-
L[1])>=0&&(h=L,d=g):Math.abs(f[1]-h[1])<w?Math.abs(f[1]-L[1])<w&&(L[0]-f[0])*(h[0]-
L[0])>=0&&(h=L,d=g):s.log("endpt to newendpt is not vert. or
horz.",f,h,L)}if(d>=0)break;y+=S(f,h),f=h}if(d===e.edgepaths.length){s.log("unclosed perimeter
path");break}u=d,(b=-
1===x.indexOf(u))&&(u=x[0],y+=S(f,h)+"Z",f=null)}for(u=0;u<e.paths.length;u++)y+=o.smoothclosed(e.paths[u].
map(n),e.smoothing);return
y}(0,t,l,c,u,f,r,i);e?n.select(this).attr("d",e).style("stroke","none"):n.select(this).remove()}))}e.exports=function(t,e,r,
u){var f=e.xaxis,d=e.yaxis;s.makeTraceGroups(u,r,"contour").each((function(r){var
u=n.select(this),v=r[0],y=v.trace,x=y._carpetTrace=g(t,y),b=t.calcdata[x.index][0];if(x.visible&&"legendonly"!==x.
visible){var
w=v.a,T=v.b,k=y.contours,A=p(k,e,v),M="constraint"===k.type,S=k._operation,E=M?"="===S?"lines":"fill":k.col
oring,L=[[w[0],T[T.length-1]],[w[w.length-1],T[T.length-1]],[w[w.length-1],T[0]],[w[0],T[0]]];l(A);var C=1e-
8*(w[w.length-1]-w[0]),P=1e-8*(T[T.length-1]-T[0]);c(A,C,P);var
I,O,z,D,R=A;"constraint"===k.type&&(R=h(A,S)),function(t,e){var
r,n,i,a,o,s,l,c,u;for(r=0;r<t.length;r++){for(o=(a=t[r]).pedgepaths=[],s=a.ppaths=[],n=0;n<a.edgepaths.length;n++){f
or(u=a.edgepaths[n],l=[],i=0;i<u.length;i++)l[i]=e(u[i]);o.push(l)}for(n=0;n<a.paths.length;n++){for(u=a.paths[n],c
=[],i=0;i<u.length;i++)c[i]=e(u[i]);s.push(c)}}}(A,N);var F=[];for(D=b.clipsegments.length-1;D>=0;D--
)I=b.clipsegments[D],O=i([],I.x,f.c2p),z=i([],I.y,d.c2p),O.reverse(),z.reverse(),F.push(a(O,z,I.bicubic));var
B="M"+F.join("L")+"Z";(function(t,e,r,n,o,l){var
c,u,f,h,p=s.ensureSingle(t,"g","contourbg").selectAll("path").data("fill"!==l||o?[]:[0]);p.enter().append("path"),p.exit
().remove();var
d=[];for(h=0;h<e.length;h++)c=e[h],u=i([],c.x,r.c2p),f=i([],c.y,n.c2p),d.push(a(u,f,c.bicubic));p.attr("d","M"+d.join(
"L")+"Z").style("stroke","none")})(u,b.clipsegments,f,d,M,E),_(y,u,f,d,R,L,N,x,b,E,B),m(u,A,t,v,k,e,x),o.setClipUrl
(u,x._clipPathId,t)}function N(t){var
e=x.ab2xy(t[0],t[1],!0);return[f.c2p(e[0]),d.c2p(e[1])]}}))}},{"../../components/drawing":388,"../../lib":503,"../carpet

/axis_aligned_line":692,"../carpet/lookup_carpetid":708,"../carpet/makepath":709,"../carpet/map_1d_array":710,"../contour/close_boundaries":737,"../contour/constants":739,"../contour/convert_to_constraints":743,"../contour/empty_pathinfo":745,"../contour/find_all_paths":747,"../contour/make_crossings":752,"../contour/plot":753,"@plotly/d3":58}],762:[function(t,e,r){"use strict";var n=t("../../components/colorscale/attributes"),i=t("../../plots/template_attributes").hovertemplateAttrs,a=t("../../plots/attributes"),o=t("../scattermapbox/attributes"),s=t("../../lib/extend").extendFlat;e.exports=s({lon:o.lon,lat:o.lat,z:{valType:"data_array",editType:"calc"},radius:{valType:"number",editType:"plot",arrayOk:!0,min:1,dflt:30},below:{valType:"string",editType:"plot"},text:o.text,hovertext:o.hovertext,hoverinfo:s({},a.hoverinfo,{flags:["lon","lat","z","text","name"]}),hovertemplate:i(),showlegend:s({},a.showlegend,{dflt:!1})},n("",{cLetter:"z",editTypeOverride:"calc"}))},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plots/attributes":550,"../../plots/template_attributes":633,"../scattermapbox/attributes":993}],763:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib").isArrayOrTypedArray,a=t("../../constants/numerical").BADNUM,o=t("../../components/colorscale/calc"),s=t("../../lib")._;e.exports=function(t,e){for(var r=e._length,l=new Array(r),c=e.z,u=i(c)&&c.length,f=0;f<r;f++){var h=l[f]={},p=e.lon[f],d=e.lat[f];if(h.lonlat=n(p)&&n(d)?[+p,+d]:[a,a],u){var g=c[f];h.z=n(g)?g:a}}return o(t,e,{vals:u?c:[0,1],containerStr:"",cLetter:"z"}),r&&(l[0].t={labels:{lat:s(t,"lat:")+" ",lon:s(t,"lon:")+" "}}),l}},{"../../components/colorscale/calc":374,"../../constants/numerical":479,"../../lib":503,"fast-isnumeric":190}],764:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib"),a=t("../../components/color"),o=t("../../components/colorscale"),s=t("../../constants/numerical").BADNUM,l=t("../../lib/geojson_utils").makeBlank;e.exports=function(t){var e=t[0].trace,r=!0===e.visible&&0!==e._length,c=e._opts={heatmap:{layout:{visibility:"none"},paint:{}},geojson:l()};if(!r)return c;var u,f=[],h=e.z,p=e.radius,d=i.isArrayOrTypedArray(h)&&h.length,g=i.isArrayOrTypedArray(p);for(u=0;u<t.length;u++){var v=t[u],m=v.lonlat;if(m[0]!==s){var y={};if(d){var x=v.z;y.z=x!==s?x:0}g&&(y.r=n(p[u])&&p[u]>0?+p[u]:0),f.push({type:"Feature",geometry:{type:"Point",coordinates:m},properties:y})}}var b=o.extractOpts(e),_=b.reversescale?o.flipScale(b.colorscale):b.colorscale,w=_[0][1],T=["interpolate",["linear"],["heatmap-density"],0,a.opacity(w)<1?w:a.addOpacity(w,0)];for(u=1;u<_.length;u++)T.push(_[u][0],_[u][1]);var k=["interpolate",["linear"],["get","z"],b.min,0,b.max,1];return i.extendFlat(c.heatmap.paint,{"heatmap-weight":d?k:1/(b.max-b.min),"heatmap-color":T,"heatmap-radius":g?{type:"identity",property:"r"}:e.radius,"heatmap-opacity":e.opacity}),c.geojson={type:"FeatureCollection",features:f},c.heatmap.layout.visibility="visible",c}},{"../../components/color":366,"../../components/colorscale":378,"../../constants/numerical":479,"../../lib":503,"../../lib/geojson_utils":497,"fast-isnumeric":190}],765:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../components/colorscale/defaults"),a=t("./attributes");e.exports=function(t,e,r,o){function s(r,i){return n.coerce(t,e,a,r,i)}var l=s("lon")||[],c=s("lat")||[],u=Math.min(l.length,c.length);u?(e._length=u,s("z"),s("radius"),s("below"),s("text"),s("hovertext"),s("hovertemplate"),i(t,e,o,s,{prefix:"",cLetter:"z"})):e.visible=!1}},{"../../components/colorscale/defaults":376,"../../lib":503,"./attributes":762}],766:[function(t,e,r){"use strict";e.exports=function(t,e){return t.lon=e.lon,t.lat=e.lat,t.z=e.z,t}},{}],767:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes"),i=t("../scattermapbox/hover").hoverPoints,a=t("../scattermapbox/hover").getExtraText;e.exports=function(t,e,r){var o=i(t,e,r);if(o){var s=o[0],l=s.cd,c=l[0].trace,u=l[s.index];if(delete s.color,"z"in u){var f=s.subplot.mockAxis;s.z=u.z,s.zLabel=n.tickText(f,f.c2l(u.z),"hover").text}return s.extraText=a(c,u,l[0].t.labels),[s]}}},{"../../plots/cartesian/axes":554,"../scattermapbox/hover":998}],768:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),colorbar:t("../heatmap/colorbar"),formatLabels:t("../scattermapbox/format_labels"),calc:t("./calc"),plot:t("./plot"),hoverPoints:t("./hover"),eventData:t("./event_data"),getBelow:function(t,e){for(var r=e.getMapLayers(),n=0;n<r.length;n++){var

i=r[n],a=i.id;if("symbol"===i.type&&"string"==typeof a&&-1===a.indexOf("plotly-"))return a}},moduleType:"trace",name:"densitymapbox",basePlotModule:t("../../plots/mapbox"),categories:["mapbox","gl","showLegend"],meta:{hr_name:"density_mapbox"}}},{"../../plots/mapbox":613,"../heatmap/colorbar":795,"../scattermapbox/format_labels":997,"./attributes":762,"./calc":763,"./defaults":765,"./event_data":766,"./hover":767,"./plot":769}],769:[function(t,e,r){"use strict";var n=t("./convert"),i=t("../../plots/mapbox/constants").traceLayerPrefix;function a(t,e){this.type="densitymapbox",this.subplot=t,this.uid=e,this.sourceId="source-"+e,this.layerList=[["heatmap",i+e+"-heatmap"]],this.below=null}var o=a.prototype;o.update=function(t){var e=this.subplot,r=this.layerList,i=n(t),a=e.belowLookup["trace-"+this.uid];e.map.getSource(this.sourceId).setData(i.geojson),a!==this.below&&(this._removeLayers(),this._addLayers(i,a),this.below=a);for(var o=0;o<r.length;o++){var s=r[o],l=s[0],c=s[1],u=i[l];e.setOptions(c,"setLayoutProperty",u.layout),"visible"===u.layout.visibility&&e.setOptions(c,"setPaintProperty",u.paint)}},o._addLayers=function(t,e){for(var r=this.subplot,n=this.layerList,i=this.sourceId,a=0;a<n.length;a++){var o=n[a],s=o[0],l=t[s];r.addLayer({type:s,id:o[1],source:i,layout:l.layout,paint:l.paint},e)}},o._removeLayers=function(){for(var t=this.subplot.map,e=this.layerList,r=e.length-1;r>=0;r--)t.removeLayer(e[r][1])},o.dispose=function(){var t=this.subplot.map;this._removeLayers(),t.removeSource(this.sourceId)},e.exports=function(t,e){var r=e[0].trace,i=new a(t,r.uid),o=i.sourceId,s=n(e),l=i.below=t.belowLookup["trace-"+r.uid];return t.map.addSource(o,{type:"geojson",data:s.geojson}),i._addLayers(s,l),i}},{"../../plots/mapbox/constants":611,"./convert":764}],770:[function(t,e,r){"use strict";var n=t("../../lib");e.exports=function(t,e){for(var r=0;r<t.length;r++)t[r].i=r;n.mergeArray(e.text,t,"tx"),n.mergeArray(e.hovertext,t,"htx");var i=e.marker;if(i){n.mergeArray(i.opacity,t,"mo"),n.mergeArray(i.color,t,"mc");var a=i.line;a&&(n.mergeArray(a.color,t,"mlc"),n.mergeArrayCastPositive(a.width,t,"mlw"))}}},{"../../lib":503}],771:[function(t,e,r){"use strict";var n,i=t("../bar/attributes"),a=t("../scatter/attributes").line,o=t("../../plots/attributes"),s=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,l=t("../../plots/template_attributes").hovertemplateAttrs,c=t("../../plots/template_attributes").texttemplateAttrs,u=t("./constants"),f=t("../../lib/extend").extendFlat,h=t("../../components/color");e.exports={x:i.x,x0:i.x0,dx:i.dx,y:i.y,y0:i.y0,dy:i.dy,xperiod:i.xperiod,yperiod:i.yperiod,xperiod0:i.xperiod0,yperiod0:i.yperiod0,xperiodalignment:i.xperiodalignment,yperiodalignment:i.yperiodalignment,xhoverformat:s("x"),yhoverformat:s("y"),hovertext:i.hovertext,hovertemplate:l({},{keys:u.eventDataKeys}),hoverinfo:f({},o.hoverinfo,{flags:["name","x","y","text","percent initial","percent previous","percent total"]}),textinfo:{valType:"flaglist",flags:["label","text","percent initial","percent previous","percent total","value"],extras:["none"],editType:"plot",arrayOk:!1},texttemplate:c({editType:"plot"},{keys:u.eventDataKeys.concat(["label","value"])}),text:i.text,textposition:i.textposition,insidetextanchor:f({},i.insidetextanchor,{dflt:"middle"}),textangle:f({},i.textangle,{dflt:0}),textfont:i.textfont,insidetextfont:i.insidetextfont,outsidetextfont:i.outsidetextfont,constraintext:i.constraintext,cliponaxis:i.cliponaxis,orientation:f({},i.orientation,{}),offset:f({},i.offset,{arrayOk:!1}),width:f({},i.width,{arrayOk:!1}),marker:(n=f({},i.marker),delete n.pattern,n),connector:{fillcolor:{valType:"color",editType:"style"},line:{color:f({},a.color,{dflt:h.defaultLine}),width:f({},a.width,{dflt:0,editType:"plot"}),dash:a.dash,editType:"style"},visible:{valType:"boolean",dflt:!0,editType:"plot"},editType:"plot"},offsetgroup:i.offsetgroup,alignmentgroup:i.alignmentgroup}},{"../../components/color":366,"../../lib/extend":493,"../../plots/attributes":550,"../../plots/cartesian/axis_format_attributes":557,"../../plots/template_attributes":633,"../bar/attributes":648,"../scatter/attributes":927,"./constants":773}],772:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes"),i=t("../../plots/cartesian/align_period"),a=t("./arrays_to_calcdata"),o=t("../scatter/calc_selection"),s=t("../../constants/numerical").BADNUM;function l(t){return t===s?0:t}e.exports=function(t,e){var r,c,u,f,h,p,d,g,v=n.getFromId(t,e.xaxis||"x"),m=n.getFromId(t,e.yaxis||"y");"h"===e.orientation?(r=v.makeCalcdata(e,"x"),u=m.makeCalcdata(e,"y"),f=i(e,m,"y",u),h=!!e.yperiodalignment,p="y"):(r=m.makeCalcdata(e,"y"),u=v.make

Calcdata(e,"x"),f=i(e,v,"x",u),h=!!e.xperiodalignment,p="x"),c=f.vals;var y,x=Math.min(c.length,r.length),b=new Array(x);for(e._base=[],d=0;d<x;d++){r[d]<0&&(r[d]=s);var _=!1;r[d]!==s&&d+1<x&&r[d+1]!==s&&(_=!0),g=b[d]={p:c[d],s:r[d],cNext:_},e._base[d]=-.5*g.s,h&&(b[d].orig_p=u[d],b[d][p+"End"]=f.ends[d],b[d][p+"Start"]=f.starts[d]),e.ids&&(g.id=String(e.ids[d])),0===d&&(b[0].vTotal=0),b[0].vTotal+=l(g.s),g.begR=l(g.s)/l(b[0].s)}for(d=0;d<x;d++)(g=b[d]).s!==s&&(g.sumR=g.s/b[0].vTotal,g.difR=void 0!==y?g.s/y:1,y=g.s);return a(b,e),o(b,e),b}},{"../../constants/numerical":479,"../../plots/cartesian/align_period":551,"../../plots/cartesian/axes":554,"../scatter/calc_selection":929,"./arrays_to_calcdata":770}],773:[function(t,e,r){"use strict";e.exports={eventDataKeys:["percentInitial","percentPrevious","percentTotal"]}},{}],774:[function(t,e,r){"use strict";var n=t("../bar/cross_trace_calc").setGroupPositions;e.exports=function(t,e){var r,i,a=t._fullLayout,o=t._fullData,s=t.calcdata,l=e.xaxis,c=e.yaxis,u=[],f=[],h=[];for(i=0;i<o.length;i++){var p=o[i],d="h"===p.orientation;!0===p.visible&&p.xaxis===l._id&&p.yaxis===c._id&&"funnel"===p.type&&(r=s[i],d?h.push(r):f.push(r),u.push(r))}var g={mode:a.funnelmode,norm:a.funnelnorm,gap:a.funnelgap,groupgap:a.funnelgroupgap};for(n(t,l,c,f,g),n(t,c,l,h,g),i=0;i<u.length;i++){r=u[i];for(var v=0;v<r.length;v++)v+1<r.length&&(r[v].nextP0=r[v+1].p0,r[v].nextS0=r[v+1].s0,r[v].nextP1=r[v+1].p1,r[v].nextS1=r[v+1].s1)}}},{"../bar/cross_trace_calc":651}],775:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../bar/defaults").handleGroupingDefaults,a=t("../bar/defaults").handleText,o=t("../scatter/xy_defaults"),s=t("../scatter/period_defaults"),l=t("./attributes"),c=t("../../components/color");e.exports={supplyDefaults:function(t,e,r,i){function u(r,i){return n.coerce(t,e,l,r,i)}if(o(t,e,i,u)){s(t,e,i,u),u("xhoverformat"),u("yhoverformat"),u("orientation",e.y&&!e.x?"v":"h"),u("offset"),u("width");var f=u("text");u("hovertext"),u("hovertemplate");var h=u("textposition");a(t,e,i,u,h,{moduleHasSelected:!1,moduleHasUnselected:!1,moduleHasConstrain:!0,moduleHasCliponaxis:!0,moduleHasTextangle:!0,moduleHasInsideanchor:!0}),"none"===e.textposition||e.texttemplate||u("textinfo",Array.isArray(f)?"text+value":"value");var p=u("marker.color",r);u("marker.line.color",c.defaultLine),u("marker.line.width"),u("connector.visible")&&(u("connector.fillcolor",function(t){var e=n.isArrayOrTypedArray(t)?"#000":t;return c.addOpacity(e,.5*c.opacity(e))}(p)),u("connector.line.width")&&(u("connector.line.color"),u("connector.line.dash")))}else e.visible=!1},crossTraceDefaults:function(t,e){var r,a;function o(t){return n.coerce(a._input,a,l,t)}if("group"===e.funnelmode)for(var s=0;s<t.length;s++)r=(a=t[s])._input,i(r,a,e,o)}},{"../../components/color":366,"../../lib":503,"../bar/defaults":652,"../scatter/period_defaults":947,"../scatter/xy_defaults":954,"./attributes":771}],776:[function(t,e,r){"use strict";e.exports=function(t,e){return t.x="xVal"in e?e.xVal:e.x,t.y="yVal"in e?e.yVal:e.y,"percentInitial"in e&&(t.percentInitial=e.percentInitial),"percentPrevious"in e&&(t.percentPrevious=e.percentPrevious),"percentTotal"in e&&(t.percentTotal=e.percentTotal),e.xa&&(t.xaxis=e.xa),e.ya&&(t.yaxis=e.ya),t}},{}],777:[function(t,e,r){"use strict";var n=t("../../components/color").opacity,i=t("../bar/hover").hoverOnBars,a=t("../../lib").formatPercent;e.exports=function(t,e,r,o,s){var l=i(t,e,r,o,s);if(l){var c=l.cd,u=c[0].trace,f="h"===u.orientation,h=c[l.index];l[(f?"x":"y")+"LabelVal"]=h.s,l.percentInitial=h.begR,l.percentInitialLabel=a(h.begR,1),l.percentPrevious=h.difR,l.percentPreviousLabel=a(h.difR,1),l.percentTotal=h.sumR,l.percentTotalLabel=a(h.sumR,1);var p=h.hi||u.hoverinfo,d=[];if(p&&"none"!==p&&"skip"!==p){var g="all"===p,v=p.split("+"),m=function(t){return g||-1!==v.indexOf(t)};m("percent initial")&&d.push(l.percentInitialLabel+" of initial"),m("percent previous")&&d.push(l.percentPreviousLabel+" of previous"),m("percent total")&&d.push(l.percentTotalLabel+" of total")}return l.extraText=d.join("<br>"),l.color=function(t,e){var r=t.marker,i=e.mc||r.color,a=e.mlc||r.line.color,o=e.mlw||r.line.width;return n(i)?i:n(a)&&o?a:void 0}(u,h),[l]}},{"../../components/color":366,"../../lib":503,"../bar/hover":655}],778:[function(t,e,r){"use

strict";e.exports={attributes:t("./attributes"),layoutAttributes:t("./layout_attributes"),supplyDefaults:t("./defaults").supplyDefaults,crossTraceDefaults:t("./defaults").crossTraceDefaults,supplyLayoutDefaults:t("./layout_defaults"),calc:t("./calc"),crossTraceCalc:t("./cross_trace_calc"),plot:t("./plot"),style:t("./style").style,hoverPoints:t("./hover"),eventData:t("./event_data"),selectPoints:t("../bar/select"),moduleType:"trace",name:"funnel",basePlotModule:t("../../plots/cartesian"),categories:["bar-
like","cartesian","svg","oriented","showLegend","zoomScale"],meta:{}}},{"../../plots/cartesian":568,"../bar/select":660,"./attributes":771,"./calc":772,"./cross_trace_calc":774,"./defaults":775,"./event_data":776,"./hover":777,"./layout_attributes":779,"./layout_defaults":780,"./plot":781,"./style":782}],779:[function(t,e,r){"use
strict";e.exports={funnelmode:{valType:"enumerated",values:["stack","group","overlay"],dflt:"stack",editType:"calc"},funnelgap:{valType:"number",min:0,max:1,editType:"calc"},funnelgroupgap:{valType:"number",min:0,max:1,dflt:0,editType:"calc"}}},{}],780:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("./layout_attributes");e.exports=function(t,e,r){var a=!1;function o(r,a){return
n.coerce(t,e,i,r,a)}for(var s=0;s<r.length;s++){var
l=r[s];if(l.visible&&"funnel"===l.type){a=!0;break}}a&&(o("funnelmode"),o("funnelgap",.2),o("funnelgroupgap"))}},{"../../lib":503,"./layout_attributes":779}],781:[function(t,e,r){"use strict";var
n=t("@plotly/d3"),i=t("../../lib"),a=t("../../components/drawing"),o=t("../../constants/numerical").BADNUM,s=t("../bar/plot"),l=t("../bar/uniform_text").clearMinTextSize;function c(t,e,r,n){var i=[],a=[],o=n?e:r,s=n?r:e;return
i[0]=o.c2p(t.s0,!0),a[0]=s.c2p(t.p0,!0),i[1]=o.c2p(t.s1,!0),a[1]=s.c2p(t.p1,!0),i[2]=o.c2p(t.nextS0,!0),a[2]=s.c2p(t.nextP0,!0),i[3]=o.c2p(t.nextS1,!0),a[3]=s.c2p(t.nextP1,!0),n?[i,a]:[a,i]}e.exports=function(t,e,r,u){var
f=t._fullLayout;l("funnel",f),function(t,e,r,s){var l=e.xaxis,u=e.yaxis;i.makeTraceGroups(s,r,"trace
bars").each((function(r){var
s=n.select(this),f=r[0].trace,h=i.ensureSingle(s,"g","regions");if(f.connector&&f.connector.visible){var
p="h"===f.orientation,d=h.selectAll("g.region").data(i.identity);d.enter().append("g").classed("region",!0),d.exit().remove();var g=d.size();d.each((function(r,s){if(s===g-1||r.cNext){var
f=c(r,l,u,p),h=f[0],d=f[1],v="";h[0]!==o&&d[0]!==o&&h[1]!==o&&d[1]!==o&&h[2]!==o&&d[2]!==o&&h[3]!==o&&d[3]!==o&&(v+=p?"M"+h[0]+","+d[1]+"L"+h[2]+","+d[2]+"H"+h[3]+"L"+h[1]+","+d[1]+"Z":"M"+h[1]+","+d[1]+"L"+h[2]+","+d[3]+"V"+d[2]+"L"+h[1]+","+d[0]+"Z"),""===v&&(v="M0,0Z"),i.ensureSingle(n.select(this),"path").attr("d",v).call(a.setClipUrl,e.layerClipId,t)}}))}else h.remove()}))}(t,e,r,u),function(t,e,r,o){var
s=e.xaxis,l=e.yaxis;i.makeTraceGroups(o,r,"trace bars").each((function(r){var
o=n.select(this),u=r[0].trace,f=i.ensureSingle(o,"g","lines");if(u.connector&&u.connector.visible&&u.connector.line.width){var
h="h"===u.orientation,p=f.selectAll("g.line").data(i.identity);p.enter().append("g").classed("line",!0),p.exit().remove();var d=p.size();p.each((function(r,o){if(o===d-1||r.cNext){var u=c(r,s,l,h),f=u[0],p=u[1],g="";void
0!==f[3]&&void
0!==p[3]&&(h?(g+="M"+f[0]+","+p[1]+"L"+f[2]+","+p[2],g+="M"+f[1]+","+p[1]+"L"+f[3]+","+p[2]):(g+="M"+f[1]+","+p[1]+"L"+f[2]+","+p[3],g+="M"+f[1]+","+p[0]+"L"+f[2]+","+p[2])),""===g&&(g="M0,0Z"),i.ensureSingle(n.select(this),"path").attr("d",g).call(a.setClipUrl,e.layerClipId,t)}}))}else
f.remove()}))}(t,e,r,u),s.plot(t,e,r,u,{mode:f.funnelmode,norm:f.funnelmode,gap:f.funnelgap,groupgap:f.funnelgroupgap})}},{"../../components/drawing":388,"../../constants/numerical":479,"../../lib":503,"../bar/plot":659,"../bar/uniform_text":664,"@plotly/d3":58}],782:[function(t,e,r){"use strict";var
n=t("@plotly/d3"),i=t("../../components/drawing"),a=t("../../components/color"),o=t("../../constants/interactions").DESELECTDIM,s=t("../bar/style"),l=t("../bar/uniform_text").resizeText,c=s.styleTextPoints;e.exports={style:function(t,e,r){var
s=r||n.select(t).selectAll("g.funnellayer").selectAll("g.trace");l(t,s,"funnel"),s.style("opacity",(function(t){return
t[0].trace.opacity})),s.each((function(e){var r=n.select(this),s=e[0].trace;r.selectAll(".point >
path").each((function(t){if(!t.isBlank){var
e=s.marker;n.select(this).call(a.fill,t.mc||e.color).call(a.stroke,t.mlc||e.line.color).call(i.dashLine,e.line.dash,t.mlw||e.line.width).style("opacity",s.selectedpoints&&!t.selected?o:1)}})),c(r,s,t),r.selectAll(".regions").each((function(){n.s

elect(this).selectAll("path").style("stroke-width",0).call(a.fill,s.connector.fillcolor)})),r.selectAll(".lines").each((function(){var t=s.connector.line;i.lineGroupStyle(n.select(this).selectAll("path"),t.width,t.color,t.dash)}))}))}},{"../../components/color":366,"../../components/drawing":388,"../../constants/interactions":478,"../bar/style":662,"../bar/uniform_text":664,"@plotly/d3":58}],783:[function(t,e,r){"use strict";var n=t("../pie/attributes"),i=t("../../plots/attributes"),a=t("../../plots/domain").attributes,o=t("../../plots/template_attributes").hovertemplateAttrs,s=t("../../plots/template_attributes").texttemplateAttrs,l=t("../../lib/extend").extendFlat;e.exports={labels:n.labels,label0:n.label0,dlabel:n.dlabel,values:n.values,marker:{colors:n.marker.colors,line:{color:l({},n.marker.line.color,{dflt:null}),width:l({},n.marker.line.width,{dflt:1}),editType:"calc"},editType:"calc"},text:n.text,hovertext:n.hovertext,scalegroup:l({},n.scalegroup,{}),textinfo:l({},n.textinfo,{flags:["label","text","value","percent"]}),texttemplate:s({editType:"plot"},{keys:["label","color","value","text","percent"]}),hoverinfo:l({},i.hoverinfo,{flags:["label","text","value","percent","name"]}),hovertemplate:o({},{keys:["label","color","value","text","percent"]}),textposition:l({},n.textposition,{values:["inside","none"],dflt:"inside"}),textfont:n.textfont,insidetextfont:n.insidetextfont,title:{text:n.title.text,font:n.title.font,position:l({},n.title.position,{values:["top left","top center","top right"],dflt:"top center"})},editType:"plot"},domain:a({name:"funnelarea",trace:!0,editType:"calc"}),aspectratio:{valType:"number",min:0,dflt:1,editType:"plot"},baseratio:{valType:"number",min:0,max:1,dflt:.333,editType:"plot"}}},{"../../lib/extend":493,"../../plots/attributes":550,"../../plots/domain":584,"../../plots/template_attributes":633,"../pie/attributes":901}],784:[function(t,e,r){"use strict";var n=t("../../plots/plots");r.name="funnelarea",r.plot=function(t,e,i,a){n.plotBasePlot(r.name,t,e,i,a)},r.clean=function(t,e,i,a){n.cleanBasePlot(r.name,t,e,i,a)}},{"../../plots/plots":619}],785:[function(t,e,r){"use strict";var n=t("../pie/calc");e.exports={calc:function(t,e){return n.calc(t,e)},crossTraceCalc:function(t){n.crossTraceCalc(t,{type:"funnelarea"})}}},{"../pie/calc":903}],786:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./attributes"),a=t("../../plots/domain").defaults,o=t("../bar/defaults").handleText,s=t("../pie/defaults").handleLabelsAndValues;e.exports=function(t,e,r,l){function c(r,a){return n.coerce(t,e,i,r,a)}var u=c("labels"),f=c("values"),h=s(u,f),p=h.len;if(e._hasLabels=h.hasLabels,e._hasValues=h.hasValues,!e._hasLabels&&e._hasValues&&(c("label0"),c("dlabel")),p){e._length=p,c("marker.line.width")&&c("marker.line.color",l.paper_bgcolor),c("marker.colors"),c("scalegroup");var d,g=c("text"),v=c("texttemplate");if(v||(d=c("textinfo",Array.isArray(g)?"text+percent":"percent")),c("hovertext"),c("hovertemplate"),v||d&&"none"!==d){var m=c("textposition");o(t,e,l,c,m,{moduleHasSelected:!1,moduleHasUnselected:!1,moduleHasConstrain:!1,moduleHasCliponaxis:!1,moduleHasTextangle:!1,moduleHasInsideanchor:!1})}a(e,l,c),c("title.text")&&(c("title.position"),n.coerceFont(c,"title.font",l.font)),c("aspectratio"),c("baseratio")}else e.visible=!1}},{"../../lib":503,"../../plots/domain":584,"../bar/defaults":652,"../pie/defaults":904,"./attributes":783}],787:[function(t,e,r){"use strict";e.exports={moduleType:"trace",name:"funnelarea",basePlotModule:t("./base_plot"),categories:["pie-like","funnelarea","showLegend"],attributes:t("./attributes"),layoutAttributes:t("./layout_attributes"),supplyDefaults:t("./defaults"),supplyLayoutDefaults:t("./layout_defaults"),calc:t("./calc").calc,crossTraceCalc:t("./calc").crossTraceCalc,plot:t("./plot"),style:t("./style"),styleOne:t("../pie/style_one"),meta:{}}},{"../pie/style_one":912,"./attributes":783,"./base_plot":784,"./calc":785,"./defaults":786,"./layout_attributes":788,"./layout_defaults":789,"./plot":790,"./style":791}],788:[function(t,e,r){"use strict";var n=t("../pie/layout_attributes").hiddenlabels;e.exports={hiddenlabels:n,funnelareacolorway:{valType:"colorlist",editType:"calc"},extendfunnelareacolors:{valType:"boolean",dflt:!0,editType:"calc"}}},{"../pie/layout_attributes":908}],789:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./layout_attributes");e.exports=function(t,e){function r(r,a){return n.coerce(t,e,i,r,a)}r("hiddenlabels"),r("funnelareacolorway",e.colorway),r("extendfunnelareacolors")}},{"../../lib":503,"./layout_attributes":788}],790:[function(t,e,r){"use strict";var

n=t("@plotly/d3"),i=t("../../components/drawing"),a=t("../../lib"),o=a.strScale,s=a.strTranslate,l=t("../../lib/svg_text_utils"),c=t("../bar/plot").toMoveInsideBar,u=t("../bar/uniform_text"),f=u.recordMinTextSize,h=u.clearMinTextSize,p=t("../pie/helpers"),d=t("../pie/plot"),g=d.attachFxHandlers,v=d.determineInsideTextFont,m=d.layoutAreas,y=d.prerenderTitles,x=d.positionTitleOutside,b=d.formatSliceLabel;function _(t,e){return"l"+(e[0]-t[0])+","+(e[1]-t[1])}function w(t){if(t.length){var e=t[0],r=e.trace,n=r.aspectratio,i=r.baseratio;i>.999&&(i=.999);var a,o,s,l=Math.pow(i,2),c=e.vTotal,u=c,f=c*l/(1-l)/c,h=[];for(h.push(E()),o=t.length-1;o>-1;o--)if(!(s=t[o]).hidden){var p=s.v/u;f+=p,h.push(E())}var d=1/0,g=-1/0;for(o=0;o<h.length;o++)a=h[o],d=Math.min(d,a[1]),g=Math.max(g,a[1]);for(o=0;o<h.length;o++)h[o][1]=(g+d)/2;var v=h[h.length-1][0],m=e.r,y=(g-d)/2,x=m/v,b=m/y*n;for(e.r=b*y,o=0;o<h.length;o++)h[o][0]*=x,h[o][1]*=b;var _=[-(a=h[0])[0],a[1]],w=[a[0],a[1]],T=0;for(o=t.length-1;o>-1;o--)if(!(s=t[o]).hidden){var k=h[T+=1][0],A=h[T][1];s.TL=[-k,A],s.TR=[k,A],s.BL=_,s.BR=w,s.pxmid=(M=s.TR,S=s.BR,[.5*(M[0]+S[0]),.5*(M[1]+S[1])]),_=s.TL,w=s.TR}}var M,S;function E(){var t,e={x:t=Math.sqrt(f),y:-t};return[e.x,e.y]}e.exports=function(t,e){var r=t._fullLayout;h("funnelarea",r),y(e,t),m(e,r._size),a.makeTraceGroups(r._funnelarealayer,e,"trace").each((function(e){var u=n.select(this),h=e[0],d=h.trace;w(e),u.each((function(){var u=n.select(this).selectAll("g.slice").data(e);u.enter().append("g").classed("slice",!0),u.exit().remove(),u.each((function(o,s){if(o.hidden)n.select(this).selectAll("path,g").remove();else{o.pointNumber=o.i,o.curveNumber=d.index;var u=h.cx,m=h.cy,y=n.select(this),x=y.selectAll("path.surface").data([o]);x.enter().append("path").classed("surface",!0).style({"pointer-events":"all"}),y.call(g,t,e);var w="M"+(u+o.TR[0])+","+(m+o.TR[1])+_(o.TR,o.BR)+_(o.BR,o.BL)+_(o.BL,o.TL)+"Z";x.attr("d",w),b(t,o,h);var T=p.castOption(d.textposition,o.pts),k=y.selectAll("g.slicetext").data(o.text&&"none"!==T?[0]:[]);k.enter().append("g").classed("slicetext",!0),k.exit().remove(),k.each((function(){var h=a.ensureSingle(n.select(this),"text","",(function(t){t.attr("data-notex",1)})),p=a.ensureUniformFontSize(t,v(d,o,r.font));h.text(o.text).attr({class:"slicetext",transform:"","text-anchor":"middle"}).call(i.font,p).call(l.convertToTspans,t);var g,y,x,b=i.bBox(h.node()),_=Math.min(o.BL[1],o.BR[1])+m,w=Math.max(o.TL[1],o.TR[1])+m;y=Math.max(o.TL[0],o.BL[0])+u,x=Math.min(o.TR[0],o.BR[0])+u,(g=c(y,x,_,w,b,{isHorizontal:!0,constrained:!0,angle:0,anchor:"middle"})).fontSize=p.size,f(d.type,g,r),e[s].transform=g,h.attr("transform",a.getTextTransform(g))}))}))}));var m=n.select(this).selectAll("g.titletext").data(d.title.text?[0]:[]);m.enter().append("g").classed("titletext",!0),m.exit().remove(),m.each((function(){var e=a.ensureSingle(n.select(this),"text","",(function(t){t.attr("data-notex",1)})),c=d.title.text;d._meta&&(c=a.templateString(c,d._meta)),e.text(c).attr({class:"titletext",transform:"","text-anchor":"middle"}).call(i.font,d.title.font).call(l.convertToTspans,t);var u=x(h,r._size);e.attr("transform",s(u.x,u.y)+o(Math.min(1,u.scale))+s(u.tx,u.ty))}))}))}},{"../../components/drawing":388,"../../lib":503,"../../lib/svg_text_utils":529,"../bar/plot":659,"../bar/uniform_text":664,"../pie/helpers":906,"../pie/plot":910,"@plotly/d3":58}],791:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../pie/style_one"),a=t("../bar/uniform_text").resizeText;e.exports=function(t){var e=t._fullLayout._funnelarealayer.selectAll(".trace");a(t,e,"funnelarea"),e.each((function(t){var e=t[0].trace,r=n.select(this);r.style({opacity:e.opacity}),r.selectAll("path.surface").each((function(t){n.select(this).call(i,t,e)}))}))}},{"../bar/uniform_text":664,"../pie/style_one":912,"@plotly/d3":58}],792:[function(t,e,r){"use strict";var n=t("../scatter/attributes"),i=t("../../plots/attributes"),a=t("../../plots/font_attributes"),o=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,s=t("../../plots/template_attributes").hovertemplateAttrs,l=t("../../plots/template_attributes").texttemplateAttrs,c=t("../../components/colorscale/attributes"),u=t("../../lib/extend").extendFlat;e.exports=u({z:{valType:"data_array",editType:"calc"},x:u({},n.x,{impliedEdits:{xtype:"array"}}),x0:u({},n.x0,{impliedEdits:{xtype:"scaled"}}),dx:u({},n.dx,{impliedEdits:{xtype:"scaled"}}),y:u({},n.y,{impliedEdits:{ytype:"array"}}),y0:u({},n.y0,{impliedEdits:{ytype:"scaled"}}),dy:u({},n.dy,{impliedEdits:{ytype:"scaled"}}),xperiod:u({},n.xperiod,{impliedEdits:{xtype:"scaled"}}),yperiod:u({},n.yperiod,{impliedEdits:{ytype:"scaled"}}),xperiod0:u({},n.xperiod0,

{impliedEdits:{xtype:"scaled"}}),yperiod0:u({},n.yperiod0,{impliedEdits:{ytype:"scaled"}}),xperiodalignment:u({},n.xperiodalignment,{impliedEdits:{xtype:"scaled"}}),yperiodalignment:u({},n.yperiodalignment,{impliedEdits:{ytype:"scaled"}}),text:{valType:"data_array",editType:"calc"},hovertext:{valType:"data_array",editType:"calc"},transpose:{valType:"boolean",dflt:!1,editType:"calc"},xtype:{valType:"enumerated",values:["array","scaled"],editType:"calc+clearAxisTypes"},ytype:{valType:"enumerated",values:["array","scaled"],editType:"calc+clearAxisTypes"},zsmooth:{valType:"enumerated",values:["fast","best",!1],dflt:!1,editType:"calc"},hoverongaps:{valType:"boolean",dflt:!0,editType:"none"},connectgaps:{valType:"boolean",editType:"calc"},xgap:{valType:"number",dflt:0,min:0,editType:"plot"},ygap:{valType:"number",dflt:0,min:0,editType:"plot"},xhoverformat:o("x"),yhoverformat:o("y"),zhoverformat:o("z",1),hovertemplate:s(),texttemplate:l({arrayOk:!1,editType:"plot"},{keys:["x","y","z","text"]}),textfont:a({editType:"plot",autoSize:!0,autoColor:!0,colorEditType:"style"}),showlegend:u({},i.showlegend,{dflt:!1})},{transforms:void 0},c("",{cLetter:"z",autoColorDflt:!1}))},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plots/attributes":550,"../../plots/cartesian/axis_format_attributes":557,"../../plots/font_attributes":585,"../../plots/template_attributes":633,"../scatter/attributes":927}],793:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../lib"),a=t("../../plots/cartesian/axes"),o=t("../../plots/cartesian/align_period"),s=t("../histogram2d/calc"),l=t("../../components/colorscale/calc"),c=t("./convert_column_xyz"),u=t("./clean_2d_array"),f=t("./interp2d"),h=t("./find_empties"),p=t("./make_bound_array"),d=t("../../constants/numerical").BADNUM;function g(t){for(var e=[],r=t.length,n=0;n<r;n++){var i=t[n];i!==d&&e.push(i)}return e}e.exports=function(t,e){var r,v,m,y,x,b,_,w,T,k,A,M=a.getFromId(t,e.xaxis||"x"),S=a.getFromId(t,e.yaxis||"y"),E=n.traceIs(e,"contour"),L=n.traceIs(e,"histogram"),C=n.traceIs(e,"gl2d"),P=E?"best":e.zsmooth;if(M._minDtick=0,S._minDtick=0,L)y=(A=s(t,e)).orig_x,r=A.x,v=A.x0,m=A.dx,w=A.orig_y,x=A.y,b=A.y0,_=A.dy,T=A.z;else{var I=e.z;i.isArray1D(I)?(c(e,M,S,"x","y",["z"]),r=e._x,x=e._y,I=e._z):(y=e.x?M.makeCalcdata(e,"x"):[],w=e.y?S.makeCalcdata(e,"y"):[],r=o(e,M,"x",y).vals,x=o(e,S,"y",w).vals,e._x=r,e._y=x),v=e.x0,m=e.dx,b=e.y0,_=e.dy,T=u(I,e,M,S)}function O(t){P=e._input.zsmooth=e.zsmooth=!1,i.warn('cannot use zsmooth: "fast": '+t)}if((M.rangebreaks||S.rangebreaks)&&(T=function(t,e,r){for(var n=[],i=-1,a=0;a<r.length;a++)if(e[a]!==d){n[++i]=[];for(var o=0;o<r[a].length;o++)t[o]!==d&&n[i].push(r[a][o])}return n}(r,x,T),L||(r=g(r),x=g(x),e._x=r,e._y=x)),L||!E&&!e.connectgaps||(e._emptypoints=h(T),f(T,e._emptypoints)),"fast"===P)if("log"===M.type||"log"===S.type)O("log axis found");else if(!L){if(r.length){var z=(r[r.length-1]-r[0])/(r.length-1),D=Math.abs(z/100);for(k=0;k<r.length-1;k++)if(Math.abs(r[k+1]-r[k]-z)>D){O("x scale is not linear");break}}if(x.length&&"fast"===P){var R=(x[x.length-1]-x[0])/(x.length-1),F=Math.abs(R/100);for(k=0;k<x.length-1;k++)if(Math.abs(x[k+1]-x[k]-R)>F){O("y scale is not linear");break}}}var B=i.maxRowLength(T),N="scaled"===e.xtype?"":r,j=p(e,N,v,m,B,M),U="scaled"===e.ytype?"":x,V=p(e,U,b,_,T.length,S);C||(e._extremes[M._id]=a.findExtremes(M,j),e._extremes[S._id]=a.findExtremes(S,V));var q={x:j,y:V,z:T,text:e._text||e.text,hovertext:e._hovertext||e.hovertext};if(e.xperiodalignment&&y&&(q.orig_x=y),e.yperiodalignment&&w&&(q.orig_y=w),N&&N.length===j.length-1&&(q.xCenter=N),U&&U.length===V.length-1&&(q.yCenter=U),L&&(q.xRanges=A.xRanges,q.yRanges=A.yRanges,q.pts=A.pts),E||l(t,e,{vals:T,cLetter:"z"}),E&&e.contours&&"heatmap"===e.contours.coloring){var H={type:"contour"===e.type?"heatmap":"histogram2d",xcalendar:e.xcalendar,ycalendar:e.ycalendar};q.xfill=p(H,N,v,m,B,M),q.yfill=p(H,U,b,_,T.length,S)}return[q]}},{"../../components/colorscale/calc":374,"../../constants/numerical":479,"../../lib":503,"../../plots/cartesian/align_period":551,"../../plots/cartesian/axes":554,"../../registry":638,"../histogram2d/calc":826,"./clean_2d_array":794,"./convert_column_xyz":796,"./find_empties":798,"./interp2d":801,"./make_bound_array":803}],794:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib"),a=t("../../constants/numerical").BADNUM;e.exports=function(t,e,r,o){var s,l,c,u,f,h;function p(t){if(n(t))return+t}if(e&&e.transpose){for(s=0,f=0;f<t.length;f++)s=Math.max(s,t[f].length);if(0===s)return!1;c=function(t){return t.length},u=function(t,e,r){return(t[r]||[])[e]}}else s=t.length,c=function(t,e){return t[e].length},u=function(t,e,r){return(t[e]||[])[r]};var d=function(t,e,r){return e===a||r===a?a:u(t,e,r)};function

g(t){if(e&&"carpet"!==e.type&&"contourcarpet"!==e.type&&t&&"category"===t.type&&e["_"+t._id.charAt(0)].length){var r=t._id.charAt(0),n={},o=e["_"+r+"CategoryMap"]||e[r];for(f=0;f<o.length;f++)n[o[f]]=f;return function(e){var r=n[t._categories[e]];return r+1?r:a}}return i.identity}var v=g(r),m=g(o);o&&"category"===o.type&&(s=o._categories.length);var y=new Array(s);for(f=0;f<s;f++)for(l=r&&"category"===r.type?r._categories.length:c(t,f),y[f]=new Array(l),h=0;h<l;h++)y[f][h]=p(d(t,m(f),v(h)));return y}},{"../../constants/numerical":479,"../../lib":503,"fast-isnumeric":190}],795:[function(t,e,r){"use strict";e.exports={min:"zmin",max:"zmax"}},{}],796:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../constants/numerical").BADNUM,a=t("../../plots/cartesian/align_period");e.exports=function(t,e,r,o,s,l){var c=t._length,u=e.makeCalcdata(t,o),f=r.makeCalcdata(t,s);u=a(t,e,o,u).vals,f=a(t,r,s,f).vals;var h,p,d,g,v=t.text,m=void 0!==v&&n.isArray1D(v),y=t.hovertext,x=void 0!==y&&n.isArray1D(y),b=n.distinctVals(u),_=b.vals,w=n.distinctVals(f),T=w.vals,k=[],A=T.length,M=_.length;for(h=0;h<l.length;h++)k[h]=n.init2dArray(A,M);m&&(d=n.init2dArray(A,M)),x&&(g=n.init2dArray(A,M));var S=n.init2dArray(A,M);for(h=0;h<c;h++)if(u[h]!==i&&f[h]!==i){var E=n.findBin(u[h]+b.minDiff/2,_),L=n.findBin(f[h]+w.minDiff/2,T);for(p=0;p<l.length;p++){var C=t[l[p]];k[p][L][E]=C[h],S[L][E]=h}m&&(d[L][E]=v[h]),x&&(g[L][E]=y[h])}for(t["_"+o]=_,t["_"+s]=T,p=0;p<l.length;p++)t["_"+l[p]]=k[p];m&&(t._text=d),x&&(t._hovertext=g),e&&"category"===e.type&&(t["_"+o+"CategoryMap"]=_.map((function(t){return e._categories[t]}))),r&&"category"===r.type&&(t["_"+s+"CategoryMap"]=T.map((function(t){return r._categories[t]}))),t._after2before=S}},{"../../constants/numerical":479,"../../lib":503,"../../plots/cartesian/align_period":551}],797:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./xyz_defaults"),a=t("./label_defaults"),o=t("../scatter/period_defaults"),s=t("./style_defaults"),l=t("../../components/colorscale/defaults"),c=t("./attributes");e.exports=function(t,e,r,u){function f(r,i){return n.coerce(t,e,c,r,i)}i(t,e,f,u)?(o(t,e,u,f),f("xhoverformat"),f("yhoverformat"),f("text"),f("hovertext"),f("hovertemplate"),a(f,u),s(t,e,f,u),f("hoverongaps"),f("connectgaps",n.isArray1D(e.z)&&!1!==e.zsmooth),l(t,e,u,f,{prefix:"",cLetter:"z"})):e.visible=!1}},{"../../components/colorscale/defaults":376,"../../lib":503,"../scatter/period_defaults":947,"./attributes":792,"./label_defaults":802,"./style_defaults":806,"./xyz_defaults":807}],798:[function(t,e,r){"use strict";var n=t("../../lib").maxRowLength;e.exports=function(t){var e,r,i,a,o,s,l,c,u=[],f={},h=[],p=t[0],d=[],g=[0,0,0],v=n(t);for(r=0;r<t.length;r++)for(e=d,d=p,p=t[r+1]||[],i=0;i<v;i++)void 0===d[i]&&((s=(void 0!==d[i-1]?1:0)+(void 0!==d[i+1]?1:0)+(void 0!==e[i]?1:0)+(void 0!==p[i]?1:0))?(0===r&&s++,0===i&&s++,r===t.length-1&&s++,i===d.length-1&&s++,s<4&&(f[[r,i]]=[r,i,s]),u.push([r,i,s])):h.push([r,i]));for(;h.length;){for(l={},c=!1,o=h.length-1;o>=0;o--)(s=((f[[(r=(a=h[o])[0])-1,i=a[1]]]||g)[2]+(f[[r+1,i]]||g)[2]+(f[[r,i-1]]||g)[2]+(f[[r,i+1]]||g)[2])/20)&&(l[a]=[r,i,s],h.splice(o,1),c=!0);if(!c)throw"findEmpties iterated with no new neighbors";for(a in l)f[a]=l[a],u.push(l[a])}return u.sort((function(t,e){return e[2]-t[2]}))}},{"../../lib":503}],799:[function(t,e,r){"use strict";var n=t("../../components/fx"),i=t("../../lib"),a=t("../../plots/cartesian/axes"),o=t("../../components/colorscale").extractOpts;e.exports=function(t,e,r,s,l){l||(l={});var c,u,f,h,p=l.isContour,d=t.cd[0],g=d.trace,v=t.xa,m=t.ya,y=d.x,x=d.y,b=d.z,_=d.xCenter,w=d.yCenter,T=d.zmask,k=g.zhoverformat,A=y,M=x;if(!1!==t.index){try{f=Math.round(t.index[1]),h=Math.round(t.index[0])}catch(e){return void i.error("Error hovering on heatmap, pointNumber must be [row,col], found:",t.index)}if(f<0||f>=b[0].length||h<0||h>b.length)return}else{if(n.inbox(e-y[0],e-y[y.length-1],0)>0||n.inbox(r-x[0],r-x[x.length-1],0)>0)return;if(p){var S;for(A=[2*y[0]-y[1]],S=1;S<y.length;S++)A.push((y[S]+y[S-1])/2);for(A.push([2*y[y.length-1]-y[y.length-2]]),M=[2*x[0]-x[1]],S=1;S<x.length;S++)M.push((x[S]+x[S-1])/2);M.push([2*x[x.length-1]-x[x.length-2]])}f=Math.max(0,Math.min(A.length-2,i.findBin(e,A))),h=Math.max(0,Math.min(M.length-2,i.findBin(r,M)))}var E,L,C=v.c2p(y[f]),P=v.c2p(y[f+1]),I=m.c2p(x[h]),O=m.c2p(x[h+1]);p?(E=d.orig_x||y,L=d.orig_y||x,P=C,c=E[f],O=I,u=L[h]):(E=d.orig_x||_||y,L=d.orig_y||w||x,c=_?E[f]:(E[f]+E[f+1])/2,u=w?L[h]:(L[h]+L[h+1])/2,v&&"category"==

=v.type&&(c=y[f]),m&&"category"===m.type&&(u=x[h]),g.zsmooth&&(C=P=v.c2p(c),I=O=m.c2p(u)));var z=b[h][f];if(T&&!T[h][f]&&(z=void 0),void 0!==z||g.hoverongaps){var D;Array.isArray(d.hovertext)&&Array.isArray(d.hovertext[h])?D=d.hovertext[h][f]:Array.isArray(d.text)&&Array.isArray(d.text[h])&&(D=d.text[h][f]);var R=o(g),F={type:"linear",range:[R.min,R.max],hoverformat:k,_separators:v._separators,_numFormat:v._numFormat},B=a.tickText(F,z,"hover").text;return[i.extendFlat(t,{index:g._after2before?g._after2before[h][f]:[h,f],distance:t.maxHoverDistance,spikeDistance:t.maxSpikeDistance,x0:C,x1:P,y0:I,y1:O,xLabelVal:c,yLabelVal:u,zLabelVal:z,zLabel:B,text:D})]}}},{"../../components/colorscale":378,"../../components/fx":406,"../../lib":503,"../../plots/cartesian/axes":554}],800:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),calc:t("./calc"),plot:t("./plot"),colorbar:t("./colorbar"),style:t("./style"),hoverPoints:t("./hover"),moduleType:"trace",name:"heatmap",basePlotModule:t("../../plots/cartesian"),categories:["cartesian","svg","2dMap","showLegend"],meta:{}}},{"../../plots/cartesian":568,"./attributes":792,"./calc":793,"./colorbar":795,"./defaults":797,"./hover":799,"./plot":804,"./style":805}],801:[function(t,e,r){"use strict";var n=t("../../lib"),i=[[-1,0],[1,0],[0,-1],[0,1]];function a(t){return.5-.25*Math.min(1,.5*t)}function o(t,e,r){var n,a,o,s,l,c,u,f,h,p,d,g,v,m=0;for(s=0;s<e.length;s++){for(a=(n=e[s])[0],o=n[1],d=t[a][o],p=0,h=0,l=0;l<4;l++)(u=t[a+(c=i[l])[0]])&&void 0!==(f=u[o+c[1]])&&(0===p?g=v=f:(g=Math.min(g,f),v=Math.max(v,f)),h++,p+=f);if(0===h)throw"iterateInterp2d order is wrong: no defined neighbors";t[a][o]=p/h,void 0===d?h<4&&(m=1):(t[a][o]=(1+r)*t[a][o]-r*d,v>g&&(m=Math.max(m,Math.abs(t[a][o]-d)/(v-g))))}return m}e.exports=function(t,e){var r,i=1;for(o(t,e),r=0;r<e.length&&!(e[r][2]<4);r++);for(e=e.slice(r),r=0;r<100&&i>.01;r++)i=o(t,e,a(i));return i>.01&&n.log("interp2d didn't converge quickly",i),t}},{"../../lib":503}],802:[function(t,e,r){"use strict";var n=t("../../lib");e.exports=function(t,e){t("texttemplate");var r=n.extendFlat({},e.font,{color:"auto",size:"auto"});n.coerceFont(t,"textfont",r)}},{"../../lib":503}],803:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../lib").isArrayOrTypedArray;e.exports=function(t,e,r,a,o,s){var l,c,u,f=[],h=n.traceIs(t,"contour"),p=n.traceIs(t,"histogram"),d=n.traceIs(t,"gl2d");if(i(e)&&e.length>1&&!p&&"category"!==s.type){var g=e.length;if(!(g<=o))return h?e.slice(0,o):e.slice(0,o+1);if(h||d)f=e.slice(0,o);else if(1===o)f=[e[0]-.5,e[0]+.5];else{for(f=[1.5*e[0]-.5*e[1]],u=1;u<g;u++)f.push(.5*(e[u-1]+e[u]));f.push(1.5*e[g-1]-.5*e[g-2])}if(g<o){var v=f[f.length-1],m=v-f[f.length-2];for(u=g;u<o;u++)v+=m,f.push(v)}}else{var y=t[s._id.charAt(0)+"calendar"];for(l=p?s.r2c(r,0,y):i(e)&&1===e.length?e[0]:void 0===r?0:("log"===s.type?s.d2c:s.r2c)(r,0,y),c=a||1,u=h||d?0:-.5;u<o;u++)f.push(l+c*u)}return f}},{"../../lib":503,"../../registry":638}],804:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("tinycolor2"),a=t("../../registry"),o=t("../../components/drawing"),s=t("../../plots/cartesian/axes"),l=t("../../lib"),c=t("../../lib/svg_text_utils"),u=t("../scatter/format_labels"),f=t("../../components/color"),h=t("../../components/colorscale").extractOpts,p=t("../../components/colorscale").makeColorScaleFuncFromTrace,d=t("../../constants/xmlns_namespaces"),g=t("../../constants/alignment").LINE_SPACING,v="heatmap-label";function m(t){return t.selectAll("g."+v)}function y(t){m(t).remove()}function x(t,e){var r=e.length-2,n=l.constrain(l.findBin(t,e),0,r),i=e[n],a=e[n+1],o=l.constrain(n+(t-i)/(a-i)-.5,0,r),s=Math.round(o),c=Math.abs(o-s);return o&&o!==r&&c?{bin0:s,frac:c,bin1:Math.round(s+c/(o-s))}:{bin0:s,bin1:s,frac:0}}function b(t,e){var r=e.length-1,n=l.constrain(l.findBin(t,e),0,r),i=e[n],a=(t-i)/(e[n+1]-i)||0;return a<=0?{bin0:n,bin1:n,frac:0}:a<.5?{bin0:n,bin1:n+1,frac:a}:{bin0:n+1,bin1:n,frac:1-a}}function _(t,e,r){t[e]=r[0],t[e+1]=r[1],t[e+2]=r[2],t[e+3]=Math.round(255*r[3])}e.exports=function(t,e,r,w){var T=e.xaxis,k=e.yaxis;l.makeTraceGroups(w,r,"hm").each((function(e){var r,w,A,M,S,E,L,C,P=n.select(this),I=e[0],O=I.trace,z=O.xgap||0,D=O.ygap||0,R=I.z,F=I.x,B=I.y,N=I.xCenter,j=I.yCenter,U=a.traceIs(O,"contour"),V=U?"best":O.zsmooth,q=R.length,H=l.maxRowLength(R),G=!1,Y=!1;for(E=0;void 0===r&&E<F.length-1;)r=T.c2p(F[E]),E++;for(E=F.length-1;void 0===w&&E>0;)w=T.c2p(F[E]),E--;for(w<r&&(A=w,w=r,r=A,G=!0),E=0;void 0===M&&E<B.length-1;)M=k.c2p(B[E]),E++;for(E=B.length-1;void 0===S&&E>0;)S=k.c2p(B[E]),E--

;if(S<M&&(A=M,M=S,S=A,Y=!0),U&&(N=F,j=B,F=I.xfill,B=I.yfill),"fast"!==V){var W="best"===V?0:.5;r=Math.max(-W*T._length,r),w=Math.min((1+W)*T._length,w),M=Math.max(-W*k._length,M),S=Math.min((1+W)*k._length,S)}var X,Z,J=Math.round(w-r),K=Math.round(S-M);if(J<=0||K<=0)return P.selectAll("image").data([]).exit().remove(),void y(P);"fast"===V?(X=H,Z=q):(X=J,Z=K);var Q=document.createElement("canvas");Q.width=X,Q.height=Z;var $,tt,et=Q.getContext("2d"),rt=p(O,{noNumericCheck:!0,returnArray:!0});"fast"===V?($=G?function(t){return H-1-t}:l.identity,tt=Y?function(t){return q-1-t}:l.identity):($=function(t){return l.constrain(Math.round(T.c2p(F[t])-r),0,J)},tt=function(t){return l.constrain(Math.round(k.c2p(B[t])-M),0,K)});var nt,it,at,ot,st=tt(0),lt=[st,st],ct=G?0:1,ut=Y?0:1,ft=0,ht=0,pt=0,dt=0;function gt(t,e){if(void 0!==t){var r=rt(t);return r[0]=Math.round(r[0]),r[1]=Math.round(r[1]),r[2]=Math.round(r[2]),ft+=e,ht+=r[0]*e,pt+=r[1]*e,dt+=r[2]*e,r}return[0,0,0,0]}function vt(t,e,r,n){var i=t[r.bin0];if(void 0===i)return gt(void 0,1);var a,o=t[r.bin1],s=e[r.bin0],l=e[r.bin1],c=o-i||0,u=s-i||0;return a=void 0===o?void 0===l?0:void 0===s?2*(l-i):2*(2*l-s-i)/3:void 0===l?void 0===s?0:2*(2*i-o-s)/3:void 0===s?2*(2*l-o-i)/3:l+i-o-s,gt(i+r.frac*c+n.frac*(u+r.frac*a))}if(V){var mt,yt=0;try{mt=new Uint8Array(J*K*4)}catch(t){mt=new Array(J*K*4)}if("best"===V){var xt,bt,_t,wt=N||F,Tt=j||B,kt=new Array(wt.length),At=new Array(Tt.length),Mt=new Array(J),St=N?b:x,Et=j?b:x;for(E=0;E<wt.length;E++)kt[E]=Math.round(T.c2p(wt[E])-r);for(E=0;E<Tt.length;E++)At[E]=Math.round(k.c2p(Tt[E])-M);for(E=0;E<J;E++)Mt[E]=St(E,kt);for(L=0;L<K;L++)for(bt=R[(xt=Et(L,At)).bin0],_t=R[xt.bin1],E=0;E<J;E++,yt+=4)_(mt,yt,ot=vt(bt,_t,Mt[E],xt))}else for(L=0;L<q;L++)for(at=R[L],lt=tt(L),E=0;E<J;E++)ot=gt(at[E],1),_(mt,yt=4*(lt*J+$(E)),ot);var Lt=et.createImageData(J,K);try{Lt.data.set(mt)}catch(t){var Ct=Lt.data,Pt=Ct.length;for(L=0;L<Pt;L++)Ct[L]=mt[L]}et.putImageData(Lt,0,0)}else{var It=Math.floor(z/2),Ot=Math.floor(D/2);for(L=0;L<q;L++)if(at=R[L],lt.reverse(),lt[ut]=tt(L+1),lt[0]!==lt[1]&&void 0!==lt[0]&&void 0!==lt[1])for(nt=[it=$(0),it],E=0;E<H;E++)nt.reverse(),nt[ct]=$(E+1),nt[0]!==nt[1]&&void 0!==nt[0]&&void 0!==nt[1]&&(ot=gt(at[E],(nt[1]-nt[0])*(lt[1]-lt[0])),et.fillStyle="rgba("+ot.join(",")+")",et.fillRect(nt[0]+It,lt[0]+Ot,nt[1]-nt[0]-z,lt[1]-lt[0]-D))}ht=Math.round(ht/ft),pt=Math.round(pt/ft),dt=Math.round(dt/ft);var zt=i("rgb("+ht+","+pt+","+dt+")");t._hmpixcount=(t._hmpixcount||0)+ft,t._hmlumcount=(t._hmlumcount||0)+ft*zt.getLuminance();var Dt=P.selectAll("image").data(e);Dt.enter().append("svg:image").attr({xmlns:d.svg,preserveAspectRatio:"none"}),Dt.attr({height:K,width:J,x:r,y:M,"xlink:href":Q.toDataURL("image/png")}),y(P);var Rt=O.texttemplate;if(Rt){var Ft=h(O),Bt={type:"linear",range:[Ft.min,Ft.max],_separators:T._separators,_numFormat:T._numFormat},Nt="histogram2dcontour"===O.type,jt="contour"===O.type,Ut=jt?q-1:q,Vt=jt?1:0,qt=jt?H-1:H,Ht=[];for(E=jt?1:0;E<Ut;E++){var Gt;if(jt)Gt=I.y[E];else if(Nt){if(0===E||E===q-1)continue;Gt=I.y[E]}else if(I.yCenter)Gt=I.yCenter[E];else{if(E+1===q&&void 0===I.y[E+1])continue;Gt=(I.y[E]+I.y[E+1])/2}var Yt=Math.round(k.c2p(Gt));if(!(0>Yt||Yt>k._length))for(L=Vt;L<qt;L++){var Wt;if(jt)Wt=I.x[L];else if(Nt){if(0===L||L===H-1)continue;Wt=I.x[L]}else if(I.xCenter)Wt=I.xCenter[L];else{if(L+1===H&&void 0===I.x[L+1])continue;Wt=(I.x[L]+I.x[L+1])/2}var Xt=Math.round(T.c2p(Wt));if(!(0>Xt||Xt>T._length)){var Zt=u({x:Wt,y:Gt},O,t._fullLayout);Zt.x=Wt,Zt.y=Gt;var Jt=I.z[E][L];void 0===Jt?(Zt.z="",Zt.zLabel=""):(Zt.z=Jt,Zt.zLabel=s.tickText(Bt,Jt,"hover").text);var Kt=I.text&&I.text[E]&&I.text[E][L];void 0!==Kt&&!1!==Kt||(Kt=""),Zt.text=Kt;var Qt=l.texttemplateString(Rt,Zt,t._fullLayout._d3locale,Zt,O._meta||{});if(Qt){var $t=Qt.split("<br>"),te=$t.length,ee=0;for(C=0;C<te;C++)ee=Math.max(ee,$t[C].length);Ht.push({l:te,c:ee,t:Qt,x:Xt,y:Yt,z:Jt})}}}}var re=O.textfont,ne=re.family,ie=re.size,ae=t._fullLayout.font.size;if(!ie||"auto"===ie){var oe=1/0,se=1/0,le=0,ce=0;for(C=0;C<Ht.length;C++){var ue=Ht[C];if(le=Math.max(le,ue.l),ce=Math.max(ce,ue.c),C<Ht.length-1){var fe=Ht[C+1],he=Math.abs(fe.x-ue.x),pe=Math.abs(fe.y-ue.y);he&&(oe=Math.min(oe,he)),pe&&(se=Math.min(se,pe))}}isFinite(oe)&&isFinite(se)?(oe-=z,se-

=D,oe/=ce,se/=le,oe/=g/2,se/=g,ie=Math.min(Math.floor(oe),Math.floor(se),ae)):ie=ae}if(ie<=0||!isFinite(ie))return;m(P).data(Ht).enter().append("g").classed(v,1).append("text").attr("text-anchor","middle").each((function(e){var r=n.select(this),i=re.color;i&&"auto"!==i||(i=f.contrast("rgba("+rt(e.z).join()+")")),r.attr("data-notex",1).call(c.positionText,function(t){return t.x}(e),function(t){return t.y-ie*(t.l*g/2-1)}(e)).call(o.font,ne,ie,i).text(e.t).call(c.convertToTspans,t)}))}))}},{"../../components/color":366,"../../components/colorscale":378,"../../components/drawing":388,"../../constants/alignment":471,"../../constants/xmlns_namespaces":480,"../../lib":503,"../../lib/svg_text_utils":529,"../../plots/cartesian/axes":554,"../../registry":638,"../scatter/format_labels":936,"@plotly/d3":58,tinycolor2:312}],805:[function(t,e,r){"use strict";var n=t("@plotly/d3");e.exports=function(t){n.select(t).selectAll(".hm image").style("opacity",(function(t){return t.trace.opacity}))}},{"@plotly/d3":58}],806:[function(t,e,r){"use strict";e.exports=function(t,e,r){!1===r("zsmooth")&&(r("xgap"),r("ygap")),r("zhoverformat")}},{}],807:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib"),a=t("../../registry");function o(t,e){var r=e(t);return"scaled"===(r?e(t+"type","array"):"scaled")&&(e(t+"0"),e("d"+t)),r}e.exports=function(t,e,r,s,l,c){var u,f,h=r("z");if(l=l||"x",c=c||"y",void 0===h||!h.length)return 0;if(i.isArray1D(t.z)){u=r(l),f=r(c);var p=i.minRowLength(u),d=i.minRowLength(f);if(0===p||0===d)return 0;e._length=Math.min(p,d,h.length)}else{if(u=o(l,r),f=o(c,r),!function(t){for(var e,r=!0,a=!1,o=!1,s=0;s<t.length;s++){if(e=t[s],!i.isArrayOrTypedArray(e)){r=!1;break}e.length>0&&(a=!0);for(var l=0;l<e.length;l++)if(n(e[l])){o=!0;break}}return r&&a&&o}(h))return 0;r("transpose"),e._length=null}return"heatmapgl"===t.type||a.getComponentMethod("calendars","handleTraceDefaults")(t,e,[l,c],s),!0}},{"../../lib":503,"../../registry":638,"fast-isnumeric":190}],808:[function(t,e,r){"use strict";for(var n=t("../heatmap/attributes"),i=t("../../components/colorscale/attributes"),a=t("../../lib/extend").extendFlat,o=t("../../plot_api/edit_types").overrideAll,s=["z","x","x0","dx","y","y0","dy","text","transpose","xtype","ytype"],l={},c=0;c<s.length;c++){var u=s[c];l[u]=n[u]}l.zsmooth={valType:"enumerated",values:["fast",!1],dflt:"fast",editType:"calc"},a(l,i("",{cLetter:"z",autoColorDflt:!1})),e.exports=o(l,"calc","nested")},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plot_api/edit_types":536,"../heatmap/attributes":792}],809:[function(t,e,r){"use strict";var n=t("../../../stackgl_modules").gl_heatmap2d,i=t("../../plots/cartesian/axes"),a=t("../../lib/str2rgbarray");function o(t,e){this.scene=t,this.uid=e,this.type="heatmapgl",this.name="",this.hoverinfo="all",this.xData=[],this.yData=[],this.zData=[],this.textLabels=[],this.idToIndex=[],this.bounds=[0,0,0,0],this.options={zsmooth:"fast",z:[],x:[],y:[],shape:[0,0],colorLevels:[0],colorValues:[0,0,0,1]},this.heatmap=n(t.glplot,this.options),this.heatmap._trace=this}var s=o.prototype;s.handlePick=function(t){var e=this.options,r=e.shape,n=t.pointId,i=n%r[0],a=Math.floor(n/r[0]),o=n;return{trace:this,dataCoord:t.dataCoord,traceCoord:[e.x[i],e.y[a],e.z[o]],textLabel:this.textLabels[n],name:this.name,pointIndex:[a,i],hoverinfo:this.hoverinfo}},s.update=function(t,e){var r=e[0];this.index=t.index,this.name=t.name,this.hoverinfo=t.hoverinfo;var n=r.z;this.options.z=[].concat.apply([],n);var o=n[0].length,s=n.length;this.options.shape=[o,s],this.options.x=r.x,this.options.y=r.y,this.options.zsmooth=t.zsmooth;var l=function(t){for(var e=t.colorscale,r=t.zmin,n=t.zmax,i=e.length,o=new Array(i),s=new Array(4*i),l=0;l<i;l++){var c=e[l],u=a(c[1]);o[l]=r+c[0]*(n-r);for(var f=0;f<4;f++)s[4*l+f]=u[f]}return{colorLevels:o,colorValues:s}}(t);this.options.colorLevels=l.colorLevels,this.options.colorValues=l.colorValues,this.textLabels=[].concat.apply([],t.text),this.heatmap.update(this.options);var c,u,f=this.scene.xaxis,h=this.scene.yaxis;!1===t.zsmooth&&(c={ppad:r.x[1]-r.x[0]},u={ppad:r.y[1]-r.y[0]}),t._extremes[f._id]=i.findExtremes(f,r.x,c),t._extremes[h._id]=i.findExtremes(h,r.y,u)},s.dispose=function(){this.heatmap.dispose()},e.exports=function(t,e,r){var n=new o(t,e.uid);return n.update(e,r),n}},{"../../../stackgl_modules":1124,"../../lib/str2rgbarray":528,"../../plots/cartesian/axes":554}],810:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../heatmap/xyz_defaults"),a=t("../../components/colorscale/defaults"),o=t("./attributes");e.exports=function(t,e,r,s){function l(r,i){return

n.coerce(t,e,o,r,i)}i(t,e,l,s)?(l("text"),l("zsmooth"),a(t,e,s,l,{prefix:"",cLetter:"z"})):e.visible=!1}},{"../../components/colorscale/defaults":376,"../../lib":503,"../heatmap/xyz_defaults":807,"./attributes":808}],811:[function(t,e,r){"use strict";["*heatmapgl* trace is deprecated!","Please consider switching to the *heatmap* or *image* trace types.","Alternatively you could contribute/sponsor rewriting this trace type","based on cartesian features and using regl framework."].join("
"),e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),colorbar:t("../heatmap/colorbar"),calc:t("../heatmap/calc"),plot:t("./convert"),moduleType:"trace",name:"heatmapgl",basePlotModule:t("../../plots/gl2d"),categories:["gl","gl2d","2dMap"],meta:{}}},{"../../plots/gl2d":596,"../heatmap/calc":793,"../heatmap/colorbar":795,"./attributes":808,"./convert":809,"./defaults":810}],812:[function(t,e,r){"use strict";var n=t("../bar/attributes"),i=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,a=t("../../plots/template_attributes").hovertemplateAttrs,o=t("../../plots/template_attributes").texttemplateAttrs,s=t("../../plots/font_attributes"),l=t("./bin_attributes"),c=t("./constants"),u=t("../../lib/extend").extendFlat;e.exports={x:{valType:"data_array",editType:"calc+clearAxisTypes"},y:{valType:"data_array",editType:"calc+clearAxisTypes"},xhoverformat:i("x"),yhoverformat:i("y"),text:u({},n.text,{}),hovertext:u({},n.hovertext,{}),orientation:n.orientation,histfunc:{valType:"enumerated",values:["count","sum","avg","min","max"],dflt:"count",editType:"calc"},histnorm:{valType:"enumerated",values:["","percent","probability","density","probability
density"],dflt:"",editType:"calc"},cumulative:{enabled:{valType:"boolean",dflt:!1,editType:"calc"},direction:{valType:"enumerated",values:["increasing","decreasing"],dflt:"increasing",editType:"calc"},currentbin:{valType:"enumerated",values:["include","exclude","half"],dflt:"include",editType:"calc"},editType:"calc"},nbinsx:{valType:"integer",min:0,dflt:0,editType:"calc"},xbins:l("x",!0),nbinsy:{valType:"integer",min:0,dflt:0,editType:"calc"},ybins:l("y",!0),autobinx:{valType:"boolean",dflt:null,editType:"calc"},autobiny:{valType:"boolean",dflt:null,editType:"calc"},bingroup:{valType:"string",dflt:"",editType:"calc"},hovertemplate:a({},{keys:c.eventDataKeys}),texttemplate:o({arrayOk:!1,editType:"plot"},{keys:["label","value"]}),textposition:u({},n.textposition,{arrayOk:!1}),textfont:s({arrayOk:!1,editType:"plot",colorEditType:"style"}),outsidetextfont:s({arrayOk:!1,editType:"plot",colorEditType:"style"}),insidetextfont:s({arrayOk:!1,editType:"plot",colorEditType:"style"}),insidetextanchor:n.insidetextanchor,textangle:n.textangle,cliponaxis:n.cliponaxis,constraintext:n.constraintext,marker:n.marker,offsetgroup:n.offsetgroup,alignmentgroup:n.alignmentgroup,selected:n.selected,unselected:n.unselected,_deprecated:{bardir:n._deprecated.bardir}}},{"../../lib/extend":493,"../../plots/cartesian/axis_format_attributes":557,"../../plots/font_attributes":585,"../../plots/template_attributes":633,"../bar/attributes":648,"./bin_attributes":814,"./constants":818}],813:[function(t,e,r){"use strict";e.exports=function(t,e){for(var r=t.length,n=0,i=0;i<r;i++)e[i]?(t[i]/=e[i],n+=t[i]):t[i]=null;return n}},{}],814:[function(t,e,r){"use strict";e.exports=function(t,e){return{start:{valType:"any",editType:"calc"},end:{valType:"any",editType:"calc"},size:{valType:"any",editType:"calc"},editType:"calc"}}},{}],815:[function(t,e,r){"use strict";var n=t("fast-isnumeric");e.exports={count:function(t,e,r){return r[t]++,1},sum:function(t,e,r,i){var a=i[e];return n(a)?(a=Number(a),r[t]+=a,a):0},avg:function(t,e,r,i,a){var o=i[e];return n(o)&&(o=Number(o),r[t]+=o,a[t]++),0},min:function(t,e,r,i){var a=i[e];if(n(a)){if(a=Number(a),!n(r[t]))return r[t]=a,a;if(r[t]>a){var o=a-r[t];return r[t]=a,o}return 0},max:function(t,e,r,i){var a=i[e];if(n(a)){if(a=Number(a),!n(r[t]))return r[t]=a,a;if(r[t]<a){var o=a-r[t];return r[t]=a,o}return 0}}},{"fast-isnumeric":190}],816:[function(t,e,r){"use strict";var n=t("../../constants/numerical"),i=n.ONEAVGYEAR,a=n.ONEAVGMONTH,o=n.ONEDAY,s=n.ONEHOUR,l=n.ONEMIN,c=n.ONESEC,u=t("../../plots/cartesian/axes").tickIncrement;function f(t,e,r,n){if(t*e<=0)return 1/0;for(var i=Math.abs(e-t),a="date"===r.type,o=h(i,a),s=0;s<10;s++){var l=h(80*o,a);if(o===l)break;if(!p(l,t,e,a,r,n))break;o=l}return o}function h(t,e){return e&&t>c?t>o?t>1.1*i?i:t>1.1*a?a:o:t>s?s:t>l?l:c:Math.pow(10,Math.floor(Math.log(t)/Math.LN10))}function p(t,e,r,n,a,s){if(n&&t>o){var l=d(e,a,s),c=d(r,a,s),u=t===i?0:1;return l[u]!==c[u]}return Math.floor(r/t)-Math.floor(e/t)>.1}function d(t,e,r){var n=e.c2d(t,i,r).split("-");return""===n[0]&&(n.unshift(),n[0]="-"+n[0]),n}e.exports=function(t,e,r,n,a){var s,l,c=-1.1*e,h=-.1*e,p=t-h,d=r[0],g=r[1],v=Math.min(f(d+h,d+p,n,a),f(g+h,g+p,n,a)),m=Math.min(f(d+c,d+h,n,a),f(g+c,g+h,n,a));if(v>m&&

m<Math.abs(g-d)/4e3?(s=v,l=!1):(s=Math.min(v,m),l=!0),"date"===n.type&&s>o){var y=s===i?1:6,x=s===i?"M12":"M1";return function(e,r){var o=n.c2d(e,i,a),s=o.indexOf("-",y);s>0&&(o=o.substr(0,s));var c=n.d2c(o,0,a);if(c<e){var f=u(c,x,!1,a);(c+f)/2<e+t&&(c=f)}return r&&l?u(c,x,!0,a):c}}return function(e,r){var n=s*Math.round(e/s);return n+s/10<e&&n+.9*s<e+t&&(n+=s),r&&l&&(n-=s),n}}},{"../../constants/numerical":479,"../../plots/cartesian/axes":554}],817:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib"),a=t("../../registry"),o=t("../../plots/cartesian/axes"),s=t("../bar/arrays_to_calcdata"),l=t("./bin_functions"),c=t("./norm_functions"),u=t("./average"),f=t("./bin_label_vals");function h(t,e,r,s,l){var c,u,f,p,d,g,v,m=s+"bins",y=t._fullLayout,x=e["_"+s+"bingroup"],b=y._histogramBinOpts[x],_="overlay"===y.barmode,w=function(t){return r.r2c(t,0,p)},T=function(t){return r.c2r(t,0,p)},k="date"===r.type?function(t){return t||0===t?i.cleanDate(t,null,p):null}:function(t){return n(t)?Number(t):null};function A(t,e,r){e[t+"Found"]?(e[t]=k(e[t]),null===e[t]&&(e[t]=r[t])):(g[t]=e[t]=r[t],i.nestedProperty(u[0],m+"."+t).set(r[t]))}if(e["_"+s+"autoBinFinished"])delete e["_"+s+"autoBinFinished"];else{u=b.traces;var M=[],S=!0,E=!1,L=!1;for(c=0;c<u.length;c++)if((f=u[c]).visible){var C=b.dirs[c];d=f["_"+C+"pos0"]=r.makeCalcdata(f,C),M=i.concat(M,d),delete f["_"+s+"autoBinFinished"],!0===e.visible&&(S?S=!1:(delete f._autoBin,f["_"+s+"autoBinFinished"]=1),a.traceIs(f,"2dMap")&&(E=!0),"histogram2dcontour"===f.type&&(L=!0))}p=u[0][s+"calendar"];var P=o.autoBin(M,r,b.nbins,E,p,b.sizeFound&&b.size),I=u[0]._autoBin={};if(g=I[b.dirs[0]]={},L&&(b.size||(P.start=T(o.tickIncrement(w(P.start),P.size,!0,p))),void 0===b.end&&(P.end=T(o.tickIncrement(w(P.end),P.size,!1,p)))),_&&!a.traceIs(e,"2dMap")&&0===P._dataSpan&&"category"!==r.type&&"multicategory"!==r.type){if(l)return[P,d,!0];P=function(t,e,r,n,a){var o,s,l,c=t._fullLayout,u=function(t,e){for(var r=e.xaxis,n=e.yaxis,i=e.orientation,a=[],o=t._fullData,s=0;s<o.length;s++){var l=o[s];"histogram"===l.type&&!0===l.visible&&l.orientation===i&&l.xaxis===r&&l.yaxis===n&&a.push(l)}return a}(t,e),f=!1,p=1/0,d=[e];for(o=0;o<u.length;o++)if((s=u[o])===e)f=!0;else if(f){var g=h(t,s,r,n,!0),v=g[0],m=g[2];s["_"+n+"autoBinFinished"]=1,s["_"+n+"pos0"]=g[1],m?d.push(s):p=Math.min(p,v.size)}else l=c._histogramBinOpts[s["_"+n+"bingroup"]],p=Math.min(p,l.size||s[a].size);var y=new Array(d.length);for(o=0;o<d.length;o++)for(var x=d[o]["_"+n+"pos0"],b=0;b<x.length;b++)if(void 0!==x[b]){y[o]=x[b];break}for(isFinite(p)||(p=i.distinctVals(y).minDiff),o=0;o<d.length;o++){var _=(s=d[o])[n+"calendar"],w={start:r.c2r(y[o]-p/2,0,_),end:r.c2r(y[o]+p/2,0,_),size:p};s._input[a]=s[a]=w,(l=c._histogramBinOpts[s["_"+n+"bingroup"]])&&i.extendFlat(l,w)}return e[a]}(t,e,r,s,m)}(v=f.cumulative||{}).enabled&&"include"!==v.currentbin&&("decreasing"===v.direction?P.start=T(o.tickIncrement(w(P.start),P.size,!0,p)):P.end=T(o.tickIncrement(w(P.end),P.size,!1,p))),b.size=P.size,b.sizeFound||(g.size=P.size,i.nestedProperty(u[0],m+".size").set(P.size)),A("start",b,P),A("end",b,P)}d=e["_"+s+"pos0"],delete e["_"+s+"pos0"];var O=e._input[m]||{},z=i.extendFlat({},b),D=b.start,R=r.r2l(O.start),F=void 0!==R;if((b.startFound||F)&&R!==r.r2l(D)){var B=F?R:i.aggNums(Math.min,null,d),N={type:"category"===r.type||"multicategory"===r.type?"linear":r.type,r2l:r.r2l,dtick:b.size,tick0:D,calendar:p,range:[B,o.tickIncrement(B,b.size,!1,p)].map(r.l2r)},j=o.tickFirst(N);j>r.r2l(B)&&(j=o.tickIncrement(j,b.size,!0,p)),z.start=r.l2r(j),F||i.nestedProperty(e,m+".start").set(z.start)}var U=b.end,V=r.r2l(O.end),q=void 0!==V;if((b.endFound||q)&&V!==r.r2l(U)){var H=q?V:i.aggNums(Math.max,null,d);z.end=r.l2r(H),q||i.nestedProperty(e,m+".start").set(z.end)}var G="autobin"+s;return!1===e._input[G]&&(e._input[m]=i.extendFlat({},e[m]||{}),delete e._input[G],delete e[G]),[z,d]}e.exports={calc:function(t,e){var r,a,p,d,g=[],v=[],m="h"===e.orientation,y=o.getFromId(t,m?e.yaxis:e.xaxis),x=m?"y":"x",b={x:"y",y:"x"}[x],_=e[x+"calendar"],w=e.cumulative,T=h(t,e,y,x),k=T[0],A=T[1],M="string"==typeof

k.size,S=[],E=M?S:k,L=[],C=[],P=[],I=0,O=e.histnorm,z=e.histfunc,D=-1!==O.indexOf("density");w.enabled&&D&&(O=O.replace(/ ?density$/,""),D=!1);var R,F="max"===z||"min"===z?null:0,B=l.count,N=c[O],j=!1,U=function(t){return y.r2c(t,0,_)};for(i.isArrayOrTypedArray(e[b])&&"count"!==z&&(R=e[b],j="avg"===z,B=l[z]),r=U(k.start),p=U(k.end)+(r-o.tickIncrement(r,k.size,!1,_))/1e6;r<p&&g.length<1e6&&(a=o.tickIncrement(r,k.size,!1,_),g.push((r+a)/2),v.push(F),P.push([]),S.push(r),D&&L.push(1/(a-r)),j&&C.push(0),!(a<=r));)r=a;S.push(r),M||"date"!==y.type||(E={start:U(E.start),end:U(E.end),size:E.size}),t._fullLayout._roundFnOpts||(t._fullLayout._roundFnOpts={});var V=e["_"+x+"bingroup"],q={leftGap:1/0,rightGap:1/0};V&&(t._fullLayout._roundFnOpts[V]||(t._fullLayout._roundFnOpts[V]=q),q=t._fullLayout._roundFnOpts[V]);var H,G=v.length,Y=!0,W=q.leftGap,X=q.rightGap,Z={};for(r=0;r<A.length;r++){var J=A[r];(d=i.findBin(J,E))>=0&&d<G&&(I+=B(d,r,v,R,C),Y&&P[d].length&&J!==A[P[d][0]]&&(Y=!1),P[d].push(r),Z[r]=d,W=Math.min(W,J-S[d]),X=Math.min(X,S[d+1]-J))}q.leftGap=W,q.rightGap=X,Y||(H=function(e,r){return function(){var n=t._fullLayout._roundFnOpts[V];return f(n.leftGap,n.rightGap,S,y,_)(e,r)}}),j&&(I=u(v,C)),N&&N(v,I,L),w.enabled&&function(t,e,r){var n,i,a;function o(e){a=t[e],t[e]/=2}function s(e){i=t[e],t[e]=a+i/2,a+=i}if("half"===r)if("increasing"===e)for(o(0),n=1;n<t.length;n++)s(n);else for(o(t.length-1),n=t.length-2;n>=0;n--)s(n);else if("increasing"===e){for(n=1;n<t.length;n++)t[n]+=t[n-1];"exclude"===r&&(t.unshift(0),t.pop())}else{for(n=t.length-2;n>=0;n--)t[n]+=t[n+1];"exclude"===r&&(t.push(0),t.shift())}}(v,w.direction,w.currentbin);var K=Math.min(g.length,v.length),Q=[],$=0,tt=K-1;for(r=0;r<K;r++)if(v[r]){$=r;break}for(r=K-1;r>=$;r--)if(v[r]){tt=r;break}for(r=$;r<=tt;r++)if(n(g[r])&&n(v[r])){var et={p:g[r],s:v[r],b:0};w.enabled||(et.pts=P[r],Y?et.ph0=et.ph1=P[r].length?A[P[r][0]]:g[r]:(e._computePh=!0,et.ph0=H(S[r]),et.ph1=H(S[r+1],!0))),Q.push(et)}return 1===Q.length&&(Q[0].width1=o.tickIncrement(Q[0].p,k.size,!1,_)-Q[0].p),s(Q,e),i.isArrayOrTypedArray(e.selectedpoints)&&i.tagSelected(Q,e,Z),Q},calcAllAutoBins:h}},{"../../lib":503,"../../plots/cartesian/axes":554,"../../registry":638,"../bar/arrays_to_calcdata":647,"./average":813,"./bin_functions":815,"./bin_label_vals":816,"./norm_functions":824,"fast-isnumeric":190}],818:[function(t,e,r){"use strict";e.exports={eventDataKeys:["binNumber"]}},{}],819:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plots/cartesian/axis_ids"),a=t("../../registry").traceIs,o=t("../bar/defaults").handleGroupingDefaults,s=n.nestedProperty,l=t("../../plots/cartesian/constraints").getAxisGroup,c=[{aStr:{x:"xbins.start",y:"ybins.start"},name:"start"},{aStr:{x:"xbins.end",y:"ybins.end"},name:"end"},{aStr:{x:"xbins.size",y:"ybins.size"},name:"size"},{aStr:{x:"nbinsx",y:"nbinsy"},name:"nbins"}],u=["x","y"];e.exports=function(t,e){var r,f,h,p,d,g,v,m=e._histogramBinOpts={},y=[],x={},b=[];function _(t,e){return n.coerce(r._input,r,r._module.attributes,t,e)}function w(t){return"v"===t.orientation?"x":"y"}function T(t,r,a){var o=t.uid+"__"+a;r||(r=o);var s=function(t,r){return i.getFromTrace({_fullLayout:e},t,r).type}(t,a),l=t[a+"calendar"]||"",c=m[r],u=!0;c&&(s===c.axType&&l===c.calendar?(u=!1,c.traces.push(t),c.dirs.push(a)):(r=o,s!==c.axType&&n.warn(["Attempted to group the bins of trace",t.index,"set on a","type:"+s,"axis","with bins on","type:"+c.axType,"axis."].join(" ")),l!==c.calendar&&n.warn(["Attempted to group the bins of trace",t.index,"set with a",l,"calendar","with bins",c.calendar?"on a "+c.calendar+" calendar":"w/o a set calendar"].join(" "))),u&&(m[r]={traces:[t],dirs:[a],axType:s,calendar:t[a+"calendar"]||""}),t["_"+a+"bingroup"]=r}for(d=0;d<t.length;d++)r=t[d],a(r,"histogram")&&(y.push(r),delete r._xautoBinFinished,delete r._yautoBinFinished,a(r,"2dMap")||o(r._input,r,e,_));var k=e._alignmentOpts||{};for(d=0;d<y.length;d++){if(r=y[d],h="",!a(r,"2dMap")){if(p=w(r),"group"===e.barmode&&r.alignmentgroup){var A=r[p+"axis"],M=l(e,A)+r.orientation;(k[M]||{})[r.alignmentgroup]&&(h=M)}h||"overlay"===e.barmode||(h=l(e,r.x

axis)+l(e,r.yaxis)+w(r))}h?(x[h]||(x[h]=[]),x[h].push(r)):b.push(r)}for(h in x)if(1!==(f=x[h]).length){var S=!1;for(f.length&&(r=f[0],S=_("bingroup")),h=S||h,d=0;d<f.length;d++){var E=(r=f[d])._input.bingroup;E&&E!==h&&n.warn(["Trace",r.index,"must match","within bingroup",h+".","Ignoring its bingroup:",E,"setting."].join(" ")),r.bingroup=h,T(r,h,w(r))}}else b.push(f[0]);for(d=0;d<b.length;d++){r=b[d];var L=_("bingroup");if(a(r,"2dMap"))for(v=0;v<2;v++){var C=_((p=u[v])+"bingroup",L?L+"__"+p:null);T(r,C,p)}else T(r,L,w(r))}for(h in m){var P=m[h];for(f=P.traces,g=0;g<c.length;g++){var I,O,z=c[g],D=z.name;if("nbins"!==D||!P.sizeFound){for(d=0;d<f.length;d++){if(r=f[d],p=P.dirs[d],I=z.aStr[p],void 0!==s(r._input,I).get()){P[D]=_(I),P[D+"Found"]=!0;break}(O=(r._autoBin||{})[p]||{})[D]&&s(r,I).set(O[D])}if("start"===D||"end"===D)for(;d<f.length;d++)(r=f[d])["_"+p+"bingroup"]&&_(I,(O=(r._autoBin||{})[p]||{})[D]);"nbins"!==D||P.sizeFound||P.nbinsFound||(r=f[0],P[D]=_(I))}}}},{"../../lib":503,"../../plots/cartesian/axis_ids":558,"../../plots/cartesian/constraints":562,"../../registry":638,"../bar/defaults":652}],820:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../lib"),a=t("../../components/color"),o=t("../bar/defaults").handleText,s=t("../bar/style_defaults"),l=t("./attributes");e.exports=function(t,e,r,c){function u(r,n){return i.coerce(t,e,l,r,n)}var f=u("x"),h=u("y");u("cumulative.enabled")&&(u("cumulative.direction"),u("cumulative.currentbin")),u("text");var p=u("textposition");o(t,e,c,u,p,{moduleHasSelected:!0,moduleHasUnselected:!0,moduleHasConstrain:!0,moduleHasCliponaxis:!0,moduleHasTextangle:!0,moduleHasInsideanchor:!0}),u("hovertext"),u("hovertemplate"),u("xhoverformat"),u("yhoverformat");var d=u("orientation",h&&!f?"h":"v"),g="v"===d?"x":"y",v="v"===d?"y":"x",m=f&&h?Math.min(i.minRowLength(f)&&i.minRowLength(h)):i.minRowLength(e[g]||[]);if(m){e._length=m,n.getComponentMethod("calendars","handleTraceDefaults")(t,e,["x","y"],c),e[v]&&u("histfunc"),u("histnorm"),u("autobin"+g),s(t,e,u,r,c),i.coerceSelectionMarkerOpacity(e,u);var y=(e.marker.line||{}).color,x=n.getComponentMethod("errorbars","supplyDefaults");x(t,e,y||a.defaultLine,{axis:"y"}),x(t,e,y||a.defaultLine,{axis:"x",inherit:"y"})}else e.visible=!1}},{"../../components/color":366,"../../lib":503,"../../registry":638,"../bar/defaults":652,"../bar/style_defaults":663,"./attributes":812}],821:[function(t,e,r){"use strict";e.exports=function(t,e,r,n,i){if(t.x="xVal"in e?e.xVal:e.x,t.y="yVal"in e?e.yVal:e.y,"zLabelVal"in e&&(t.z=e.zLabelVal),e.xa&&(t.xaxis=e.xa),e.ya&&(t.yaxis=e.ya),!(r.cumulative||{}).enabled){var a,o=Array.isArray(i)?n[0].pts[i[0]][i[1]]:n[i].pts;if(t.pointNumbers=o,t.binNumber=t.pointNumber,delete t.pointNumber,delete t.pointIndex,r._indexToPoints){a=[];for(var s=0;s<o.length;s++)a=a.concat(r._indexToPoints[o[s]])}else a=o;t.pointIndices=a}return t}},{}],822:[function(t,e,r){"use strict";var n=t("../bar/hover").hoverPoints,i=t("../../plots/cartesian/axes").hoverLabelText;e.exports=function(t,e,r,a,o){var s=n(t,e,r,a,o);if(s){var l=(t=s[0]).cd[t.index],c=t.cd[0].trace;if(!c.cumulative.enabled){var u="h"===c.orientation?"y":"x";t[u+"Label"]=i(t[u+"a"],[l.ph0,l.ph1],c[u+"hoverformat"])}return s}}},{"../../plots/cartesian/axes":554,"../bar/hover":655}],823:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),layoutAttributes:t("../bar/layout_attributes"),supplyDefaults:t("./defaults"),crossTraceDefaults:t("./cross_trace_defaults"),supplyLayoutDefaults:t("../bar/layout_defaults"),calc:t("./calc").calc,crossTraceCalc:t("../bar/cross_trace_calc").crossTraceCalc,plot:t("../bar/plot").plot,layerName:"barlayer",style:t("../bar/style").style,styleOnSelect:t("../bar/style").styleOnSelect,colorbar:t("../scatter/marker_colorbar"),hoverPoints:t("./hover"),selectPoints:t("../bar/select"),eventData:t("./event_data"),moduleType:"trace",name:"histogram",basePlotModule:t("../../plots/cartesian"),categories:["bar-like","cartesian","svg","bar","histogram","oriented","errorBarsOK","showLegend"],meta:{}}},{"../../plots/cartesian":568,"../bar/cross_trace_calc":651,"../bar/layout_attributes":657,"../bar/layout_defaults":658,"../bar/plot":659,"../bar/select":660,"../bar/style":662,"../scatter/marker_colorbar":945,"./attributes":812,"./calc":817,"./cross_trace_defaults":819,"./defaults":820,"./event_data":821,"./hover":822}],824:[function(t,e,r){"use strict";e.exports={percent:function(t,e){for(var r=t.length,n=100/e,i=0;i<r;i++)t[i]*=n},probability:function(t,e){for(var

r=t.length,n=0;n<r;n++)t[n]/=e},density:function(t,e,r,n){var i=t.length;n=n||1;for(var a=0;a<i;a++)t[a]*=r[a]*n},"probability density":function(t,e,r,n){var i=t.length;n&&(e/=n);for(var a=0;a<i;a++)t[a]*=r[a]/e}}},{}],825:[function(t,e,r){"use strict";var n=t("../histogram/attributes"),i=t("../histogram/bin_attributes"),a=t("../heatmap/attributes"),o=t("../../plots/attributes"),s=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,l=t("../../plots/template_attributes").hovertemplateAttrs,c=t("../../plots/template_attributes").texttemplateAttrs,u=t("../../components/colorscale/attributes"),f=t("../../lib/extend").extendFlat;e.exports=f({x:n.x,y:n.y,z:{valType:"data_array",editType:"calc"},marker:{color:{valType:"data_array",editType:"calc"},editType:"calc"},histnorm:n.histnorm,histfunc:n.histfunc,nbinsx:n.nbinsx,xbins:i("x"),nbinsy:n.nbinsy,ybins:i("y"),autobinx:n.autobinx,autobiny:n.autobiny,bingroup:f({},n.bingroup,{}),xbingroup:f({},n.bingroup,{}),ybingroup:f({},n.bingroup,{}),xgap:a.xgap,ygap:a.ygap,zsmooth:a.zsmooth,xhoverformat:s("x"),yhoverformat:s("y"),zhoverformat:s("z",1),hovertemplate:l({},{keys:"z"}),texttemplate:c({arrayOk:!1,editType:"plot"},{keys:"z"}),textfont:a.textfont,showlegend:f({},o.showlegend,{dflt:!1})},u("",{cLetter:"z",autoColorDflt:!1}))},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plots/attributes":550,"../../plots/cartesian/axis_format_attributes":557,"../../plots/template_attributes":633,"../heatmap/attributes":792,"../histogram/attributes":812,"../histogram/bin_attributes":814}],826:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plots/cartesian/axes"),a=t("../histogram/bin_functions"),o=t("../histogram/norm_functions"),s=t("../histogram/average"),l=t("../histogram/bin_label_vals"),c=t("../histogram/calc").calcAllAutoBins;function u(t,e,r,n){var i,a=new Array(t);if(n)for(i=0;i<t;i++)a[i]=1/(e[i+1]-e[i]);else{var o=1/r;for(i=0;i<t;i++)a[i]=o}return a}function f(t,e){return{start:t(e.start),end:t(e.end),size:e.size}}function h(t,e,r,n,i,a){var o,s=t.length-1,c=new Array(s),u=l(r,n,t,i,a);for(o=0;o<s;o++){var f=(e||[])[o];c[o]=void 0===f?[u(t[o]),u(t[o+1],!0)]:[f,f]}return c}e.exports=function(t,e){var r,l,p,d,g=i.getFromId(t,e.xaxis),v=i.getFromId(t,e.yaxis),m=e.xcalendar,y=e.ycalendar,x=function(t){return g.r2c(t,0,m)},b=function(t){return v.r2c(t,0,y)},_=c(t,e,g,"x"),w=_[0],T=_[1],k=c(t,e,v,"y"),A=k[0],M=k[1],S=e._length;T.length>S&&T.splice(S,T.length-S),M.length>S&&M.splice(S,M.length-S);var E=[],L=[],C=[],P="string"==typeof w.size,I="string"==typeof A.size,O=[],z=[],D=P?O:w,R=I?z:A,F=0,B=[],N=[],j=e.histnorm,U=e.histfunc,V=-1!==j.indexOf("density"),q="max"===U||"min"===U?null:0,H=a.count,G=o[j],Y=!1,W=[],X=[],Z="z"in e?e.z:"marker"in e&&Array.isArray(e.marker.color)?e.marker.color:"";Z&&"count"!==U&&(Y="avg"===U,H=a[U]);var J=w.size,K=x(w.start),Q=x(w.end)+(K-i.tickIncrement(K,J,!1,m))/1e6;for(r=K;r<Q;r=i.tickIncrement(r,J,!1,m))L.push(q),O.push(r),Y&&C.push(0);O.push(r);var $,tt=L.length,et=(r-K)/tt,rt=($=K+et/2,g.c2r($,0,m)),nt=A.size,it=b(A.start),at=b(A.end)+(it-i.tickIncrement(it,nt,!1,y))/1e6;for(r=it;r<at;r=i.tickIncrement(r,nt,!1,y)){E.push(L.slice()),z.push(r);var ot=new Array(tt);for(l=0;l<tt;l++)ot[l]=[];N.push(ot),Y&&B.push(C.slice())}z.push(r);var st=E.length,lt=(r-it)/st,ct=function(t){return v.c2r(t,0,y)}(it+lt/2);V&&(W=u(L.length,D,et,P),X=u(E.length,R,lt,I)),P||"date"!==g.type||(D=f(x,D)),I||"date"!==v.type||(R=f(b,R));var ut=!0,ft=!0,ht=new Array(tt),pt=new Array(st),dt=1/0,gt=1/0,vt=1/0,mt=1/0;for(r=0;r<S;r++){var yt=T[r],xt=M[r];p=n.findBin(yt,D),d=n.findBin(xt,R),p>=0&&p<tt&&d>=0&&d<st&&(F+=H(p,r,E[d],Z,B[d]),N[d][p].push(r),ut&&(void 0===ht[p]?ht[p]=yt:ht[p]!==yt&&(ut=!1)),ft&&(void 0===pt[d]?pt[d]=xt:pt[d]!==xt&&(ft=!1)),dt=Math.min(dt,yt-O[p]),gt=Math.min(gt,O[p+1]-yt),vt=Math.min(vt,xt-z[d]),mt=Math.min(mt,z[d+1]-xt))}if(Y)for(d=0;d<st;d++)F+=s(E[d],B[d]);if(G)for(d=0;d<st;d++)G(E[d],F,W,X[d]);return{x:T,xRanges:h(O,ut&&ht,dt,gt,g,m),x0:rt,dx:et,y:M,yRanges:h(z,ft&&pt,vt,mt,v,y),y0:ct,dy:lt,z:E,pts:N}}},{"../../lib":503,"../../plots/cartesian/axes":554,"../histogram/average":813,"../histogram/bin_functions":815,"../histogram/bin_label_vals":816,"../histogram/calc":817,"../histogram/norm_functions":824}],827:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./sample_defaults"),a=t("../heatmap/style_defaults"),o=t("../../components/colorscale/defaults"),s=t("../heatmap/label_defaults"),l=t("./attributes");e.exports=function(t,e,r,c){function u(r,i){return

n.coerce(t,e,l,r,i)}i(t,e,u,c),!1!==e.visible&&(a(t,e,u,c),o(t,e,c,u,{prefix:"",cLetter:"z"}),u("hovertemplate"),s(u,c),u("xhoverformat"),u("yhoverformat"))}},{"../../components/colorscale/defaults":376,"../../lib":503,"../heatmap/label_defaults":802,"../heatmap/style_defaults":806,"./attributes":825,"./sample_defaults":830}],828:[function(t,e,r){"use strict";var n=t("../heatmap/hover"),i=t("../../plots/cartesian/axes").hoverLabelText;e.exports=function(t,e,r,a,o){var s=n(t,e,r,a,o);if(s){var l=(t=s[0]).index,c=l[0],u=l[1],f=t.cd[0],h=f.trace,p=f.xRanges[u],d=f.yRanges[c];return t.xLabel=i(t.xa,[p[0],p[1]],h.xhoverformat),t.yLabel=i(t.ya,[d[0],d[1]],h.yhoverformat),s}}},{"../../plots/cartesian/axes":554,"../heatmap/hover":799}],829:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),crossTraceDefaults:t("../histogram/cross_trace_defaults"),calc:t("../heatmap/calc"),plot:t("../heatmap/plot"),layerName:"heatmaplayer",colorbar:t("../heatmap/colorbar"),style:t("../heatmap/style"),hoverPoints:t("./hover"),eventData:t("../histogram/event_data"),moduleType:"trace",name:"histogram2d",basePlotModule:t("../../plots/cartesian"),categories:["cartesian","svg","2dMap","histogram","showLegend"],meta:{}}},{"../../plots/cartesian":568,"../heatmap/calc":793,"../heatmap/colorbar":795,"../heatmap/plot":804,"../heatmap/style":805,"../histogram/cross_trace_defaults":819,"../histogram/event_data":821,"./attributes":825,"./defaults":827,"./hover":828}],830:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../lib");e.exports=function(t,e,r,a){var o=r("x"),s=r("y"),l=i.minRowLength(o),c=i.minRowLength(s);l&&c?(e._length=Math.min(l,c),n.getComponentMethod("calendars","handleTraceDefaults")(t,e,["x","y"],a),(r("z")||r("marker.color"))&&r("histfunc"),r("histnorm"),r("autobinx"),r("autobiny")):e.visible=!1}},{"../../lib":503,"../../registry":638}],831:[function(t,e,r){"use strict";var n=t("../histogram2d/attributes"),i=t("../contour/attributes"),a=t("../../components/colorscale/attributes"),o=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,s=t("../../lib/extend").extendFlat;e.exports=s({x:n.x,y:n.y,z:n.z,marker:n.marker,histnorm:n.histnorm,histfunc:n.histfunc,nbinsx:n.nbinsx,xbins:n.xbins,nbinsy:n.nbinsy,ybins:n.ybins,autobinx:n.autobinx,autobiny:n.autobiny,bingroup:n.bingroup,xbingroup:n.xbingroup,ybingroup:n.ybingroup,autocontour:i.autocontour,ncontours:i.ncontours,contours:i.contours,line:{color:i.line.color,width:s({},i.line.width,{dflt:.5}),dash:i.line.dash,smoothing:i.line.smoothing,editType:"plot"},xhoverformat:o("x"),yhoverformat:o("y"),zhoverformat:o("z",1),hovertemplate:n.hovertemplate,texttemplate:i.texttemplate,textfont:i.textfont},a("",{cLetter:"z",editTypeOverride:"calc"}))},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plots/cartesian/axis_format_attributes":557,"../contour/attributes":735,"../histogram2d/attributes":825}],832:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../histogram2d/sample_defaults"),a=t("../contour/contours_defaults"),o=t("../contour/style_defaults"),s=t("../heatmap/label_defaults"),l=t("./attributes");e.exports=function(t,e,r,c){function u(r,i){return n.coerce(t,e,l,r,i)}i(t,e,u,c),!1!==e.visible&&(a(t,e,u,(function(r){return n.coerce2(t,e,l,r)})),o(t,e,u,c),u("xhoverformat"),u("yhoverformat"),u("hovertemplate"),e.contours&&"heatmap"===e.contours.coloring&&s(u,c))}},{"../../lib":503,"../contour/contours_defaults":742,"../contour/style_defaults":756,"../heatmap/label_defaults":802,"../histogram2d/sample_defaults":830,"./attributes":831}],833:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),crossTraceDefaults:t("../histogram/cross_trace_defaults"),calc:t("../contour/calc"),plot:t("../contour/plot").plot,layerName:"contourlayer",style:t("../contour/style"),colorbar:t("../contour/colorbar"),hoverPoints:t("../contour/hover"),moduleType:"trace",name:"histogram2dcontour",basePlotModule:t("../../plots/cartesian"),categories:["cartesian","svg","2dMap","contour","histogram","showLegend"],meta:{}}},{"../../plots/cartesian":568,"../contour/calc":736,"../contour/colorbar":738,"../contour/hover":748,"../contour/plot":753,"../contour/style":755,"../histogram/cross_trace_defaults":819,"./attributes":831,"./defaults":832}],834:[function(t,e,r){"use strict";var n=t("../../plots/template_attributes").hovertemplateAttrs,i=t("../../plots/template_attributes").texttemplateAttrs,a=t("../../components/colorscale/attributes"),o=t("../../plots/domain").attributes,s=t("../pie/attributes"),l=t("../sunburst/attributes"),c=t("../treemap/attributes"),u=t("../treemap/constants"),f=t("../../lib/extend").extendFlat;e.exports={labels:l.labels,parents:l.parents,values:l.values,branchvalues:l.branchvalues,count:l.count,level:l.level,maxdepth:l.maxdepth,tiling:{orientation:{valType:"enumerated",values:["v","h"],dflt:"h",editType:"plot"},flip:c.tiling.flip,pad:{valType:"number",min:0,dflt:0,editType:"plot"},editType:"calc"},marker:f({colors:l.marker.colors,line:l.marker.line,editType:"calc"},a("marker",{colorAttr:"colors",anim:!1})),leaf:l.leaf,pathbar:c.pathbar,text:s.text,textinfo:l.textinfo,texttemplate:

i({editType:"plot"},{keys:u.eventDataKeys.concat(["label","value"])}),hovertext:s.hovertext,hoverinfo:l.hoverinfo,hovertemplate:n({},{keys:u.eventDataKeys}),textfont:s.textfont,insidetextfont:s.insidetextfont,outsidetextfont:c.outsidetextfont,textposition:c.textposition,sort:s.sort,root:l.root,domain:o({name:"icicle",trace:!0,editType:"calc"})}},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plots/domain":584,"../../plots/template_attributes":633,"../pie/attributes":901,"../sunburst/attributes":1049,"../treemap/attributes":1075,"../treemap/constants":1078}],835:[function(t,e,r){"use strict";var n=t("../../plots/plots");r.name="icicle",r.plot=function(t,e,i,a){n.plotBasePlot(r.name,t,e,i,a)},r.clean=function(t,e,i,a){n.cleanBasePlot(r.name,t,e,i,a)}},{"../../plots/plots":619}],836:[function(t,e,r){"use strict";var n=t("../sunburst/calc");r.calc=function(t,e){return n.calc(t,e)},r.crossTraceCalc=function(t){return n._runCrossTraceCalc("icicle",t)}},{"../sunburst/calc":1051}],837:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./attributes"),a=t("../../components/color"),o=t("../../plots/domain").defaults,s=t("../bar/defaults").handleText,l=t("../bar/constants").TEXTPAD,c=t("../../components/colorscale"),u=c.hasColorscale,f=c.handleDefaults;e.exports=function(t,e,r,c){function h(r,a){return n.coerce(t,e,i,r,a)}var p=h("labels"),d=h("parents");if(p&&p.length&&d&&d.length){var g=h("values");g&&g.length?h("branchvalues"):h("count"),h("level"),h("maxdepth"),h("tiling.orientation"),h("tiling.flip"),h("tiling.pad");var v=h("text");h("texttemplate"),e.texttemplate||h("textinfo",Array.isArray(v)?"text+label":"label"),h("hovertext"),h("hovertemplate");var m=h("pathbar.visible");s(t,e,c,h,"auto",{hasPathbar:m,moduleHasSelected:!1,moduleHasUnselected:!1,moduleHasConstrain:!1,moduleHasCliponaxis:!1,moduleHasTextangle:!1,moduleHasInsideanchor:!1}),h("textposition"),h("marker.line.width")&&h("marker.line.color",c.paper_bgcolor),h("marker.colors");var y=e._hasColorscale=u(t,"marker","colors")||(t.marker||{}).coloraxis;y&&f(t,e,c,h,{prefix:"marker.",cLetter:"c"}),h("leaf.opacity",y?1:.7),e._hovered={marker:{line:{width:2,color:a.contrast(c.paper_bgcolor)}}},m&&(h("pathbar.thickness",e.pathbar.textfont.size+2*l),h("pathbar.side"),h("pathbar.edgeshape")),h("sort"),h("root.color"),o(e,c,h),e._length=null}else e.visible=!1}},{"../../components/color":366,"../../components/colorscale":378,"../../lib":503,"../../plots/domain":584,"../bar/constants":650,"../bar/defaults":652,"./attributes":834}],838:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../lib"),a=t("../../components/drawing"),o=t("../../lib/svg_text_utils"),s=t("./partition"),l=t("./style").styleOne,c=t("../treemap/constants"),u=t("../sunburst/helpers"),f=t("../sunburst/fx"),h=t("../sunburst/plot").formatSliceLabel,p=!1;e.exports=function(t,e,r,d,g){var v=g.width,m=g.height,y=g.viewX,x=g.viewY,b=g.pathSlice,_=g.toMoveInsideSlice,w=g.strTransform,T=g.hasTransition,k=g.handleSlicesExit,A=g.makeUpdateSliceInterpolator,M=g.makeUpdateTextInterpolator,S=g.prevEntry,E=t._fullLayout,L=e[0].trace,C=-1!==L.textposition.indexOf("left"),P=-1!==L.textposition.indexOf("right"),I=-1!==L.textposition.indexOf("bottom"),O=s(r,[v,m],{flipX:L.tiling.flip.indexOf("x")>-1,flipY:L.tiling.flip.indexOf("y")>-1,orientation:L.tiling.orientation,pad:{inner:L.tiling.pad},maxDepth:L._maxDepth}).descendants(),z=1/0,D=-1/0;O.forEach((function(t){var e=t.depth;e>=L._maxDepth?(t.x0=t.x1=(t.x0+t.x1)/2,t.y0=t.y1=(t.y0+t.y1)/2):(z=Math.min(z,e),D=Math.max(D,e))})),d=d.data(O,u.getPtId),L._maxVisibleLayers=isFinite(D)?D-z+1:0,d.enter().append("g").classed("slice",!0),k(d,p,{},[v,m],b),d.order();var R=null;if(T&&S){var F=u.getPtId(S);d.each((function(t){null===R&&u.getPtId(t)===F&&(R={x0:t.x0,x1:t.x1,y0:t.y0,y1:t.y1})}))}var B=function(){return R||{x0:0,x1:v,y0:0,y1:m}},N=d;return T&&(N=N.transition().each("end",(function(){var e=n.select(this);u.setSliceCursor(e,t,{hideOnRoot:!0,hideOnLeaves:!1,isTransitioning:!1})}))),N.each((function(s){s._x0=y(s.x0),s._x1=y(s.x1),s._y0=x(s.y0),s._y1=x(s.y1),s._hoverX=y(s.x1-L.tiling.pad),s._hoverY=x(I?s.y1-L.tiling.pad/2:s.y0+L.tiling.pad/2);var d=n.select(this),g=i.ensureSingle(d,"path","surface",(function(t){t.style("pointer-events","all")}));T?g.transition().attrTween("d",(function(t){var e=A(t,p,B(),[v,m],{orientation:L.tiling.orientation,flipX:L.tiling.flip.indexOf("x")>-

1,flipY:L.tiling.flip.indexOf("y")>-1});return function(t){return
b(e(t))}})):g.attr("d",b),d.call(f,r,t,e,{styleOne:l,eventDataKeys:c.eventDataKeys,transitionTime:c.CLICK_TRANSITION_TIME,transitionEasing:c.CLICK_TRANSITION_EASING}).call(u.setSliceCursor,t,{isTransitioning:t._transitioning}),g.call(l,s,L,{hovered:!1}),s.x0===s.x1||s.y0===s.y1?s._text="":s._text=h(s,r,L,e,E)||"";var k=i.ensureSingle(d,"g","slicetext"),S=i.ensureSingle(k,"text","",(function(t){t.attr("data-notex",1)})),O=i.ensureUniformFontSize(t,u.determineTextFont(L,s,E.font));S.text(s._text||"
").classed("slicetext",!0).attr("text-anchor",P?"end":C?"start":"middle").call(a.font,O).call(o.convertToTspans,t),s.textBB=a.bBox(S.node()),s.transform=_(s,{fontSize:O.size}),s.transform.fontSize=O.size,T?S.transition().attrTween("transform",(function(t){var e=M(t,p,B(),[v,m]);return function(t){return
w(e(t))}})):S.attr("transform",w(s))})),R}},{"../../components/drawing":388,"../../lib":503,"../../lib/svg_text_utils":529,"../sunburst/fx":1054,"../sunburst/helpers":1055,"../sunburst/plot":1059,"../treemap/constants":1078,"./partition":842,"./style":844,"@plotly/d3":58}],839:[function(t,e,r){"use
strict";e.exports={moduleType:"trace",name:"icicle",basePlotModule:t("./base_plot"),categories:[],animatable:!0,attributes:t("./attributes"),layoutAttributes:t("./layout_attributes"),supplyDefaults:t("./defaults"),supplyLayoutDefaults:t("./layout_defaults"),calc:t("./calc").calc,crossTraceCalc:t("./calc").crossTraceCalc,plot:t("./plot"),style:t("./style").style,colorbar:t("../scatter/marker_colorbar"),meta:{}}},{"../scatter/marker_colorbar":945,"./attributes":834,"./base_plot":835,"./calc":836,"./defaults":837,"./layout_attributes":840,"./layout_defaults":841,"./plot":843,"./style":844}],840:[function(t,e,r){"use
strict";e.exports={iciclecolorway:{valType:"colorlist",editType:"calc"},extendiciclecolors:{valType:"boolean",dflt:!0,editType:"calc"}}},{}],841:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("./layout_attributes");e.exports=function(t,e){function r(r,a){return
n.coerce(t,e,i,r,a)}r("iciclecolorway",e.colorway),r("extendiciclecolors")}},{"../../lib":503,"./layout_attributes":840}],842:[function(t,e,r){"use strict";var n=t("d3-hierarchy"),i=t("../treemap/flip_tree");e.exports=function(t,e,r){var
a=r.flipX,o=r.flipY,s="h"===r.orientation,l=r.maxDepth,c=e[0],u=e[1];l&&(c=(t.height+1)*e[0]/Math.min(t.height+1,l),u=(t.height+1)*e[1]/Math.min(t.height+1,l));var
f=n.partition().padding(r.pad.inner).size(s?[e[1],c]:[e[0],u])(t);return(s||a||o)&&i(f,e,{swapXY:s,flipX:a,flipY:o}),f}},{"../treemap/flip_tree":1083,"d3-hierarchy":115}],843:[function(t,e,r){"use strict";var
n=t("../treemap/draw"),i=t("./draw_descendants");e.exports=function(t,e,r,a){return
n(t,e,r,a,{type:"icicle",drawDescendants:i})}},{"../treemap/draw":1080,"./draw_descendants":838}],844:[function(t,e,r){"use strict";var
n=t("@plotly/d3"),i=t("../../components/color"),a=t("../../lib"),o=t("../bar/uniform_text").resizeText;function
s(t,e,r){var
n=e.data.data,o=!e.children,s=n.i,l=a.castOption(r,s,"marker.line.color")||i.defaultLine,c=a.castOption(r,s,"marker.line.width")||0;t.style("stroke-width",c).call(i.fill,n.color).call(i.stroke,l).style("opacity",o?r.leaf.opacity:null)}e.exports={style:function(t){var
e=t._fullLayout._iciclelayer.selectAll(".trace");o(t,e,"icicle"),e.each((function(t){var
e=n.select(this),r=t[0].trace;e.style("opacity",r.opacity),e.selectAll("path.surface").each((function(t){n.select(this).call(s,t,r)}))}))},styleOne:s}},{"../../components/color":366,"../../lib":503,"../bar/uniform_text":664,"@plotly/d3":58}],845:[function(t,e,r){"use strict";for(var
n=t("../../plots/attributes"),i=t("../../plots/template_attributes").hovertemplateAttrs,a=t("../../lib/extend").extendFlat,o=t("./constants").colormodel,s=["rgb","rgba","rgba256","hsl","hsla"],l=[],c=[],u=0;u<s.length;u++){var
f=o[s[u]];l.push("For the `"+s[u]+"` colormodel, it is ["+(f.zminDflt||f.min).join(", ")+"]."),c.push("For the `"+s[u]+"` colormodel, it is ["+(f.zmaxDflt||f.max).join(",
")+"].")}e.exports=a({source:{valType:"string",editType:"calc"},z:{valType:"data_array",editType:"calc"},colormodel:{valType:"enumerated",values:s,editType:"calc"},zsmooth:{valType:"enumerated",values:["fast",!1],dflt:!1,editType:"plot"},zmin:{valType:"info_array",items:[{valType:"number",editType:"calc"},{valType:"number",editType:"calc"},{valType:"number",editType:"calc"},{valType:"number",editType:"calc"}],editType:"calc"},zmax:{valTy

pe:"info_array",items:[{valType:"number",editType:"calc"},{valType:"number",editType:"calc"},{valType:"numbe
r",editType:"calc"},{valType:"number",editType:"calc"}],editType:"calc"},x0:{valType:"any",dflt:0,editType:"calc
+clearAxisTypes"},y0:{valType:"any",dflt:0,editType:"calc+clearAxisTypes"},dx:{valType:"number",dflt:1,editTy
pe:"calc"},dy:{valType:"number",dflt:1,editType:"calc"},text:{valType:"data_array",editType:"plot"},hovertext:{va
lType:"data_array",editType:"plot"},hoverinfo:a({},n.hoverinfo,{flags:["x","y","z","color","name","text"],dflt:"x+y
+z+text+name"}),hovertemplate:i({},{keys:["z","color","colormodel"]}),transforms:void
0})},{"../../lib/extend":493,"../../plots/attributes":550,"../../plots/template_attributes":633,"./constants":847}],846:[fu
nction(t,e,r){"use strict";var n=t("../../lib"),i=t("./constants"),a=t("fast-
isnumeric"),o=t("../../plots/cartesian/axes"),s=t("../../lib").maxRowLength,l=t("./helpers").getImageSize;function
c(t,e,r,i){return function(a){return n.constrain((a-t)*e,r,i)}}function u(t,e){return function(r){return
n.constrain(r,t,e)}}e.exports=function(t,e){var r,n;if(e._hasZ)r=e.z.length,n=s(e.z);else if(e._hasSource){var
f=l(e.source);r=f.height,n=f.width}var h,p=o.getFromId(t,e.xaxis||"x"),d=o.getFromId(t,e.yaxis||"y"),g=p.d2c(e.x0)-
e.dx/2,v=d.d2c(e.y0)-
e.dy/2,m=[g,g+n*e.dx],y=[v,v+r*e.dy];if(p&&"log"===p.type)for(h=0;h<n;h++)m.push(g+h*e.dx);if(d&&"log"==
=d.type)for(h=0;h<r;h++)y.push(v+h*e.dy);return
e._extremes[p._id]=o.findExtremes(p,m),e._extremes[d._id]=o.findExtremes(d,y),e._scaler=function(t){var
e=i.colormodel[t.colormodel],r=(e.colormodel||t.colormodel).length;t._sArray=[];for(var
n=0;n<r;n++)e.min[n]!==t.zmin[n]||e.max[n]!==t.zmax[n]?t._sArray.push(c(t.zmin[n],(e.max[n]-
e.min[n])/(t.zmax[n]-t.zmin[n]),e.min[n],e.max[n])):t._sArray.push(u(e.min[n],e.max[n]));return function(e){for(var
n=e.slice(0,r),i=0;i<r;i++){var o=n[i];if(!a(o))return!1;n[i]=t._sArray[i](o)}return
n}}(e),[{x0:g,y0:v,z:e.z,w:n,h:r}]}},{"../../lib":503,"../../plots/cartesian/axes":554,"./constants":847,"./helpers":850,"
fast-isnumeric":190}],847:[function(t,e,r){"use
strict";e.exports={colormodel:{rgb:{min:[0,0,0],max:[255,255,255],fmt:function(t){return
t.slice(0,3)},suffix:["","",""]},rgba:{min:[0,0,0,0],max:[255,255,255,1],fmt:function(t){return
t.slice(0,4)},suffix:["","","",""]},rgba256:{colormodel:"rgba",zminDflt:[0,0,0,0],zmaxDflt:[255,255,255,255],min:[0
,0,0,0],max:[255,255,255,1],fmt:function(t){return
t.slice(0,4)},suffix:["","","",""]},hsl:{min:[0,0,0],max:[360,100,100],fmt:function(t){var e=t.slice(0,3);return
e[1]=e[1]+"%",e[2]=e[2]+"%",e},suffix:["°","%","%"]},hsla:{min:[0,0,0,0],max:[360,100,100,1],fmt:function(t){va
r e=t.slice(0,4);return e[1]=e[1]+"%",e[2]=e[2]+"%",e},suffix:["°","%","%",""]}},pixelatedStyle:["image-rendering:
optimizeSpeed","image-rendering: -moz-crisp-edges","image-rendering: -o-crisp-edges","image-rendering: -webkit-
optimize-contrast","image-rendering: optimize-contrast","image-rendering: crisp-edges","image-rendering:
pixelated",""].join("; ")}},{}],848:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("./attributes"),a=t("./constants"),o=t("../../snapshot/helpers").IMAGE_URL_PREFIX;e.exports=fu
nction(t,e){function r(r,a){return n.coerce(t,e,i,r,a)}r("source"),e.source&&!e.source.match(o)&&delete
e.source,e._hasSource=!!e.source;var s,l=r("z");e._hasZ=!(void
0===l||!l.length||!l[0]||!l[0].length),e._hasZ||e._hasSource?(r("x0"),r("y0"),r("dx"),r("dy"),e._hasZ?(r("colormodel","r
gb"),r("zmin",(s=a.colormodel[e.colormodel]).zminDflt||s.min),r("zmax",s.zmaxDflt||s.max)):e._hasSource&&(e.col
ormodel="rgba256",s=a.colormodel[e.colormodel],e.zmin=s.zminDflt,e.zmax=s.zmaxDflt),r("zsmooth"),r("text"),r(
"hovertext"),r("hovertemplate"),e._length=null):e.visible=!1}},{"../../lib":503,"../../snapshot/helpers":642,"./attribute
s":845,"./constants":847}],849:[function(t,e,r){"use strict";e.exports=function(t,e){return"xVal"in
e&&(t.x=e.xVal),"yVal"in
e&&(t.y=e.yVal),e.xa&&(t.xaxis=e.xa),e.ya&&(t.yaxis=e.ya),t.color=e.color,t.colormodel=e.trace.colormodel,t.z||(t.
z=e.color),t}},{}],850:[function(t,e,r){"use strict";var n=t("probe-image-
size/sync"),i=t("../../snapshot/helpers").IMAGE_URL_PREFIX,a=t("buffer/").Buffer;r.getImageSize=function(t){va
r e=t.replace(i,""),r=new a(e,"base64");return n(r)}},{"../../snapshot/helpers":642,"buffer/":85,"probe-image-
size/sync":276}],851:[function(t,e,r){"use strict";var
n=t("../../components/fx"),i=t("../../lib"),a=t("./constants");e.exports=function(t,e,r){var
o=t.cd[0],s=o.trace,l=t.xa,c=t.ya;if(!(n.inbox(e-o.x0,e-(o.x0+o.w*s.dx),0)>0||n.inbox(r-o.y0,r-

(o.y0+o.h*s.dy),0)>0)){var u,f=Math.floor((e-o.x0)/s.dx),h=Math.floor(Math.abs(r-o.y0)/s.dy);if(s._hasZ?u=o.z[h][f]:s._hasSource&&(u=s._canvas.el.getContext("2d",{willReadFrequently:!0}).getImageData(f,h,1,1).data),u){var p,d=o.hi||s.hoverinfo;if(d){var g=d.split("+");-1!==g.indexOf("all")&&(g=["color"]),-1!==g.indexOf("color")&&(p=!0)}var v,m=a.colormodel[s.colormodel],y=m.colormodel||s.colormodel,x=y.length,b=s._scaler(u),_=m.suffix,w=[];(s.hovertemplate||p)&&(w.push("["+[b[0]+_[0],b[1]+_[1],b[2]+_[2]].join(", ")),4===x&&w.push(", "+b[3]+_[3]),w.push("]"),w=w.join(""),t.extraText=y.toUpperCase()+": "+w),Array.isArray(s.hovertext)&&Array.isArray(s.hovertext[h])?v=s.hovertext[h][f]:Array.isArray(s.text)&&Array.isArray(s.text[h])&&(v=s.text[h][f]);var T=c.c2p(o.y0+(h+.5)*s.dy),k=o.x0+(f+.5)*s.dx,A=o.y0+(h+.5)*s.dy,M="["+u.slice(0,s.colormodel.length).join(", ")+"]";return[i.extendFlat(t,{index:[h,f],x0:l.c2p(o.x0+f*s.dx),x1:l.c2p(o.x0+(f+1)*s.dx),y0:T,y1:T,color:b,xVal:k,xLabelVal:k,yVal:A,yLabelVal:A,zLabelVal:M,text:v,hovertemplateLabels:{zLabel:M,colorLabel:w,"color[0]Label":b[0]+_[0],"color[1]Label":b[1]+_[1],"color[2]Label":b[2]+_[2],"color[3]Label":b[3]+_[3]}})]}}}},{"../../components/fx":406,"../../lib":503,"./constants":847}],852:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),calc:t("./calc"),plot:t("./plot"),style:t("./style"),hoverPoints:t("./hover"),eventData:t("./event_data"),moduleType:"trace",name:"image",basePlotModule:t("../../plots/cartesian"),categories:["cartesian","svg","2dMap","noSortingByValue"],animatable:!1,meta:{}}},{"../../plots/cartesian":568,"./attributes":845,"./calc":846,"./defaults":848,"./event_data":849,"./hover":851,"./plot":853,"./style":854}],853:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../lib"),a=i.strTranslate,o=t("../../constants/xmlns_namespaces"),s=t("./constants"),l=i.isIOS()||i.isSafari()||i.isIE();e.exports=function(t,e,r,c){var u=e.xaxis,f=e.yaxis,h=!(l||t._context._exportedPlot);i.makeTraceGroups(c,r,"im").each((function(e){var r=n.select(this),l=e[0],c=l.trace,p=("fast"===c.zsmooth||!1===c.zsmooth&&h)&&!c._hasZ&&c._hasSource&&"linear"===u.type&&"linear"===f.type;c._realImage=p;var d,g,v,m,y,x,b=l.z,_=l.x0,w=l.y0,T=l.w,k=l.h,A=c.dx,M=c.dy;for(x=0;void 0===d&&x<T;)d=u.c2p(_+x*A),x++;for(x=T;void 0===g&&x>0;)g=u.c2p(_+x*A),x--;for(x=0;void 0===m&&x<k;)m=f.c2p(w+x*M),x++;for(x=k;void 0===y&&x>0;)y=f.c2p(w+x*M),x--;g<d&&(v=g,g=d,d=v),y<m&&(v=m,m=y,y=v),p||(d=Math.max(-.5*u._length,d),g=Math.min(1.5*u._length,g),m=Math.max(-.5*f._length,m),y=Math.min(1.5*f._length,y));var S=Math.round(g-d),E=Math.round(y-m);if(S<=0||E<=0)r.selectAll("image").data([]).exit().remove();else{var L=r.selectAll("image").data([e]);L.enter().append("svg:image").attr({xmlns:o.svg,preserveAspectRatio:"none"}),L.exit().remove();var C=!1===c.zsmooth?s.pixelatedStyle:"";if(p){var P=i.simpleMap(u.range,u.r2l),I=i.simpleMap(f.range,f.r2l),O=P[1]<P[0],z=I[1]>I[0];if(O||z){var D=d+S/2,R=m+E/2;C+="transform:"+a(D+"px",R+"px")+"scale("+(O?-1:1)+","+(z?-1:1)+")"+a(-D+"px",-R+"px")+";"}}L.attr("style",C);var F=new Promise((function(t){if(c._hasZ)t();else if(c._hasSource)if(c._canvas&&c._canvas.el.width===T&&c._canvas.el.height===k&&c._canvas.source===c.source)t();else{var e=document.createElement("canvas");e.width=T,e.height=k;var r=e.getContext("2d",{willReadFrequently:!0});c._image=c._image||new Image;var n=c._image;n.onload=function(){r.drawImage(n,0,0),c._canvas={el:e,source:c.source},t()},n.setAttribute("src",c.source)}})).then((function(){var t;if(c._hasZ)t=B((function(t,e){return b[e][t]})).toDataURL("image/png");else if(c._hasSource)if(p)t=c.source;else{var e=c._canvas.el.getContext("2d",{willReadFrequently:!0}).getImageData(0,0,T,k).data;t=B((function(t,r){var n=4*(r*T+t);return[e[n],e[n+1],e[n+2],e[n+3]]})).toDataURL("image/png")}L.attr({"xlink:href":t,height:E,width:S,x:d,y:m})}));t._promises.push(F)}function B(t){var e=document.createElement("canvas");e.width=S,e.height=E;var r,n=e.getContext("2d",{willReadFrequently:!0}),a=function(t){return i.constrain(Math.round(u.c2p(_+t*A)-d),0,S)},o=function(t){return i.constrain(Math.round(f.c2p(w+t*M)-m),0,E)},h=s.colormodel[c.colormodel],p=h.colormodel||c.colormodel,g=h.fmt;for(x=0;x<l.w;x++){var v=a(x),y=a(x+1);if(y!==v&&!isNaN(y)&&!isNaN(v))for(var b=0;b<l.h;b++){var

T=o(b),k=o(b+1);k===T||isNaN(k)||isNaN(T)||!t(x,b)||(r=c._scaler(t(x,b)),n.fillStyle=r?p+"("+g(r).join(",")+")":"rgba(0,0,0,0)",n.fillRect(v,T,y-v,k-T))}}return e}))}},{"../../constants/xmlns_namespaces":480,"../../lib":503,"./constants":847,"@plotly/d3":58}],854:[function(t,e,r){"use strict";var n=t("@plotly/d3");e.exports=function(t){n.select(t).selectAll(".im image").style("opacity",(function(t){return t[0].trace.opacity}))}},{"@plotly/d3":58}],855:[function(t,e,r){"use strict";var n=t("../../lib/extend").extendFlat,i=t("../../lib/extend").extendDeep,a=t("../../plot_api/edit_types").overrideAll,o=t("../../plots/font_attributes"),s=t("../../components/color/attributes"),l=t("../../plots/domain").attributes,c=t("../../plots/cartesian/layout_attributes"),u=t("../../plot_api/plot_template").templatedArray,f=t("../../constants/delta.js"),h=t("../../plots/cartesian/axis_format_attributes").descriptionOnlyNumbers,p=o({editType:"plot",colorEditType:"plot"}),d={color:{valType:"color",editType:"plot"},line:{color:{valType:"color",dflt:s.defaultLine,editType:"plot"},width:{valType:"number",min:0,dflt:0,editType:"plot"},editType:"calc"},thickness:{valType:"number",min:0,max:1,dflt:1,editType:"plot"},editType:"calc"},g={valType:"info_array",items:[{valType:"number",editType:"plot"},{valType:"number",editType:"plot"}],editType:"plot"},v=u("step",i({},d,{range:g}));e.exports={mode:{valType:"flaglist",editType:"calc",flags:["number","delta","gauge"],dflt:"number"},value:{valType:"number",editType:"calc",anim:!0},align:{valType:"enumerated",values:["left","center","right"],editType:"plot"},domain:l({name:"indicator",trace:!0,editType:"calc"}),title:{text:{valType:"string",editType:"plot"},align:{valType:"enumerated",values:["left","center","right"],editType:"plot"},font:n({},p,{}),editType:"plot"},number:{valueformat:{valType:"string",dflt:"",editType:"plot",description:h("value")},font:n({},p,{}),prefix:{valType:"string",dflt:"",editType:"plot"},suffix:{valType:"string",dflt:"",editType:"plot"},editType:"plot"},delta:{reference:{valType:"number",editType:"calc"},position:{valType:"enumerated",values:["top","bottom","left","right"],dflt:"bottom",editType:"plot"},relative:{valType:"boolean",editType:"plot",dflt:!1},valueformat:{valType:"string",editType:"plot",description:h("value")},increasing:{symbol:{valType:"string",dflt:f.INCREASING.SYMBOL,editType:"plot"},color:{valType:"color",dflt:f.INCREASING.COLOR,editType:"plot"},editType:"plot"},decreasing:{symbol:{valType:"string",dflt:f.DECREASING.SYMBOL,editType:"plot"},color:{valType:"color",dflt:f.DECREASING.COLOR,editType:"plot"},editType:"plot"},font:n({},p,{}),editType:"calc"},gauge:{shape:{valType:"enumerated",editType:"plot",dflt:"angular",values:["angular","bullet"]},bar:i({},d,{color:{dflt:"green"}}),bgcolor:{valType:"color",editType:"plot"},bordercolor:{valType:"color",dflt:s.defaultLine,editType:"plot"},borderwidth:{valType:"number",min:0,dflt:1,editType:"plot"},axis:a({range:g,visible:n({},c.visible,{dflt:!0}),tickmode:c.tickmode,nticks:c.nticks,tick0:c.tick0,dtick:c.dtick,tickvals:c.tickvals,ticktext:c.ticktext,ticks:n({},c.ticks,{dflt:"outside"}),ticklen:c.ticklen,tickwidth:c.tickwidth,tickcolor:c.tickcolor,ticklabelstep:c.ticklabelstep,showticklabels:c.showticklabels,tickfont:o({}),tickangle:c.tickangle,tickformat:c.tickformat,tickformatstops:c.tickformatstops,tickprefix:c.tickprefix,showtickprefix:c.showtickprefix,ticksuffix:c.ticksuffix,showticksuffix:c.showticksuffix,separatethousands:c.separatethousands,exponentformat:c.exponentformat,minexponent:c.minexponent,showexponent:c.showexponent,editType:"plot"},"plot"),steps:v,threshold:{line:{color:n({},d.line.color,{}),width:n({},d.line.width,{dflt:1}),editType:"plot"},thickness:n({},d.thickness,{dflt:.85}),value:{valType:"number",editType:"calc",dflt:!1},editType:"plot"},editType:"plot"}}},{"../../components/color/attributes":365,"../../constants/delta.js":473,"../../lib/extend":493,"../../plot_api/edit_types":536,"../../plot_api/plot_template":543,"../../plots/cartesian/axis_format_attributes":557,"../../plots/cartesian/layout_attributes":569,"../../plots/domain":584,"../../plots/font_attributes":585}],856:[function(t,e,r){"use strict";var n=t("../../plots/plots");r.name="indicator",r.plot=function(t,e,i,a){n.plotBasePlot(r.name,t,e,i,a)},r.clean=function(t,e,i,a){n.cleanBasePlot(r.name,t,e,i,a)}},{"../../plots/plots":619}],857:[function(t,e,r){"use strict";e.exports={calc:function(t,e){var r=[],n=e.value;"number"!=typeof e._lastValue&&(e._lastValue=e.value);var i=e._lastValue,a=i;return e._hasDelta&&"number"==typeof e.delta.reference&&(a=e.delta.reference),r[0]={y:n,lastY:i,delta:n-a,relativeDelta:(n-a)/a},r}}},{}],858:[function(t,e,r){"use strict";e.exports={defaultNumberFontSize:80,bulletNumberDomainSize:.25,bulletPadding:.025,innerRadius:.75,valueThickness:.5,titlePadding:5,horizontalPadding:10}},{}],859:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./attributes"),a=t("../../plots/domain").defaults,o=t("../../plot_api/plot_template"),s=t("../../plots/arr

ay_container_defaults"),l=t("./constants.js"),c=t("../../plots/cartesian/tick_value_defaults"),u=t("../../plots/cartesian/tick_mark_defaults"),f=t("../../plots/cartesian/tick_label_defaults"),h=t("../../plots/cartesian/prefix_suffix_defaults");function p(t,e){function r(r,a){return n.coerce(t,e,i.gauge.steps,r,a)}r("color"),r("line.color"),r("line.width"),r("range"),r("thickness")}e.exports={supplyDefaults:function(t,e,r,d){function g(r,a){return n.coerce(t,e,i,r,a)}a(e,d,g),g("mode"),e._hasNumber=-1!==e.mode.indexOf("number"),e._hasDelta=-1!==e.mode.indexOf("delta"),e._hasGauge=-1!==e.mode.indexOf("gauge");var v=g("value");e._range=[0,"number"==typeof v?1.5*v:1];var m,y,x,b,_,w,T=new Array(2);function k(t,e){return n.coerce(x,b,i.gauge,t,e)}function A(t,e){return n.coerce(_,w,i.gauge.axis,t,e)}if(e._hasNumber&&(g("number.valueformat"),g("number.font.color",d.font.color),g("number.font.family",d.font.family),g("number.font.size"),void 0===e.number.font.size&&(e.number.font.size=l.defaultNumberFontSize,T[0]=!0),g("number.prefix"),g("number.suffix"),m=e.number.font.size),e._hasDelta&&(g("delta.font.color",d.font.color),g("delta.font.family",d.font.family),g("delta.font.size"),void 0===e.delta.font.size&&(e.delta.font.size=(e._hasNumber?.5:1)*(m||l.defaultNumberFontSize),T[1]=!0),g("delta.reference",e.value),g("delta.relative"),g("delta.valueformat",e.delta.relative?"2%":""),g("delta.increasing.symbol"),g("delta.increasing.color"),g("delta.decreasing.symbol"),g("delta.decreasing.color"),g("delta.position"),y=e.delta.font.size),e._scaleNumbers=(!e._hasNumber||T[0])&&(!e._hasDelta||T[1])||!1,g("title.font.color",d.font.color),g("title.font.family",d.font.family),g("title.font.size",.25*(m||y||l.defaultNumberFontSize)),g("title.text"),e._hasGauge){(x=t.gauge)||(x={}),b=o.newContainer(e,"gauge"),k("shape"),(e._isBullet="bullet"===e.gauge.shape)||g("title.align","center"),(e._isAngular="angular"===e.gauge.shape)||g("align","center"),k("bgcolor",d.paper_bgcolor),k("borderwidth"),k("bordercolor"),k("bar.color"),k("bar.line.color"),k("bar.line.width"),k("bar.thickness",l.valueThickness*("bullet"===e.gauge.shape?.5:1)),s(x,b,{name:"steps",handleItemDefaults:p}),k("threshold.value"),k("threshold.thickness"),k("threshold.line.width"),k("threshold.line.color"),_={},x&&(_=x.axis||{}),w=o.newContainer(b,"axis"),A("visible"),e._range=A("range",e._range);var M={outerTicks:!0};c(_,w,A,"linear"),h(_,w,A,"linear",M),f(_,w,A,"linear",M),u(_,w,A,M)}else g("title.align","center"),g("align","center"),e._isAngular=e._isBullet=!1;e._length=null}}},{"../../lib":503,"../../plot_api/plot_template":543,"../../plots/array_container_defaults":549,"../../plots/cartesian/prefix_suffix_defaults":573,"../../plots/cartesian/tick_label_defaults":578,"../../plots/cartesian/tick_mark_defaults":579,"../../plots/cartesian/tick_value_defaults":580,"../../plots/domain":584,"./attributes":855,"./constants.js":858}],860:[function(t,e,r){"use strict";e.exports={moduleType:"trace",name:"indicator",basePlotModule:t("./base_plot"),categories:["svg","noOpacity","noHover"],animatable:!0,attributes:t("./attributes"),supplyDefaults:t("./defaults").supplyDefaults,calc:t("./calc").calc,plot:t("./plot"),meta:{}}},{"./attributes":855,"./base_plot":856,"./calc":857,"./defaults":859,"./plot":861}],861:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("d3-interpolate").interpolate,a=t("d3-interpolate").interpolateNumber,o=t("../../lib"),s=o.strScale,l=o.strTranslate,c=o.rad2deg,u=t("../../constants/alignment").MID_SHIFT,f=t("../../components/drawing"),h=t("./constants"),p=t("../../lib/svg_text_utils"),d=t("../../plots/cartesian/axes"),g=t("../../plots/cartesian/axis_defaults"),v=t("../../plots/cartesian/position_defaults"),m=t("../../plots/cartesian/layout_attributes"),y=t("../../components/color"),x={left:"start",center:"middle",right:"end"},b={left:0,center:.5,right:1},_=/[yzafpnµmkMGTPEZY]/;function w(t){return t&&t.duration>0}function T(t,e,r,a){var o,s,f,h,p=r[0].trace,g=a.size,v=a.radius,m=a.innerRadius,y=a.gaugeBg,x=a.gaugeOutline,b=[g.l+g.w/2,g.t+g.h/2+v/2],_=a.gauge,T=a.layer,M=a.transitionOpts,S=a.onComplete,E=Math.PI/2;function L(t){var e=p.gauge.axis.range[0],r=(t-e)/(p.gauge.axis.range[1]-e)*Math.PI-E;return r<-E?-E:r>E?E:r}function C(t){return n.svg.arc().innerRadius((m+v)/2-t/2*(v-m)).outerRadius((m+v)/2+t/2*(v-m)).startAngle(-E)}function P(t){t.attr("d",(function(t){return C(t.thickness).startAngle(L(t.range[0])).endAngle(L(t.range[1]))()}))}_.enter().append("g").classed("angular",!0),_.attr("transform",l(b[0],b[1])),T.enter().append("g").classed("angularaxis",!0).classed("crisp",!0),T.selectAll("g.xangularaxistick,path,text").remove(),(o=A(t,p.gauge.axis)).type="linear",o.range=p.gauge.axis.range,o._id="xangularaxis",o.ticklabeloverflow="allow",o.setScale();var I=function(t){return(o.range[0]-t.x)/(o.range[1]-o.range[0])*Math.PI+Math.PI},O={},z=d.makeLabelFns(o,0).labelStandoff;O.xFn=function(t){var e=I(t);return

Math.cos(e)*z},O.yFn=function(t){var e=I(t),r=Math.sin(e)>0?.2:1;return-Math.sin(e)*(z+t.fontSize*r)+Math.abs(Math.cos(e))*(t.fontSize*u)},O.anchorFn=function(t){var e=I(t),r=Math.cos(e);return Math.abs(r)<.1?"middle":r>0?"start":"end"},O.heightFn=function(t,e,r){var n=I(t);return-.5*(1+Math.sin(n))*r};var D=function(t){return l(b[0]+v*Math.cos(t),b[1]-v*Math.sin(t))};if(f=function(t){return D(I(t))},s=d.calcTicks(o),h=d.getTickSigns(o)[2],o.visible){h="inside"===o.ticks?-1:1;var R=(o.linewidth||1)/2;d.drawTicks(t,o,{vals:s,layer:T,path:"M"+h*R+",0h"+h*o.ticklen,transFn:function(t){var e=I(t);return D(e)+"rotate("+-c(e)+")"}}),d.drawLabels(t,o,{vals:s,layer:T,transFn:f,labelFns:O})}var F=[y].concat(p.gauge.steps),B=_.selectAll("g.bg-arc").data(F);B.enter().append("g").classed("bg-arc",!0).append("path"),B.select("path").call(P).call(k),B.exit().remove();var N=C(p.gauge.bar.thickness),j=_.selectAll("g.value-arc").data([p.gauge.bar]);j.enter().append("g").classed("value-arc",!0).append("path");var U,V,q,H=j.select("path");w(M)?(H.transition().duration(M.duration).ease(M.easing).each("end",(function(){S&&S()})).each("interrupt",(function(){S&&S()})).attrTween("d",(U=N,V=L(r[0].lastY),q=L(r[0].y),function(){var t=i(V,q);return function(e){return U.endAngle(t(e))()}})),p._lastValue=r[0].y):H.attr("d","number"==typeof r[0].y?N.endAngle(L(r[0].y)):"M0,0Z"),H.call(k),j.exit().remove(),F=[];var G=p.gauge.threshold.value;(G||0===G)&&F.push({range:[G,G],color:p.gauge.threshold.color,line:{color:p.gauge.threshold.line.color,width:p.gauge.threshold.line.width},thickness:p.gauge.threshold.thickness});var Y=_.selectAll("g.threshold-arc").data(F);Y.enter().append("g").classed("threshold-arc",!0).append("path"),Y.select("path").call(P).call(k),Y.exit().remove();var W=_.selectAll("g.gauge-outline").data([x]);W.enter().append("g").classed("gauge-outline",!0).append("path"),W.select("path").call(P).call(k),W.exit().remove()}function k(t){t.each((function(t){y.stroke(n.select(this),t.line.color)})).each((function(t){y.fill(n.select(this),t.color)})).style("stroke-width",(function(t){return t.line.width}))}function A(t,e,r){var n=t._fullLayout,i=o.extendFlat({type:"linear",ticks:"outside",range:r,showline:!0},e),a={type:"linear",_id:"x"+e._id},s={letter:"x",font:n.font,noHover:!0,noTickson:!0};function l(t,e){return o.coerce(i,a,m,t,e)}return g(i,a,l,s,n),v(i,a,l,s),a}function M(t,e,r){return[Math.min(e/t.width,r/t.height),t,e+"x"+r]}function S(t,e,r,i){var a=document.createElementNS("http://www.w3.org/2000/svg","text"),o=n.select(a);return o.text(t).attr("x",0).attr("y",0).attr("text-anchor",r).attr("data-unformatted",t).call(p.convertToTspans,i).call(f.font,e),f.bBox(o.node())}function E(t,e,r,n,i,a){var s="_cache"+e;t[s]&&t[s].key===i||(t[s]={key:i,value:r});var l=o.aggNums(a,null,[t[s].value,n],2);return t[s].value=l,l}e.exports=function(t,e,r,i){var c,u=t._fullLayout;w(r)&&i&&(c=i()),o.makeTraceGroups(u._indicatorlayer,e,"trace").each((function(e){var i,g,v,m,L,C=e[0].trace,P=n.select(this),I=C._hasGauge,O=C._isAngular,z=C._isBullet,D=C.domain,R={w:u._size.w*(D.x[1]-D.x[0]),h:u._size.h*(D.y[1]-D.y[0]),l:u._size.l+u._size.w*D.x[0],r:u._size.r+u._size.w*(1-D.x[1]),t:u._size.t+u._size.h*(1-D.y[1]),b:u._size.b+u._size.h*D.y[0]},F=R.l+R.w/2,B=R.t+R.h/2,N=Math.min(R.w/2,R.h),j=h.innerRadius*N,U=C.align||"center";if(g=B,I){if(O&&(i=F,g=B+N/2,v=function(t){return function(t,e){return[e/Math.sqrt(t.width/2*(t.width/2)+t.height*t.height),t,e]}(t,.9*j)}),z){var V=h.bulletPadding,q=1-h.bulletNumberDomainSize+V;i=R.l+(q+(1-q)*b[U])*R.w,v=function(t){return M(t,(h.bulletNumberDomainSize-V)*R.w,R.h)}}}else i=R.l+b[U]*R.w,v=function(t){return M(t,R.w,R.h)};(function(t,e,r,i){var c,u,h,g=r[0].trace,v=i.numbersX,m=i.numbersY,T=g.align||"center",k=x[T],M=i.transitionOpts,L=i.onComplete,C=o.ensureSingle(e,"g","numbers"),P=[];g._hasNumber&&P.push("number"),g._hasDelta&&(P.push("delta"),"left"===g.delta.position&&P.reverse());var I=C.selectAll("text").data(P);function O(e,r,n,i){if(!e.match("s")||n>=0==i>=0||r(n).slice(-1).match(_)||r(i).slice(-1).match(_))return r;var a=e.slice().replace("s","f").replace(/\d+/,(function(t){return parseInt(t)-1})),o=A(t,{tickformat:a});return function(t){return Math.abs(t)<1?d.tickText(o,t).text:r(t)}}I.enter().append("text"),I.attr("text-

anchor",(function(){return k})).attr("class",(function(t){return
t})).attr("x",null).attr("y",null).attr("dx",null).attr("dy",null),I.exit().remove();var
z,D=g.mode+g.align;if(g._hasDelta&&(z=function(){var
e=A(t,{tickformat:g.delta.valueformat},g._range);e.setScale(),d.prepTicks(e);var i=function(t){return
d.tickText(e,t).text},o=function(t){return g.delta.relative?t.relativeDelta:t.delta},s=function(t,e){return
0===t||"number"!=typeof t||isNaN(t)?"-
":(t>0?g.delta.increasing.symbol:g.delta.decreasing.symbol)+e(t)},l=function(t){return
t.delta>=0?g.delta.increasing.color:g.delta.decreasing.color};void
0===g._deltaLastValue&&(g._deltaLastValue=o(r[0]));var c=C.select("text.delta");function
h(){c.text(s(o(r[0]),i)).call(y.fill,l(r[0])).call(p.convertToTspans,t)}return
c.call(f.font,g.delta.font).call(y.fill,l({delta:g._deltaLastValue})),w(M)?c.transition().duration(M.duration).ease(M.e
asing).tween("text",(function(){var
t=n.select(this),e=o(r[0]),c=g._deltaLastValue,u=O(g.delta.valueformat,i,c,e),f=a(c,e);return
g._deltaLastValue=e,function(e){t.text(s(f(e),u)),t.call(y.fill,l({delta:f(e)}))}})).each("end",(function(){h(),L&&L()}
)).each("interrupt",(function(){h(),L&&L()})):h(),u=S(s(o(r[0]),i),g.delta.font,k,t),c}(),D+=g.delta.position+g.delta.f
ont.size+g.delta.font.family+g.delta.valueformat,D+=g.delta.increasing.symbol+g.delta.decreasing.symbol,h=u),g._
hasNumber&&(function(){var e=A(t,{tickformat:g.number.valueformat},g._range);e.setScale(),d.prepTicks(e);var
i=function(t){return d.tickText(e,t).text},o=g.number.suffix,s=g.number.prefix,l=C.select("text.number");function
u(){var e="number"==typeof r[0].y?s+i(r[0].y)+o:"-
";l.text(e).call(f.font,g.number.font).call(p.convertToTspans,t)}w(M)?l.transition().duration(M.duration).ease(M.easi
ng).each("end",(function(){u(),L&&L()})).each("interrupt",(function(){u(),L&&L()})).attrTween("text",(function()
{var t=n.select(this),e=a(r[0].lastY,r[0].y);g._lastValue=r[0].y;var
l=O(g.number.valueformat,i,r[0].lastY,r[0].y);return
function(r){t.text(s+l(e(r))+o)}})):u(),c=S(s+i(r[0].y)+o,g.number.font,k,t)}(),D+=g.number.font.size+g.number.fon
t.family+g.number.valueformat+g.number.suffix+g.number.prefix,h=c),g._hasDelta&&g._hasNumber){var
R,F,B=[(c.left+c.right)/2,(c.top+c.bottom)/2],N=[(u.left+u.right)/2,(u.top+u.bottom)/2],j=.75*g.delta.font.size;"left"
===g.delta.position&&(R=E(g,"deltaPos",0,-1*(c.width*b[g.align]+u.width*(1-b[g.align])+j),D,Math.min),F=B[1]-
N[1],h={width:c.width+u.width+j,height:Math.max(c.height,u.height),left:u.left+R,right:c.right,top:Math.min(c.top,
u.top+F),bottom:Math.max(c.bottom,u.bottom+F)}),"right"===g.delta.position&&(R=E(g,"deltaPos",0,c.width*(1-
b[g.align])+u.width*b[g.align]+j,D,Math.max),F=B[1]-
N[1],h={width:c.width+u.width+j,height:Math.max(c.height,u.height),left:c.left,right:u.right+R,top:Math.min(c.top,
u.top+F),bottom:Math.max(c.bottom,u.bottom+F)}),"bottom"===g.delta.position&&(R=null,F=u.height,h={width:
Math.max(c.width,u.width),height:c.height+u.height,left:Math.min(c.left,u.left),right:Math.max(c.right,u.right),top:c
.bottom-
c.height,bottom:c.bottom+u.height}),"top"===g.delta.position&&(R=null,F=c.top,h={width:Math.max(c.width,u.wi
dth),height:c.height+u.height,left:Math.min(c.left,u.left),right:Math.max(c.right,u.right),top:c.bottom-c.height-
u.height,bottom:c.bottom}),z.attr({dx:R,dy:F})}(g._hasNumber||g._hasDelta)&&C.attr("transform",(function(){var
t=i.numbersScaler(h);D+=t[2];var
e,r=E(g,"numbersScale",1,t[0],D,Math.min);g._scaleNumbers||(r=1),e=g._isAngular?m-r*h.bottom:m-
r*(h.top+h.bottom)/2,g._numbersTop=r*h.top+e;var n=h[T];"center"===T&&(n=(h.left+h.right)/2);var a=v-
r*n;return
a=E(g,"numbersTranslate",0,a,D,Math.max),l(a,e)+s(r)})})(t,P,e,{numbersX:i,numbersY:g,numbersScaler:v,transiti
onOpts:r,onComplete:c}),I&&(m={range:C.gauge.axis.range,color:C.gauge.bgcolor,line:{color:C.gauge.bordercolo
r,width:0},thickness:1},L={range:C.gauge.axis.range,color:"rgba(0, 0, 0,
0)",line:{color:C.gauge.bordercolor,width:C.gauge.borderwidth},thickness:1});var
H=P.selectAll("g.angular").data(O?e:[]);H.exit().remove();var
G=P.selectAll("g.angularaxis").data(O?e:[]);G.exit().remove(),O&&T(t,0,e,{radius:N,innerRadius:j,gauge:H,layer:
G,size:R,gaugeBg:m,gaugeOutline:L,transitionOpts:r,onComplete:c});var

Y=P.selectAll("g.bullet").data(z?e:[]);Y.exit().remove();var
W=P.selectAll("g.bulletaxis").data(z?e:[]);W.exit().remove(),z&&function(t,e,r,n){var
i,a,o,s,c,u=r[0].trace,f=n.gauge,p=n.layer,g=n.gaugeBg,v=n.gaugeOutline,m=n.size,x=u.domain,b=n.transitionOpts,
_=n.onComplete;f.enter().append("g").classed("bullet",!0),f.attr("transform",l(m.l,m.t)),p.enter().append("g").classe
d("bulletaxis",!0).classed("crisp",!0),p.selectAll("g.xbulletaxistick,path,text").remove();var
T=m.h,M=u.gauge.bar.thickness*T,S=x.x[0],E=x.x[0]+(x.x[1]-x.x[0])*(u._hasNumber||u._hasDelta?1-
h.bulletNumberDomainSize:1);function L(t){t.attr("width",(function(t){return Math.max(0,i.c2p(t.range[1])-
i.c2p(t.range[0]))})).attr("x",(function(t){return i.c2p(t.range[0])})).attr("y",(function(t){return.5*(1-
t.thickness)*T})).attr("height",(function(t){return
t.thickness*T}))}(i=A(t,u.gauge.axis))._id="xbulletaxis",i.domain=[S,E],i.setScale(),a=d.calcTicks(i),o=d.makeTran
sTickFn(i),s=d.getTickSigns(i)[2],c=m.t+m.h,i.visible&&(d.drawTicks(t,i,{vals:"inside"===i.ticks?d.clipEnds(i,a):a
,layer:p,path:d.makeTickPath(i,c,s),transFn:o}),d.drawLabels(t,i,{vals:a,layer:p,transFn:o,labelFns:d.makeLabelFns(
i,c)}));var C=[g].concat(u.gauge.steps),P=f.selectAll("g.bg-bullet").data(C);P.enter().append("g").classed("bg-
bullet",!0).append("rect"),P.select("rect").call(L).call(k),P.exit().remove();var I=f.selectAll("g.value-
bullet").data([u.gauge.bar]);I.enter().append("g").classed("value-
bullet",!0).append("rect"),I.select("rect").attr("height",M).attr("y",(T-
M)/2).call(k),w(b)?I.select("rect").transition().duration(b.duration).ease(b.easing).each("end",(function(){_&&_()}))
.each("interrupt",(function(){_&&_()})).attr("width",Math.max(0,i.c2p(Math.min(u.gauge.axis.range[1],r[0].y)))):I.
select("rect").attr("width","number"==typeof
r[0].y?Math.max(0,i.c2p(Math.min(u.gauge.axis.range[1],r[0].y))):0),I.exit().remove();var
O=r.filter((function(){return u.gauge.threshold.value||0===u.gauge.threshold.value})),z=f.selectAll("g.threshold-
bullet").data(O);z.enter().append("g").classed("threshold-
bullet",!0).append("line"),z.select("line").attr("x1",i.c2p(u.gauge.threshold.value)).attr("x2",i.c2p(u.gauge.threshold.
value)).attr("y1",(1-u.gauge.threshold.thickness)/2*T).attr("y2",(1-(1-
u.gauge.threshold.thickness)/2)*T).call(y.stroke,u.gauge.threshold.line.color).style("stroke-
width",u.gauge.threshold.line.width),z.exit().remove();var D=f.selectAll("g.gauge-
outline").data([v]);D.enter().append("g").classed("gauge-
outline",!0).append("rect"),D.select("rect").call(L).call(k),D.exit().remove()}(t,0,e,{gauge:Y,layer:W,size:R,gaugeB
g:m,gaugeOutline:L,transitionOpts:r,onComplete:c});var
X=P.selectAll("text.title").data(e);X.exit().remove(),X.enter().append("text").classed("title",!0),X.attr("text-
anchor",(function(){return
z?x.right:x[C.title.align]})).text(C.title.text).call(f.font,C.title.font).call(p.convertToTspans,t),X.attr("transform",(fun
ction(){var t,e=R.l+R.w*b[C.title.align],r=h.titlePadding,n=f.bBox(X.node());return
I?(O&&(t=C.gauge.axis.visible?f.bBox(G.node()).top-r-n.bottom:R.t+R.h/2-N/2-n.bottom-r),z&&(t=g-
(n.top+n.bottom)/2,e=R.l-h.bulletPadding*R.w)):t=C._numbersTop-r-
n.bottom,l(e,t))}))))}},{"../../components/color":366,"../../components/drawing":388,"../../constants/alignment":471,
"../../lib":503,"../../lib/svg_text_utils":529,"../../plots/cartesian/axes":554,"../../plots/cartesian/axis_defaults":556,"../../
plots/cartesian/layout_attributes":569,"../../plots/cartesian/position_defaults":572,"./constants":858,"@plotly/d3":58,
"d3-interpolate":116}],862:[function(t,e,r){"use strict";var
n=t("../../components/colorscale/attributes"),i=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,a=t("
./../plots/template_attributes").hovertemplateAttrs,o=t("../mesh3d/attributes"),s=t("../../plots/attributes"),l=t("../../lib/e
xtend").extendFlat,c=t("../../plot_api/edit_types").overrideAll,u=e.exports=c(l({x:{valType:"data_array"},y:{valTyp
e:"data_array"},z:{valType:"data_array"},value:{valType:"data_array"},isomin:{valType:"number"},isomax:{valT
ype:"number"},surface:{show:{valType:"boolean",dflt:!0},count:{valType:"integer",dflt:2,min:1},fill:{valType:"nu
mber",min:0,max:1,dflt:1},pattern:{valType:"flaglist",flags:["A","B","C","D","E"],extras:["all","odd","even"],dflt:"
all"}},spaceframe:{show:{valType:"boolean",dflt:!1},fill:{valType:"number",min:0,max:1,dflt:.15}},slices:{x:{sho
w:{valType:"boolean",dflt:!1},locations:{valType:"data_array",dflt:[]},fill:{valType:"number",min:0,max:1,dflt:1}
},y:{show:{valType:"boolean",dflt:!1},locations:{valType:"data_array",dflt:[]},fill:{valType:"number",min:0,max:

1,dflt:1}},z:{show:{valType:"boolean",dflt:!1},locations:{valType:"data_array",dflt:[]},fill:{valType:"number",min:0,max:1,dflt:1}}},caps:{x:{show:{valType:"boolean",dflt:!0},fill:{valType:"number",min:0,max:1,dflt:1}},y:{show:{valType:"boolean",dflt:!0},fill:{valType:"number",min:0,max:1,dflt:1}},z:{show:{valType:"boolean",dflt:!0},fill:{valType:"number",min:0,max:1,dflt:1}}},text:{valType:"string",dflt:"",arrayOk:!0},hovertext:{valType:"string",dflt:"",arrayOk:!0},hovertemplate:a(),xhoverformat:i("x"),yhoverformat:i("y"),zhoverformat:i("z"),valuehoverformat:i("value",1),showlegend:l({},s.showlegend,{dflt:!1})},n("",{colorAttr:"`value`",showScaleDflt:!0,editTypeOverride:"calc"}),{opacity:o.opacity,lightposition:o.lightposition,lighting:o.lighting,flatshading:o.flatshading,contour:o.contour,hoverinfo:l({},s.hoverinfo)}),"calc","nested");u.flatshading.dflt=!0,u.lighting.facenormalsepsilon.dflt=0,u.x.editType=u.y.editType=u.z.editType=u.value.editType="calc+clearAxisTypes",u.transforms=void 0},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plot_api/edit_types":536,"../../plots/attributes":550,"../../plots/cartesian/axis_format_attributes":557,"../../plots/template_attributes":633,"../mesh3d/attributes":867}],863:[function(t,e,r){"use strict";var n=t("../../components/colorscale/calc"),i=t("../streamtube/calc").processGrid,a=t("../streamtube/calc").filter;e.exports=function(t,e){e._len=Math.min(e.x.length,e.y.length,e.z.length,e.value.length),e._x=a(e.x,e._len),e._y=a(e.y,e._len),e._z=a(e.z,e._len),e._value=a(e.value,e._len);var r=i(e);e._gridFill=r.fill,e._Xs=r.Xs,e._Ys=r.Ys,e._Zs=r.Zs,e._len=r.len;for(var o=1/0,s=-1/0,l=0;l<e._len;l++){var c=e._value[l];o=Math.min(o,c),s=Math.max(s,c)}e._minValues=o,e._maxValues=s,e._vMin=void 0===e.isomin||null===e.isomin?o:e.isomin,e._vMax=void 0===e.isomax||null===e.isomin?s:e.isomax,n(t,e,{vals:[e._vMin,e._vMax],containerStr:"",cLetter:"c"})}},{"../../components/colorscale/calc":374,"../streamtube/calc":1045}],864:[function(t,e,r){"use strict";var n=t("../../../stackgl_modules").gl_mesh3d,i=t("../../lib/gl_format_color").parseColorScale,a=t("../../lib/str2rgbarray"),o=t("../../components/colorscale").extractOpts,s=t("../../plots/gl3d/zip3"),l=function(t,e){for(var r=e.length-1;r>0;r--){var n=Math.min(e[r],e[r-1]),i=Math.max(e[r],e[r-1]);if(i>n&&n<t&&t<=i)return{id:r,distRatio:(i-t)/(i-n)}}return{id:0,distRatio:0}};function c(t,e,r){this.scene=t,this.uid=r,this.mesh=e,this.name="",this.data=null,this.showContour=!1}var u=c.prototype;u.handlePick=function(t){if(t.object===this.mesh){var e=t.data.index,r=this.data._meshX[e],n=this.data._meshY[e],i=this.data._meshZ[e],a=this.data._Ys.length,o=this.data._Zs.length,s=l(r,this.data._Xs).id,c=l(n,this.data._Ys).id,u=l(i,this.data._Zs).id,f=t.index=u+o*c+o*a*s;t.traceCoordinate=[this.data._meshX[f],this.data._meshY[f],this.data._meshZ[f],this.data._value[f]];var h=this.data.hovertext||this.data.text;return Array.isArray(h)&&void 0!==h[f]?t.textLabel=h[f]:h&&(t.textLabel=h),!0}},u.update=function(t){var e=this.scene,r=e.fullSceneLayout;function n(t,e,r,n){return e.map((function(e){return t.d2l(e,0,n)*r}))}this.data=h(t);var l={positions:s(n(r.xaxis,t._meshX,e.dataScale[0],t.xcalendar),n(r.yaxis,t._meshY,e.dataScale[1],t.ycalendar),n(r.zaxis,t._meshZ,e.dataScale[2],t.zcalendar)),cells:s(t._meshI,t._meshJ,t._meshK),lightPosition:[t.lightposition.x,t.lightposition.y,t.lightposition.z],ambient:t.lighting.ambient,diffuse:t.lighting.diffuse,specular:t.lighting.specular,roughness:t.lighting.roughness,fresnel:t.lighting.fresnel,vertexNormalsEpsilon:t.lighting.vertexnormalsepsilon,faceNormalsEpsilon:t.lighting.facenormalsepsilon,opacity:t.opacity,contourEnable:t.contour.show,contourColor:a(t.contour.color).slice(0,3),contourWidth:t.contour.width,useFacetNormals:t.flatshading},c=o(t);l.vertexIntensity=t._meshIntensity,l.vertexIntensityBounds=[c.min,c.max],l.colormap=i(t),this.mesh.update(l)},u.dispose=function(){this.scene.glplot.remove(this.mesh),this.mesh.dispose()};var f=["xyz","xzy","yxz","yzx","zxy","zyx"];function h(t){t._meshI=[],t._meshJ=[],t._meshK=[];var e,r,n,i,a,o,s,c=t.surface.show,u=t.spaceframe.show,h=t.surface.fill,p=t.spaceframe.fill,d=!1,g=!1,v=0,m=t._Xs,y=t._Ys,x=t._Zs,b=m.length,_=y.length,w=x.length,T=f.indexOf(t._gridFill.replace(/-/g,"").replace(/\+/g,"")),k=function(t,e,r){switch(T){case 5:return r+w*e+w*_*t;case 4:return r+w*t+w*b*e;case 3:return e+_*r+_*w*t;case 2:return e+_*t+_*b*r;case 1:return t+b*r+b*w*e;default:return t+b*e+b*_*r}},A=t._minValues,M=t._maxValues,S=t._vMin,E=t._vMax;function L(t,e,s){for(var l=o.length,c=r;c<l;c++)if(t===n[c]&&e===i[c]&&s===a[c])return c;return-1}function C(){r=e}function

P(){n=[],i=[],a=[],o=[],e=0,C()}function I(t,r,s,l){return n.push(t),i.push(r),a.push(s),o.push(l),++e-1}function O(t,e,r){for(var n=[],i=0;i<t.length;i++)n[i]=t[i]*(1-r)+r*e[i];return n}function z(t){s=t}function D(t,e){return"all"===t||null===t||t.indexOf(e)>-1}function R(t,e){return null===t?e:t}function F(e,r,n){C();var i,a,o,l=[r],c=[n];if(s>=1)l=[r],c=[n];else if(s>0){var u=function(t,e){var r=t[0],n=t[1],i=t[2],a=function(t,e,r){for(var n=[],i=0;i<t.length;i++)n[i]=(t[i]+e[i]+r[i])/3;return n}(r,n,i),o=Math.sqrt(1-s),l=O(a,r,o),c=O(a,n,o),u=O(a,i,o),f=e[0],h=e[1],p=e[2];return{xyzv:[[r,n,c],[c,l,r],[n,i,u],[u,c,n],[i,r,l],[l,u,i]],abc:[[f,h,-1],[-1,-1,f],[h,p,-1],[-1,-1,h],[p,f,-1],[-1,-1,p]]}}(r,n);l=u.xyzv,c=u.abc}for(var f=0;f<l.length;f++){r=l[f],n=c[f];for(var h=[],p=0;p<3;p++){var d=r[p][0],g=r[p][1],m=r[p][2],y=r[p][3],x=n[p]>-1?n[p]:L(d,g,m);h[p]=x>-1?x:I(d,g,m,R(e,y))}i=h[0],a=h[1],o=h[2],t._meshI.push(i),t._meshJ.push(a),t._meshK.push(o),++v}}function B(t,e,r,n){var i=t[3];i<r&&(i=r),i>n&&(i=n);for(var a=(t[3]-i)/(t[3]-e[3]+1e-9),o=[],s=0;s<4;s++)o[s]=(1-a)*t[s]+a*e[s];return o}function N(t,e,r){return t>=e&&t<=r}function j(t){var e=.001*(E-S);return t>=S-e&&t<=E+e}function U(e){for(var r=[],n=0;n<4;n++){var i=e[n];r.push([t._x[i],t._y[i],t._z[i],t._value[i]])}return r}function V(t,e,r,n,i,a){a||(a=1),r=[-1,-1,-1];var o=!1,s=[N(e[0][3],n,i),N(e[1][3],n,i),N(e[2][3],n,i)];if(!s[0]&&!s[1]&&!s[2])return!1;var l=function(t,e,r){return j(e[0][3])&&j(e[1][3])&&j(e[2][3])?(F(t,e,r),!0):a<3&&V(t,e,r,S,E,++a)};if(s[0]&&s[1]&&s[2])return l(t,e,r)||o;var c=!1;return[[0,1,2],[2,0,1],[1,2,0]].forEach((function(a){if(s[a[0]]&&s[a[1]]&&!s[a[2]]){var u=e[a[0]],f=e[a[1]],h=e[a[2]],p=B(h,u,n,i),d=B(h,f,n,i);o=l(t,[d,p,u],[-1,-1,r[a[0]]])||o,o=l(t,[u,f,d],[r[a[0]],r[a[1]],-1])||o,c=!0}})),c||[[0,1,2],[1,2,0],[2,0,1]].forEach((function(a){if(s[a[0]]&&!s[a[1]]&&!s[a[2]]){var u=e[a[0]],f=e[a[1]],h=e[a[2]],p=B(f,u,n,i),d=B(h,u,n,i);o=l(t,[d,p,u],[-1,-1,r[a[0]]])||o,c=!0}})),o}function q(t,e,r,n){var i=!1,a=U(e),o=[N(a[0][3],r,n),N(a[1][3],r,n),N(a[2][3],r,n),N(a[3][3],r,n)];if(!(o[0]||o[1]||o[2]||o[3]))return i;if(o[0]&&o[1]&&o[2]&&o[3])return g&&(i=function(t,e,r){var n=function(n,i,a){F(t,[e[n],e[i],e[a]],[r[n],r[i],r[a]])};n(0,1,2),n(3,0,1),n(2,3,0),n(1,2,3)}(t,a,e)||i),i;var s=!1;return[[0,1,2,3],[3,0,1,2],[2,3,0,1],[1,2,3,0]].forEach((function(l){if(o[l[0]]&&o[l[1]]&&o[l[2]]&&!o[l[3]]){var c=a[l[0]],u=a[l[1]],f=a[l[2]],h=a[l[3]];if(g)i=F(t,[c,u,f],[e[l[0]],e[l[1]],e[l[2]]])||i;else{var p=B(h,c,r,n),d=B(h,u,r,n),v=B(h,f,r,n);i=F(null,[p,d,v],[-1,-1,-1])||i}s=!0}})),s||([[0,1,2,3],[1,2,3,0],[2,3,0,1],[3,0,1,2],[0,2,3,1],[1,3,2,0]].forEach((function(l){if(o[l[0]]&&o[l[1]]&&o[l[2]]&&!o[l[3]]){var c=a[l[0]],u=a[l[1]],f=a[l[2]],h=a[l[3]],p=B(f,c,r,n),d=B(f,u,r,n),v=B(h,u,r,n),m=B(h,c,r,n);g?(i=F(t,[c,m,p],[e[l[0]],-1,-1])||i,i=F(t,[u,d,v],[e[l[1]],-1,-1])||i):i=function(t,e,r){var n=function(n,i,a){F(t,[e[n],e[i],e[a]],[r[n],r[i],r[a]])};n(0,1,2),n(2,3,0)}(null,[p,d,v,m],[-1,-1,-1,-1])||i,s=!0}})),s||[[0,1,2,3],[1,2,3,0],[2,3,0,1],[3,0,1,2]].forEach((function(l){if(o[l[0]]&&!o[l[1]]&&!o[l[2]]&&!o[l[3]]){var c=a[l[0]],u=a[l[1]],f=a[l[2]],h=a[l[3]],p=B(u,c,r,n),d=B(f,c,r,n),v=B(h,c,r,n);g?(i=F(t,[c,p,d],[e[l[0]],-1,-1])||i,i=F(t,[c,d,v],[e[l[0]],-1,-1])||i,i=F(t,[c,v,p],[e[l[0]],-1,-1])||i):i=F(null,[p,d,v],[-1,-1,-1])||i,s=!0}}))),i}function H(t,e,r,n,i,a,o,s,l,c,u){var f=!1;return d&&(D(t,"A")&&(f=q(null,[e,r,n,a],c,u)||f),D(t,"B")&&(f=q(null,[r,n,i,l],c,u)||f),D(t,"C")&&(f=q(null,[r,a,o,l],c,u)||f),D(t,"D")&&(f=q(null,[n,a,s,l],c,u)||f),D(t,"E")&&(f=q(null,[r,n,a,l],c,u)||f)),g&&(f=q(t,[r,n,a,l],c,u)||f),f}function G(t,e,r,n,i,a,o,s){return[!0===s[0]||V(t,U([e,r,n]),[e,r,n],a,o),!0===s[1]||V(t,U([n,i,e]),[n,i,e],a,o)]}function Y(t,e,r,n,i,a,o,s,l){return s?G(t,e,r,i,n,a,o,l):G(t,r,i,n,e,a,o,l)}function W(t,e,r,n,i,a,o){var s,l,c,u,f=!1,h=function(){f=V(t,[s,l,c],[-1,-1,-1],i,a)||f,f=V(t,[c,u,s],[-1,-1,-1],i,a)||f},p=o[0],d=o[1],g=o[2];return p&&(s=O(U([k(e,r-0,n-0)])[0],U([k(e-1,r-0,n-0)])[0],p),l=O(U([k(e,r-0,n-1)])[0],U([k(e-1,r-0,n-1)])[0],p),c=O(U([k(e,r-1,n-1)])[0],U([k(e-1,r-1,n-1)])[0],p),u=O(U([k(e,r-1,n-0)])[0],U([k(e-1,r-1,n-0)])[0],p),h()),d&&(s=O(U([k(e-0,r,n-0)])[0],U([k(e-0,r-1,n-0)])[0],d),l=O(U([k(e-0,r,n-1)])[0],U([k(e-0,r-1,n-1)])[0],d),c=O(U([k(e-1,r,n-1)])[0],U([k(e-1,r-1,n-1)])[0],d),u=O(U([k(e-1,r,n-0)])[0],U([k(e-1,r-1,n-0)])[0],d),h()),g&&(s=O(U([k(e-0,r-0,n)])[0],U([k(e-0,r-0,n-1)])[0],g),l=O(U([k(e-0,r-1,n)])[0],U([k(e-0,r-1,n-1)])[0],g),c=O(U([k(e-1,r-1,n)])[0],U([k(e-1,r-1,n-1)])[0],g),u=O(U([k(e-1,r-0,n)])[0],U([k(e-1,r-0,n-1)])[0],g),h()),f}function X(t,e,r,n,i,a,o,s,l,c,u,f){var h=t;return

f?(d&&"even"===t&&(h=null),H(h,e,r,n,i,a,o,s,l,c,u)):(d&&"odd"===t&&(h=null),H(h,l,s,o,a,i,n,r,e,c,u))}function Z(t,e,r,n,i){for(var a=[],o=0,s=0;s<e.length;s++)for(var l=e[s],c=1;c<w;c++)for(var u=1;u<_;u++)a.push(Y(t,k(l,u-1,c-1),k(l,u-1,c),k(l,u,c-1),k(l,u,c),r,n,(l+u+c)%2,i&&i[o]?i[o]:[])),o++;return a}function J(t,e,r,n,i){for(var a=[],o=0,s=0;s<e.length;s++)for(var l=e[s],c=1;c<b;c++)for(var u=1;u<w;u++)a.push(Y(t,k(c-1,l,u-1),k(c,l,u-1),k(c-1,l,u),k(c,l,u),r,n,(c+l+u)%2,i&&i[o]?i[o]:[])),o++;return a}function K(t,e,r,n,i){for(var a=[],o=0,s=0;s<e.length;s++)for(var l=e[s],c=1;c<_;c++)for(var u=1;u<b;u++)a.push(Y(t,k(u-1,c-1,l),k(u-1,c,l),k(u,c-1,l),k(u,c,l),r,n,(u+c+l)%2,i&&i[o]?i[o]:[])),o++;return a}function Q(t,e,r){for(var n=1;n<w;n++)for(var i=1;i<_;i++)for(var a=1;a<b;a++)X(t,k(a-1,i-1,n-1),k(a-1,i-1,n),k(a-1,i,n-1),k(a-1,i,n),k(a,i-1,n-1),k(a,i-1,n),k(a,i,n-1),k(a,i,n),e,r,(a+i+n)%2)}function $(t,e,r){d=!0,Q(t,e,r),d=!1}function tt(t,e,r,n,i,a){for(var o=[],s=0,l=0;l<e.length;l++)for(var c=e[l],u=1;u<w;u++)for(var f=1;f<_;f++)o.push(W(t,c,f,u,r,n,i[l],a&&a[s]&&a[s])),s++;return o}function et(t,e,r,n,i,a){for(var o=[],s=0,l=0;l<e.length;l++)for(var c=e[l],u=1;u<b;u++)for(var f=1;f<w;f++)o.push(W(t,u,c,f,r,n,i[l],a&&a[s]&&a[s])),s++;return o}function rt(t,e,r,n,i,a){for(var o=[],s=0,l=0;l<e.length;l++)for(var c=e[l],u=1;u<_;u++)for(var f=1;f<b;f++)o.push(W(t,f,u,c,r,n,i[l],a&&a[s]&&a[s])),s++;return o}function nt(t,e){for(var r=[],n=t;n<e;n++)r.push(n);return r}return function(){P(),function(){for(var e=0;e<b;e++)for(var r=0;r<_;r++)for(var n=0;n<w;n++){var i=k(e,r,n);I(t._x[i],t._y[i],t._z[i],t._value[i])}}();var e=null;if(u&&p&&(z(p),g=!0,Q(e,S,E),g=!1),c&&h){z(h);for(var r=t.surface.pattern,s=t.surface.count,f=0;f<s;f++){var d=1===s?.5:f/(s-1),T=(1-d)*S+d*E,L=Math.abs(T-A)>Math.abs(T-M)?[A,T]:[T,M];$(r,L[0],L[1])}}var C=[[Math.min(S,M),Math.max(S,M)],[Math.min(A,E),Math.max(A,E)]];["x","y","z"].forEach((function(r){for(var n=[],i=0;i<C.length;i++){var a=0,o=C[i][0],s=C[i][1],c=t.slices[r];if(c.show&&c.fill){z(c.fill);var u=[],f=[],h=[];if(c.locations.length)for(var p=0;p<c.locations.length;p++){var d=l(c.locations[p],"x"===r?m:"y"===r?y:x);0===d.distRatio?u.push(d.id):d.id>0&&(f.push(d.id),"x"===r?h.push([d.distRatio,0,0]):"y"===r?h.push([0,d.distRatio,0]):h.push([0,0,d.distRatio]))}else u=nt(1,"x"===r?b-1:"y"===r?_-1:w-1);f.length>0&&(n[a]="x"===r?tt(e,f,o,s,h,n[a]):"y"===r?et(e,f,o,s,h,n[a]):rt(e,f,o,s,h,n[a]),a++),u.length>0&&(n[a]="x"===r?Z(e,u,o,s,n[a]):"y"===r?J(e,u,o,s,n[a]):K(e,u,o,s,n[a]),a++)}var g=t.caps[r];g.show&&g.fill&&(z(g.fill),n[a]="x"===r?Z(e,[0,b-1],o,s,n[a]):"y"===r?J(e,[0,_-1],o,s,n[a]):K(e,[0,w-1],o,s,n[a]),a++)}})),0===v&&P(),t._meshX=n,t._meshY=i,t._meshZ=a,t._meshIntensity=o,t._Xs=m,t._Ys=y,t._Zs=x}(),t}e.exports={findNearestOnAxis:l,generateIsoMeshes:h,createIsosurfaceTrace:function(t,e){var r=t.glplot.gl,i=n({gl:r}),a=new c(t,i,e.uid);return i._trace=a,a.update(e),t.glplot.add(i),a}}},{"../../../stackgl_modules":1124,"../../components/colorscale":378,"../../lib/gl_format_color":499,"../../lib/str2rgbarray":528,"../../plots/gl3d/zip3":609}],865:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../registry"),a=t("./attributes"),o=t("../../components/colorscale/defaults");function s(t,e,r,n,a){var s=a("isomin"),l=a("isomax");null!=l&&null!=s&&s>l&&(e.isomin=null,e.isomax=null);var c=a("x"),u=a("y"),f=a("z"),h=a("value");c&&c.length&&u&&u.length&&f&&f.length&&h&&h.length?(i.getComponentMethod("calendars","handleTraceDefaults")(t,e,["x","y","z"],n),a("valuehoverformat"),["x","y","z"].forEach((function(t){a(t+"hoverformat");var e="caps."+t;a(e+".show")&&a(e+".fill");var r="slices."+t;a(r+".show")&&(a(r+".fill"),a(r+".locations"))})),a("spaceframe.show")&&a("spaceframe.fill"),a("surface.show")&&(a("surface.count"),a("surface.fill"),a("surface.pattern")),a("contour.show")&&(a("contour.color"),a("contour.width")),["text","hovertext","hovertemplate","lighting.ambient","lighting.diffuse","lighting.specular","lighting.roughness","lighting.fresnel","lighting.vertexnormalsepsilon","lighting.facenormalsepsilon","lightposition.x","lightposition.y","lightposition.z","flatshading","opacity"].forEach((function(t){a(t)})),o(t,e,n,a,{prefix:"",cLetter:"c"}),e._length=null):e.visible=!1}e.exports={supplyDefaults:function(t,e,r,i){s(t,e,0,i,(function(r,i){return n.coerce(t,e,a,r,i)}))},supplyIsoDefaults:s}},{"../../components/colorscale/defaults":376,"../../lib":503,"../../registry":638,"./attributes":862}],866:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults").supplyDefaults,calc:t("./calc"),colorbar:{

min:"cmin",max:"cmax"},plot:t("./convert").createIsosurfaceTrace,moduleType:"trace",name:"isosurface",basePlotModule:t("../../plots/gl3d"),categories:["gl3d","showLegend"],meta:{}}},{"../../plots/gl3d":598,"./attributes":862,"./calc":863,"./convert":864,"./defaults":865}],867:[function(t,e,r){"use strict";var n=t("../../components/colorscale/attributes"),i=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,a=t("../../plots/template_attributes").hovertemplateAttrs,o=t("../surface/attributes"),s=t("../../plots/attributes"),l=t("../../lib/extend").extendFlat;e.exports=l({x:{valType:"data_array",editType:"calc+clearAxisTypes"},y:{valType:"data_array",editType:"calc+clearAxisTypes"},z:{valType:"data_array",editType:"calc+clearAxisTypes"},i:{valType:"data_array",editType:"calc"},j:{valType:"data_array",editType:"calc"},k:{valType:"data_array",editType:"calc"},text:{valType:"string",dflt:"",arrayOk:!0,editType:"calc"},hovertext:{valType:"string",dflt:"",arrayOk:!0,editType:"calc"},hovertemplate:a({editType:"calc"}),xhoverformat:i("x"),yhoverformat:i("y"),zhoverformat:i("z"),delaunayaxis:{valType:"enumerated",values:["x","y","z"],dflt:"z",editType:"calc"},alphahull:{valType:"number",dflt:-1,editType:"calc"},intensity:{valType:"data_array",editType:"calc"},intensitymode:{valType:"enumerated",values:["vertex","cell"],dflt:"vertex",editType:"calc"},color:{valType:"color",editType:"calc"},vertexcolor:{valType:"data_array",editType:"calc"},facecolor:{valType:"data_array",editType:"calc"},transforms:void 0},n("",{colorAttr:"`intensity`",showScaleDflt:!0,editTypeOverride:"calc"}),{opacity:o.opacity,flatshading:{valType:"boolean",dflt:!1,editType:"calc"},contour:{show:l({},o.contours.x.show,{}),color:o.contours.x.color,width:o.contours.x.width,editType:"calc"},lightposition:{x:l({},o.lightposition.x,{dflt:1e5}),y:l({},o.lightposition.y,{dflt:1e5}),z:l({},o.lightposition.z,{dflt:0}),editType:"calc"},lighting:l({vertexnormalsepsilon:{valType:"number",min:0,max:1,dflt:1e-12,editType:"calc"},facenormalsepsilon:{valType:"number",min:0,max:1,dflt:1e-6,editType:"calc"},editType:"calc"},o.lighting),hoverinfo:l({},s.hoverinfo,{editType:"calc"}),showlegend:l({},s.showlegend,{dflt:!1})})},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plots/attributes":550,"../../plots/cartesian/axis_format_attributes":557,"../../plots/template_attributes":633,"../surface/attributes":1061}],868:[function(t,e,r){"use strict";var n=t("../../components/colorscale/calc");e.exports=function(t,e){e.intensity&&n(t,e,{vals:e.intensity,containerStr:"",cLetter:"c"})}},{"../../components/colorscale/calc":374}],869:[function(t,e,r){"use strict";var n=t("../../../stackgl_modules").gl_mesh3d,i=t("../../../stackgl_modules").delaunay_triangulate,a=t("../../../stackgl_modules").alpha_shape,o=t("../../../stackgl_modules").convex_hull,s=t("../../lib/gl_format_color").parseColorScale,l=t("../../lib/str2rgbarray"),c=t("../../components/colorscale").extractOpts,u=t("../../plots/gl3d/zip3");function f(t,e,r){this.scene=t,this.uid=r,this.mesh=e,this.name="",this.color="#fff",this.data=null,this.showContour=!1}var h=f.prototype;function p(t){for(var e=[],r=t.length,n=0;n<r;n++)e[n]=l(t[n]);return e}function d(t,e,r,n){for(var i=[],a=e.length,o=0;o<a;o++)i[o]=t.d2l(e[o],0,n)*r;return i}function g(t){for(var e=[],r=t.length,n=0;n<r;n++)e[n]=Math.round(t[n]);return e}function v(t,e){for(var r=t.length,n=0;n<r;n++)if(t[n]<=-.5||t[n]>=e-.5)return!1;return!0}h.handlePick=function(t){if(t.object===this.mesh){var e=t.index=t.data.index;t.data._cellCenter?t.traceCoordinate=t.data.dataCoordinate:t.traceCoordinate=[this.data.x[e],this.data.y[e],this.data.z[e]];var r=this.data.hovertext||this.data.text;return Array.isArray(r)&&void 0!==r[e]?t.textLabel=r[e]:r&&(t.textLabel=r),!0}},h.update=function(t){var e=this.scene,r=e.fullSceneLayout;this.data=t;var n,f=t.x.length,h=u(d(r.xaxis,t.x,e.dataScale[0],t.xcalendar),d(r.yaxis,t.y,e.dataScale[1],t.ycalendar),d(r.zaxis,t.z,e.dataScale[2],t.zcalendar));if(t.i&&t.j&&t.k){if(t.i.length!==t.j.length||t.j.length!==t.k.length||!v(t.i,f)||!v(t.j,f)||!v(t.k,f))return;n=u(g(t.i),g(t.j),g(t.k))}else n=0===t.alphahull?o(h):t.alphahull>0?a(t.alphahull,h):function(t,e){for(var r=["x","y","z"].indexOf(t),n=[],a=e.length,o=0;o<a;o++)n[o]=[e[o][(r+1)%3],e[o][(r+2)%3]];return i(n)}(t.delaunayaxis,h);var m={positions:h,cells:n,lightPosition:[t.lightposition.x,t.lightposition.y,t.lightposition.z],ambient:t.lighting.ambient,diffuse:t.lighting.diffuse,specular:t.lighting.specular,roughness:t.lighting.roughness,fresnel:t.lighting.fresnel,vertexNormalsEpsilon:t.lighting.vertexnormalsepsilon,faceNormalsEpsilon:t.lighting.facenormalsepsilon,opacity:t.opacity,contourEnable:t.contour.show,contourColor:l(t.contour.color).slice(0,3),contourWidth:t.contour.width,useFacetNormals:t.flatshading};if(t.intensity){var y=c(t);this.color="#fff";var

x=t.intensitymode;m[x+"Intensity"]=t.intensity,m[x+"IntensityBounds"]=[y.min,y.max],m.colormap=s(t)}else t.vertexcolor?(this.color=t.vertexcolor[0],m.vertexColors=p(t.vertexcolor)):t.facecolor?(this.color=t.facecolor[0],m.cellColors=p(t.facecolor)):(this.color=t.color,m.meshColor=l(t.color));this.mesh.update(m)},h.dispose=function(){this.scene.glplot.remove(this.mesh),this.mesh.dispose()},e.exports=function(t,e){var r=t.glplot.gl,i=n({gl:r}),a=new f(t,i,e.uid);return i._trace=a,a.update(e),t.glplot.add(i),a}},{"../../../stackgl_modules":1124,"../../components/colorscale":378,"../../lib/gl_format_color":499,"../../lib/str2rgbarray":528,"../../plots/gl3d/zip3":609}],870:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../lib"),a=t("../../components/colorscale/defaults"),o=t("./attributes");e.exports=function(t,e,r,s){function l(r,n){return i.coerce(t,e,o,r,n)}function c(t){var e=t.map((function(t){var e=l(t);return e&&i.isArrayOrTypedArray(e)?e:null}));return e.every((function(t){return t&&t.length===e[0].length}))&&e}c(["x","y","z"])?(c(["i","j","k"]),(!e.i||e.j&&e.k)&&(!e.j||e.k&&e.i)&&(!e.k||e.i&&e.j)?(n.getComponentMethod("calendars","handleTraceDefaults")(t,e,["x","y","z"],s),["lighting.ambient","lighting.diffuse","lighting.specular","lighting.roughness","lighting.fresnel","lighting.vertexnormalsepsilon","lighting.facenormalsepsilon","lightposition.x","lightposition.y","lightposition.z","flatshading","alphahull","delaunayaxis","opacity"].forEach((function(t){l(t)})),l("contour.show")&&(l("contour.color"),l("contour.width")),"intensity"in t?(l("intensity"),l("intensitymode"),a(t,e,s,l,{prefix:"",cLetter:"c"})):(e.showscale=!1,"facecolor"in t?l("facecolor"):"vertexcolor"in t?l("vertexcolor"):l("color",r)),l("text"),l("hovertext"),l("hovertemplate"),l("xhoverformat"),l("yhoverformat"),l("zhoverformat"),e._length=null):e.visible=!1):e.visible=!1},{"../../components/colorscale/defaults":376,"../../lib":503,"../../registry":638,"./attributes":867}],871:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),calc:t("./calc"),colorbar:{min:"cmin",max:"cmax"},plot:t("./convert"),moduleType:"trace",name:"mesh3d",basePlotModule:t("../../plots/gl3d"),categories:["gl3d","showLegend"],meta:{}}},{"../../plots/gl3d":598,"./attributes":867,"./calc":868,"./convert":869,"./defaults":870}],872:[function(t,e,r){"use strict";var n=t("../../lib").extendFlat,i=t("../scatter/attributes"),a=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,o=t("../../components/drawing/attributes").dash,s=t("../../components/fx/attributes"),l=t("../../constants/delta.js"),c=l.INCREASING.COLOR,u=l.DECREASING.COLOR,f=i.line;function h(t){return{line:{color:n({},f.color,{dflt:t}),width:f.width,dash:o,editType:"style"},editType:"style"}}e.exports={xperiod:i.xperiod,xperiod0:i.xperiod0,xperiodalignment:i.xperiodalignment,xhoverformat:a("x"),yhoverformat:a("y"),x:{valType:"data_array",editType:"calc+clearAxisTypes"},open:{valType:"data_array",editType:"calc"},high:{valType:"data_array",editType:"calc"},low:{valType:"data_array",editType:"calc"},close:{valType:"data_array",editType:"calc"},line:{width:n({},f.width,{}),dash:n({},o,{}),editType:"style"},increasing:h(c),decreasing:h(u),text:{valType:"string",dflt:"",arrayOk:!0,editType:"calc"},hovertext:{valType:"string",dflt:"",arrayOk:!0,editType:"calc"},tickwidth:{valType:"number",min:0,max:.5,dflt:.3,editType:"calc"},hoverlabel:n({},s.hoverlabel,{split:{valType:"boolean",dflt:!1,editType:"style"}})}},{"../../components/drawing/attributes":387,"../../components/fx/attributes":397,"../../constants/delta.js":473,"../../lib":503,"../../plots/cartesian/axis_format_attributes":557,"../scatter/attributes":927}],873:[function(t,e,r){"use strict";var n=t("../../lib"),i=n._,a=t("../../plots/cartesian/axes"),o=t("../../plots/cartesian/align_period"),s=t("../../constants/numerical").BADNUM;function l(t,e,r,n){return{o:t,h:e,l:r,c:n}}function c(t,e,r,o,l,c){for(var u=l.makeCalcdata(e,"open"),f=l.makeCalcdata(e,"high"),h=l.makeCalcdata(e,"low"),p=l.makeCalcdata(e,"close"),d=Array.isArray(e.text),g=Array.isArray(e.hovertext),v=!0,m=null,y=!!e.xperiodalignment,x=[],b=0;b<o.length;b++){var _=o[b],w=u[b],T=f[b],k=h[b],A=p[b];if(_!==s&&w!==s&&T!==s&&k!==s&&A!==s){A===w?null!==m&&A!==m&&(v=A>m):v=A>w,m=A;var M=c(w,T,k,A);M.pos=_,M.yc=(w+A)/2,M.i=b,M.dir=v?"increasing":"decreasing",M.x=M.pos,M.y=[k,T],y&&(M.orig_p=r[b]),d&&(M.tx=e.text[b]),g&&(M.htx=e.hovertext[b]),x.push(M)}else x.push({pos:_,empty:!0})}return e._extremes[l._id]=a.findExtremes(l,n.concat(h,f),{padded:!0}),x.length&&(x[0].t={labels:{open:i(t,"open:")+" ",high:i(t,"high:")+" ",low:i(t,"low:")+" ",close:i(t,"close:")+" "}}),x}e.exports={calc:function(t,e){var

r=a.getFromId(t,e.xaxis),i=a.getFromId(t,e.yaxis),s=function(t,e,r){var i=r._minDiff;if(!i){var a,s=t._fullData,l=[];for(i=1/0,a=0;a<s.length;a++){var c=s[a];if("ohlc"===c.type&&!0===c.visible&&c.xaxis===e._id){l.push(c);var u=e.makeCalcdata(c,"x");c._origX=u;var f=o(r,e,"x",u).vals;c._xcalc=f;var h=n.distinctVals(f).minDiff;h&&isFinite(h)&&(i=Math.min(i,h))}}for(i===1/0&&(i=1),a=0;a<l.length;a++)l[a]._minDiff=i}return i*r.tickwidth}(t,r,e),u=e._minDiff;e._minDiff=null;var f=e._origX;e._origX=null;var h=e._xcalc;e._xcalc=null;var p=c(t,e,f,h,i,l);return e._extremes[r._id]=a.findExtremes(r,h,{vpad:u/2}),p.length?(n.extendFlat(p[0].t,{wHover:u/2,tickLen:s}),p):[{t:{empty:!0}}]},calcCommon:c}},{"../../constants/numerical":479,"../../lib":503,"../../plots/cartesian/align_period":551,"../../plots/cartesian/axes":554}],874:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./ohlc_defaults"),a=t("../scatter/period_defaults"),o=t("./attributes");function s(t,e,r,n){r(n+".line.color"),r(n+".line.width",e.line.width),r(n+".line.dash",e.line.dash)}e.exports=function(t,e,r,l){function c(r,i){return n.coerce(t,e,o,r,i)}i(t,e,c,l)?(a(t,e,l,c,{x:!0}),c("xhoverformat"),c("yhoverformat"),c("line.width"),c("line.dash"),s(0,e,c,"increasing"),s(0,e,c,"decreasing"),c("text"),c("hovertext"),c("tickwidth"),l._requestRangeslider[e.xaxis]=!0):e.visible=!1}},{"../../lib":503,"../scatter/period_defaults":947,"./attributes":872,"./ohlc_defaults":877}],875:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes"),i=t("../../lib"),a=t("../../components/fx"),o=t("../../components/color"),s=t("../../lib").fillText,l=t("../../constants/delta.js"),c={increasing:l.INCREASING.SYMBOL,decreasing:l.DECREASING.SYMBOL};function u(t,e,r,n){var i,s,l=t.cd,c=t.xa,u=l[0].trace,f=l[0].t,h=u.type,p="ohlc"===h?"l":"min",d="ohlc"===h?"h":"max",g=f.bPos||0,v=f.bdPos||f.tickLen,m=f.wHover,y=Math.min(1,v/Math.abs(c.r2c(c.range[1])-c.r2c(c.range[0])));function x(t){var r=function(t){return t.pos+g-e}(t);return a.inbox(r-m,r+m,i)}function b(t){var e=t[p],n=t[d];return e===n||a.inbox(e-r,n-r,i)}function _(t){return(x(t)+b(t))/2}i=t.maxHoverDistance-y,s=t.maxSpikeDistance-y;var w=a.getDistanceFunction(n,x,b,_);if(a.getClosest(l,w,t),!1===t.index)return null;var T=l[t.index];if(T.empty)return null;var k=u[T.dir],A=k.line.color;return o.opacity(A)&&k.line.width?t.color=A:t.color=k.fillcolor,t.x0=c.c2p(T.pos+g-v,!0),t.x1=c.c2p(T.pos+g+v,!0),t.xLabelVal=void 0!==T.orig_p?T.orig_p:T.pos,t.spikeDistance=_(T)*s/i,t.xSpike=c.c2p(T.pos,!0),t}function f(t,e,r,a){var o=t.cd,s=t.ya,l=o[0].trace,c=o[0].t,f=[],h=u(t,e,r,a);if(!h)return[];var p=o[h.index].hi||l.hoverinfo,d=p.split("+");if("all"!==p&&-1===d.indexOf("y"))return[];for(var g=["high","open","close","low"],v={},m=0;m<g.length;m++){var y,x=g[m],b=l[x][h.index],_=s.c2p(b,!0);b in v?(y=v[b]).yLabel+="<br>"+c.labels[x]+n.hoverLabelText(s,b,l.yhoverformat):((y=i.extendFlat({},h)).y0=y.y1=_,y.yLabelVal=b,y.yLabel=c.labels[x]+n.hoverLabelText(s,b,l.yhoverformat),y.name="",f.push(y),v[b]=y)}return f}function h(t,e,r,i){var a=t.cd,o=t.ya,l=a[0].trace,f=a[0].t,h=u(t,e,r,i);if(!h)return[];var p=a[h.index],d=h.index=p.i,g=p.dir;function v(t){return f.labels[t]+n.hoverLabelText(o,l[t][d],l.yhoverformat)}var m=p.hi||l.hoverinfo,y=m.split("+"),x="all"===m,b=x||-1!==y.indexOf("y"),_=x||-1!==y.indexOf("text"),w=b?[v("open"),v("high"),v("low"),v("close")+" "+c[g]]:[];return _&&s(p,l,w),h.extraText=w.join("<br>"),h.y0=h.y1=o.c2p(p.yc,!0),[h]}e.exports={hoverPoints:function(t,e,r,n){return t.cd[0].trace.hoverlabel.split?f(t,e,r,n):h(t,e,r,n)},hoverSplit:f,hoverOnPoints:h}},{"../../components/color":366,"../../components/fx":406,"../../constants/delta.js":473,"../../lib":503,"../../plots/cartesian/axes":554}],876:[function(t,e,r){"use strict";e.exports={moduleType:"trace",name:"ohlc",basePlotModule:t("../../plots/cartesian"),categories:["cartesian","svg","showLegend"],meta:{},attributes:t("./attributes"),supplyDefaults:t("./defaults"),calc:t("./calc").calc,plot:t("./plot"),style:t("./style"),hoverPoints:t("./hover").hoverPoints,selectPoints:t("./select")}},{"../../plots/cartesian":568,"./attributes":872,"./calc":873,"./defaults":874,"./hover":875,"./plot":878,"./select":879,"./style":880}],877:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../lib");e.exports=function(t,e,r,a){var

o=r("x"),s=r("open"),l=r("high"),c=r("low"),u=r("close");if(r("hoverlabel.split"),n.getComponentMethod("calendars","handleTraceDefaults")(t,e,["x"],a),s&&l&&c&&u){var f=Math.min(s.length,l.length,c.length,u.length);return o&&(f=Math.min(f,i.minRowLength(o))),e._length=f,f}},{"../../lib":503,"../../registry":638}],878:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../lib");e.exports=function(t,e,r,a){var o=e.yaxis,s=e.xaxis,l=!!s.rangebreaks;i.makeTraceGroups(a,r,"trace ohlc").each((function(t){var e=n.select(this),r=t[0],a=r.t;if(!0!==r.trace.visible||a.empty)e.remove();else{var c=a.tickLen,u=e.selectAll("path").data(i.identity);u.enter().append("path"),u.exit().remove(),u.attr("d",(function(t){if(t.empty)return"M0,0Z";var e=s.c2p(t.pos-c,!0),r=s.c2p(t.pos+c,!0),n=l?(e+r)/2:s.c2p(t.pos,!0);return"M"+e+","+o.c2p(t.o,!0)+"H"+n+"M"+n+","+o.c2p(t.h,!0)+"V"+o.c2p(t.l,!0)+"M"+r+","+o.c2p(t.c,!0)+"H"+n}))}}))}},{"../../lib":503,"@plotly/d3":58}],879:[function(t,e,r){"use strict";e.exports=function(t,e){var r,n=t.cd,i=t.xaxis,a=t.yaxis,o=[],s=n[0].t.bPos||0;if(!1===e)for(r=0;r<n.length;r++)n[r].selected=0;else for(r=0;r<n.length;r++){var l=n[r];e.contains([i.c2p(l.pos+s),a.c2p(l.yc)],null,l.i,t)?(o.push({pointNumber:l.i,x:i.c2d(l.pos),y:a.c2d(l.yc)}),l.selected=1):l.selected=0}return o}},{}],880:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../components/drawing"),a=t("../../components/color");e.exports=function(t,e,r){var o=r||n.select(t).selectAll("g.ohlclayer").selectAll("g.trace");o.style("opacity",(function(t){return t[0].trace.opacity})),o.each((function(t){var e=t[0].trace;n.select(this).selectAll("path").each((function(t){if(!t.empty){var r=e[t.dir].line;n.select(this).style("fill","none").call(a.stroke,r.color).call(i.dashLine,r.dash,r.width).style("opacity",e.selectedpoints&&!t.selected?.3:1)}}))}))}},{"../../components/color":366,"../../components/drawing":388,"@plotly/d3":58}],881:[function(t,e,r){"use strict";var n=t("../../lib/extend").extendFlat,i=t("../../plots/attributes"),a=t("../../plots/font_attributes"),o=t("../../components/colorscale/attributes"),s=t("../../plots/template_attributes").hovertemplateAttrs,l=t("../../plots/domain").attributes,c=n({editType:"calc"},o("line",{editTypeOverride:"calc"}),{shape:{valType:"enumerated",values:["linear","hspline"],dflt:"linear",editType:"plot"},hovertemplate:s({editType:"plot",arrayOk:!1},{keys:["count","probability"]})});e.exports={domain:l({name:"parcats",trace:!0,editType:"calc"}),hoverinfo:n({},i.hoverinfo,{flags:["count","probability"],editType:"plot",arrayOk:!1}),hoveron:{valType:"enumerated",values:["category","color","dimension"],dflt:"category",editType:"plot"},hovertemplate:s({editType:"plot",arrayOk:!1},{keys:["count","probability","category","categorycount","colorcount","bandcolorcount"]}),arrangement:{valType:"enumerated",values:["perpendicular","freeform","fixed"],dflt:"perpendicular",editType:"plot"},bundlecolors:{valType:"boolean",dflt:!0,editType:"plot"},sortpaths:{valType:"enumerated",values:["forward","backward"],dflt:"forward",editType:"plot"},labelfont:a({editType:"calc"}),tickfont:a({editType:"calc"}),dimensions:{_isLinkedToArray:"dimension",label:{valType:"string",editType:"calc"},categoryorder:{valType:"enumerated",values:["trace","category ascending","category descending","array"],dflt:"trace",editType:"calc"},categoryarray:{valType:"data_array",editType:"calc"},ticktext:{valType:"data_array",editType:"calc"},values:{valType:"data_array",dflt:[],editType:"calc"},displayindex:{valType:"integer",editType:"calc"},editType:"calc",visible:{valType:"boolean",dflt:!0,editType:"calc"}},line:c,counts:{valType:"number",min:0,dflt:1,arrayOk:!0,editType:"calc"},customdata:void 0,hoverlabel:void 0,ids:void 0,legendgroup:void 0,legendrank:void 0,opacity:void 0,selectedpoints:void 0,showlegend:void 0}},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plots/attributes":550,"../../plots/domain":584,"../../plots/font_attributes":585,"../../plots/template_attributes":633}],882:[function(t,e,r){"use strict";var n=t("../../plots/get_data").getModuleCalcData,i=t("./plot"),a="parcats";r.name=a,r.plot=function(t,e,r,o){var s=n(t.calcdata,a);if(s.length){var l=s[0];i(t,l,r,o)}},r.clean=function(t,e,r,n){var i=n._has&&n._has("parcats"),a=e._has&&e._has("parcats");i&&!a&&n._paperdiv.selectAll(".parcats").remove()}},{"../../plots/get_data":593,"./plot":887}],883:[function(t,e,r){"use strict";var n=t("../../lib/gup").wrap,i=t("../../components/colorscale/helpers").hasColorscale,a=t("../../components/colorscale/calc"),o=t("../../lib/filter_unique.js"),s=t("../../components/drawing"),l=t("../../lib"),c=t("fast-isnumeric");function u(t,e,r){t.valueInds.push(e),t.count+=r}function

f(t,e,r){return{categoryInds:t,color:e,rawColor:r,valueInds:[],count:0}}function h(t,e,r){t.valueInds.push(e),t.count+=r}function p(t){var e;if(function(t){for(var e=new Array(t.length),r=0;r<t.length;r++){if(t[r]<0||t[r]>=t.length)return!1;if(void 0!==e[t[r]])return!1;e[t[r]]=!0}return!0}(t.map((function(t){return t.displayindex})))){for(e=0;e<t.length;e++)t[e]._displayindex=t[e].displayindex;else for(e=0;e<t.length;e++)t[e]._displayindex=e}e.exports=function(t,e){var r=l.filterVisible(e.dimensions);if(0===r.length)return[];var d,g,v,m=r.map((function(t){var e;if("trace"===t.categoryorder)e=null;else if("array"===t.categoryorder)e=t.categoryarray;else{e=o(t.values);for(var r=!0,n=0;n<e.length;n++)if(!c(e[n])){r=!1;break}e.sort(r?l.sorterAsc:void 0),"category descending"===t.categoryorder&&(e=e.reverse())}return function(t,e){e=null==e?[]:e.map((function(t){return t}));var r={},n={},i=[];e.forEach((function(t,e){r[t]=0,n[t]=e}));for(var a=0;a<t.length;a++){var o,s=t[a];void 0===r[s]?(r[s]=1,o=e.push(s)-1,n[s]=o):(r[s]++,o=n[s]),i.push(o)}var l=e.map((function(t){return r[t]}));return{uniqueValues:e,uniqueCounts:l,inds:i}}(t.values,e)}));d=l.isArrayOrTypedArray(e.counts)?e.counts:[e.counts],p(r),r.forEach((function(t,e){!function(t,e){t._categoryarray=e.uniqueValues,null===t.ticktext||void 0===t.ticktext?t._ticktext=[]:t._ticktext=t.ticktext.slice();for(var r=t._ticktext.length;r<e.uniqueValues.length;r++)t._ticktext.push(e.uniqueValues[r])}(t,m[e])}));var y,x=e.line;x?(i(e,"line")&&a(t,e,{vals:e.line.color,containerStr:"line",cLetter:"c"}),y=s.tryColorscale(x)):y=l.identity;var b,_,w,T,k,A=r[0].values.length,M={},S=m.map((function(t){return t.inds}));for(v=0,b=0;b<A;b++){var E=[];for(_=0;_<S.length;_++)E.push(S[_][b]);g=d[b%d.length],v+=g;var L=(w=b,T=void 0,k=void 0,l.isArrayOrTypedArray(x.color)?k=T=x.color[w%x.color.length]:T=x.color,{color:y(T),rawColor:k}),C=E+"-"+L.rawColor;void 0===M[C]&&(M[C]=f(E,L.color,L.rawColor)),h(M[C],b,g)}var P,I=r.map((function(t,e){return function(t,e,r,n,i){return{dimensionInd:t,containerInd:e,displayInd:r,dimensionLabel:n,count:i,categories:[],dragX:null}}(e,t._index,t._displayindex,t.label,v)}));for(b=0;b<A;b++)for(g=d[b%d.length],_=0;_<I.length;_++){var O=I[_].containerInd,z=m[_].inds[b],D=I[_].categories;if(void 0===D[z]){var R=e.dimensions[O]._categoryarray[z],F=e.dimensions[O]._ticktext[z];D[z]={dimensionInd:_,categoryInd:P=z,categoryValue:R,displayInd:P,categoryLabel:F,valueInds:[],count:0,dragY:null}}u(D[z],b,g)}return n(function(t,e,r){var n=t.map((function(t){return t.categories.length})).reduce((function(t,e){return Math.max(t,e)}));return{dimensions:t,paths:e,trace:void 0,maxCats:n,count:r}}(I,M,v))}},{"../../components/colorscale/calc":374,"../../components/colorscale/helpers":377,"../../components/drawing":388,"../../lib":503,"../../lib/filter_unique.js":494,"../../lib/gup":500,"fast-isnumeric":190}],884:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../components/colorscale/helpers").hasColorscale,a=t("../../components/colorscale/defaults"),o=t("../../plots/domain").defaults,s=t("../../plots/array_container_defaults"),l=t("./attributes"),c=t("../parcoords/merge_length");function u(t,e){function r(r,i){return n.coerce(t,e,l.dimensions,r,i)}var i=r("values"),a=r("visible");if(i&&i.length||(a=e.visible=!1),a){r("label"),r("displayindex",e._index);var o,s=t.categoryarray,c=Array.isArray(s)&&s.length>0;c&&(o="array");var u=r("categoryorder",o);"array"===u?(r("categoryarray"),r("ticktext")):(delete t.categoryarray,delete t.ticktext),c||"array"!==u||(e.categoryorder="trace")}}e.exports=function(t,e,r,f){function h(r,i){return n.coerce(t,e,l,r,i)}var p=s(t,e,{name:"dimensions",handleItemDefaults:u}),d=function(t,e,r,o,s){s("line.shape"),s("line.hovertemplate");var l=s("line.color",o.colorway[0]);if(i(t,"line")&&n.isArrayOrTypedArray(l)){if(l.length)return s("line.colorscale"),a(t,e,o,s,{prefix:"line.",cLetter:"c"}),l.length;e.line.color=r}return 1/0}(t,e,r,f,h);o(e,f,h),Array.isArray(p)&&p.length||(e.visible=!1),c(e,p,"values",d),h("hoveron"),h("hovertemplate"),h("arrangement"),h("bundlecolors"),h("sortpaths"),h("counts");var g={family:f.font.family,size:Math.round(f.font.size),color:f.font.color};n.coerceFont(h,"labelfont",g);var v={family:f.font.family,size:Math.round(f.font.size/1.2),color:f.font.color};n.coerceFont(h,"tickfont",v)}},{"../../components/colorscale/defaults":376,"../../components/colorscale/helpers":377,"../../lib":503,"../../plots/array_container_defaults":549,"../../plots/domain":584,"../parcoords/merge_length":898,"./attributes":881}],885:[function(t,e,r){"us

e
strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),calc:t("./calc"),plot:t("./plot"),colorbar:{container:"line",min:"cmin",max:"cmax"},moduleType:"trace",name:"parcats",basePlotModule:t("./base_plot"),categories:["noOpacity"],meta:{}}},{"./attributes":881,"./base_plot":882,"./calc":883,"./defaults":884,"./plot":887}],886:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("d3-interpolate").interpolateNumber,a=t("../../plot_api/plot_api"),o=t("../../components/fx"),s=t("../../lib"),l=s.strTranslate,c=t("../../components/drawing"),u=t("tinycolor2"),f=t("../../lib/svg_text_utils");function h(t,e,r,i){var a=t.map(F.bind(0,e,r)),o=i.selectAll("g.parcatslayer").data([null]);o.enter().append("g").attr("class","parcatslayer").style("pointer-events","all");var u=o.selectAll("g.trace.parcats").data(a,p),h=u.enter().append("g").attr("class","trace parcats");u.attr("transform",(function(t){return l(t.x,t.y)})),h.append("g").attr("class","paths");var y=u.select("g.paths").selectAll("path.path").data((function(t){return t.paths}),p);y.attr("fill",(function(t){return t.model.color}));var x=y.enter().append("path").attr("class","path").attr("stroke-opacity",0).attr("fill",(function(t){return t.model.color})).attr("fill-opacity",0);_(x),y.attr("d",(function(t){return t.svgD})),x.empty()||y.sort(g),y.exit().remove(),y.on("mouseover",v).on("mouseout",m).on("click",b),h.append("g").attr("class","dimensions");var w=u.select("g.dimensions").selectAll("g.dimension").data((function(t){return t.dimensions}),p);w.enter().append("g").attr("class","dimension"),w.attr("transform",(function(t){return l(t.x,0)})),w.exit().remove();var A=w.selectAll("g.category").data((function(t){return t.categories}),p),M=A.enter().append("g").attr("class","category");A.attr("transform",(function(t){return l(0,t.y)})),M.append("rect").attr("class","catrect").attr("pointer-events","none"),A.select("rect.catrect").attr("fill","none").attr("width",(function(t){return t.width})).attr("height",(function(t){return t.height})),T(M);var S=A.selectAll("rect.bandrect").data((function(t){return t.bands}),p);S.each((function(){s.raiseToTop(this)})),S.attr("fill",(function(t){return t.color}));var E=S.enter().append("rect").attr("class","bandrect").attr("stroke-opacity",0).attr("fill",(function(t){return t.color})).attr("fill-opacity",0);S.attr("fill",(function(t){return t.color})).attr("width",(function(t){return t.width})).attr("height",(function(t){return t.height})).attr("y",(function(t){return t.y})).attr("cursor",(function(t){return"fixed"===t.parcatsViewModel.arrangement?"default":"perpendicular"===t.parcatsViewModel.arrangement?"ns-resize":"move"})),k(E),S.exit().remove(),M.append("text").attr("class","catlabel").attr("pointer-events","none");var z=e._fullLayout.paper_bgcolor;A.select("text.catlabel").attr("text-anchor",(function(t){return d(t)?"start":"end"})).attr("alignment-baseline","middle").style("text-shadow",f.makeTextShadow(z)).style("fill","rgb(0, 0, 0)").attr("x",(function(t){return d(t)?t.width+5:-5})).attr("y",(function(t){return t.height/2})).text((function(t){return t.model.categoryLabel})).each((function(t){c.font(n.select(this),t.parcatsViewModel.categorylabelfont),f.convertToTspans(n.select(this),e)})),M.append("text").attr("class","dimlabel"),A.select("text.dimlabel").attr("text-anchor","middle").attr("alignment-baseline","baseline").attr("cursor",(function(t){return"fixed"===t.parcatsViewModel.arrangement?"default":"ew-resize"})).attr("x",(function(t){return t.width/2})).attr("y",-5).text((function(t,e){return 0===e?t.parcatsViewModel.model.dimensions[t.model.dimensionInd].dimensionLabel:null})).each((function(t){c.font(n.select(this),t.parcatsViewModel.labelfont)})),A.selectAll("rect.bandrect").on("mouseover",L).on("mouseout",C),A.exit().remove(),w.call(n.behavior.drag().origin((function(t){return{x:t.x,y:0}})).on("dragstart",P).on("drag",I).on("dragend",O)),u.each((function(t){t.traceSelection=n.select(this),t.pathSelection=n.select(this).selectAll("g.paths").selectAll("path.path"),t.dimensionSelection=n.select(this).selectAll("g.dimensions").selectAll("g.dimension")})),u.exit().remove()}function p(t){return t.key}function d(t){var e=t.parcatsViewModel.dimensions.length,r=t.parcatsViewModel.dimensions[e-1].model.dimensionInd;return t.model.dimensionInd===r}function g(t,e){return t.model.rawColor>e.model.rawColor?1:t.model.rawColor<e.model.rawColor?-1:0}function v(t){if(!t.parcatsViewModel.dragDimension&&-

1===t.parcatsViewModel.hoverinfoItems.indexOf("skip")){s.raiseToTop(this),w(n.select(this));var e=y(t),r=x(t);if(t.parcatsViewModel.graphDiv.emit("plotly_hover",{points:e,event:n.event,constraints:r}),-1===t.parcatsViewModel.hoverinfoItems.indexOf("none")){var i,a,l,c=n.mouse(this)[0],f=t.parcatsViewModel.graphDiv,h=t.parcatsViewModel.trace,p=f._fullLayout,d=p._paperdiv.node().getBoundingClientRect(),g=t.parcatsViewModel.graphDiv.getBoundingClientRect();for(l=0;l<t.leftXs.length-1;l++)if(t.leftXs[l]+t.dimWidths[l]-2<=c&&c<=t.leftXs[l+1]+2){var v=t.parcatsViewModel.dimensions[l],m=t.parcatsViewModel.dimensions[l+1];i=(v.x+v.width+m.x)/2,a=(t.topYs[l]+t.topYs[l+1]+t.height)/2;break}var b=t.parcatsViewModel.x+i,_=t.parcatsViewModel.y+a,T=u.mostReadable(t.model.color,["black","white"]),k=t.model.count,A=k/t.parcatsViewModel.model.count,M={countLabel:k,probabilityLabel:A.toFixed(3)},S=[];-1!==t.parcatsViewModel.hoverinfoItems.indexOf("count")&&S.push(["Count:",M.countLabel].join(" ")),-1!==t.parcatsViewModel.hoverinfoItems.indexOf("probability")&&S.push(["P:",M.probabilityLabel].join(" "));var E=S.join("<br>"),L=n.mouse(f)[0];o.loneHover({trace:h,x:b-d.left+g.left,y:_-d.top+g.top,text:E,color:t.model.color,borderColor:"black",fontFamily:'Monaco, "Courier New", monospace',fontSize:10,fontColor:T,idealAlign:L<b?"right":"left",hovertemplate:(h.line||{}).hovertemplate,hovertemplateLabels:M,eventData:[{data:h._input,fullData:h,count:k,probability:A}]},{container:p._hoverlayer.node(),outerContainer:p._paper.node(),gd:f})}}}function m(t){if(!t.parcatsViewModel.dragDimension&&(_(n.select(this)),o.loneUnhover(t.parcatsViewModel.graphDiv._fullLayout._hoverlayer.node()),t.parcatsViewModel.pathSelection.sort(g),-1===t.parcatsViewModel.hoverinfoItems.indexOf("skip"))){var e=y(t),r=x(t);t.parcatsViewModel.graphDiv.emit("plotly_unhover",{points:e,event:n.event,constraints:r})}}function y(t){for(var e=[],r=z(t.parcatsViewModel),n=0;n<t.model.valueInds.length;n++){var i=t.model.valueInds[n];e.push({curveNumber:r,pointNumber:i})}return e}function x(t){for(var e={},r=t.parcatsViewModel.model.dimensions,n=0;n<r.length;n++){var i=r[n],a=i.categories[t.model.categoryInds[n]];e[i.containerInd]=a.categoryValue}return void 0!==t.model.rawColor&&(e.color=t.model.rawColor),e}function b(t){if(-1===t.parcatsViewModel.hoverinfoItems.indexOf("skip")){var e=y(t),r=x(t);t.parcatsViewModel.graphDiv.emit("plotly_click",{points:e,event:n.event,constraints:r})}}function _(t){t.attr("fill",(function(t){return t.model.color})).attr("fill-opacity",.6).attr("stroke","lightgray").attr("stroke-width",.2).attr("stroke-opacity",1)}function w(t){t.attr("fill-opacity",.8).attr("stroke",(function(t){return u.mostReadable(t.model.color,["black","white"])})).attr("stroke-width",.3)}function T(t){t.select("rect.catrect").attr("stroke","black").attr("stroke-width",1).attr("stroke-opacity",1)}function k(t){t.attr("stroke","black").attr("stroke-width",.2).attr("stroke-opacity",1).attr("fill-opacity",1)}function A(t){var e=t.parcatsViewModel.pathSelection,r=t.categoryViewModel.model.dimensionInd,n=t.categoryViewModel.model.categoryInd;return e.filter((function(e){return e.model.categoryInds[r]===n&&e.model.color===t.color}))}function M(t,e,r){var i=n.select(t).datum(),a=i.categoryViewModel.model,o=i.parcatsViewModel.graphDiv,s=n.select(t.parentNode).selectAll("rect.bandrect"),l=[];s.each((function(t){A(t).each((function(t){Array.prototype.push.apply(l,y(t))}))}));var c={};c[a.dimensionInd]=a.categoryValue,o.emit(e,{points:l,event:r,constraints:c})}function S(t,e,r){var i=n.select(t).datum(),a=i.categoryViewModel.model,o=i.parcatsViewModel.graphDiv,s=A(i),l=[];s.each((function(t){Array.prototype.push.apply(l,y(t))}));var c={};c[a.dimensionInd]=a.categoryValue,void 0!==i.rawColor&&(c.color=i.rawColor),o.emit(e,{points:l,event:r,constraints:c})}function E(t,e,r){t._fullLayout._calcInverseTransform(t);var i,a,o=t._fullLayout._invScaleX,s=t._fullLayout._invScaleY,l=n.select(r.parentNode).select("rect.catrect"),c=l.node().getBoundingClientRect(),u=l.datum(),f=u.parcatsViewModel,h=f.model.dimensions[u.model.dimensionInd],p=f.trace,d=c.top+c.height/2;f.dimensions.length>1&&h.displayInd===f.dimensions.length-1?(i=c.left,a="left"):(i=c.left+c.width,a="right");var g=u.model.count,v=u.model.categoryLabel,m=g/u.parcatsViewModel.model.count,y={countLabel:g,categoryLabel:

v,probabilityLabel:m.toFixed(3)},x=[];-
1!==u.parcatsViewModel.hoverinfoItems.indexOf("count")&&x.push(["Count:",y.countLabel].join(" ")),-
1!==u.parcatsViewModel.hoverinfoItems.indexOf("probability")&&x.push(["P("+y.categoryLabel+"):",y.probabilityLabel].join(" "));var b=x.join("<br>");return{trace:p,x:o*(i-e.left),y:s*(d-
e.top),text:b,color:"lightgray",borderColor:"black",fontFamily:'Monaco, "Courier New",
monospace',fontSize:12,fontColor:"black",idealAlign:a,hovertemplate:p.hovertemplate,hovertemplateLabels:y,eventData:[{data:p._input,fullData:p,count:g,category:v,probability:m}]}}function
L(t){if(!t.parcatsViewModel.dragDimension&&-
1===t.parcatsViewModel.hoverinfoItems.indexOf("skip")){if(n.mouse(this)[1]<-1)return;var
e,r=t.parcatsViewModel.graphDiv,i=r._fullLayout,a=i._paperdiv.node().getBoundingClientRect(),l=t.parcatsViewModel.hoveron,c=this;"color"===l?(function(t){var
e=n.select(t).datum(),r=A(e);w(r),r.each((function(){s.raiseToTop(this)})),n.select(t.parentNode).selectAll("rect.bandrect").filter((function(t){return
t.color===e.color})).each((function(){s.raiseToTop(this),n.select(this).attr("stroke","black").attr("stroke-
width",1.5)}))}(c),S(c,"plotly_hover",n.event)):(function(t){n.select(t.parentNode).selectAll("rect.bandrect").each((function(t){var
e=A(t);w(e),e.each((function(){s.raiseToTop(this)})))})),n.select(t.parentNode).select("rect.catrect").attr("stroke","black").attr("stroke-width",2.5)}(c),M(c,"plotly_hover",n.event)),-
1===t.parcatsViewModel.hoverinfoItems.indexOf("none")&&("category"===l?e=E(r,a,c):"color"===l?e=function(t,e,r){t._fullLayout._calcInverseTransform(t);var
i,a,o=t._fullLayout._invScaleX,s=t._fullLayout._invScaleY,l=r.getBoundingClientRect(),c=n.select(r).datum(),f=c.categoryViewModel,h=f.parcatsViewModel,p=h.model.dimensions[f.model.dimensionInd],d=h.trace,g=l.y+l.height/2;h.dimensions.length>1&&p.displayInd===h.dimensions.length-1?(i=l.left,a="left"):(i=l.left+l.width,a="right");var
v=f.model.categoryLabel,m=c.parcatsViewModel.model.count,y=0;c.categoryViewModel.bands.forEach((function(t){t.color===c.color&&(y+=t.count)}));var
x=f.model.count,b=0;h.pathSelection.each((function(t){t.model.color===c.color&&(b+=t.model.count)}));var
=y/m,w=y/b,T=y/x,k={countLabel:m,categoryLabel:v,probabilityLabel:.toFixed(3)},A=[];-
1!==f.parcatsViewModel.hoverinfoItems.indexOf("count")&&A.push(["Count:",k.countLabel].join(" ")),-
1!==f.parcatsViewModel.hoverinfoItems.indexOf("probability")&&(A.push("P(color "+v+"):
"+k.probabilityLabel),A.push("P("+v+" | color): "+w.toFixed(3)),A.push("P(color | "+v+"): "+T.toFixed(3)));var
M=A.join("<br>"),S=u.mostReadable(c.color,["black","white"]);return{trace:d,x:o*(i-e.left),y:s*(g-
e.top),text:M,color:c.color,borderColor:"black",fontFamily:'Monaco, "Courier New",
monospace',fontColor:S,fontSize:10,idealAlign:a,hovertemplate:d.hovertemplate,hovertemplateLabels:k,eventData:[{data:d._input,fullData:d,category:v,count:m,probability:_,categorycount:x,colorcount:b,bandcolorcount:y}]}}(r,a,c):"dimension"===l&&(e=function(t,e,r){var i=[];return
n.select(r.parentNode.parentNode).selectAll("g.category").select("rect.catrect").each((function(){i.push(E(t,e,this))})),i}(r,a,c)),e&&o.loneHover(e,{container:i._hoverlayer.node(),outerContainer:i._paper.node(),gd:r}))}}function
C(t){var
e=t.parcatsViewModel;e.dragDimension||(_(e.pathSelection),T(e.dimensionSelection.selectAll("g.category")),k(e.dimensionSelection.selectAll("g.category").selectAll("rect.bandrect")),o.loneUnhover(e.graphDiv._fullLayout._hoverlayer.node()),e.pathSelection.sort(g),-
1!==e.hoverinfoItems.indexOf("skip")||("color"===t.parcatsViewModel.hoveron?S(this,"plotly_unhover",n.event):M(this,"plotly_unhover",n.event))}function
P(t){"fixed"!==t.parcatsViewModel.arrangement&&(t.dragDimensionDisplayInd=t.model.displayInd,t.initialDragDimensionDisplayInds=t.parcatsViewModel.model.dimensions.map((function(t){return
t.displayInd})),t.dragHasMoved=!1,t.dragCategoryDisplayInd=null,n.select(this).selectAll("g.category").select("rect.catrect").each((function(e){var r=n.mouse(this)[0],i=n.mouse(this)[1];-2<=r&&r<=e.width+2&&-
2<=i&&i<=e.height+2&&(t.dragCategoryDisplayInd=e.model.displayInd,t.initialDragCategoryDisplayInds=t.mode

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l.categories.map((function(t){return
t.displayInd})),e.model.dragY=e.y,s.raiseToTop(this.parentNode),n.select(this.parentNode).selectAll("rect.bandrect
").each((function(e){e.y<i&&i<=e.y+e.height&&(t.potentialClickBand=this)})))})),t.parcatsViewModel.dragDimen
sion=t,o.loneUnhover(t.parcatsViewModel.graphDiv._fullLayout._hoverlayer.node())}function
I(t){if("fixed"!==t.parcatsViewModel.arrangement&&(t.dragHasMoved=!0,null!==t.dragDimensionDisplayInd)){v
ar e=t.dragDimensionDisplayInd,r=e-
1,i=e+1,a=t.parcatsViewModel.dimensions[e];if(null!==t.dragCategoryDisplayInd){var
o=a.categories[t.dragCategoryDisplayInd];o.model.dragY+=n.event.dy;var
s=o.model.dragY,l=o.model.displayInd,c=a.categories,u=c[l-1],f=c[l+1];void
0!==u&&s<u.y+u.height/2&&(o.model.displayInd=u.model.displayInd,u.model.displayInd=l),void
0!==f&&s+o.height>f.y+f.height/2&&(o.model.displayInd=f.model.displayInd,f.model.displayInd=l),t.dragCategor
yDisplayInd=o.model.displayInd}if(null===t.dragCategoryDisplayInd||"freeform"===t.parcatsViewModel.arrange
ment){a.model.dragX=n.event.x;var
h=t.parcatsViewModel.dimensions[r],p=t.parcatsViewModel.dimensions[i];void
0!==h&&a.model.dragX<h.x+h.width&&(a.model.displayInd=h.model.displayInd,h.model.displayInd=e),void
0!==p&&a.model.dragX+a.width>p.x&&(a.model.displayInd=p.model.displayInd,p.model.displayInd=t.dragDimen
sionDisplayInd),t.dragDimensionDisplayInd=a.model.displayInd}j(t.parcatsViewModel),N(t.parcatsViewModel),R(
t.parcatsViewModel),D(t.parcatsViewModel)}}function
O(t){if("fixed"!==t.parcatsViewModel.arrangement&&null!==t.dragDimensionDisplayInd){n.select(this).selectAll(
"text").attr("font-weight","normal");var
e={},r=z(t.parcatsViewModel),i=t.parcatsViewModel.model.dimensions.map((function(t){return
t.displayInd})),o=t.initialDragDimensionDisplayInds.some((function(t,e){return
t!==i[e]}));o&&i.forEach((function(r,n){var
i=t.parcatsViewModel.model.dimensions[n].containerInd;e["dimensions["+i+"].displayindex"]=r}));var
s=!1;if(null!==t.dragCategoryDisplayInd){var l=t.model.categories.map((function(t){return
t.displayInd}));if(s=t.initialDragCategoryDisplayInds.some((function(t,e){return t!==l[e]}))){var
c=t.model.categories.slice().sort((function(t,e){return t.displayInd-e.displayInd})),u=c.map((function(t){return
t.categoryValue})),f=c.map((function(t){return
t.categoryLabel}));e["dimensions["+t.model.containerInd+"].categoryarray"]=[u],e["dimensions["+t.model.containe
rInd+"].ticktext"]=[f],e["dimensions["+t.model.containerInd+"].categoryorder"]="array"}}-
1===t.parcatsViewModel.hoverinfoItems.indexOf("skip")&&!t.dragHasMoved&&t.potentialClickBand&&("color"
===t.parcatsViewModel.hoveron?S(t.potentialClickBand,"plotly_click",n.event.sourceEvent):M(t.potentialClickBa
nd,"plotly_click",n.event.sourceEvent)),t.model.dragX=null,null!==t.dragCategoryDisplayInd&&(t.parcatsViewMo
del.dimensions[t.dragDimensionDisplayInd].categories[t.dragCategoryDisplayInd].model.dragY=null,t.dragCategor
yDisplayInd=null),t.dragDimensionDisplayInd=null,t.parcatsViewModel.dragDimension=null,t.dragHasMoved=nul
l,t.potentialClickBand=null,j(t.parcatsViewModel),N(t.parcatsViewModel),n.transition().duration(300).ease("cubic-
in-
out").each((function(){R(t.parcatsViewModel,!0),D(t.parcatsViewModel,!0)})).each("end",(function(){(o||s)&&a.re
style(t.parcatsViewModel.graphDiv,e,[r])}))}}function z(t){for(var
e,r=t.graphDiv._fullData,n=0;n<r.length;n++)if(t.key===r[n].uid){e=n;break}return e}function D(t,e){var r;void
0===e&&(e=!1),t.pathSelection.data((function(t){return
t.paths}),p),(r=t.pathSelection,e?r.transition():r).attr("d",(function(t){return t.svgD}))}function R(t,e){function
r(t){return e?t.transition():t}void 0===e&&(e=!1),t.dimensionSelection.data((function(t){return
t.dimensions}),p);var i=t.dimensionSelection.selectAll("g.category").data((function(t){return
t.categories}),p);r(t.dimensionSelection).attr("transform",(function(t){return
l(t.x,0)})),r(i).attr("transform",(function(t){return l(0,t.y)})),i.select(".dimlabel").text((function(t,e){return
0===e?t.parcatsViewModel.model.dimensions[t.model.dimensionInd].dimensionLabel:null})),i.select(".catlabel").at
tr("text-anchor",(function(t){return d(t)?"start":"end"})).attr("x",(function(t){return d(t)?t.width+5:-
```

5})).each((function(t){var e,r;d(t)?(e=t.width+5,r="start"):(e=-5,r="end"),n.select(this).selectAll("tspan").attr("x",e).attr("text-anchor",r)}));var a=i.selectAll("rect.bandrect").data((function(t){return t.bands}),p),o=a.enter().append("rect").attr("class","bandrect").attr("cursor","move").attr("stroke-opacity",0).attr("fill",(function(t){return t.color})).attr("fill-opacity",0);a.attr("fill",(function(t){return t.color})).attr("width",(function(t){return t.width})).attr("height",(function(t){return t.height})).attr("y",(function(t){return t.y})),k(o),a.each((function(){s.raiseToTop(this)})),a.exit().remove()}function F(t,e,r){var n,i=r[0],a=e.margin||{l:80,r:80,t:100,b:80},o=i.trace,s=o.domain,l=e.width,c=e.height,u=Math.floor(l*(s.x[1]-s.x[0])),f=Math.floor(c*(s.y[1]-s.y[0])),h=s.x[0]*l+a.l,p=e.height-s.y[1]*e.height+a.t,d=o.line.shape;n="all"===o.hoverinfo?["count","probability"]:(o.hoverinfo||"").split("+");var g={trace:o,key:o.uid,model:i,x:h,y:p,width:u,height:f,hoveron:o.hoveron,hoverinfoItems:n,arrangement:o.arrangement,bundlecolors:o.bundlecolors,sortpaths:o.sortpaths,labelfont:o.labelfont,categorylabelfont:o.tickfont,pathShape:d,dragDimension:null,margin:a,paths:[],dimensions:[],graphDiv:t,traceSelection:null,pathSelection:null,dimensionSelection:null};return i.dimensions&&(j(g),N(g)),g}function B(t,e,r,n,a){var o,s,l=[],c=[];for(s=0;s<r.length-1;s++)o=i(r[s]+t[s],t[s+1]),l.push(o(a)),c.push(o(1-a));var u="M "+t[0]+","+e[0];for(u+="l"+r[0]+",0 ",s=1;s<r.length;s++)u+="C"+l[s-1]+","+e[s-1]+" "+c[s-1]+","+e[s]+" "+t[s]+","+e[s],u+="l"+r[s]+",0 ";for(u+="l0,"+n+" ",u+="l -"+r[r.length-1]+",0 ",s=r.length-2;s>=0;s--)u+="C"+c[s]+","+(e[s+1]+n)+" "+l[s]+","+(e[s]+n)+" "+(t[s]+r[s])+","+(e[s]+n),u+="l-"+r[s]+",0 ";return u+"Z"}function N(t){var e=t.dimensions,r=t.model,n=e.map((function(t){return t.categories.map((function(t){return t.y}))})),i=t.model.dimensions.map((function(t){return t.categories.map((function(t){return t.displayInd}))})),a=t.model.dimensions.map((function(t){return t.displayInd})),o=t.dimensions.map((function(t){return t.model.dimensionInd})),s=e.map((function(t){return t.x})),l=e.map((function(t){return t.width})),c=[];for(var u in r.paths)r.paths.hasOwnProperty(u)&&c.push(r.paths[u]);function f(t){var e=t.categoryInds.map((function(t,e){return i[e][t]}));return o.map((function(t){return e[t]}))}c.sort((function(e,r){var n=f(e),i=f(r);return"backward"===t.sortpaths&&(n.reverse(),i.reverse()),n.push(e.valueInds[0]),i.push(r.valueInds[0]),t.bundlecolors&&(n.unshift(e.rawColor),i.unshift(r.rawColor)),n<i?-1:n>i?1:0}));for(var h=new Array(c.length),p=e[0].model.count,d=e[0].categories.map((function(t){return t.height})).reduce((function(t,e){return t+e})),g=0;g<c.length;g++){var v,m=c[g];v=p>0?d*(m.count/p):0;for(var y,x=new Array(n.length),b=0;b<m.categoryInds.length;b++){var _=m.categoryInds[b],w=i[b][_],T=a[b];x[T]=n[T][w],n[T][w]+=v;var k=t.dimensions[T].categories[w],A=k.bands.length,M=k.bands[A-1];if(void 0===M||m.rawColor!==M.rawColor){var S=void 0===M?0:M.y+M.height;k.bands.push({key:S,color:m.color,rawColor:m.rawColor,height:v,width:k.width,count:m.count,y:S,categoryViewModel:k,parcatsViewModel:t})}else{var E=k.bands[A-1];E.height+=v,E.count+=m.count}}y="hspline"===t.pathShape?B(s,x,l,v,.5):B(s,x,l,v,0),h[g]={key:m.valueInds[0],model:m,height:v,leftXs:s,topYs:x,dimWidths:l,svgD:y,parcatsViewModel:t}}t.paths=h}function j(t){var e=t.model.dimensions.map((function(t){return{displayInd:t.displayInd,dimensionInd:t.dimensionInd}}));e.sort((function(t,e){return t.displayInd-e.displayInd}));var r=[];for(var n in e){var i=e[n].dimensionInd,a=t.model.dimensions[i];r.push(U(t,a))}t.dimensions=r}function U(t,e){var r,n=t.model.dimensions.length,i=e.displayInd;r=40+(n>1?(t.width-80-16)/(n-1):0)*i;var a,o,s,l,c,u=[],f=t.model.maxCats,h=e.categories.length,p=e.count,d=t.height-8*(f-1),g=8*(f-h)/2,v=e.categories.map((function(t){return{displayInd:t.displayInd,categoryInd:t.categoryInd}}));for(v.sort((function(t,e){return t.displayInd-e.displayInd})),c=0;c<h;c++)l=v[c].categoryInd,o=e.categories[l],a=p>0?o.count/p*d:0,s={key:o.valueInds[0],model:o,width:16,height:a,y:null!==o.dragY?o.dragY:g,bands:[],parcatsViewModel:t},g=g+a+8,u.push(s);return{key:e.di

mensionInd,x:null!==e.dragX?e.dragX:r,y:0,width:16,model:e,categories:u,parcatsViewModel:t,dragCategoryDisplayInd:null,dragDimensionDisplayInd:null,initialDragDimensionDisplayInds:null,initialDragCategoryDisplayInds:null,dragHasMoved:null,potentialClickBand:null}}e.exports=function(t,e,r,n){h(r,t,n,e)}},{"../../components/drawing":388,"../../components/fx":406,"../../lib":503,"../../lib/svg_text_utils":529,"../../plot_api/plot_api":540,"@plotly/d3":58,"d3-interpolate":116,tinycolor2:312}],887:[function(t,e,r){"use strict";var n=t("./parcats");e.exports=function(t,e,r,i){var a=t._fullLayout,o=a._paper,s=a._size;n(t,o,e,{width:s.w,height:s.h,margin:{t:s.t,r:s.r,b:s.b,l:s.l}},r,i)}},{"./parcats":886}],888:[function(t,e,r){"use strict";var n=t("../../components/colorscale/attributes"),i=t("../../plots/cartesian/layout_attributes"),a=t("../../plots/font_attributes"),o=t("../../plots/domain").attributes,s=t("../../lib/extend").extendFlat,l=t("../../plot_api/plot_template").templatedArray;e.exports={domain:o({name:"parcoords",trace:!0,editType:"plot"}),labelangle:{valType:"angle",dflt:0,editType:"plot"},labelside:{valType:"enumerated",values:["top","bottom"],dflt:"top",editType:"plot"},labelfont:a({editType:"plot"}),tickfont:a({editType:"plot"}),rangefont:a({editType:"plot"}),dimensions:l("dimension",{label:{valType:"string",editType:"plot"},tickvals:s({},i.tickvals,{editType:"plot"}),ticktext:s({},i.ticktext,{editType:"plot"}),tickformat:s({},i.tickformat,{editType:"plot"}),visible:{valType:"boolean",dflt:!0,editType:"plot"},range:{valType:"info_array",items:[{valType:"number",editType:"plot"},{valType:"number",editType:"plot"}],editType:"plot"},constraintrange:{valType:"info_array",freeLength:!0,dimensions:"1-2",items:[{valType:"any",editType:"plot"},{valType:"any",editType:"plot"}],editType:"plot"},multiselect:{valType:"boolean",dflt:!0,editType:"plot"},values:{valType:"data_array",editType:"calc"},editType:"calc"}),line:s({editType:"calc"},n("line",{colorscaleDflt:"Viridis",autoColorDflt:!1,editTypeOverride:"calc"}))}},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plot_api/plot_template":543,"../../plots/cartesian/layout_attributes":569,"../../plots/domain":584,"../../plots/font_attributes":585}],889:[function(t,e,r){"use strict";var n=t("./constants"),i=t("@plotly/d3"),a=t("../../lib/gup").keyFun,o=t("../../lib/gup").repeat,s=t("../../lib").sorterAsc,l=t("../../lib").strTranslate,c=n.bar.snapRatio;function u(t,e){return t*(1-c)+e*c}var f=n.bar.snapClose;function h(t,e){return t*(1-f)+e*f}function p(t,e,r,n){if(function(t,e){for(var r=0;r<e.length;r++)if(t>=e[r][0]&&t<=e[r][1])return!0;return!1}(r,n))return r;var i=t?-1:1,a=0,o=e.length-1;if(i<0){var s=a;a=o,o=s}for(var l=e[a],c=l,f=a;i*f<i*o;f+=i){var p=f+i,d=e[p];if(i*r<i*h(l,d))return u(l,c);if(i*r<i*d||p===o)return u(d,l);c=l,l=d}}function d(t){t.attr("x",-n.bar.captureWidth/2).attr("width",n.bar.captureWidth)}function g(t){t.attr("visibility","visible").style("visibility","visible").attr("fill","yellow").attr("opacity",0)}function v(t){if(!t.brush.filterSpecified)return"0,"+t.height;for(var e,r,n,i=m(t.brush.filter.getConsolidated(),t.height),a=[0],o=i.length?i[0][0]:null,s=0;s<i.length;s++)r=(e=i[s])[1]-e[0],a.push(o),a.push(r),(n=s+1)<i.length&&(o=i[n][0]-e[1]);return a.push(t.height),a}function m(t,e){return t.map((function(t){return t.map((function(t){return Math.max(0,t*e)})).sort(s)}))}function y(){i.select(document.body).style("cursor",null)}function x(t){t.attr("stroke-dasharray",v)}function b(t,e){var r=i.select(t).selectAll(".highlight, .highlight-shadow");x(e?r.transition().duration(n.bar.snapDuration).each("end",e):r)}function _(t,e){var r,i=t.brush,a=NaN,o={};if(i.filterSpecified){var s=t.height,l=i.filter.getConsolidated(),c=m(l,s),u=NaN,f=NaN,h=NaN;for(r=0;r<=c.length;r++){var p=c[r];if(p&&p[0]<=e&&e<=p[1]){u=r;break}if(f=r?r-1:NaN,p&&p[0]>e){h=r;break}}if(a=u,isNaN(a)&&(a=isNaN(f)||isNaN(h)?isNaN(f)?h:f:e-c[f][1]<c[h][0]-e?f:h),!isNaN(a)){var d=c[a],g=function(t,e){var r=n.bar.handleHeight;if(!(e>t[1]+r||e<t[0]-r))return e>=.9*t[1]+.1*t[0]?"n":e<=.9*t[0]+.1*t[1]?"s":"ns"}(d,e);g&&(o.interval=l[a],o.intervalPix=d,o.region=g)}if(t.ordinal&&!o.region){var v=t.unitTickvals,y=t.unitToPaddedPx.invert(e);for(r=0;r<v.length;r++){var x=[.25*v[Math.max(r-1,0)]+.75*v[r],.25*v[Math.min(r+1,v.length-1)]+.75*v[r]];if(y>=x[0]&&y<=x[1]){o.clickableOrdinalRange=x;break}}}return o}function w(t,e){i.event.sourceEvent.stopPropagation();var r=e.height-i.mouse(t)[1]-2*n.verticalPadding,a=e.brush.svgBrush;a.wasDragged=!0,a._dragging=!0,a.grabbingBar?a.newExtent=[r-

a.grabPoint,r+a.barLength-
a.grabPoint].map(e.unitToPaddedPx.invert):a.newExtent=[a.startExtent,e.unitToPaddedPx.invert(r)].sort(s),e.brush.filterSpecified=!0,a.extent=a.stayingIntervals.concat([a.newExtent]),a.brushCallback(e),b(t.parentNode)}function T(t,e){var r=_(e,e.height-i.mouse(t)[1]-
2*n.verticalPadding),a="crosshair";r.clickableOrdinalRange?a="pointer":r.region&&(a=r.region+"-resize"),i.select(document.body).style("cursor",a)}function k(t){t.on("mousemove",(function(t){i.event.preventDefault(),t.parent.inBrushDrag||T(this,t)})).on("mouseleave",(function(t){t.parent.inBrushDrag||y()})).call(i.behavior.drag().on("dragstart",(function(t){!function(t,e){i.event.sourceEvent.stopPropagation();var r=e.height-i.mouse(t)[1]-
2*n.verticalPadding,a=e.unitToPaddedPx.invert(r),o=e.brush,s=_(e,r),l=s.interval,c=o.svgBrush;if(c.wasDragged=!1,c.grabbingBar="ns"===s.region,c.grabbingBar){var u=l.map(e.unitToPaddedPx);c.grabPoint=r-u[0]-n.verticalPadding,c.barLength=u[1]-
u[0]}c.clickableOrdinalRange=s.clickableOrdinalRange,c.stayingIntervals=e.multiselect&&o.filterSpecified?o.filter.getConsolidated():[],l&&(c.stayingIntervals=c.stayingIntervals.filter((function(t){return t[0]!==l[0]&&t[1]!==l[1]}))),c.startExtent=s.region?l["s"===s.region?1:0]:a,e.parent.inBrushDrag=!0,c.brushStartCallback()}(this,t)})).on("drag",(function(t){w(this,t)})).on("dragend",(function(t){!function(t,e){var r=e.brush,n=r.filter,a=r.svgBrush;a._dragging||(T(t,e),w(t,e),e.brush.svgBrush.wasDragged=!1),a._dragging=!1,i.event.sourceEvent.stopPropagation();var o=a.grabbingBar;if(a.grabbingBar=!1,a.grabLocation=void 0,e.parent.inBrushDrag=!1,y(),!a.wasDragged)return a.wasDragged=void 0,a.clickableOrdinalRange?r.filterSpecified&&e.multiselect?a.extent.push(a.clickableOrdinalRange):(a.extent=[a.clickableOrdinalRange],r.filterSpecified=!0):o?(a.extent=a.stayingIntervals,0===a.extent.length&&M(r)):M(r),a.brushCallback(e),b(t.parentNode),void a.brushEndCallback(r.filterSpecified?n.getConsolidated():[]);var s=function(){n.set(n.getConsolidated())};if(e.ordinal){var l=e.unitTickvals;l[l.length-1]<l[0]&&l.reverse(),a.newExtent=[p(0,l,a.newExtent[0],a.stayingIntervals),p(1,l,a.newExtent[1],a.stayingIntervals)];var
c=a.newExtent[1]>a.newExtent[0];a.extent=a.stayingIntervals.concat(c?[a.newExtent]:[]),a.extent.length||M(r),a.brushCallback(e),c?b(t.parentNode,s):(s(),b(t.parentNode))}else
s();a.brushEndCallback(r.filterSpecified?n.getConsolidated():[])}(this,t)}))}function A(t,e){return t[0]-e[0]}function M(t){t.filterSpecified=!1,t.svgBrush.extent=[[-1/0,1/0]]}function S(t){for(var e,r=t.slice(),n=[],i=r.shift();i;){for(e=i.slice();(i=r.shift())&&i[0]<=e[1];)e[1]=Math.max(e[1],i[1]);n.push(e)}return 1===n.length&&n[0][0]>n[0][1]&&(n=[]),n}e.exports={makeBrush:function(t,e,r,n,i,a){var o,l=function(){var t,e,r=[];return{set:function(n){1===(r=n.map((function(t){return t.slice().sort(s)})).sort(A)).length&&r[0][0]===-1/0&&r[0][1]===1/0&&(r=[[0,-1]]),t=S(r),e=r.reduce((function(t,e){return[Math.min(t[0],e[0]),Math.max(t[1],e[1])]}),[1/0,-1/0])},get:function(){return r.slice()},getConsolidated:function(){return t},getBounds:function(){return e}}}();return
l.set(r),{filter:l,filterSpecified:e,svgBrush:{extent:[],brushStartCallback:n,brushCallback:(o=i,function(t){var e=t.brush,r=function(t){return t.svgBrush.extent.map((function(t){return t.slice()}))}(e).slice();e.filter.set(r),o()}),brushEndCallback:a}}},ensureAxisBrush:function(t,e){var r=t.selectAll("."+n.cn.axisBrush).data(o,a);r.enter().append("g").classed(n.cn.axisBrush,!0),function(t,e){var r=t.selectAll(".background").data(o);r.enter().append("rect").classed("background",!0).call(d).call(g).style("pointer-events","auto").attr("transform",l(0,n.verticalPadding)),r.call(k).attr("height",(function(t){return t.height-n.verticalPadding}));var i=t.selectAll(".highlight-shadow").data(o);i.enter().append("line").classed("highlight-shadow",!0).attr("x",-n.bar.width/2).attr("stroke-width",n.bar.width+n.bar.strokeWidth).attr("stroke",e).attr("opacity",n.bar.strokeOpacity).attr("stroke-linecap","butt"),i.attr("y1",(function(t){return t.height})).call(x);var a=t.selectAll(".highlight").data(o);a.enter().append("line").classed("highlight",!0).attr("x",-n.bar.width/2).attr("stroke-width",n.bar.width-

n.bar.strokeWidth).attr("stroke",n.bar.fillColor).attr("opacity",n.bar.fillOpacity).attr("stroke-linecap","butt"),a.attr("y1",(function(t){return t.height})).call(x)(r,e)},cleanRanges:function(t,e){if(Array.isArray(t[0])?(t=t.map((function(t){return t.sort(s)})),t=e.multiselect?S(t.sort(A)):[t[0]]):t=[t.sort(s)],e.tickvals){var r=e.tickvals.slice().sort(s);if(!(t=t.map((function(t){var e=[p(0,r,t[0],[]),p(1,r,t[1],[])];if(e[1]>e[0])return e})).filter((function(t){return t}))).length)return}return t.length>1?t:t[0]}}},{"../../lib":503,"../../lib/gup":500,"./constants":893,"@plotly/d3":58}],890:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),calc:t("./calc"),colorbar:{container:"line",min:"cmin",max:"cmax"},moduleType:"trace",name:"parcoords",basePlotModule:t("../base_plot"),categories:["gl","regl","noOpacity","noHover"],meta:{}}},{"./attributes":888,"../base_plot":891,"./calc":892,"./defaults":894}],891:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../plots/get_data").getModuleCalcData,a=t("./plot"),o=t("../../constants/xmlns_namespaces");r.name="parcoords",r.plot=function(t){var e=i(t.calcdata,"parcoords")[0];e.length&&a(t,e)},r.clean=function(t,e,r,n){var i=n._has&&n._has("parcoords"),a=e._has&&e._has("parcoords");i&&!a&&(n._paperdiv.selectAll(".parcoords").remove(),n._glimages.selectAll("*").remove())},r.toSVG=function(t){var e=t._fullLayout._glimages,r=n.select(t).selectAll(".svg-container");r.filter((function(t,e){return e===r.size()-1})).selectAll(".gl-canvas-context, .gl-canvas-focus").each((function(){var t=this,r=t.toDataURL("image/png");e.append("svg:image").attr({xmlns:o.svg,"xlink:href":r,preserveAspectRatio:"none",x:0,y:0,width:t.style.width,height:t.style.height})})),window.setTimeout((function(){n.selectAll("#filterBarPattern").attr("id","filterBarPattern")}),60)}},{"../../constants/xmlns_namespaces":480,"../../plots/get_data":593,"./plot":900,"@plotly/d3":58}],892:[function(t,e,r){"use strict";var n=t("../../lib").isArrayOrTypedArray,i=t("../../components/colorscale"),a=t("../../lib/gup").wrap;e.exports=function(t,e){var r,o;return i.hasColorscale(e,"line")&&n(e.line.color)?(r=e.line.color,o=i.extractOpts(e.line).colorscale,i.calc(t,e,{vals:r,containerStr:"line",cLetter:"c"})):(r=function(t){for(var e=new Array(t),r=0;r<t;r++)e[r]=.5;return e}(e._length),o=[[0,e.line.color],[1,e.line.color]]),a({lineColor:r,cscale:o})}},{"../../components/colorscale":378,"../../lib":503,"../../lib/gup":500}],893:[function(t,e,r){"use strict";e.exports={maxDimensionCount:60,overdrag:45,verticalPadding:2,tickDistance:50,canvasPixelRatio:1,blockLineCount:5e3,layers:["contextLineLayer","focusLineLayer","pickLineLayer"],axisTitleOffset:28,axisExtentOffset:10,deselectedLineColor:"#777",bar:{width:4,captureWidth:10,fillColor:"magenta",fillOpacity:1,snapDuration:150,snapRatio:.25,snapClose:.01,strokeOpacity:1,strokeWidth:1,handleHeight:8,handleOpacity:1,handleOverlap:0},cn:{axisExtentText:"axis-extent-text",parcoordsLineLayers:"parcoords-line-layers",parcoordsLineLayer:"parcoords-lines",parcoords:"parcoords",parcoordsControlView:"parcoords-control-view",yAxis:"y-axis",axisOverlays:"axis-overlays",axis:"axis",axisHeading:"axis-heading",axisTitle:"axis-title",axisExtent:"axis-extent",axisExtentTop:"axis-extent-top",axisExtentTopText:"axis-extent-top-text",axisExtentBottom:"axis-extent-bottom",axisExtentBottomText:"axis-extent-bottom-text",axisBrush:"axis-brush"},id:{filterBarPattern:"filter-bar-pattern"}}},{}],894:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../components/colorscale/helpers").hasColorscale,a=t("../../components/colorscale/defaults"),o=t("../../plots/domain").defaults,s=t("../../plots/array_container_defaults"),l=t("../../plots/cartesian/axes"),c=t("./attributes"),u=t("./axisbrush"),f=t("./constants").maxDimensionCount,h=t("./merge_length");function p(t,e,r,i){function a(r,i){return n.coerce(t,e,c.dimensions,r,i)}var o=a("values"),s=a("visible");if(o&&o.length||(s=e.visible=!1),s){a("label"),a("tickvals"),a("ticktext"),a("tickformat");var f=a("range");e._ax={_id:"y",type:"linear",showexponent:"all",exponentformat:"B",range:f},l.setConvert(e._ax,i.layout),a("multiselect");var h=a("constraintrange");h&&(e.constraintrange=u.cleanRanges(h,e))}}e.exports=function(t,e,r,l){function u(r,i){return n.coerce(t,e,c,r,i)}var d=t.dimensions;Array.isArray(d)&&d.length>f&&(n.log("parcoords traces

support up to "+f+" dimensions at the moment"),d.splice(f));var g=s(t,e,{name:"dimensions",layout:l,handleItemDefaults:p}),v=function(t,e,r,o,s){var l=s("line.color",r);if(i(t,"line")&&n.isArrayOrTypedArray(l)){if(l.length)return s("line.colorscale"),a(t,e,o,s,{prefix:"line.",cLetter:"c"}),l.length;e.line.color=r}return 1/0}(t,e,r,l,u);o(e,l,u),Array.isArray(g)&&g.length||(e.visible=!1),h(e,g,"values",v);var m={family:l.font.family,size:Math.round(l.font.size/1.2),color:l.font.color};n.coerceFont(u,"labelfont",m),n.coerceFont(u,"tickfont",m),n.coerceFont(u,"rangefont",m),u("labelangle"),u("labelside")}},{"../../components/colorscale/defaults":376,"../../components/colorscale/helpers":377,"../../lib":503,"../../plots/array_container_defaults":549,"../../plots/cartesian/axes":554,"../../plots/domain":584,"./attributes":888,"./axisbrush":889,"./constants":893,"./merge_length":898}],895:[function(t,e,r){"use strict";var n=t("../../lib").isTypedArray;r.convertTypedArray=function(t){return n(t)?Array.prototype.slice.call(t):t},r.isOrdinal=function(t){return!!t.tickvals},r.isVisible=function(t){return t.visible||!("visible"in t)}},{"../../lib":503}],896:[function(t,e,r){"use strict";var n=t("./base_index");n.plot=t("./plot"),e.exports=n},{"./base_index":890,"./plot":900}],897:[function(t,e,r){"use strict";var n=t("glslify"),i=n(["precision highp float;\n#define GLSLIFY 1\n\nvarying vec4 fragColor;\n\nattribute vec4 p01_04, p05_08, p09_12, p13_16,\n p17_20, p21_24, p25_28, p29_32,\n p33_36, p37_40, p41_44, p45_48,\n p49_52, p53_56, p57_60, colors;\n\nuniform mat4 dim0A, dim1A, dim0B, dim1B, dim0C, dim1C, dim0D, dim1D,\n loA, hiA, loB, hiB, loC, hiC, loD, hiD;\n\nuniform vec2 resolution, viewBoxPos, viewBoxSize;\nuniform float maskHeight;\nuniform float drwLayer; // 0: context, 1: focus, 2: pick\nuniform vec4 contextColor;\nuniform sampler2D maskTexture, palette;\n\nbool isPick   = (drwLayer > 1.5);\nbool isContext = (drwLayer < 0.5);\n\nconst vec4 ZEROS = vec4(0.0, 0.0, 0.0, 0.0);\nconst vec4 UNITS = vec4(1.0, 1.0, 1.0, 1.0);\n\nfloat val(mat4 p, mat4 v) {\n return dot(matrixCompMult(p, v) * UNITS, UNITS);\n}\n\nfloat axisY(float ratio, mat4 A, mat4 B, mat4 C, mat4 D) {\n float y1 = val(A, dim0A) + val(B, dim0B) + val(C, dim0C) + val(D, dim0D);\n float y2 = val(A, dim1A) + val(B, dim1B) + val(C, dim1C) + val(D, dim1D);\n return y1 * (1.0 - ratio) + y2 * ratio;\n}\n\nint iMod(int a, int b) {\n return a - b * (a / b);\n}\n\nbool fOutside(float p, float lo, float hi) {\n return (lo < hi) && (lo > p || p > hi);\n}\n\nbool vOutside(vec4 p, vec4 lo, vec4 hi) {\n return (\n   fOutside(p[0], lo[0], hi[0]) ||\n   fOutside(p[1], lo[1], hi[1]) ||\n   fOutside(p[2], lo[2], hi[2]) ||\n   fOutside(p[3], lo[3], hi[3])\n);\n}\n\nbool mOutside(mat4 p, mat4 lo, mat4 hi) {\n return (\n   vOutside(p[0], lo[0], hi[0]) ||\n   vOutside(p[1], lo[1], hi[1]) ||\n   vOutside(p[2], lo[2], hi[2]) ||\n   vOutside(p[3], lo[3], hi[3])\n);\n}\n\nbool outsideBoundingBox(mat4 A, mat4 B, mat4 C, mat4 D) {\n return mOutside(A, loA, hiA) ||\n   mOutside(B, loB, hiB) ||\n   mOutside(C, loC, hiC) ||\n   mOutside(D, loD, hiD);\n}\n\nbool outsideRasterMask(mat4 A, mat4 B, mat4 C, mat4 D) {\n mat4 pnts[4];\n pnts[0] = A;\n pnts[1] = B;\n pnts[2] = C;\n pnts[3] = D;\n\n for(int i = 0; i < 4; ++i) {\n   for(int j = 0; j < 4; ++j) {\n   for(int k = 0; k < 4; ++k) {\n   if(0 == iMod(\n   int(255.0 * texture2D(maskTexture,\n   vec2(\n   (float(i * 2 + j / 2) + 0.5) / 8.0,\n   (pnts[i][j][k] * (maskHeight - 1.0) + 1.0) / maskHeight\n   ))[3]\n   ) / int(pow(2.0, float(iMod(j * 4 + k, 8)))),\n   2\n   )) return true;\n   }\n   }\n }\n return false;\n}\n\nvec4 position(bool isContext, float v, mat4 A, mat4 B, mat4 C, mat4 D) {\n float x = 0.5 * sign(v) + 0.5;\n float y = axisY(x, A, B, C, D);\n float z = 1.0 - abs(v);\n\n z += isContext ? 0.0 : 2.0 * float(\n   outsideBoundingBox(A, B, C, D) ||\n   outsideRasterMask(A, B, C, D)\n);\n\n return vec4(\n   2.0 * (vec2(x, y) * viewBoxSize + viewBoxPos) / resolution - 1.0,\n   z,\n   1.0\n);\n}\n\nvoid main() {\n mat4 A = mat4(p01_04, p05_08, p09_12, p13_16);\n mat4 B = mat4(p17_20, p21_24, p25_28, p29_32);\n mat4 C = mat4(p33_36, p37_40, p41_44, p45_48);\n mat4 D = mat4(p49_52, p53_56, p57_60, ZEROS);\n\n float v = colors[3];\n\n gl_Position = position(isContext, v, A, B, C, D);\n\n fragColor =\n   isContext ? vec4(contextColor) :\n   isPick ? vec4(colors.rgb, 1.0) : texture2D(palette, vec2(abs(v), 0.5));\n}\n"]),a=n(["precision highp float;\n#define GLSLIFY 1\n\nvarying vec4 fragColor;\n\nvoid main() {\n gl_FragColor = fragColor;\n}\n"]),o=t("./constants").maxDimensionCount,s=t("../../lib"),l=1e-6,c=2048,u=new Uint8Array(4),f=new Uint8Array(4),h={shape:[256,1],format:"rgba",type:"uint8",mag:"nearest",min:"nearest"};function p(t,e,r,n,i){var

a=t._gl;a.enable(a.SCISSOR_TEST),a.scissor(e,r,n,i),t.clear({color:[0,0,0,0],depth:1})}function d(t,e,r,n,i,a){var o=a.key;r.drawCompleted||(function(t){t.read({x:0,y:0,width:1,height:1,data:u})}(t),r.drawCompleted=!0),function s(l){var c=Math.min(n,i-l*n);0===l&&(window.cancelAnimationFrame(r.currentRafs[o]),delete r.currentRafs[o],p(t,a.scissorX,a.scissorY,a.scissorWidth,a.viewBoxSize[1])),r.clearOnly||(a.count=2*c,a.offset=2*l*n,e(a),l*n+c<i&&(r.currentRafs[o]=window.requestAnimationFrame((function(){s(l+1)})))),r.drawCompleted=!1)}(0)}function g(t,e){for(var r=new Array(256),n=0;n<256;n++)r[n]=t(n/255).concat(e);return r}function v(t,e){return(t>>>8*e)%256/255}function m(t,e,r){for(var n=new Array(8*e),i=0,a=0;a<e;a++)for(var o=0;o<2;o++)for(var s=0;s<4;s++){var l=4*t+s,c=r[64*a+l];63===l&&0===o&&(c*=-1),n[i++]=c}return n}function y(t){var e="0"+t;return e.substr(e.length-2)}function x(t){return t<o?"p"+y(t+1)+"_"+y(t+4):"colors"}function b(t,e,r,n,i,a,o,l,c,u,f,h,p,d){for(var g=[[],[]],v=0;v<64;v++)g[0][v]=v===i?1:0,g[1][v]=v===a?1:0;o*=d,l*=d,c*=d,u*=d;var m=t.lines.canvasOverdrag*d,y=t.domain,x=t.canvasWidth*d,b=t.canvasHeight*d,_=t.pad.l*d,w=t.pad.b*d,T=t.layoutHeight*d,k=t.layoutWidth*d,A=t.deselectedLines.color;return s.extendFlat({key:f,resolution:[x,b],viewBoxPos:[o+m,l],viewBoxSize:[c,u],i0:i,i1:a,dim0A:g[0].slice(0,16),dim0B:g[0].slice(16,32),dim0C:g[0].slice(32,48),dim0D:g[0].slice(48,64),dim1A:g[1].slice(0,16),dim1B:g[1].slice(16,32),dim1C:g[1].slice(32,48),dim1D:g[1].slice(48,64),drwLayer:h,contextColor:[A[0]/255,A[1]/255,A[2]/255,A[3]<1?A[3]:Math.max(1/255,Math.pow(1/t.lines.color.length,1/3))],scissorX:(n===e?0:o+m)+(_-m)+k*y.x[0],scissorWidth:(n===r?x-o+m:c+.5)+(n===e?o+m:0),scissorY:l+w+T*y.y[0],scissorHeight:u,viewportX:_-m+k*y.x[0],viewportY:w+T*y.y[0],viewportWidth:x,viewportHeight:b},p)}function _(t){var e=2047,r=Math.max(0,Math.floor(t[0]*e),0),n=Math.min(e,Math.ceil(t[1]*e),e);return[Math.min(r,n),Math.max(r,n)]}e.exports=function(t,e){var r,n,u,y,w,T=e.context,k=e.pick,A=e.regl,M=A._gl,S=M.getParameter(M.ALIASED_LINE_WIDTH_RANGE),E=Math.max(S[0],Math.min(S[1],e.viewModel.plotGlPixelRatio)),L={currentRafs:{},drawCompleted:!0,clearOnly:!1},C=function(t){for(var e={},r=0;r<=o;r+=4)e[x(r)]=t.buffer({usage:"dynamic",type:"float",data:new Uint8Array(0)});return e}(A),P=A.texture(h),I=[];z(e);var O=A({profile:!1,blend:{enable:T,func:{srcRGB:"src alpha",dstRGB:"one minus src alpha",srcAlpha:1,dstAlpha:1},equation:{rgb:"add",alpha:"add"},color:[0,0,0,0]},depth:{enable:!T,mask:!0,func:"less",range:[0,1]},cull:{enable:!0,face:"back"},scissor:{enable:!0,box:{x:A.prop("scissorX"),y:A.prop("scissorY"),width:A.prop("scissorWidth"),height:A.prop("scissorHeight")}},viewport:{x:A.prop("viewportX"),y:A.prop("viewportY"),width:A.prop("viewportWidth"),height:A.prop("viewportHeight")},dither:!1,vert:i,frag:a,primitive:"lines",lineWidth:E,attributes:C,uniforms:{resolution:A.prop("resolution"),viewBoxPos:A.prop("viewBoxPos"),viewBoxSize:A.prop("viewBoxSize"),dim0A:A.prop("dim0A"),dim1A:A.prop("dim1A"),dim0B:A.prop("dim0B"),dim1B:A.prop("dim1B"),dim0C:A.prop("dim0C"),dim1C:A.prop("dim1C"),dim0D:A.prop("dim0D"),dim1D:A.prop("dim1D"),loA:A.prop("loA"),hiA:A.prop("hiA"),loB:A.prop("loB"),hiB:A.prop("hiB"),loC:A.prop("loC"),hiC:A.prop("hiC"),loD:A.prop("loD"),hiD:A.prop("hiD"),palette:P,contextColor:A.prop("contextColor"),maskTexture:A.prop("maskTexture"),drwLayer:A.prop("drwLayer"),maskHeight:A.prop("maskHeight")},offset:A.prop("offset"),count:A.prop("count")});function z(t){r=t.model,n=t.viewModel,u=n.dimensions.slice(),y=u[0]?u[0].values.length:0;var e=r.lines,i=k?e.color.map((function(t,r){return r/e.color.length})):e.color,a=function(t,e,r){for(var n=new Array(t*(o+4)),i=0,a=0;a<t;a++){for(var s=0;s<o;s++)n[i++]=s<e.length?e[s].paddedUnitValues[a]:.5;n[i++]=v(a,2),n[i++]=v(a,1),n[i++]=v(a,0),n[i++]=(c=r[a],Math.max(l,Math.min(.999999,c)))}var c;return n}(y,u,i);(function(t,e,r){for(var n=0;n<=o;n+=4)t[x(n)](m(n/4,e,r))})(C,y,a),T||k||(P=A.texture(s.extendFlat({data:g(r.unitToColor,255)},h)))}return{render:function(t,e,n){var i,a,o,s=t.length,l=1/0,f=-1/0;for(i=0;i<s;i++)t[i].dim0.canvasX<l&&(l=t[i].dim0.canvasX,a=i),t[i].dim1.canvasX>f&&(f=t[i].dim1.canvasX,o=i);0===s&&p(A,0,0,r.canvasWidth,r.canvasHeight);var h=function(t){var e,r,n,i=[[],[]];for(n=0;n<64;n++){var a=!t&&n<u.length?u[n].brush.filter.getBounds():[-1/0,1/0];i[0][n]=a[0],i[1][n]=a[1]}var o=new Array(16384);for(e=0;e<16384;e++)o[e]=255;if(!t)for(e=0;e<u.length;e++){var s=e%8,l=(e-

s)/8,f=Math.pow(2,s),h=u[e].brush.filter.get();if(!(h.length<2)){var p=_(h[0])[1];for(r=1;r<h.length;r++){var d=_(h[r]);for(n=p+1;n<d[0];n++)o[8*n+l]&=~f;p=Math.max(p,d[1])}}}var g={shape:[8,c],format:"alpha",type:"uint8",mag:"nearest",min:"nearest",data:o};return w?w(g):w=A.texture(g),{maskTexture:w,maskHeight:c,loA:i[0].slice(0,16),loB:i[0].slice(16,32),loC:i[0].slice(32,48),loD:i[0].slice(48,64),hiA:i[1].slice(0,16),hiB:i[1].slice(16,32),hiC:i[1].slice(32,48),hiD:i[1].slice(48,64)}}(T);for(i=0;i<s;i++){var g=t[i],v=g.dim0.crossfilterDimensionIndex,m=g.dim1.crossfilterDimensionIndex,x=g.canvasX,M=g.canvasY,S=x+g.panelSizeX,E=g.plotGlPixelRatio;if(e||!I[v]||I[v][0]!==x||I[v][1]!==S){I[v]=[x,S];var C=b(r,a,o,i,v,m,x,M,g.panelSizeX,g.panelSizeY,g.dim0.crossfilterDimensionIndex,T?0:k?2:1,h,E);L.clearOnly=n;var P=e?r.lines.blockLineCount:y;d(A,O,L,P,y,C)}}},readPixel:function(t,e){return A.read({x:t,y:e,width:1,height:1,data:f}),f},readPixels:function(t,e,r,n){var i=new Uint8Array(4*r*n);return A.read({x:t,y:e,width:r,height:n,data:i}),i},destroy:function(){for(var e in t.style["pointer-events"]="none",P.destroy(),w&&w.destroy(),C)C[e].destroy()},update:z}},{"../../lib":503,"./constants":893,glslify:227}],898:[function(t,e,r){"use strict";e.exports=function(t,e,r,n){var i,a;for(n||(n=1/0),i=0;i<e.length;i++)(a=e[i]).visible&&(n=Math.min(n,a[r].length));for(n===1/0&&(n=0),t._length=n,i=0;i<e.length;i++)(a=e[i]).visible&&(a._length=n);return n}},{}],899:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../lib"),a=i.numberFormat,o=t("color-rgba"),s=t("../../plots/cartesian/axes"),l=i.strRotate,c=i.strTranslate,u=t("../../lib/svg_text_utils"),f=t("../../components/drawing"),h=t("../../components/colorscale"),p=t("../../lib/gup"),d=p.keyFun,g=p.repeat,v=p.unwrap,m=t("./helpers"),y=t("./constants"),x=t("./axisbrush"),b=t("./lines");function _(t,e,r){return i.aggNums(t,null,e,r)}function w(t,e){return k(_(Math.min,t,e),_(Math.max,t,e))}function T(t){var e=t.range;return e?k(e[0],e[1]):w(t.values,t._length)}function k(t,e){return!isNaN(t)&&isFinite(t)||(t=0),!isNaN(e)&&isFinite(e)||(e=0),t===e&&(0===t?(t=1,e+=1):(t*=.9,e*=1.1)),[t,e]}function A(t,e,r,i,o){var s,l,c=T(r);return i?n.scale.ordinal().domain(i.map((s=a(r.tickformat),l=o,l?function(t,e){var r=l[e];return null==r?s(t):r}:s))).range(i.map((function(r){var n=(r-c[0])/(c[1]-c[0]);return t-e+n*(2*e-t)}))):n.scale.linear().domain(c).range([t-e,e])}function M(t){if(t.tickvals){var e=T(t);return n.scale.ordinal().domain(t.tickvals).range(t.tickvals.map((function(t){return(t-e[0])/(e[1]-e[0])})))}}function S(t){var e=t.map((function(t){return t[0]})),r=t.map((function(t){var e=o(t[1]);return n.rgb("rgb("+e[0]+","+e[1]+","+e[2]+")")})),i="rgb".split("").map((function(t){return n.scale.linear().clamp(!0).domain(e).range(r.map((i=t,function(t){return t[i]})));var i}));return function(t){return i.map((function(e){return e(t)}))}}function E(t){return t.dimensions.some((function(t){return t.brush.filterSpecified}))}function L(t,e,r){var a=v(e),s=a.trace,l=m.convertTypedArray(a.lineColor),c=s.line,u={color:o(y.deselectedLineColor)},f=h.extractOpts(c),p=f.reversescale?h.flipScale(a.cscale):a.cscale,d=s.domain,g=s.dimensions,x=t.width,b=s.labelangle,_=s.labelside,w=s.labelfont,k=s.tickfont,A=s.rangefont,M=i.extendDeepNoArrays({},c,{color:l.map(n.scale.linear().domain(T({values:l,range:[f.min,f.max],_length:s._length})))},blockLineCount:y.blockLineCount,canvasOverdrag:y.overdrag*y.canvasPixelRatio}),E=Math.floor(x*(d.x[1]-d.x[0])),L=Math.floor(t.height*(d.y[1]-d.y[0])),C=t.margin||{l:80,r:80,t:100,b:80},P=E,I=L;return{key:r,colCount:g.filter(m.isVisible).length,dimensions:g,tickDistance:y.tickDistance,unitToColor:S(p),lines:M,deselectedLines:u,labelAngle:b,labelSide:_,labelFont:w,tickFont:k,rangeFont:A,layoutWidth:x,layoutHeight:t.height,domain:d,translateX:d.x[0]*x,translateY:t.height-d.y[1]*t.height,pad:C,canvasWidth:P*y.canvasPixelRatio+2*M.canvasOverdrag,canvasHeight:I*y.canvasPixelRatio,width:P,height:I,canvasPixelRatio:y.canvasPixelRatio}}function C(t,e,r){var o=r.width,s=r.height,l=r.dimensions,c=r.canvasPixelRatio,u=function(t){return o*t/Math.max(1,r.colCount-1)},f=y.verticalPadding/s,h=function(t,e){return n.scale.linear().range([e,t-e])}(s,y.verticalPadding),p={key:r.key,xScale:u,model:r,inBrushDrag:!1},d={};return p.dimensions=l.filter(m.isVisible).map((function(o,l){var g=function(t,e){return n.scale.linear().domain(T(t)).range([e,1-e])}(o,f),v=d[o.label];d[o.label]=(v||0)+1;var

b=o.label+(v?"__"+v:""),_=o.constraintrange,w=_&&_.length;w&&!Array.isArray(_[0])&&(_=[_]);var k=w?_.map((function(t){return t.map(g)})):[[-1/0,1/0]],S=o.values;S.length>o._length&&(S=S.slice(0,o._length));var L,C=o.tickvals;function P(t,e){return{val:t,text:L[e]}}function I(t,e){return t.val-e.val}if(Array.isArray(C)&&C.length){L=o.ticktext,Array.isArray(L)&&L.length?L.length>C.length?L=L.slice(0,C.length):C.length>L.length&&(C=C.slice(0,L.length)):L=C.map(a(o.tickformat));for(var O=1;O<C.length;O++)if(C[O]<C[O-1]){for(var z=C.map(P).sort(I),D=0;D<C.length;D++)C[D]=z[D].val,L[D]=z[D].text;break}}else C=void 0;return S=m.convertTypedArray(S),{key:b,label:o.label,tickFormat:o.tickformat,tickvals:C,ticktext:L,ordinal:m.isOrdinal(o),multiselect:o.multiselect,xIndex:l,crossfilterDimensionIndex:l,visibleIndex:o._index,height:s,values:S,paddedUnitValues:S.map(g),unitTickvals:C&&C.map(g),xScale:u,x:u(l),canvasX:u(l)*c,unitToPaddedPx:h,domainScale:A(s,y.verticalPadding,o,C,L),ordinalScale:M(o),parent:p,model:r,brush:x.makeBrush(t,w,k,(function(){t.linePickActive(!1)}),(function(){var e=p;e.focusLayer&&e.focusLayer.render(e.panels,!0);var r=E(e);!t.contextShown()&&r?(e.contextLayer&&e.contextLayer.render(e.panels,!0),t.contextShown(!0)):t.contextShown()&&!r&&(e.contextLayer&&e.contextLayer.render(e.panels,!0,!0),t.contextShown(!1))})),(function(r){if(p.focusLayer.render(p.panels,!0),p.pickLayer&&p.pickLayer.render(p.panels,!0),t.linePickActive(!0),e&&e.filterChanged){var n=g.invert,a=r.map((function(t){return t.map(n).sort(i.sorterAsc)})).sort((function(t,e){return t[0]-e[0]}));e.filterChanged(p.key,o._index,a)}}))}})),p}function P(t){t.classed(y.cn.axisExtentText,!0).attr("text-anchor","middle").style("cursor","default")}function I(t,e){var r="top"===e?1:-1,n=t*Math.PI/180;return{dir:r,dx:Math.sin(n),dy:Math.cos(n),degrees:t}}function O(t,e,r){for(var n=e.panels||(e.panels=[]),i=t.data(),a=0;a<i.length-1;a++){var o=n[a]||(n[a]={}),s=i[a],l=i[a+1];o.dim0=s,o.dim1=l,o.canvasX=s.canvasX,o.panelSizeX=l.canvasX-s.canvasX,o.panelSizeY=e.model.canvasHeight,o.y=0,o.canvasY=0,o.plotGlPixelRatio=r}}function z(t,e){return s.tickText(t._ax,e,!1).text}function D(t,e){if(t.ordinal)return"";var r=t.domainScale.domain(),n=r[e?r.length-1:0];return z(t.model.dimensions[t.visibleIndex],n)}e.exports=function(t,e,r,a){var o=t._fullLayout,h=o._toppaper,p=o._glcontainer,_=t._context.plotGlPixelRatio,T=t._fullLayout.paper_bgcolor;!function(t){for(var e=0;e<t.length;e++)for(var r=0;r<t[e].length;r++)for(var n=t[e][r].trace,i=n.dimensions,a=0;a<i.length;a++){var o=i[a].values,l=i[a]._ax;l&&(l.range?l.range=k(l.range[0],l.range[1]):l.range=w(o,n._length),l.dtick||(l.dtick=.01*(Math.abs(l.range[1]-l.range[0])||1)),l.tickformat=i[a].tickformat,s.calcTicks(l),l.cleanRange())}}(e);var A,M,S=(A=!0,M=!1,{linePickActive:function(t){return arguments.length?A=!!t:A},contextShown:function(t){return arguments.length?M=!!t:M}}),R=e.filter((function(t){return v(t).trace.visible})).map(L.bind(0,r)).map(C.bind(0,S,a));p.each((function(t,e){return i.extendFlat(t,R[e])}));var F=p.selectAll(".gl-canvas").each((function(t){t.viewModel=R[0],t.viewModel.plotGlPixelRatio=_,t.viewModel.paperColor=T,t.model=t.viewModel?t.viewModel.model:null})),B=null;F.filter((function(t){return t.pick})).style("pointer-events","auto").on("mousemove",(function(t){if(S.linePickActive()&&t.lineLayer&&a&&a.hover){var e=n.event,r=this.width,i=this.height,o=n.mouse(this),s=o[0],l=o[1];if(s<0||l<0||s>=r||l>=i)return;var c=t.lineLayer.readPixel(s,i-1-l),u=0!==c[3],f=u?c[2]+256*(c[1]+256*c[0]):null,h={x:s,y:l,clientX:e.clientX,clientY:e.clientY,dataIndex:t.model.key,curveNumber:f};f!==B&&(u?a.hover(h):a.unhover&&a.unhover(h),B=f)}})),F.style("opacity",(function(t){return t.pick?0:1})),h.style("background","rgba(255, 255, 255, 0)");var N=h.selectAll("."+y.cn.parcoords).data(R,d);N.exit().remove(),N.enter().append("g").classed(y.cn.parcoords,!0).style("shape-rendering","crispEdges").style("pointer-events","none"),N.attr("transform",(function(t){return c(t.model.translateX,t.model.translateY)}));var j=N.selectAll("."+y.cn.parcoordsControlView).data(g,d);j.enter().append("g").classed(y.cn.parcoordsControlView,!0),j.attr("transform",(function(t){return c(t.model.pad.l,t.model.pad.t)}));var

U=j.selectAll("."+y.cn.yAxis).data((function(t){return t.dimensions}),d);U.enter().append("g").classed(y.cn.yAxis,!0),j.each((function(t){O(U,t,_)})),F.each((function(t){if(t.viewModel){!t.lineLayer||a?t.lineLayer=b(this,t):t.lineLayer.update(t),(t.key||0===t.key)&&(t.viewModel[t.key]=t.lineLayer);var e=!t.context||a;t.lineLayer.render(t.viewModel.panels,e)}})),U.attr("transform",(function(t){return c(t.xScale(t.xIndex),0)})),U.call(n.behavior.drag().origin((function(t){return t})).on("drag",(function(t){var e=t.parent;S.linePickActive(!1),t.x=Math.max(-y.overdrag,Math.min(t.model.width+y.overdrag,n.event.x)),t.canvasX=t.x*t.model.canvasPixelRatio,U.sort((function(t,e){return t.x-e.x})).each((function(e,r){e.xIndex=r,e.x=t===e?e.x:e.xScale(e.xIndex),e.canvasX=e.x*e.model.canvasPixelRatio})),O(U,e,_),U.filter((function(e){return 0!==Math.abs(t.xIndex-e.xIndex)})).attr("transform",(function(t){return c(t.xScale(t.xIndex),0)})),n.select(this).attr("transform",c(t.x,0)),U.each((function(r,n,i){i===t.parent.key&&(e.dimensions[n]=r)})),e.contextLayer&&e.contextLayer.render(e.panels,!1,!E(e)),e.focusLayer.render&&e.focusLayer.render(e.panels)})).on("dragend",(function(t){var e=t.parent;t.x=t.xScale(t.xIndex),t.canvasX=t.x*t.model.canvasPixelRatio,O(U,e,_),n.select(this).attr("transform",(function(t){return c(t.x,0)})),e.contextLayer&&e.contextLayer.render(e.panels,!1,!E(e)),e.focusLayer&&e.focusLayer.render(e.panels),e.pickLayer&&e.pickLayer.render(e.panels,!0),S.linePickActive(!0),a&&a.axesMoved&&a.axesMoved(e.key,e.dimensions.map((function(t){return t.crossfilterDimensionIndex})))}))),U.exit().remove();var V=U.selectAll("."+y.cn.axisOverlays).data(g,d);V.enter().append("g").classed(y.cn.axisOverlays,!0),V.selectAll("."+y.cn.axis).remove();var q=V.selectAll("."+y.cn.axis).data(g,d);q.enter().append("g").classed(y.cn.axis,!0),q.each((function(t){var e=t.model.height/t.model.tickDistance,r=t.domainScale,i=r.domain();n.select(this).call(n.svg.axis().orient("left").tickSize(4).outerTickSize(2).ticks(e,t.tickFormat).tickValues(t.ordinal?i:null).tickFormat((function(e){return m.isOrdinal(t)?e:z(t.model.dimensions[t.visibleIndex],e)})).scale(r)),f.font(q.selectAll("text"),t.model.tickFont)})),q.selectAll(".domain, .tick>line").attr("fill","none").attr("stroke","black").attr("stroke-opacity",.25).attr("stroke-width","1px"),q.selectAll("text").style("text-shadow",u.makeTextShadow(T)).style("cursor","default");var H=V.selectAll("."+y.cn.axisHeading).data(g,d);H.enter().append("g").classed(y.cn.axisHeading,!0);var G=H.selectAll("."+y.cn.axisTitle).data(g,d);G.enter().append("text").classed(y.cn.axisTitle,!0).attr("text-anchor","middle").style("cursor","ew-resize").style("pointer-events","auto"),G.text((function(t){return t.label})).each((function(e){var r=n.select(this);f.font(r,e.model.labelFont),u.convertToTspans(r,t)})).attr("transform",(function(t){var e=I(t.model.labelAngle,t.model.labelSide),r=y.axisTitleOffset;return(e.dir>0?"":c(0,2*r+t.model.height))+l(e.degrees)+c(-r*e.dx,-r*e.dy)})).attr("text-anchor",(function(t){var e=I(t.model.labelAngle,t.model.labelSide);return 2*Math.abs(e.dx)>Math.abs(e.dy)?e.dir*e.dx<0?"start":"end":"middle"}));var Y=V.selectAll("."+y.cn.axisExtent).data(g,d);Y.enter().append("g").classed(y.cn.axisExtent,!0);var W=Y.selectAll("."+y.cn.axisExtentTop).data(g,d);W.enter().append("g").classed(y.cn.axisExtentTop,!0),W.attr("transform",c(0,-y.axisExtentOffset));var X=W.selectAll("."+y.cn.axisExtentTopText).data(g,d);X.enter().append("text").classed(y.cn.axisExtentTopText,!0).call(P),X.text((function(t){return D(t,!0)})).each((function(t){f.font(n.select(this),t.model.rangeFont)}));var Z=Y.selectAll("."+y.cn.axisExtentBottom).data(g,d);Z.enter().append("g").classed(y.cn.axisExtentBottom,!0),Z.attr("transform",(function(t){return c(0,t.model.height+y.axisExtentOffset)}));var J=Z.selectAll("."+y.cn.axisExtentBottomText).data(g,d);J.enter().append("text").classed(y.cn.axisExtentBottomText,!0).attr("dy","0.75em").call(P),J.text((function(t){return D(t,!1)})).each((function(t){f.font(n.select(this),t.model.rangeFont)})),x.ensureAxisBrush(V,T)}},{"../../components/colorscale":378,"../../components/drawing":388,"../../lib":503,"../../lib/gup":500,"../../lib/svg_text_utils":529,"../../plots/cartesian/axes":554,"./axisbrush":889,"./constants":893,"./helpers":895,"./lines":897,"@plotly/d3":58,"color-rgba":91}],900:[function(t,e,r){"use strict";var n=t("./parcoords"),i=t("../../lib/prepare_regl"),a=t("./helpers").isVisible,o={};function s(t,e,r){var

n=e.indexOf(r),i=t.indexOf(n);return-1===i&&(i+=e.length),i}(e.exports=function(t,e){var r=t._fullLayout;if(i(t,[],o)){var l={},c={},u={},f={},h=r._size;e.forEach((function(e,r){var n=e[0].trace;u[r]=n.index;var i=f[r]=n._fullInput.index;l[r]=t.data[i].dimensions,c[r]=t.data[i].dimensions.slice()})),n(t,e,{width:h.w,height:h.h,margin:{t:h.t,r:h.r,b:h.b,l:h.l}},{filterChanged:function(e,n,i){var a=c[e][n],o=i.map((function(t){return t.slice()})),s="dimensions["+n+"].constraintrange",l=r._tracePreGUI[t._fullData[u[e]]._fullInput.uid];if(void 0===l[s]){var h=a.constraintrange;l[s]=h||null}var p=t._fullData[u[e]].dimensions[n];o.length?(1===o.length&&(o=o[0]),a.constraintrange=o,p.constraintrange=o.slice(),o=[o]):(delete a.constraintrange,delete p.constraintrange,o=null);var d={};d[s]=o,t.emit("plotly_restyle",[d,[f[e]]])},hover:function(e){t.emit("plotly_hover",e)},unhover:function(e){t.emit("plotly_unhover",e)},axesMoved:function(e,r){var n=function(t,e){return function(r,n){return s(t,e,r)-s(t,e,n)}}(r,c[e].filter(a));l[e].sort(n),c[e].filter((function(t){return!a(t)})).sort((function(t){return c[e].indexOf(t)})).forEach((function(t){l[e].splice(l[e].indexOf(t),1),l[e].splice(c[e].indexOf(t),0,t)})),t.emit("plotly_restyle",[{dimensions:[l[e]]},[f[e]]])}})})).reglPrecompiled=o},{"../../lib/prepare_regl":516,"./helpers":895,"./parcoords":899}],901:[function(t,e,r){"use strict";var n=t("../../plots/attributes"),i=t("../../plots/domain").attributes,a=t("../../plots/font_attributes"),o=t("../../components/color/attributes"),s=t("../../plots/template_attributes").hovertemplateAttrs,l=t("../../plots/template_attributes").texttemplateAttrs,c=t("../../lib/extend").extendFlat,u=a({editType:"plot",arrayOk:!0,colorEditType:"plot"});e.exports={labels:{valType:"data_array",editType:"calc"},label0:{valType:"number",dflt:0,editType:"calc"},dlabel:{valType:"number",dflt:1,editType:"calc"},values:{valType:"data_array",editType:"calc"},marker:{colors:{valType:"data_array",editType:"calc"},line:{color:{valType:"color",dflt:o.defaultLine,arrayOk:!0,editType:"style"},width:{valType:"number",min:0,dflt:0,arrayOk:!0,editType:"style"},editType:"calc"},editType:"calc"},text:{valType:"data_array",editType:"plot"},hovertext:{valType:"string",dflt:"",arrayOk:!0,editType:"style"},scalegroup:{valType:"string",dflt:"",editType:"calc"},textinfo:{valType:"flaglist",flags:["label","text","value","percent"],extras:["none"],editType:"calc"},hoverinfo:c({},n.hoverinfo,{flags:["label","text","value","percent","name"]}),hovertemplate:s({},{keys:["label","color","value","percent","text"]}),texttemplate:l({editType:"plot"},{keys:["label","color","value","percent","text"]}),textposition:{valType:"enumerated",values:["inside","outside","auto","none"],dflt:"auto",arrayOk:!0,editType:"plot"},textfont:c({},u,{}),insidetextorientation:{valType:"enumerated",values:["horizontal","radial","tangential","auto"],dflt:"auto",editType:"plot"},insidetextfont:c({},u,{}),outsidetextfont:c({},u,{}),automargin:{valType:"boolean",dflt:!1,editType:"plot"},title:{text:{valType:"string",dflt:"",editType:"plot"},font:c({},u,{}),position:{valType:"enumerated",values:["top left","top center","top right","middle center","bottom left","bottom center","bottom right"],editType:"plot"},editType:"plot"},domain:i({name:"pie",trace:!0,editType:"calc"}),hole:{valType:"number",min:0,max:1,dflt:0,editType:"calc"},sort:{valType:"boolean",dflt:!0,editType:"calc"},direction:{valType:"enumerated",values:["clockwise","counterclockwise"],dflt:"counterclockwise",editType:"calc"},rotation:{valType:"number",min:-360,max:360,dflt:0,editType:"calc"},pull:{valType:"number",min:0,max:1,dflt:0,arrayOk:!0,editType:"calc"},_deprecated:{title:{valType:"string",dflt:"",editType:"calc"},titlefont:c({},u,{}),titleposition:{valType:"enumerated",values:["top left","top center","top right","middle center","bottom left","bottom center","bottom right"],editType:"calc"}}}},{"../../components/color/attributes":365,"../../lib/extend":493,"../../plots/attributes":550,"../../plots/domain":584,"../../plots/font_attributes":585,"../../plots/template_attributes":633}],902:[function(t,e,r){"use strict";var n=t("../../plots/plots");r.name="pie",r.plot=function(t,e,i,a){n.plotBasePlot(r.name,t,e,i,a)},r.clean=function(t,e,i,a){n.cleanBasePlot(r.name,t,e,i,a)}},{"../../plots/plots":619}],903:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("tinycolor2"),a=t("../../components/color"),o={};function s(t){return function(e,r){return!!e&&!!(e=i(e)).isValid()&&(e=a.addOpacity(e,e.getAlpha()),t[r]||(t[r]=e),e)}}function l(t,e){var r,n=JSON.stringify(t),a=e[n];if(!a){for(a=t.slice(),r=0;r<t.length;r++)a.push(i(t[r]).lighten(20).toHexString());for(r=0;r<t.length;r++)a.push(i(t[r]).darken(20).toHexString());e[n]=a}return a}e.exports={calc:function(t,e){var

r,i,a=[],o=t._fullLayout,l=o.hiddenlabels||[],c=e.labels,u=e.marker.colors||[],f=e.values,h=e._length,p=e._hasValues&&h;if(e.dlabel)for(c=new Array(h),r=0;r<h;r++)c[r]=String(e.label0+r*e.dlabel);var d={},g=s(o["_"+e.type+"colormap"]),v=0,m=!1;for(r=0;r<h;r++){var y,x,b;if(p){if(y=f[r],!n(y))continue;y=+y}else y=1;void 0!==(x=c[r])&&""!==x||(x=r);var _=d[x=String(x)];void 0===_?(d[x]=a.length,(b=-1!==l.indexOf(x))||(v+=y),a.push({v:y,label:x,color:g(u[r],x),i:r,pts:[r],hidden:b})):(m=!0,(i=a[_]).v+=y,i.pts.push(r),i.hidden||(v+=y),!1===i.color&&u[r]&&(i.color=g(u[r],x)))}return a=a.filter((function(t){return t.v>=0})),("funnelarea"===e.type?m:e.sort)&&a.sort((function(t,e){return e.v-t.v})),a[0]&&(a[0].vTotal=v),a},crossTraceCalc:function(t,e){var r=(e||{}).type;r||(r="pie");var n=t._fullLayout,i=t.calcdata,a=n[r+"colorway"],s=n["_"+r+"colormap"];n["extend"+r+"colors"]&&(a=l(a,o));for(var c=0,u=0;u<i.length;u++){var f=i[u];if(f[0].trace.type===r)for(var h=0;h<f.length;h++){var p=f[h];!1===p.color&&(s[p.label]?p.color=s[p.label]:(s[p.label]=p.color=a[c%a.length],c++))}}},makePullColorFn:s,generateExtendedColors:l}},{"../../components/color":366,"fast-isnumeric":190,tinycolor2:312}],904:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib"),a=t("./attributes"),o=t("../../plots/domain").defaults,s=t("../bar/defaults").handleText;function l(t,e){var r=Array.isArray(t),a=i.isArrayOrTypedArray(e),o=Math.min(r?t.length:1/0,a?e.length:1/0);if(isFinite(o)||(o=0),o&&a){for(var s,l=0;l<o;l++){var c=e[l];if(n(c)&&c>0){s=!0;break}}s||(o=0)}return{hasLabels:r,hasValues:a,len:o}}e.exports={handleLabelsAndValues:l,supplyDefaults:function(t,e,r,n){function c(r,n){return i.coerce(t,e,a,r,n)}var u=l(c("labels"),c("values")),f=u.len;if(e._hasLabels=u.hasLabels,e._hasValues=u.hasValues,!e._hasLabels&&e._hasValues&&(c("label0"),c("dlabel")),f){e._length=f,c("marker.line.width")&&c("marker.line.color"),c("marker.colors"),c("scalegroup");var h,p=c("text"),d=c("texttemplate");if(d||(h=c("textinfo",Array.isArray(p)?"text+percent":"percent")),c("hovertext"),c("hovertemplate"),d||h&&"none"!==h){var g=c("textposition");s(t,e,n,c,g,{moduleHasSelected:!1,moduleHasUnselected:!1,moduleHasConstrain:!1,moduleHasCliponaxis:!1,moduleHasTextangle:!1,moduleHasInsideanchor:!1}),(Array.isArray(g)||"auto"===g||"outside"===g)&&c("automargin"),("inside"===g||"auto"===g||Array.isArray(g))&&c("insidetextorientation")}o(e,n,c);var v=c("hole");if(c("title.text")){var m=c("title.position",v?"middle center":"top center");v||"middle center"!==m||(e.title.position="top center"),i.coerceFont(c,"title.font",n.font)}c("sort"),c("direction"),c("rotation"),c("pull")}else e.visible=!1}}},{"../../lib":503,"../../plots/domain":584,"../bar/defaults":652,"./attributes":901,"fast-isnumeric":190}],905:[function(t,e,r){"use strict";var n=t("../../components/fx/helpers").appendArrayMultiPointValues;e.exports=function(t,e){var r={curveNumber:e.index,pointNumbers:t.pts,data:e._input,fullData:e,label:t.label,color:t.color,value:t.v,percent:t.percent,text:t.text,bbox:t.bbox,v:t.v};return 1===t.pts.length&&(r.pointNumber=r.i=t.pts[0]),n(r,e,t.pts),"funnelarea"===e.type&&(delete r.v,delete r.i),r}},{"../../components/fx/helpers":402}],906:[function(t,e,r){"use strict";var n=t("../../lib");function i(t){return-1!==t.indexOf("e")?t.replace(/[.]?0+e/,"e"):-1!==t.indexOf(".")?t.replace(/[.]?0+$/,""):t}r.formatPiePercent=function(t,e){var r=i((100*t).toPrecision(3));return n.numSeparate(r,e)+"%"},r.formatPieValue=function(t,e){var r=i(t.toPrecision(10));return n.numSeparate(r,e)},r.getFirstFilled=function(t,e){if(Array.isArray(t))for(var r=0;r<e.length;r++){var n=t[e[r]];if(n||0===n||""===n)return n}},r.castOption=function(t,e){return Array.isArray(t)?r.getFirstFilled(t,e):t||void 0},r.getRotationAngle=function(t){return("auto"===t?0:t)*Math.PI/180}},{"../../lib":503}],907:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults").supplyDefaults,supplyLayoutDefaults:t("./layout_defaults"),layoutAttributes:t("./layout_attributes"),calc:t("./calc").calc,crossTraceCalc:t("./calc").crossTraceCalc,plot:t("./plot").plot,style:t("./style"),styleOne:t("./style_one"),moduleType:"trace",name:"pie",basePlotModule:t("./base_plot"),categories:["pie-

like","pie","showLegend"],meta:{}}},{"./attributes":901,"./base_plot":902,"./calc":903,"./defaults":904,"./layout_attributes":908,"./layout_defaults":909,"./plot":910,"./style":911,"./style_one":912}],908:[function(t,e,r){"use strict";e.exports={hiddenlabels:{valType:"data_array",editType:"calc"},piecolorway:{valType:"colorlist",editType:"calc"},extendpiecolors:{valType:"boolean",dflt:!0,editType:"calc"}}},{}],909:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./layout_attributes");e.exports=function(t,e){function r(r,a){return n.coerce(t,e,i,r,a)}r("hiddenlabels"),r("piecolorway",e.colorway),r("extendpiecolors")}},{"../../lib":503,"./layout_attributes":908}],910:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../plots/plots"),a=t("../../components/fx"),o=t("../../components/color"),s=t("../../components/drawing"),l=t("../../lib"),c=l.strScale,u=l.strTranslate,f=t("../../lib/svg_text_utils"),h=t("../bar/uniform_text"),p=h.recordMinTextSize,d=h.clearMinTextSize,g=t("../bar/constants").TEXTPAD,v=t("./helpers"),m=t("./event_data"),y=t("../../lib").isValidTextValue;function x(t,e,r){var i=r[0],o=i.cx,s=i.cy,c=i.trace,u="funnelarea"===c.type;"_hasHoverLabel"in c||(c._hasHoverLabel=!1),"_hasHoverEvent"in c||(c._hasHoverEvent=!1),t.on("mouseover",(function(t){var r=e._fullLayout,f=e._fullData[c.index];if(!e._dragging&&!1!==r.hovermode){var h=f.hoverinfo;if(Array.isArray(h)&&(h=a.castHoverinfo({hoverinfo:[v.castOption(h,t.pts)],_module:c._module},r,0)),"all"===h&&(h="label+text+value+percent+name"),f.hovertemplate||"none"!==h&&"skip"!==h&&h){var p=t.rInscribed||0,d=o+t.pxmid[0]*(1-p),g=s+t.pxmid[1]*(1-p),y=r.separators,x=[];if(h&&-1!==h.indexOf("label")&&x.push(t.label),t.text=v.castOption(f.hovertext||f.text,t.pts),h&&-1!==h.indexOf("text")){var b=t.text;l.isValidTextValue(b)&&x.push(b)}t.value=t.v,t.valueLabel=v.formatPieValue(t.v,y),h&&-1!==h.indexOf("value")&&x.push(t.valueLabel),t.percent=t.v/i.vTotal,t.percentLabel=v.formatPiePercent(t.percent,y),h&&-1!==h.indexOf("percent")&&x.push(t.percentLabel);var _=f.hoverlabel,w=_.font,T=[];a.loneHover({trace:c,x0:d-p*i.r,x1:d+p*i.r,y:g,_x0:u?o+t.TL[0]:d-p*i.r,_x1:u?o+t.TR[0]:d+p*i.r,_y0:u?s+t.TL[1]:g-p*i.r,_y1:u?s+t.BL[1]:g+p*i.r,text:x.join("<br>"),name:f.hovertemplate||-1!==h.indexOf("name")?f.name:void 0,idealAlign:t.pxmid[0]<0?"left":"right",color:v.castOption(_.bgcolor,t.pts)||t.color,borderColor:v.castOption(_.bordercolor,t.pts),fontFamily:v.castOption(w.family,t.pts),fontSize:v.castOption(w.size,t.pts),fontColor:v.castOption(w.color,t.pts),nameLength:v.castOption(_.namelength,t.pts),textAlign:v.castOption(_.align,t.pts),hovertemplate:v.castOption(f.hovertemplate,t.pts),hovertemplateLabels:t,eventData:[m(t,f)]},{container:r._hoverlayer.node(),outerContainer:r._paper.node(),gd:e,inOut_bbox:T}),t.bbox=T[0],c._hasHoverLabel=!0}c._hasHoverEvent=!0,e.emit("plotly_hover",{points:[m(t,f)],event:n.event})}})),t.on("mouseout",(function(t){var r=e._fullLayout,i=e._fullData[c.index],o=n.select(this).datum();c._hasHoverEvent&&(t.originalEvent=n.event,e.emit("plotly_unhover",{points:[m(o,i)],event:n.event}),c._hasHoverEvent=!1),c._hasHoverLabel&&(a.loneUnhover(r._hoverlayer.node()),c._hasHoverLabel=!1)})),t.on("click",(function(t){var r=e._fullLayout,i=e._fullData[c.index];e._dragging||!1===r.hovermode||(e._hoverdata=[m(t,i)],a.click(e,n.event))}))}function b(t,e,r){var n=v.castOption(t.insidetextfont.color,e.pts);!n&&t._input.textfont&&(n=v.castOption(t._input.textfont.color,e.pts));var i=v.castOption(t.insidetextfont.family,e.pts)||v.castOption(t.textfont.family,e.pts)||r.family,a=v.castOption(t.insidetextfont.size,e.pts)||v.castOption(t.textfont.size,e.pts)||r.size;return{color:n||o.contrast(e.color),family:i,size:a}}function _(t,e){for(var r,n,i=0;i<t.length;i++)if((n=(r=t[i][0]).trace).title.text){var a=n.title.text;n._meta&&(a=l.templateString(a,n._meta));var o=s.tester.append("text").attr("data-notex",1).text(a).call(s.font,n.title.font).call(f.convertToTspans,e),c=s.bBox(o.node(),!0);r.titleBox={width:c.width,height:c.height},o.remove()}}function w(t,e,r){var n=r.r||e.rpx1,i=e.rInscribed;if(e.startangle===e.stopangle)return{rCenter:1-i,scale:0,rotate:0,textPosAngle:0};var a,o=e.ring,s=1===o&&Math.abs(e.startangle-e.stopangle)===2*Math.PI,l=e.halfangle,c=e.midangle,u=r.trace.insidetextorientation,f="horizontal"===u,h="tangential"===u,p="radial"===u,d="auto"===u,g=[];if(!d){var v,m=function(r,i){if(function(t,e){var

r=t.startangle,n=t.stopangle;return r>e&&e>n||r<e&&e<n}(e,r)){var s=Math.abs(r-e.startangle),l=Math.abs(r-e.stopangle),c=s<l?s:l;(a="tan"===i?k(t,n,o,c,0):T(t,n,o,c,Math.PI/2)).textPosAngle=r,g.push(a)}};if(f||h){for(v=4;v>=-4;v-=2)m(Math.PI*v,"tan");for(v=4;v>=-4;v-=2)m(Math.PI*(v+1),"tan")}if(f||p){for(v=4;v>=-4;v-=2)m(Math.PI*(v+1.5),"rad");for(v=4;v>=-4;v-=2)m(Math.PI*(v+.5),"rad")}}if(s||d||f){var y=Math.sqrt(t.width*t.width+t.height*t.height);if((a={scale:i*n*2/y,rCenter:1-i,rotate:0}).textPosAngle=(e.startangle+e.stopangle)/2,a.scale>=1)return a;g.push(a)}(d||p)&&((a=T(t,n,o,l,c)).textPosAngle=(e.startangle+e.stopangle)/2,g.push(a)),(d||h)&&((a=k(t,n,o,l,c)).textPosAngle=(e.startangle+e.stopangle)/2,g.push(a));for(var x=0,b=0,_=0;_<g.length;_++){var w=g[_].scale;if(b<w&&(b=w,x=_),!d&&b>=1)break}return g[x]}function T(t,e,r,n,i){e=Math.max(0,e-2*g);var a=t.width/t.height,o=S(a,n,e,r);return{scale:2*o/t.height,rCenter:A(a,o/e),rotate:M(i)}}function k(t,e,r,n,i){e=Math.max(0,e-2*g);var a=t.height/t.width,o=S(a,n,e,r);return{scale:2*o/t.width,rCenter:A(a,o/e),rotate:M(i+Math.PI/2)}}function A(t,e){return Math.cos(e)-t*e}function M(t){return(180/Math.PI*t+720)%180-90}function S(t,e,r,n){var i=t+1/(2*Math.tan(e));return r*Math.min(1/(Math.sqrt(i*i+.5)+i),n/(Math.sqrt(t*t+n/2)+t))}function E(t,e){return t.v!==e.vTotal||e.trace.hole?Math.min(1/(1+1/Math.sin(t.halfangle)),t.ring/2):1}function L(t,e){var r=e.pxmid[0],n=e.pxmid[1],i=t.width/2,a=t.height/2;return r<0&&(i*=-1),n<0&&(a*=-1),{scale:1,rCenter:1,rotate:0,x:i+Math.abs(a)*(i>0?1:-1)/2,y:a/(1+r*r/(n*n)),outside:!0}}function C(t,e){var r,n,i,a=t.trace,o={x:t.cx,y:t.cy},s={tx:0,ty:0};s.ty+=a.title.font.size,r=I(a),-1!==a.title.position.indexOf("top")?(o.y-=(1+r)*t.r,s.ty-=t.titleBox.height):-1!==a.title.position.indexOf("bottom")&&(o.y+=(1+r)*t.r);var l,c,u=(l=t.r,c=t.trace.aspectratio,l/(void 0===c?1:c)),f=e.w*(a.domain.x[1]-a.domain.x[0])/2;return-1!==a.title.position.indexOf("left")?(f+=u,o.x-=(1+r)*u,s.tx+=t.titleBox.width/2):-1!==a.title.position.indexOf("center")?f*=2:-1!==a.title.position.indexOf("right")&&(f+=u,o.x+=(1+r)*u,s.tx-=t.titleBox.width/2),n=f/t.titleBox.width,i=P(t,e)/t.titleBox.height,{x:o.x,y:o.y,scale:Math.min(n,i),tx:s.tx,ty:s.ty}}function P(t,e){var r=t.trace,n=e.h*(r.domain.y[1]-r.domain.y[0]);return Math.min(t.titleBox.height,n/2)}function I(t){var e,r=t.pull;if(!r)return 0;if(Array.isArray(r))for(r=0,e=0;e<t.pull.length;e++)t.pull[e]>r&&(r=t.pull[e]);return r}function O(t,e){for(var r=[],n=0;n<t.length;n++){var i=t[n][0],a=i.trace,o=a.domain,s=e.w*(o.x[1]-o.x[0]),l=e.h*(o.y[1]-o.y[0]);a.title.text&&"middle center"!==a.title.position&&(l-=P(i,e));var c=s/2,u=l/2;"funnelarea"!==a.type||a.scalegroup||(u/=a.aspectratio),i.r=Math.min(c,u)/(1+I(a)),i.cx=e.l+e.w*(a.domain.x[1]+a.domain.x[0])/2,i.cy=e.t+e.h*(1-a.domain.y[0])-l/2,a.title.text&&-1!==a.title.position.indexOf("bottom")&&(i.cy-=P(i,e)),a.scalegroup&&-1===r.indexOf(a.scalegroup)&&r.push(a.scalegroup)}!function(t,e){for(var r,n,i,a=0;a<e.length;a++){var o=1/0,s=e[a];for(n=0;n<t.length;n++)if((i=(r=t[n][0]).trace).scalegroup===s){var l;if("pie"===i.type)l=r.r*r.r;else if("funnelarea"===i.type){var c,u;i.aspectratio>1?u=(c=r.r)/i.aspectratio:c=(u=r.r)*i.aspectratio,l=(c*=(1+i.baseratio)/2)*u}o=Math.min(o,l/r.vTotal)}for(n=0;n<t.length;n++)if((i=(r=t[n][0]).trace).scalegroup===s){var f=o*r.vTotal;"funnelarea"===i.type&&(f/=(1+i.baseratio)/2,f/=i.aspectratio),r.r=Math.sqrt(f)}}}(t,r)}function z(t,e){return[t*Math.sin(e),-t*Math.cos(e)]}function D(t,e,r){var n=t._fullLayout,i=r.trace,a=i.texttemplate,o=i.textinfo;if(!a&&o&&"none"!==o){var s,c=o.split("+"),u=function(t){return-1!==c.indexOf(t)},f=u("label"),h=u("text"),p=u("value"),d=u("percent"),g=n.separators;if(s=f?[e.label]:[],h){var m=v.getFirstFilled(i.text,e.pts);y(m)&&s.push(m)}p&&s.push(v.formatPieValue(e.v,g)),d&&s.push(v.formatPiePercent(e.v/r.vTotal,g)),e.text=s.join("<br>")}if(a){var x=l.castOption(i,e.i,"texttemplate");if(x){var b=function(t){return{label:t.label,value:t.v,valueLabel:v.formatPieValue(t.v,n.separators),percent:t.v/r.vTotal,percentLabel:v.formatPiePercent(t.v/r.vTotal,n.separators),color:t.color,text:t.text,customdata:l.castOption(i,t.i,"customdata")}}(e),_=v.getFirstFilled(i.text,e.pts);(y(_)||""===_)&&(b.text=_),e.text=l.texttemplateString(x,b,t._fullLayout._d3locale,b,i._meta||{})}else e.text=""}}function R(t,e){var r=t.rotate*Math.PI/180,n=Math.cos(r),i=Math.sin(r),a=(e.left+e.right)/2,o=(e.top+e.bottom)/2;t.textX=a*n-o*i,t.textY=a*i+o*n,t.noCenter=!0}e.exports={plot:function(t,e){var

r=t._fullLayout,a=r._size;d("pie",r),_(e,t),O(e,a);var
h=l.makeTraceGroups(r._pielayer,e,"trace").each((function(e){var h=n.select(this),d=e[0],g=d.trace;(function(t){var
e,r,n,i=t[0],a=i.r,o=i.trace,s=v.getRotationAngle(o.rotation),l=2*Math.PI/i.vTotal,c="px0",u="px1";if("counterclock
wise"===o.direction){for(e=0;e<t.length&&t[e].hidden;e++);if(e===t.length)return;s+=l*t[e].v,l*=-
1,c="px1",u="px0"}for(n=z(a,s),e=0;e<t.length;e++)(r=t[e]).hidden||(r[c]=n,r.startangle=s,s+=l*r.v/2,r.pxmid=z(a,s)
,r.midangle=s,n=z(a,s+=l*r.v/2),r.stopangle=s,r[u]=n,r.largeArc=r.v>i.vTotal/2?1:0,r.halfangle=Math.PI*Math.min(
r.v/i.vTotal,.5),r.ring=1-o.hole,r.rInscribed=E(r,i))})(e),h.attr("stroke-linejoin","round"),h.each((function(){var
m=n.select(this).selectAll("g.slice").data(e);m.enter().append("g").classed("slice",!0),m.exit().remove();var
y=[[[],[]],[[],[]]],_=!1;m.each((function(i,a){if(i.hidden)n.select(this).selectAll("path,g").remove();else{i.pointNumb
er=i.i,i.curveNumber=g.index,y[i.pxmid[1]<0?0:1][i.pxmid[0]<0?0:1].push(i);var
o=d.cx,c=d.cy,u=n.select(this),h=u.selectAll("path.surface").data([i]);if(h.enter().append("path").classed("surface",!
0).style({"pointer-events":"all"}),u.call(x,t,e),g.pull){var
m=+v.castOption(g.pull,i.pts)||0;m>0&&(o+=m*i.pxmid[0],c+=m*i.pxmid[1])}i.cxFinal=o,i.cyFinal=c;var
T=g.hole;if(i.v===d.vTotal){var
k="M"+(o+i.px0[0])+","+(c+i.px0[1])+C(i.px0,i.pxmid,!0,1)+C(i.pxmid,i.px0,!0,1)+"Z";T?h.attr("d","M"+(o+T*i.p
x0[0])+","+(c+T*i.px0[1])+C(i.px0,i.pxmid,!1,T)+C(i.pxmid,i.px0,!1,T)+"Z"+k):h.attr("d",k)}else{var
A=C(i.px0,i.px1,!0,1);if(T){var M=1-
T;h.attr("d","M"+(o+T*i.px1[0])+","+(c+T*i.px1[1])+C(i.px1,i.px0,!1,T)+"l"+M*i.px0[0]+","+M*i.px0[1]+A+"Z")
}else h.attr("d","M"+o+","+c+"l"+i.px0[0]+","+i.px0[1]+A+"Z")}D(t,i,d);var
S=v.castOption(g.textposition,i.pts),E=u.selectAll("g.slicetext").data(i.text&&"none"!==S?[0]:[]);E.enter().append("
g").classed("slicetext",!0),E.exit().remove(),E.each((function(){var
u=l.ensureSingle(n.select(this),"text","",(function(t){t.attr("data-
notex",1)})),h=l.ensureUniformFontSize(t,"outside"===S?function(t,e,r){return{color:v.castOption(t.outsidetextfont
.color,e.pts)||v.castOption(t.textfont.color,e.pts)||r.color,family:v.castOption(t.outsidetextfont.family,e.pts)||v.castOpt
ion(t.textfont.family,e.pts)||r.family,size:v.castOption(t.outsidetextfont.size,e.pts)||v.castOption(t.textfont.size,e.pts)||
r.size}}(g,i,r.font):b(g,i,r.font));u.text(i.text).attr({class:"slicetext",transform:"","text-
anchor":"middle"}).call(s.font,h).call(f.convertToTspans,t);var
m,y=s.bBox(u.node());if("outside"===S)m=L(y,i);else if(m=w(y,i,d),"auto"===S&&m.scale<1){var
x=l.ensureUniformFontSize(t,g.outsidetextfont);u.call(s.font,x),m=L(y=s.bBox(u.node()),i)}var
T=m.textPosAngle,k=void
0===T?i.pxmid:z(d.r,T);if(m.targetX=o+k[0]*m.rCenter+(m.x||0),m.targetY=c+k[1]*m.rCenter+(m.y||0),R(m,y),m.
outside){var A=m.targetY;i.yLabelMin=A-
y.height/2,i.yLabelMid=A,i.yLabelMax=A+y.height/2,i.labelExtraX=0,i.labelExtraY=0,_=!0}m.fontSize=h.size,p(g
.type,m,r),e[a].transform=m,u.attr("transform",l.getTextTransform(m))}))}function C(t,e,r,n){var a=n*(e[0]-
t[0]),o=n*(e[1]-t[1]);return"a"+n*d.r+","+n*d.r+" 0 "+i.largeArc+(r?" 1 ":" 0 ")+a+","+o}}));var
T=n.select(this).selectAll("g.titletext").data(g.title.text?[0]:[]);if(T.enter().append("g").classed("titletext",!0),T.exit().
remove(),T.each((function(){var e,r=l.ensureSingle(n.select(this),"text","",(function(t){t.attr("data-
notex",1)})),i=g.title.text;g._meta&&(i=l.templateString(i,g._meta)),r.text(i).attr({class:"titletext",transform:"","text
-anchor":"middle"}).call(s.font,g.title.font).call(f.convertToTspans,t),e="middle
center"===g.title.position?function(t){var
e=Math.sqrt(t.titleBox.width*t.titleBox.width+t.titleBox.height*t.titleBox.height);return{x:t.cx,y:t.cy,scale:t.trace.h
ole*t.r*2/e,tx:0,ty:-
t.titleBox.height/2+t.trace.title.font.size}}(d):C(d,a),r.attr("transform",u(e.x,e.y)+c(Math.min(1,e.scale))+u(e.tx,e.ty)
)})),_&&function(t,e){var r,n,i,a,o,s,l,c,u,f,h,p,d;function g(t,e){return t.pxmid[1]-e.pxmid[1]}function m(t,e){return
e.pxmid[1]-t.pxmid[1]}function y(t,r){r||(r={});var
i,c,u,h,p=r.labelExtraY+(n?r.yLabelMax:r.yLabelMin),d=n?t.yLabelMin:t.yLabelMax,g=n?t.yLabelMax:t.yLabelMi
n,m=t.cyFinal+o(t.px0[1],t.px1[1]),y=p-
d;if(y*l>0&&(t.labelExtraY=y),Array.isArray(e.pull))for(c=0;c<f.length;c++)(u=f[c])===t||(v.castOption(e.pull,t.pt

s)||0)>=(v.castOption(e.pull,u.pts)||0)||((t.pxmid[1]-u.pxmid[1])*l>0?(y=u.cyFinal+o(u.px0[1],u.px1[1])-d-t.labelExtraY)*l>0&&(t.labelExtraY+=y):(g+t.labelExtraY-m)*l>0&&(i=3*s*Math.abs(c-f.indexOf(t)),(h=u.cxFinal+a(u.px0[0],u.px1[0])+i-(t.cxFinal+t.pxmid[0])-t.labelExtraX)*s>0&&(t.labelExtraX+=h)))}for(n=0;n<2;n++)for(i=n?g:m,o=n?Math.max:Math.min,l=n?1:-1,r=0;r<2;r++){for(a=r?Math.max:Math.min,s=r?1:-1,(c=t[n][r]).sort(i),u=t[1-n][r],f=u.concat(c),p=[],h=0;h<c.length;h++)void 0!==c[h].yLabelMid&&p.push(c[h]);for(d=!1,h=0;n&&h<u.length;h++)if(void 0!==u[h].yLabelMid){d=u[h];break}for(h=0;h<p.length;h++){var x=h&&p[h-1];d&&!h&&(x=d),y(p[h],x)}}}(y,g),function(t,e){t.each((function(t){var r=n.select(this);if(t.labelExtraX||t.labelExtraY){var i=r.select("g.slicetext text");t.transform.targetX+=t.labelExtraX,t.transform.targetY+=t.labelExtraY,i.attr("transform",l.getTextTransform(t.transform));var a=t.cxFinal+t.pxmid[0],s="M"+a+","+(t.cyFinal+t.pxmid[1]),c=(t.yLabelMax-t.yLabelMin)*(t.pxmid[0]<0?-1:1)/4;if(t.labelExtraX){var u=t.labelExtraX*t.pxmid[1]/t.pxmid[0],f=t.yLabelMid+t.labelExtraY-(t.cyFinal+t.pxmid[1]);Math.abs(u)>Math.abs(f)?s+="l"+f*t.pxmid[0]/t.pxmid[1]+","+f+"H"+(a+t.labelExtraX+c):s+="l"+t.labelExtraX+","+u+"v"+(f-u)+"h"+c}else s+="V"+(t.yLabelMid+t.labelExtraY)+"h"+c;l.ensureSingle(r,"path","textline").call(o.stroke,e.outsidetextfont.color).attr({"stroke-width":Math.min(2,e.outsidetextfont.size/8),d:s,fill:"none"})}else r.select("path.textline").remove()}))}(m,g),_&&g.automargin){var k=s.bBox(h.node()),A=g.domain,M=a.w*(A.x[1]-A.x[0]),S=a.h*(A.y[1]-A.y[0]),E=(.5*M-d.r)/a.w,P=(.5*S-d.r)/a.h;i.autoMargin(t,"pie."+g.uid+".automargin",{xl:A.x[0]-E,xr:A.x[1]+E,yb:A.y[0]-P,yt:A.y[1]+P,l:Math.max(d.cx-d.r-k.left,0),r:Math.max(k.right-(d.cx+d.r),0),b:Math.max(k.bottom-(d.cy+d.r),0),t:Math.max(d.cy-d.r-k.top,0),pad:5})}}))}));setTimeout((function(){h.selectAll("tspan").each((function(){var t=n.select(this);t.attr("dy")&&t.attr("dy",t.attr("dy"))}))}),0)},formatSliceLabel:D,transformInsideText:w,determineInsideTextFont:b,positionTitleOutside:C,prerenderTitles:_,layoutAreas:O,attachFxHandlers:x,computeTransform:R}},{"../../components/color":366,"../../components/drawing":388,"../../components/fx":406,"../../lib":503,"../../lib/svg_text_utils":529,"../../plots/plots":619,"../bar/constants":650,"../bar/uniform_text":664,"./event_data":905,"./helpers":906,"@plotly/d3":58}],911:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("./style_one"),a=t("../bar/uniform_text").resizeText;e.exports=function(t){var e=t._fullLayout._pielayer.selectAll(".trace");a(t,e,"pie"),e.each((function(t){var e=t[0].trace,r=n.select(this);r.style({opacity:e.opacity}),r.selectAll("path.surface").each((function(t){n.select(this).call(i,t,e)}))}))}},{"../bar/uniform_text":664,"./style_one":912,"@plotly/d3":58}],912:[function(t,e,r){"use strict";var n=t("../../components/color"),i=t("./helpers").castOption;e.exports=function(t,e,r){var a=r.marker.line,o=i(a.color,e.pts)||n.defaultLine,s=i(a.width,e.pts)||0;t.style("stroke-width",s).call(n.fill,e.color).call(n.stroke,o)}},{"../../components/color":366,"./helpers":906}],913:[function(t,e,r){"use strict";var n=t("../scatter/attributes");e.exports={x:n.x,y:n.y,xy:{valType:"data_array",editType:"calc"},indices:{valType:"data_array",editType:"calc"},xbounds:{valType:"data_array",editType:"calc"},ybounds:{valType:"data_array",editType:"calc"},text:n.text,marker:{color:{valType:"color",arrayOk:!1,editType:"calc"},opacity:{valType:"number",min:0,max:1,dflt:1,arrayOk:!1,editType:"calc"},blend:{valType:"boolean",dflt:null,editType:"calc"},sizemin:{valType:"number",min:.1,max:2,dflt:.5,editType:"calc"},sizemax:{valType:"number",min:.1,dflt:20,editType:"calc"},border:{color:{valType:"color",arrayOk:!1,editType:"calc"},arearatio:{valType:"number",min:0,max:1,dflt:0,editType:"calc"},editType:"calc"},editType:"calc"},transforms:void 0}},{"../scatter/attributes":927}],914:[function(t,e,r){"use strict";var n=t("../../../stackgl_modules").gl_pointcloud2d,i=t("../../lib/str2rgbarray"),a=t("../../plots/cartesian/autorange").findExtremes,o=t("../scatter/get_trace_color");function s(t,e){this.scene=t,this.uid=e,this.type="pointcloud",this.pickXData=[],this.pickYData=[],this.xData=[],this.yData=[

],this.textLabels=[],this.color="rgb(0, 0, 0)",this.name="",this.hoverinfo="all",this.idToIndex=new Int32Array(0),this.bounds=[0,0,0,0],this.pointcloudOptions={positions:new Float32Array(0),idToIndex:this.idToIndex,sizemin:.5,sizemax:12,color:[0,0,0,1],areaRatio:1,borderColor:[0,0,0,1]},this.pointcloud=n(t.glplot,this.pointcloudOptions),this.pointcloud._trace=this}var l=s.prototype;l.handlePick=function(t){var e=this.idToIndex[t.pointId];return{trace:this,dataCoord:t.dataCoord,traceCoord:this.pickXYData?[this.pickXYData[2*e],this.pickXYData[2*e+1]]:[this.pickXData[e],this.pickYData[e]],textLabel:Array.isArray(this.textLabels)?this.textLabels[e]:this.textLabels,color:this.color,name:this.name,pointIndex:e,hoverinfo:this.hoverinfo}},l.update=function(t){this.index=t.index,this.textLabels=t.text,this.name=t.name,this.hoverinfo=t.hoverinfo,this.bounds=[1/0,1/0,-1/0,-1/0],this.updateFast(t),this.color=o(t,{})},l.updateFast=function(t){var e,r,n,o,s,l,c=this.xData=this.pickXData=t.x,u=this.yData=this.pickYData=t.y,f=this.pickXYData=t.xy,h=t.xbounds&&t.ybounds,p=t.indices,d=this.bounds;if(f){if(n=f,e=f.length>>>1,h)d[0]=t.xbounds[0],d[2]=t.xbounds[1],d[1]=t.ybounds[0],d[3]=t.ybounds[1];else for(l=0;l<e;l++)o=n[2*l],s=n[2*l+1],o<d[0]&&(d[0]=o),o>d[2]&&(d[2]=o),s<d[1]&&(d[1]=s),s>d[3]&&(d[3]=s);if(p)r=p;else for(r=new Int32Array(e),l=0;l<e;l++)r[l]=l}else for(e=c.length,n=new Float32Array(2*e),r=new Int32Array(e),l=0;l<e;l++)o=c[l],s=u[l],r[l]=l,n[2*l]=o,n[2*l+1]=s,o<d[0]&&(d[0]=o),o>d[2]&&(d[2]=o),s<d[1]&&(d[1]=s),s>d[3]&&(d[3]=s);this.idToIndex=r,this.pointcloudOptions.idToIndex=r,this.pointcloudOptions.positions=n;var g=i(t.marker.color),v=i(t.marker.border.color),m=t.opacity*t.marker.opacity;g[3]*=m,this.pointcloudOptions.color=g;var y=t.marker.blend;null===y&&(y=c.length<100||u.length<100),this.pointcloudOptions.blend=y,v[3]*=m,this.pointcloudOptions.borderColor=v;var x=t.marker.sizemin,b=Math.max(t.marker.sizemax,t.marker.sizemin);this.pointcloudOptions.sizeMin=x,this.pointcloudOptions.sizeMax=b,this.pointcloudOptions.areaRatio=t.marker.border.arearatio,this.pointcloud.update(this.pointcloudOptions);var _=this.scene.xaxis,w=this.scene.yaxis,T=b/2||.5;t._extremes[_._id]=a(_,[d[0],d[2]],{ppad:T}),t._extremes[w._id]=a(w,[d[1],d[3]],{ppad:T})},l.dispose=function(){this.pointcloud.dispose()},e.exports=function(t,e){var r=new s(t,e.uid);return r.update(e),r}},{"../../../stackgl_modules":1124,"../../lib/str2rgbarray":528,"../../plots/cartesian/autorange":553,"../scatter/get_trace_color":937}],915:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./attributes");e.exports=function(t,e,r){function a(r,a){return n.coerce(t,e,i,r,a)}a("x"),a("y"),a("xbounds"),a("ybounds"),t.xy&&t.xy instanceof Float32Array&&(e.xy=t.xy),t.indices&&t.indices instanceof Int32Array&&(e.indices=t.indices),a("text"),a("marker.color",r),a("marker.opacity"),a("marker.blend"),a("marker.sizemin"),a("marker.sizemax"),a("marker.border.color",r),a("marker.border.arearatio"),e._length=null}},{"../../lib":503,"./attributes":913}],916:[function(t,e,r){"use strict";["*pointcloud* trace is deprecated!","Please consider switching to the *scattergl* trace type."].join("
"),e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),calc:t("../scatter3d/calc"),plot:t("./convert"),moduleType:"trace",name:"pointcloud",basePlotModule:t("../../plots/gl2d"),categories:["gl","gl2d","showLegend"],meta:{}}},{"../../plots/gl2d":596,"../scatter3d/calc":956,"./attributes":913,"./convert":914,"./defaults":915}],917:[function(t,e,r){"use strict";var n=t("../../plots/font_attributes"),i=t("../../plots/attributes"),a=t("../../components/color/attributes"),o=t("../../components/fx/attributes"),s=t("../../plots/domain").attributes,l=t("../../plots/template_attributes").hovertemplateAttrs,c=t("../../components/colorscale/attributes"),u=t("../../plot_api/plot_template").templatedArray,f=t("../../plots/cartesian/axis_format_attributes").descriptionOnlyNumbers,h=t("../../lib/extend").extendFlat,p=t("../../plot_api/edit_types").overrideAll;(e.exports=p({hoverinfo:h({},i.hoverinfo,{flags:[],arrayOk:!1}),hoverlabel:o.hoverlabel,domain:s({name:"sankey",trace:!0}),orientation:{valType:"enumerated",values:["v","h"],dflt:"h"},valueformat:{valType:"string",dflt:".3s",description:f("value")},valuesuffix:{valType:"string",dflt:""},arrangement:{valType:"enumerated",values:["snap","pe

rpendicular","freeform","fixed"],dflt:"snap"},textfont:n({}),customdata:void 0,node:{label:{valType:"data_array",dflt:[]},groups:{valType:"info_array",impliedEdits:{x:[],y:[]},dimensions:2,freeLength:!0,dflt:[],items:{valType:"number",editType:"calc"}},x:{valType:"data_array",dflt:[]},y:{valType:"data_array",dflt:[]},color:{valType:"color",arrayOk:!0},customdata:{valType:"data_array",editType:"calc"},line:{color:{valType:"color",dflt:a.defaultLine,arrayOk:!0},width:{valType:"number",min:0,dflt:.5,arrayOk:!0}},pad:{valType:"number",arrayOk:!1,min:0,dflt:20},thickness:{valType:"number",arrayOk:!1,min:1,dflt:20},hoverinfo:{valType:"enumerated",values:["all","none","skip"],dflt:"all"},hoverlabel:o.hoverlabel,hovertemplate:l({},{keys:["value","label"]})},link:{label:{valType:"data_array",dflt:[]},color:{valType:"color",arrayOk:!0},customdata:{valType:"data_array",editType:"calc"},line:{color:{valType:"color",dflt:a.defaultLine,arrayOk:!0},width:{valType:"number",min:0,dflt:0,arrayOk:!0}},source:{valType:"data_array",dflt:[]},target:{valType:"data_array",dflt:[]},value:{valType:"data_array",dflt:[]},hoverinfo:{valType:"enumerated",values:["all","none","skip"],dflt:"all"},hoverlabel:o.hoverlabel,hovertemplate:l({},{keys:["value","label"]}),colorscales:u("concentrationscales",{editType:"calc",label:{valType:"string",editType:"calc",dflt:""},cmax:{valType:"number",editType:"calc",dflt:1},cmin:{valType:"number",editType:"calc",dflt:0},colorscale:h(c().colorscale,{dflt:[[0,"white"],[1,"black"]]})})},"calc","nested")).transforms=void 0},{"../../components/color/attributes":365,"../../components/colorscale/attributes":373,"../../components/fx/attributes":397,"../../lib/extend":493,"../../plot_api/edit_types":536,"../../plot_api/plot_template":543,"../../plots/attributes":550,"../../plots/cartesian/axis_format_attributes":557,"../../plots/domain":584,"../../plots/font_attributes":585,"../../plots/template_attributes":633}],918:[function(t,e,r){"use strict";var n=t("../../plot_api/edit_types").overrideAll,i=t("../../plots/get_data").getModuleCalcData,a=t("./plot"),o=t("../../components/fx/layout_attributes"),s=t("../../lib/setcursor"),l=t("../../components/dragelement"),c=t("../../plots/cartesian/select").prepSelect,u=t("../../lib"),f=t("../../registry"),h="sankey";function p(t,e){var r=t._fullData[e],n=t._fullLayout,i=n.dragmode,a="pan"===n.dragmode?"move":"crosshair",o=r._bgRect;if("pan"!==i&&"zoom"!==i){s(o,a);var h={_id:"x",c2p:u.identity,_offset:r._sankey.translateX,_length:r._sankey.width},p={_id:"y",c2p:u.identity,_offset:r._sankey.translateY,_length:r._sankey.height},d={gd:t,element:o.node(),plotinfo:{id:e,xaxis:h,yaxis:p,fillRangeItems:u.noop},subplot:e,xaxes:[h],yaxes:[p],doneFnCompleted:function(r){var n,i=t._fullData[e],a=i.node.groups.slice(),o=[];function s(t){for(var e=i._sankey.graph.nodes,r=0;r<e.length;r++)if(e[r].pointNumber===t)return e[r]}for(var l=0;l<r.length;l++){var c=s(r[l].pointNumber);if(c)if(c.group){for(var u=0;u<c.childrenNodes.length;u++)o.push(c.childrenNodes[u].pointNumber);a[c.pointNumber-i.node._count]=!1}else o.push(c.pointNumber)}n=a.filter(Boolean).concat([o]),f.call("_guiRestyle",t,{"node.groups":[n]},e)},prepFn:function(t,e,r){c(t,e,r,d,i)}};l.init(d)}r.name=h,r.baseLayoutAttrOverrides=n({hoverlabel:o.hoverlabel},"plot","nested"),r.plot=function(t){var e=i(t.calcdata,h)[0];a(t,e),r.updateFx(t)},r.clean=function(t,e,r,n){var i=n._has&&n._has(h),a=e._has&&e._has(h);i&&!a&&(n._paperdiv.selectAll(".sankey").remove(),n._paperdiv.selectAll(".bgsankey").remove())},r.updateFx=function(t){for(var e=0;e<t._fullData.length;e++)p(t,e)}},{"../../components/dragelement":385,"../../components/fx/layout_attributes":407,"../../lib":503,"../../lib/setcursor":524,"../../plot_api/edit_types":536,"../../plots/cartesian/select":575,"../../plots/get_data":593,"../../registry":638,"./plot":923}],919:[function(t,e,r){"use strict";var n=t("strongly-connected-components"),i=t("../../lib"),a=t("../../lib/gup").wrap,o=i.isArrayOrTypedArray,s=i.isIndex,l=t("../../components/colorscale");function c(t){var e,r=t.node,a=t.link,c=[],u=o(a.color),f=o(a.customdata),h={},p={},d=a.colorscales.length;for(e=0;e<d;e++){var g=a.colorscales[e],v=l.extractScale(g,{cLetter:"c"}),m=l.makeColorScaleFunc(v);p[g.label]=m}var y=0;for(e=0;e<a.value.length;e++)a.source[e]>y&&(y=a.source[e]),a.target[e]>y&&(y=a.target[e]);var x,b=y+1;t.node._count=b;var _=t.node.groups,w={};for(e=0;e<_.length;e++){var T=_[e];for(x=0;x<T.length;x++){var k=T[x],A=b+e;w.hasOwnProperty(k)?i.warn("Node "+k+" is already part of a group."):w[k]=A}}var M={source:[],target:[]};for(e=0;e<a.value.length;e++){var S=a.value[e],E=a.source[e],L=a.target[e];if(S>0&&s(E,b)&&s(L,b)&&(!w.hasOwnProperty(E)||!w.hasOwnPropert

y(L)||w[E]!==w[L])){w.hasOwnProperty(L)&&(L=w[L]),w.hasOwnProperty(E)&&(E=w[E]),L=+L,h[E=+E]=h[L]=!0;var C="";a.label&&a.label[e]&&(C=a.label[e]);var P=null;C&&p.hasOwnProperty(C)&&(P=p[C]),c.push({pointNumber:e,label:C,color:u?a.color[e]:a.color,customdata:f?a.customdata[e]:a.customdata,concentrationscale:P,source:E,target:L,value:+S}),M.source.push(E),M.target.push(L)}}var I=b+_.length,O=o(r.color),z=o(r.customdata),D=[];for(e=0;e<I;e++)if(h[e]){var R=r.label[e];D.push({group:e>b-1,childrenNodes:[],pointNumber:e,label:R,color:O?r.color[e]:r.color,customdata:z?r.customdata[e]:r.customdata})}var F=!1;return function(t,e,r){for(var a=i.init2dArray(t,0),o=0;o<Math.min(e.length,r.length);o++)if(i.isIndex(e[o],t)&&i.isIndex(r[o],t)){if(e[o]===r[o])return!0;a[e[o]].push(r[o])}return n(a).components.some((function(t){return t.length>1}))}(I,M.source,M.target)&&(F=!0),{circular:F,links:c,nodes:D,groups:_,groupLookup:w}}e.exports=function(t,e){var r=c(e);return a({circular:r.circular,_nodes:r.nodes,_links:r.links,_groups:r.groups,_groupLookup:r.groupLookup})}},{"../../components/colorscale":378,"../../lib":503,"../../lib/gup":500,"strongly-connected-components":306}],920:[function(t,e,r){"use strict";e.exports={nodeTextOffsetHorizontal:4,nodeTextOffsetVertical:3,nodePadAcross:10,sankeyIterations:50,forceIterations:5,forceTicksPerFrame:10,duration:500,ease:"linear",cn:{sankey:"sankey",sankeyLinks:"sankey-links",sankeyLink:"sankey-link",sankeyNodeSet:"sankey-node-set",sankeyNode:"sankey-node",nodeRect:"node-rect",nodeLabel:"node-label"}}},{}],921:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./attributes"),a=t("../../components/color"),o=t("tinycolor2"),s=t("../../plots/domain").defaults,l=t("../../components/fx/hoverlabel_defaults"),c=t("../../plot_api/plot_template"),u=t("../../plots/array_container_defaults");function f(t,e){function r(r,a){return n.coerce(t,e,i.link.colorscales,r,a)}r("label"),r("cmin"),r("cmax"),r("colorscale")}e.exports=function(t,e,r,h){function p(r,a){return n.coerce(t,e,i,r,a)}var d=n.extendDeep(h.hoverlabel,t.hoverlabel),g=t.node,v=c.newContainer(e,"node");function m(t,e){return n.coerce(g,v,i.node,t,e)}m("label"),m("groups"),m("x"),m("y"),m("pad"),m("thickness"),m("line.color"),m("line.width"),m("hoverinfo",t.hoverinfo),l(g,v,m,d),m("hovertemplate");var y=h.colorway;m("color",v.label.map((function(t,e){return a.addOpacity(function(t){return y[t%y.length]}(e),.8)}))),m("customdata");var x=t.link||{},b=c.newContainer(e,"link");function _(t,e){return n.coerce(x,b,i.link,t,e)}_("label"),_("source"),_("target"),_("value"),_("line.color"),_("line.width"),_("hoverinfo",t.hoverinfo),l(x,b,_,d),_("hovertemplate");var w,T=o(h.paper_bgcolor).getLuminance()<.333?"rgba(255, 255, 255, 0.6)":"rgba(0, 0, 0, 0.2)";_("color",n.repeat(T,b.value.length)),_("customdata"),u(x,b,{name:"colorscales",handleItemDefaults:f}),s(e,h,p),p("orientation"),p("valueformat"),p("valuesuffix"),v.x.length&&v.y.length&&(w="freeform"),p("arrangement",w),n.coerceFont(p,"textfont",n.extendFlat({},h.font)),e._length=null}},{"../../components/color":366,"../../components/fx/hoverlabel_defaults":404,"../../lib":503,"../../plot_api/plot_template":543,"../../plots/array_container_defaults":549,"../../plots/domain":584,"./attributes":917,tinycolor2:312}],922:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),calc:t("./calc"),plot:t("./plot"),moduleType:"trace",name:"sankey",basePlotModule:t("../base_plot"),selectPoints:t("./select.js"),categories:["noOpacity"],meta:{}}},{"./attributes":917,"./base_plot":918,"./calc":919,"./defaults":921,"./plot":923,"./select.js":925}],923:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../lib"),a=i.numberFormat,o=t("./render"),s=t("../../components/fx"),l=t("../../components/color"),c=t("./constants").cn,u=i._;function f(t){return""!==t}function h(t,e){return t.filter((function(t){return t.key===e.traceId}))}function p(t,e){n.select(t).select("path").style("fill-opacity",e),n.select(t).select("rect").style("fill-opacity",e)}function d(t){n.select(t).select("text.name").style("fill","black")}function g(t){return function(e){return-1!==t.node.sourceLinks.indexOf(e.link)||-1!==t.node.targetLinks.indexOf(e.link)}}function v(t){return function(e){return-1!==e.node.sourceLinks.indexOf(t.link)||-1!==e.node.targetLinks.indexOf(t.link)}}function

m(t,e,r){e&&r&&h(r,e).selectAll("."+c.sankeyLink).filter(g(e)).call(x.bind(0,e,r,!1))}function y(t,e,r){e&&r&&h(r,e).selectAll("."+c.sankeyLink).filter(g(e)).call(b.bind(0,e,r,!1))}function x(t,e,r,n){var i=n.datum().link.label;n.style("fill-opacity",(function(t){if(!t.link.concentrationscale)return.4})),i&&h(e,t).selectAll("."+c.sankeyLink).filter((function(t){return t.link.label===i})).style("fill-opacity",(function(t){if(!t.link.concentrationscale)return.4})),r&&h(e,t).selectAll("."+c.sankeyNode).filter(v(t)).call(m)}function b(t,e,r,n){var i=n.datum().link.label;n.style("fill-opacity",(function(t){return t.tinyColorAlpha})),i&&h(e,t).selectAll("."+c.sankeyLink).filter((function(t){return t.link.label===i})).style("fill-opacity",(function(t){return t.tinyColorAlpha})),r&&h(e,t).selectAll(c.sankeyNode).filter(v(t)).call(y)}function _(t,e){var r=t.hoverlabel||{},n=i.nestedProperty(r,e).get();return!Array.isArray(n)&&n}e.exports=function(t,e){for(var r=t._fullLayout,i=r._paper,h=r._size,g=0;g<t._fullData.length;g++)if(t._fullData[g].visible&&t._fullData[g].type===c.sankey&&!t._fullData[g]._viewInitial){var v=t._fullData[g].node;t._fullData[g]._viewInitial={node:{groups:v.groups.slice(),x:v.x.slice(),y:v.y.slice()}}}var w=u(t,"source:")+" ",T=u(t,"target:")+" ",k=u(t,"concentration:")+" ",A=u(t,"incoming flow count:")+" ",M=u(t,"outgoing flow count:")+" ";o(t,i,e,{width:h.w,height:h.h,margin:{t:h.t,r:h.r,b:h.b,l:h.l}},{linkEvents:{hover:function(e,r,i){!1!==t._fullLayout.hovermode&&(n.select(e).call(x.bind(0,r,i,!0)),"skip"!==r.link.trace.link.hoverinfo&&(r.link.fullData=r.link.trace,t.emit("plotly_hover",{event:n.event,points:[r.link]})))},follow:function(e,i){if(!1!==t._fullLayout.hovermode){var o=i.link.trace.link;if("none"!==o.hoverinfo&&"skip"!==o.hoverinfo){for(var c=[],u=0,h=0;h<i.flow.links.length;h++){var g=i.flow.links[h];if("closest"!==t._fullLayout.hovermode||i.link.pointNumber===g.pointNumber){i.link.pointNumber===g.pointNumber&&(u=h),g.fullData=g.trace,o=i.link.trace.link;var v=y(g),m={valueLabel:a(i.valueFormat)(g.value)+i.valueSuffix};c.push({x:v[0],y:v[1],name:m.valueLabel,text:[g.label||"",w+g.source.label,T+g.target.label,g.concentrationscale?k+a("%0.2f")(g.flow.labelConcentration):""].filter(f).join("<br>"),color:_(o,"bgcolor")||l.addOpacity(g.color,1),borderColor:_(o,"bordercolor"),fontFamily:_(o,"font.family"),fontSize:_(o,"font.size"),fontColor:_(o,"font.color"),nameLength:_(o,"namelength"),textAlign:_(o,"align"),idealAlign:n.event.x<v[0]?"right":"left",hovertemplate:o.hovertemplate,hovertemplateLabels:m,eventData:[g]})}}s.loneHover(c,{container:r._hoverlayer.node(),outerContainer:r._paper.node(),gd:t,anchorIndex:u}).each((function(){i.link.concentrationscale||p(this,.65),d(this)}))}}function y(t){var e,r;t.circular?(e=(t.circularPathData.leftInnerExtent+t.circularPathData.rightInnerExtent)/2,r=t.circularPathData.verticalFullExtent):(e=(t.source.x1+t.target.x0)/2,r=(t.y0+t.y1)/2);var n=[e,r];return"v"===t.trace.orientation&&n.reverse(),n[0]+=i.parent.translateX,n[1]+=i.parent.translateY,n}},unhover:function(e,i,a){!1!==t._fullLayout.hovermode&&(n.select(e).call(b.bind(0,i,a,!0)),"skip"!==i.link.trace.link.hoverinfo&&(i.link.fullData=i.link.trace,t.emit("plotly_unhover",{event:n.event,points:[i.link]})),s.loneUnhover(r._hoverlayer.node()))},select:function(e,r){var i=r.link;i.originalEvent=n.event,t._hoverdata=[i],s.click(t,{target:!0})}},nodeEvents:{hover:function(e,r,i){!1!==t._fullLayout.hovermode&&(n.select(e).call(m,r,i),"skip"!==r.node.trace.node.hoverinfo&&(r.node.fullData=r.node.trace,t.emit("plotly_hover",{event:n.event,points:[r.node]})))},follow:function(e,i){if(!1!==t._fullLayout.hovermode){var o=i.node.trace.node;if("none"!==o.hoverinfo&&"skip"!==o.hoverinfo){var l=n.select(e).select("."+c.nodeRect),u=t._fullLayout._paperdiv.node().getBoundingClientRect(),h=l.node().getBoundingClientRect(),g=h.left-2-u.left,v=h.right+2-u.left,m=h.top+h.height/4-u.top,y={valueLabel:a(i.valueFormat)(i.node.value)+i.valueSuffix};i.node.fullData=i.node.trace,t._fullLayout._calcInverseTransform(t);var x=t._fullLayout._invScaleX,b=t._fullLayout._invScaleY,w=s.loneHover({x0:x*g,x1:x*v,y:b*m,name:a(i.valueFormat)(i.node.value)+i.valueSuffix,text:[i.node.label,A+i.node.targetLinks.length,M+i.node.sourceLinks.length].filter(f).join("<br>"),color:_(o,"bgcolor")||i.tinyColorHue,borderColor:_(o,"bordercolor"),fontFamily:_(o,"font.family"),fontSize:_(o,"font.size"),fontColor:_(o,"font.color"),nameLength:_(o,"namelength"),textAlign:_(o,"align"),idealAlign:

"left",hovertemplate:o.hovertemplate,hovertemplateLabels:y,eventData:[i.node]},{container:r._hoverlayer.node(),outerContainer:r._paper.node(),gd:t});p(w,.85),d(w)}}},unhover:function(e,i,a){!1!==t._fullLayout.hovermode&&(n.select(e).call(y,i,a),"skip"!==i.node.trace.node.hoverinfo&&(i.node.fullData=i.node.trace,t.emit("plotly_unhover",{event:n.event,points:[i.node]})),s.loneUnhover(r._hoverlayer.node()))},select:function(e,r,i){var a=r.node;a.originalEvent=n.event,t._hoverdata=[a],n.select(e).call(y,r,i),s.click(t,{target:!0})}})}},{"../../components/color":366,"../../components/fx":406,"../../lib":503,"./constants":920,"./render":924,"@plotly/d3":58}],924:[function(t,e,r){"use strict";var n=t("d3-force"),i=t("d3-interpolate").interpolateNumber,a=t("@plotly/d3"),o=t("@plotly/d3-sankey"),s=t("@plotly/d3-sankey-circular"),l=t("./constants"),c=t("tinycolor2"),u=t("../../components/color"),f=t("../../components/drawing"),h=t("../../lib"),p=h.strTranslate,d=h.strRotate,g=t("../../lib/gup"),v=g.keyFun,m=g.repeat,y=g.unwrap,x=t("../../lib/svg_text_utils"),b=t("../../registry"),_=t("../../constants/alignment"),w=_.CAP_SHIFT,T=_.LINE_SPACING;function k(t,e,r){var n,i=y(e),a=i.trace,u=a.domain,f="h"===a.orientation,p=a.node.pad,d=a.node.thickness,g=t.width*(u.x[1]-u.x[0]),v=t.height*(u.y[1]-u.y[0]),m=i._nodes,x=i._links,b=i.circular;(n=b?s.sankeyCircular().circularLinkGap(0):o.sankey()).iterations(l.sankeyIterations).size(f?[g,v]:[v,g]).nodeWidth(d).nodePadding(p).nodeId((function(t){return t.pointNumber})).nodes(m).links(x);var _,w,T,k=n();for(var A in n.nodePadding()<p&&h.warn("node.pad was reduced to ",n.nodePadding()," to fit within the figure."),i._groupLookup){var M,S=parseInt(i._groupLookup[A]);for(_=0;_<k.nodes.length;_++)if(k.nodes[_].pointNumber===S){M=k.nodes[_];break}if(M){var E={pointNumber:parseInt(A),x0:M.x0,x1:M.x1,y0:M.y0,y1:M.y1,partOfGroup:!0,sourceLinks:[],targetLinks:[]};k.nodes.unshift(E),M.childrenNodes.unshift(E)}}if(function(){for(_=0;_<k.nodes.length;_++){var t,e,r=k.nodes[_],n={};for(w=0;w<r.targetLinks.length;w++)t=(e=r.targetLinks[w]).source.pointNumber+":"+e.target.pointNumber,n.hasOwnProperty(t)||(n[t]=[]),n[t].push(e);var i=Object.keys(n);for(w=0;w<i.length;w++){var a=n[t=i[w]],o=0,s={};for(T=0;T<a.length;T++)s[(e=a[T]).label]||(s[e.label]=0),s[e.label]+=e.value,o+=e.value;for(T=0;T<a.length;T++)(e=a[T]).flow={value:o,labelConcentration:s[e.label]/o,concentration:e.value/o,links:a},e.concentrationscale&&(e.color=c(e.concentrationscale(e.flow.labelConcentration)))}var l=0;for(w=0;w<r.sourceLinks.length;w++)l+=r.sourceLinks[w].value;for(w=0;w<r.sourceLinks.length;w++)(e=r.sourceLinks[w]).concentrationOut=e.value/l;var u=0;for(w=0;w<r.targetLinks.length;w++)u+=r.targetLinks[w].value;for(w=0;w<r.targetLinks.length;w++)(e=r.targetLinks[w]).concenrationIn=e.value/u}(),a.node.x.length&&a.node.y.length){for(_=0;_<Math.min(a.node.x.length,a.node.y.length,k.nodes.length);_++)if(a.node.x[_]&&a.node.y[_]){var L=[a.node.x[_]*g,a.node.y[_]*v];k.nodes[_].x0=L[0]-d/2,k.nodes[_].x1=L[0]+d/2;var C=k.nodes[_].y1-k.nodes[_].y0;k.nodes[_].y0=L[1]-C/2,k.nodes[_].y1=L[1]+C/2}"snap"===a.arrangement&&function(t){var e,r,n=t.map((function(t,e){return{x0:t.x0,index:e}})).sort((function(t,e){return t.x0-e.x0})),i=[],a=-1,o=-1/0;for(_=0;_<n.length;_++){var s=t[n[_].index];s.x0>o+d&&(a+=1,e=s.x0),o=s.x0,i[a]||(i[a]=[]),i[a].push(s),r=e-s.x0,s.x0+=r,s.x1+=r}return i}(m=k.nodes).forEach((function(t){var e,r,n,i=0,a=t.length;for(t.sort((function(t,e){return t.y0-e.y0})),n=0;n<a;++n)(e=t[n]).y0>=i||(r=i-e.y0)>1e-6&&(e.y0+=r,e.y1+=r),i=e.y1+p})),n.update(k)}return{circular:b,key:r,trace:a,guid:h.randstr(),horizontal:f,width:g,height:v,nodePad:a.node.pad,nodeLineColor:a.node.line.color,nodeLineWidth:a.node.line.width,linkLineColor:a.link.line.color,linkLineWidth:a.link.line.width,valueFormat:a.valueformat,valueSuffix:a.valuesuffix,textFont:a.textfont,translateX:u.x[0]*t.width+t.margin.l,translateY:t.height-u.y[1]*t.height+t.margin.t,dragParallel:f?v:g,dragPerpendicular:f?g:v,arrangement:a.arrangement,sankey:n,graph:k,forceLayouts:{},interactionState:{dragInProgress:!1,hovered:!1}}}function A(t,e,r){var n=c(e.color),i=e.source.label+"|"+e.target.label+"__"+r;return e.trace=t.trace,e.curveNumber=t.trace.index,{circular:t.circular,key:i,traceId:t.key,pointNumber:e.pointNumber,link:e,tinyColorHue:u.tinyRGB(n),tinyColorAlpha:n.getAlpha(),linkPath:M,linkLineColor:t.linkLineColor,linkLineWidth:t.linkLineWidth,valueFormat:t.valueFormat,valueSuffix:t.valueSuffix,sankey:t.sankey,parent:t,interactionState:t.in

teractionState,flow:e.flow}}function M(){return function(t){if(t.link.circular)return
e=t.link,r=e.width/2,n=e.circularPathData,"top"===e.circularLinkType?"M "+n.targetX+" "+(n.targetY+r)+"
L"+n.rightInnerExtent+" "+(n.targetY+r)+"A"+(n.rightLargeArcRadius+r)+" "+(n.rightSmallArcRadius+r)+" 0 0 1
"+(n.rightFullExtent-r)+" "+(n.targetY-n.rightSmallArcRadius)+"L"+(n.rightFullExtent-r)+"
"+n.verticalRightInnerExtent+"A"+(n.rightLargeArcRadius+r)+" "+(n.rightLargeArcRadius+r)+" 0 0 1
"+n.rightInnerExtent+" "+(n.verticalFullExtent-r)+"L"+n.leftInnerExtent+" "+(n.verticalFullExtent-
r)+"A"+(n.leftLargeArcRadius+r)+" "+(n.leftLargeArcRadius+r)+" 0 0 1 "+(n.leftFullExtent+r)+"
"+n.verticalLeftInnerExtent+"L"+(n.leftFullExtent+r)+" "+(n.sourceY-
n.leftSmallArcRadius)+"A"+(n.leftLargeArcRadius+r)+" "+(n.leftSmallArcRadius+r)+" 0 0 1 "+n.leftInnerExtent+"
"+(n.sourceY+r)+"L"+n.sourceX+" "+(n.sourceY+r)+"L"+n.sourceX+" "+(n.sourceY-r)+"L"+n.leftInnerExtent+"
"+(n.sourceY-r)+"A"+(n.leftLargeArcRadius-r)+" "+(n.leftSmallArcRadius-r)+" 0 0 0 "+(n.leftFullExtent-r)+"
"+(n.sourceY-n.leftSmallArcRadius)+"L"+(n.leftFullExtent-r)+"
"+n.verticalLeftInnerExtent+"A"+(n.leftLargeArcRadius-r)+" "+(n.leftLargeArcRadius-r)+" 0 0 0
"+n.leftInnerExtent+" "+(n.verticalFullExtent+r)+"L"+n.rightInnerExtent+"
"+(n.verticalFullExtent+r)+"A"+(n.rightLargeArcRadius-r)+" "+(n.rightLargeArcRadius-r)+" 0 0 0
"+(n.rightFullExtent+r)+" "+n.verticalRightInnerExtent+"L"+(n.rightFullExtent+r)+" "+(n.targetY-
n.rightSmallArcRadius)+"A"+(n.rightLargeArcRadius-r)+" "+(n.rightSmallArcRadius-r)+" 0 0 0
"+n.rightInnerExtent+" "+(n.targetY-r)+"L"+n.targetX+" "+(n.targetY-r)+"Z":"M "+n.targetX+" "+(n.targetY-r)+"
L"+n.rightInnerExtent+" "+(n.targetY-r)+"A"+(n.rightLargeArcRadius+r)+" "+(n.rightSmallArcRadius+r)+" 0 0 0
"+(n.rightFullExtent-r)+" "+(n.targetY+n.rightSmallArcRadius)+"L"+(n.rightFullExtent-r)+"
"+n.verticalRightInnerExtent+"A"+(n.rightLargeArcRadius+r)+" "+(n.rightLargeArcRadius+r)+" 0 0 0
"+n.rightInnerExtent+" "+(n.verticalFullExtent+r)+"L"+n.leftInnerExtent+"
"+(n.verticalFullExtent+r)+"A"+(n.leftLargeArcRadius+r)+" "+(n.leftLargeArcRadius+r)+" 0 0 0
"+(n.leftFullExtent+r)+" "+n.verticalLeftInnerExtent+"L"+(n.leftFullExtent+r)+"
"+(n.sourceY+n.leftSmallArcRadius)+"A"+(n.leftLargeArcRadius+r)+" "+(n.leftSmallArcRadius+r)+" 0 0 0
"+n.leftInnerExtent+" "+(n.sourceY-r)+"L"+n.sourceX+" "+(n.sourceY-r)+"L"+n.sourceX+"
"+(n.sourceY+r)+"L"+n.leftInnerExtent+" "+(n.sourceY+r)+"A"+(n.leftLargeArcRadius-r)+"
"+(n.leftSmallArcRadius-r)+" 0 0 1 "+(n.leftFullExtent-r)+"
"+(n.sourceY+n.leftSmallArcRadius)+"L"+(n.leftFullExtent-r)+"
"+n.verticalLeftInnerExtent+"A"+(n.leftLargeArcRadius-r)+" "+(n.leftLargeArcRadius-r)+" 0 0 1
"+n.leftInnerExtent+" "+(n.verticalFullExtent-r)+"L"+n.rightInnerExtent+" "+(n.verticalFullExtent-
r)+"A"+(n.rightLargeArcRadius-r)+" "+(n.rightLargeArcRadius-r)+" 0 0 1 "+(n.rightFullExtent+r)+"
"+n.verticalRightInnerExtent+"L"+(n.rightFullExtent+r)+"
"+(n.targetY+n.rightSmallArcRadius)+"A"+(n.rightLargeArcRadius-r)+" "+(n.rightSmallArcRadius-r)+" 0 0 1
"+n.rightInnerExtent+" "+(n.targetY+r)+"L"+n.targetX+" "+(n.targetY+r)+"Z";var
e,r,n,a=t.link.source.x1,o=t.link.target.x0,s=i(a,o),l=s(.5),c=s(.5),u=t.link.y0-
t.link.width/2,f=t.link.y0+t.link.width/2,h=t.link.y1-
t.link.width/2,p=t.link.y1+t.link.width/2;return"M"+a+","+u+"C"+l+","+u+" "+c+","+h+"
"+o+","+h+"L"+o+","+p+"C"+c+","+p+" "+l+","+f+" "+a+","+f+"Z"}}function S(t,e){var
r=c(e.color),n=l.nodePadAcross,i=t.nodePad/2;e.dx=e.x1-e.x0,e.dy=e.y1-e.y0;var
a=e.dx,o=Math.max(.5,e.dy),s="node_"+e.pointNumber;return
e.group&&(s=h.randstr()),e.trace=t.trace,e.curveNumber=t.trace.index,{index:e.pointNumber,key:s,partOfGroup:e.p
artOfGroup||!1,group:e.group,traceId:t.key,trace:t.trace,node:e,nodePad:t.nodePad,nodeLineColor:t.nodeLineColor,n
odeLineWidth:t.nodeLineWidth,textFont:t.textFont,size:t.horizontal?t.height:t.width,visibleWidth:Math.ceil(a),visib
leHeight:o,zoneX:-n,zoneY:-
i,zoneWidth:a+2*n,zoneHeight:o+2*i,labelY:t.horizontal?e.dy/2+1:e.dx/2+1,left:1===e.originalLayer,sizeAcross:t.
width,forceLayouts:t.forceLayouts,horizontal:t.horizontal,darkBackground:r.getBrightness()<=128,tinyColorHue:u.t
inyRGB(r),tinyColorAlpha:r.getAlpha(),valueFormat:t.valueFormat,valueSuffix:t.valueSuffix,sankey:t.sankey,graph

:t.graph,arrangement:t.arrangement,uniqueNodeLabelPathId:[t.guid,t.key,s].join("_"),interactionState:t.interactionState,figure:t}}function E(t){t.attr("transform",(function(t){return p(t.node.x0.toFixed(3),t.node.y0.toFixed(3))}))}function L(t){t.call(E)}function C(t,e){t.call(L),e.attr("d",M())}function P(t){t.attr("width",(function(t){return t.node.x1-t.node.x0})).attr("height",(function(t){return t.visibleHeight}))}function I(t){return t.link.width>1||t.linkLineWidth>0}function O(t){return p(t.translateX,t.translateY)+(t.horizontal?"matrix(1 0 0 1 0 0)":"matrix(0 1 1 0 0 0)")}function z(t,e,r){t.on(".basic",null).on("mouseover.basic",(function(t){t.interactionState.dragInProgress||t.partOfGroup||(r.hover(this,t,e),t.interactionState.hovered=[this,t])})).on("mousemove.basic",(function(t){t.interactionState.dragInProgress||t.partOfGroup||(r.follow(this,t),t.interactionState.hovered=[this,t])})).on("mouseout.basic",(function(t){t.interactionState.dragInProgress||t.partOfGroup||(r.unhover(this,t,e),t.interactionState.hovered=!1)})).on("click.basic",(function(t){t.interactionState.hovered&&(r.unhover(this,t,e),t.interactionState.hovered=!1),t.interactionState.dragInProgress||t.partOfGroup||r.select(this,t,e)}))}function D(t,e,r,i){var o=a.behavior.drag().origin((function(t){return{x:t.node.x0+t.visibleWidth/2,y:t.node.y0+t.visibleHeight/2}})).on("dragstart",(function(a){if("fixed"!==a.arrangement&&(h.ensureSingle(i._fullLayout._infolayer,"g","dragcover",(function(t){i._fullLayout._dragCover=t})),h.raiseToTop(this),a.interactionState.dragInProgress=a.node,F(a.node),a.interactionState.hovered&&(r.nodeEvents.unhover.apply(0,a.interactionState.hovered),a.interactionState.hovered=!1),"snap"===a.arrangement)){var o=a.traceId+"|"+a.key;a.forceLayouts[o]?a.forceLayouts[o].alpha(1):function(t,e,r,i){!function(t){for(var e=0;e<t.length;e++)t[e].y=(t[e].y0+t[e].y1)/2,t[e].x=(t[e].x0+t[e].x1)/2}(r.graph.nodes);var a=r.graph.nodes.filter((function(t){return t.originalX===r.node.originalX})).filter((function(t){return!t.partOfGroup}));r.forceLayouts[e]=n.forceSimulation(a).alphaDecay(0).force("collide",n.forceCollide().radius((function(t){return t.dy/2+r.nodePad/2})).strength(1).iterations(l.forceIterations)).force("constrain",function(t,e,r,n){return function(){for(var t=0,i=0;i<r.length;i++){var a=r[i];a===n.interactionState.dragInProgress?(a.x=a.lastDraggedX,a.y=a.lastDraggedY):(a.vx=(a.originalX-a.x)/l.forceTicksPerFrame,a.y=Math.min(n.size-a.dy/2,Math.max(a.dy/2,a.y))),t=Math.max(t,Math.abs(a.vx),Math.abs(a.vy))}!n.interactionState.dragInProgress&&t<.1&&n.forceLayouts[e].alpha()>0&&n.forceLayouts[e].alpha(0)}}(0,e,a,r)).stop()}(0,o,a),function(t,e,r,n,i){window.requestAnimationFrame((function a(){var o;for(o=0;o<l.forceTicksPerFrame;o++)r.forceLayouts[n].tick();if(function(t){for(var e=0;e<t.length;e++)t[e].y0=t[e].y-t[e].dy/2,t[e].y1=t[e].y0+t[e].dy,t[e].x0=t[e].x-t[e].dx/2,t[e].x1=t[e].x0+t[e].dx}(r.graph.nodes),r.sankey.update(r.graph),C(t.filter(B(r)),e),r.forceLayouts[n].alpha()>0)window.requestAnimationFrame(a);else{var s=r.node.originalX;r.node.x0=s-r.visibleWidth/2,r.node.x1=s+r.visibleWidth/2,R(r,i)}}))}(t,e,a,o,i)}})).on("drag",(function(r){if("fixed"!==r.arrangement){var n=a.event.x,i=a.event.y;"snap"===r.arrangement?(r.node.x0=n-r.visibleWidth/2,r.node.x1=n+r.visibleWidth/2,r.node.y0=i-r.visibleHeight/2,r.node.y1=i+r.visibleHeight/2):("freeform"===r.arrangement&&(r.node.x0=n-r.visibleWidth/2,r.node.x1=n+r.visibleWidth/2),i=Math.max(0,Math.min(r.size-r.visibleHeight/2,i)),r.node.y0=i-r.visibleHeight/2,r.node.y1=i+r.visibleHeight/2),F(r.node),"snap"!==r.arrangement&&(r.sankey.update(r.graph),C(t.filter(B(r)),e))}})).on("dragend",(function(t){if("fixed"!==t.arrangement){t.interactionState.dragInProgress=!1;for(var e=0;e<t.node.childrenNodes.length;e++)t.node.childrenNodes[e].x=t.node.x,t.node.childrenNodes[e].y=t.node.y;"snap"!==t.arrangement&&R(t,i)}}));t.on(".drag",null).call(o)}function R(t,e){for(var r=[],n=[],i=0;i<t.graph.nodes.length;i++){var a=(t.graph.nodes[i].x0+t.graph.nodes[i].x1)/2,o=(t.graph.nodes[i].y0+t.graph.nodes[i].y1)/2;r.push(a/t.figure.width),n.push(o/t.figure.height)}b.call("_guiRestyle",e,{"node.x":[r],"node.y":[n]},t.trace.index).then((function(){e._fullLayout._dragCover&&e._fullLayout._dragCover.remove()}))}function

F(t){t.lastDraggedX=t.x0+t.dx/2,t.lastDraggedY=t.y0+t.dy/2}function B(t){return function(e){return e.node.originalX===t.node.originalX}}e.exports=function(t,e,r,n,i){var o=!1;h.ensureSingle(t._fullLayout._infolayer,"g","first-render",(function(){o=!0}));var s=t._fullLayout._dragCover,g=r.filter((function(t){return y(t).trace.visible})).map(k.bind(null,n)),b=e.selectAll("."+l.cn.sankey).data(g,v);b.exit().remove(),b.enter().append("g").classed(l.cn.sankey,!0).style("box-sizing","content-box").style("position","absolute").style("left",0).style("shape-rendering","geometricPrecision").style("pointer-events","auto").attr("transform",O),b.each((function(e,r){t._fullData[r]._sankey=e;var n="bgsankey-"+e.trace.uid+"-"+r;h.ensureSingle(t._fullLayout._draggers,"rect",n),t._fullData[r]._bgRect=a.select("."+n),t._fullData[r]._bgRect.style("pointer-events","all").attr("width",e.width).attr("height",e.height).attr("x",e.translateX).attr("y",e.translateY).classed("bgsankey",!0).style({fill:"transparent","stroke-width":0})})),b.transition().ease(l.ease).duration(l.duration).attr("transform",O);var _=b.selectAll("."+l.cn.sankeyLinks).data(m,v);_.enter().append("g").classed(l.cn.sankeyLinks,!0).style("fill","none");var L=_.selectAll("."+l.cn.sankeyLink).data((function(t){return t.graph.links.filter((function(t){return t.value})).map(A.bind(null,t))}),v);L.enter().append("path").classed(l.cn.sankeyLink,!0).call(z,b,i.linkEvents),L.style("stroke",(function(t){return I(t)?u.tinyRGB(c(t.linkLineColor)):t.tinyColorHue})).style("stroke-opacity",(function(t){return I(t)?u.opacity(t.linkLineColor):t.tinyColorAlpha})).style("fill",(function(t){return t.tinyColorHue})).style("fill-opacity",(function(t){return t.tinyColorAlpha})).style("stroke-width",(function(t){return I(t)?t.linkLineWidth:1})).attr("d",M()),L.style("opacity",(function(){return t._context.staticPlot||o||s?1:0})).transition().ease(l.ease).duration(l.duration).style("opacity",1),L.exit().transition().ease(l.ease).duration(l.duration).style("opacity",0).remove();var C=b.selectAll("."+l.cn.sankeyNodeSet).data(m,v);C.enter().append("g").classed(l.cn.sankeyNodeSet,!0),C.style("cursor",(function(t){switch(t.arrangement){case"fixed":return"default";case"perpendicular":return"ns-resize";default:return"move"}}));var R=C.selectAll("."+l.cn.sankeyNode).data((function(t){var e=t.graph.nodes;return function(t){var e,r=[];for(e=0;e<t.length;e++)t[e].originalX=(t[e].x0+t[e].x1)/2,t[e].originalY=(t[e].y0+t[e].y1)/2,-1===r.indexOf(t[e].originalX)&&r.push(t[e].originalX);for(r.sort((function(t,e){return t-e})),e=0;e<t.length;e++)t[e].originalLayerIndex=r.indexOf(t[e].originalX),t[e].originalLayer=t[e].originalLayerIndex/(r.length-1)}(e),e.map(S.bind(null,t))}),v);R.enter().append("g").classed(l.cn.sankeyNode,!0).call(E).style("opacity",(function(e){return!t._context.staticPlot&&!o||e.partOfGroup?0:1})),R.call(z,b,i.nodeEvents).call(D,L,i,t),R.transition().ease(l.ease).duration(l.duration).call(E).style("opacity",(function(t){return t.partOfGroup?0:1})),R.exit().transition().ease(l.ease).duration(l.duration).style("opacity",0).remove();var F=R.selectAll("."+l.cn.nodeRect).data(m);F.enter().append("rect").classed(l.cn.nodeRect,!0).call(P),F.style("stroke-width",(function(t){return t.nodeLineWidth})).style("stroke",(function(t){return u.tinyRGB(c(t.nodeLineColor))})).style("stroke-opacity",(function(t){return u.opacity(t.nodeLineColor)})).style("fill",(function(t){return t.tinyColorHue})).style("fill-opacity",(function(t){return t.tinyColorAlpha})),F.transition().ease(l.ease).duration(l.duration).call(P);var B=R.selectAll("."+l.cn.nodeLabel).data(m);B.enter().append("text").classed(l.cn.nodeLabel,!0).style("cursor","default"),B.attr("data-notex",1).text((function(t){return t.node.label})).each((function(e){var r=a.select(this);f.font(r,e.textFont),x.convertToTspans(r,t)})).style("text-shadow",x.makeTextShadow(t._fullLayout.paper_bgcolor)).attr("text-anchor",(function(t){return t.horizontal&&t.left?"end":"start"})).attr("transform",(function(t){var e=a.select(this),r=x.lineCount(e),n=t.textFont.size*((r-1)*T-w),i=t.nodeLineWidth/2+3,o=((t.horizontal?t.visibleHeight:t.visibleWidth)-n)/2;t.horizontal&&(t.left?i=-i:i+=t.visibleWidth);var s=t.horizontal?"":"scale(-1,1)"+d(90);return p(t.horizontal?i:o,t.horizontal?o:i)+s})),B.transition().ease(l.ease).duration(l.duration)}},{"../../components/color":36

6,"../../components/drawing":388,"../../constants/alignment":471,"../../lib":503,"../../lib/gup":500,"../../lib/svg_text_utils":529,"../../registry":638,"./constants":920,"@plotly/d3":58,"@plotly/d3-sankey":57,"@plotly/d3-sankey-circular":56,"d3-force":111,"d3-interpolate":116,tinycolor2:312}],925:[function(t,e,r){"use strict";e.exports=function(t,e){for(var r=[],n=t.cd[0].trace,i=n._sankey.graph.nodes,a=0;a<i.length;a++){var o=i[a];if(!o.partOfGroup){var s=[(o.x0+o.x1)/2,(o.y0+o.y1)/2];"v"===n.orientation&&s.reverse(),e&&e.contains(s,!1,a,t)&&r.push({pointNumber:o.pointNumber})}}return r}},{}],926:[function(t,e,r){"use strict";var n=t("../../lib");e.exports=function(t,e){for(var r=0;r<t.length;r++)t[r].i=r;n.mergeArray(e.text,t,"tx"),n.mergeArray(e.texttemplate,t,"txt"),n.mergeArray(e.hovertext,t,"htx"),n.mergeArray(e.customdata,t,"data"),n.mergeArray(e.textposition,t,"tp"),e.textfont&&(n.mergeArrayCastPositive(e.textfont.size,t,"ts"),n.mergeArray(e.textfont.color,t,"tc"),n.mergeArray(e.textfont.family,t,"tf"));var i=e.marker;if(i){n.mergeArrayCastPositive(i.size,t,"ms"),n.mergeArrayCastPositive(i.opacity,t,"mo"),n.mergeArray(i.symbol,t,"mx"),n.mergeArray(i.color,t,"mc");var a=i.line;i.line&&(n.mergeArray(a.color,t,"mlc"),n.mergeArrayCastPositive(a.width,t,"mlw"));var o=i.gradient;o&&"none"!==o.type&&(n.mergeArray(o.type,t,"mgt"),n.mergeArray(o.color,t,"mgc"))}},{"../../lib":503}],927:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,i=t("../../plots/template_attributes").texttemplateAttrs,a=t("../../plots/template_attributes").hovertemplateAttrs,o=t("../../components/colorscale/attributes"),s=t("../../plots/font_attributes"),l=t("../../components/drawing/attributes").dash,c=t("../../components/drawing/attributes").pattern,u=t("../../components/drawing"),f=t("./constants"),h=t("../../lib/extend").extendFlat;e.exports={x:{valType:"data_array",editType:"calc+clearAxisTypes",anim:!0},x0:{valType:"any",dflt:0,editType:"calc+clearAxisTypes",anim:!0},dx:{valType:"number",dflt:1,editType:"calc",anim:!0},y:{valType:"data_array",editType:"calc+clearAxisTypes",anim:!0},y0:{valType:"any",dflt:0,editType:"calc+clearAxisTypes",anim:!0},dy:{valType:"number",dflt:1,editType:"calc",anim:!0},xperiod:{valType:"any",dflt:0,editType:"calc"},yperiod:{valType:"any",dflt:0,editType:"calc"},xperiod0:{valType:"any",editType:"calc"},yperiod0:{valType:"any",editType:"calc"},xperiodalignment:{valType:"enumerated",values:["start","middle","end"],dflt:"middle",editType:"calc"},yperiodalignment:{valType:"enumerated",values:["start","middle","end"],dflt:"middle",editType:"calc"},xhoverformat:n("x"),yhoverformat:n("y"),stackgroup:{valType:"string",dflt:"",editType:"calc"},orientation:{valType:"enumerated",values:["v","h"],editType:"calc"},groupnorm:{valType:"enumerated",values:["","fraction","percent"],dflt:"",editType:"calc"},stackgaps:{valType:"enumerated",values:["infer zero","interpolate"],dflt:"infer zero",editType:"calc"},text:{valType:"string",dflt:"",arrayOk:!0,editType:"calc"},texttemplate:i({},{}),hovertext:{valType:"string",dflt:"",arrayOk:!0,editType:"style"},mode:{valType:"flaglist",flags:["lines","markers","text"],extras:["none"],editType:"calc"},hoveron:{valType:"flaglist",flags:["points","fills"],editType:"style"},hovertemplate:a({},{keys:f.eventDataKeys}),line:{color:{valType:"color",editType:"style",anim:!0},width:{valType:"number",min:0,dflt:2,editType:"style",anim:!0},shape:{valType:"enumerated",values:["linear","spline","hv","vh","hvh","vhv"],dflt:"linear",editType:"plot"},smoothing:{valType:"number",min:0,max:1.3,dflt:1,editType:"plot"},dash:h({},l,{editType:"style"}),simplify:{valType:"boolean",dflt:!0,editType:"plot"},editType:"plot"},connectgaps:{valType:"boolean",dflt:!1,editType:"calc"},cliponaxis:{valType:"boolean",dflt:!0,editType:"plot"},fill:{valType:"enumerated",values:["none","tozeroy","tozerox","tonexty","tonextx","toself","tonext"],editType:"calc"},fillcolor:{valType:"color",editType:"style",anim:!0},fillpattern:c,marker:h({symbol:{valType:"enumerated",values:u.symbolList,dflt:"circle",arrayOk:!0,editType:"style"},opacity:{valType:"number",min:0,max:1,arrayOk:!0,editType:"style",anim:!0},size:{valType:"number",min:0,dflt:6,arrayOk:!0,editType:"calc",anim:!0},maxdisplayed:{valType:"number",min:0,dflt:0,editType:"plot"},sizeref:{valType:"number",dflt:1,editType:"calc"},sizemin:{valType:"number",min:0,dflt:0,editType:"calc"},sizemode:{valType:"enumerated",values:["diameter","area"],dflt:"diameter",editType:"calc"},line:h({width:{valType:"number",min:0,arrayOk:!0,editType:"style",anim:!0},editType:"calc"},o("marker.line",{anim:!0})),gradient:{type:{valType:"enumerated",values:["radial","horizontal","vertical","none"],arrayOk:!0,dflt:"none",editType:"calc"},color:{valType:"color",arrayOk:!0,editType:"calc"},editType:"calc"},editType:"calc"},o("marker",{anim:!0})),selected:{marker:{opacity:{valType:"number",min:0,max:1,editType:"style"},color:{valType:"color",editType:"style"},size:{valType:"number",min:0,editType:"style"},editType:"style"},textfont:{color:{valType:"color",editType:"style"},

editType:"style"},editType:"style"},unselected:{marker:{opacity:{valType:"number",min:0,max:1,editType:"style"},color:{valType:"color",editType:"style"},size:{valType:"number",min:0,editType:"style"},editType:"style"},textfont:{color:{valType:"color",editType:"style"},editType:"style"},editType:"style"},textposition:{valType:"enumerated",values:["top left","top center","top right","middle left","middle center","middle right","bottom left","bottom center","bottom right"],dflt:"middle center",arrayOk:!0,editType:"calc"},textfont:s({editType:"calc",colorEditType:"style",arrayOk:!0})}},{"../../components/colorscale/attributes":373,"../../components/drawing":388,"../../components/drawing/attributes":387,"../../lib/extend":493,"../../plots/cartesian/axis_format_attributes":557,"../../plots/font_attributes":585,"../../plots/template_attributes":633,"./constants":931}],928:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib"),a=t("../../plots/cartesian/axes"),o=t("../../plots/cartesian/align_period"),s=t("../../constants/numerical").BADNUM,l=t("./subtypes"),c=t("./colorscale_calc"),u=t("./arrays_to_calcdata"),f=t("./calc_selection");function h(t,e,r,n,i,o,s){var c=e._length,u=t._fullLayout,f=r._id,h=n._id,p=u._firstScatter[g(e)]===e.uid,d=(v(e,u,r,n)||{}).orientation,m=e.fill;r._minDtick=0,n._minDtick=0;var y={padded:!0},x={padded:!0};s&&(y.ppad=x.ppad=s);var b=c<2||i[0]!==i[c-1]||o[0]!==o[c-1];b&&("tozerox"===m||"tonextx"===m&&(p||"h"===d))?y.tozero=!0:(e.error_y||{}).visible||"tonexty"!==m&&"tozeroy"!==m&&(l.hasMarkers(e)||l.hasText(e))||(y.padded=!1,y.ppad=0),b&&("tozeroy"===m||"tonexty"===m&&(p||"v"===d))?x.tozero=!0:"tonextx"!==m&&"tozerox"!==m||(x.padded=!1),f&&(e._extremes[f]=a.findExtremes(r,i,y)),h&&(e._extremes[h]=a.findExtremes(n,o,x))}function p(t,e){if(l.hasMarkers(t)){var r,n=t.marker,o=1.6*(t.marker.sizeref||1);if(r="area"===t.marker.sizemode?function(t){return Math.max(Math.sqrt((t||0)/o),3)}:function(t){return Math.max((t||0)/o,3)},i.isArrayOrTypedArray(n.size)){var s={type:"linear"};a.setConvert(s);for(var c=s.makeCalcdata(t.marker,"size"),u=new Array(e),f=0;f<e;f++)u[f]=r(c[f]);return u}return r(n.size)}}function d(t,e){var r=g(e),n=t._firstScatter;n[r]||(n[r]=e.uid)}function g(t){var e=t.stackgroup;return t.xaxis+t.yaxis+t.type+(e?"-"+e:"")}function v(t,e,r,n){var i=t.stackgroup;if(i){var a=e._scatterStackOpts[r._id+n._id][i],o="v"===a.orientation?n:r;return"linear"===o.type||"log"===o.type?a:void 0}}e.exports={calc:function(t,e){var r,l,g,m,y,x,b=t._fullLayout,_=a.getFromId(t,e.xaxis||"x"),w=a.getFromId(t,e.yaxis||"y"),T=_.makeCalcdata(e,"x"),k=w.makeCalcdata(e,"y"),A=o(e,_,"x",T),M=o(e,w,"y",k),S=A.vals,E=M.vals,L=e._length,C=new Array(L),P=e.ids,I=v(e,b,_,w),O=!1;d(b,e);var z,D="x",R="y";I?(i.pushUnique(I.traceIndices,e._expandedIndex),(r="v"===I.orientation)?(R="s",z="x"):(D="s",z="y"),y="interpolate"===I.stackgaps):h(t,e,_,w,S,E,p(e,L));var F=!!e.xperiodalignment,B=!!e.yperiodalignment;for(l=0;l<L;l++){var N=C[l]={},j=n(S[l]),U=n(E[l]);j&&U?(N[D]=S[l],N[R]=E[l],F&&(N.orig_x=T[l],N.xEnd=A.ends[l],N.xStart=A.starts[l]),B&&(N.orig_y=k[l],N.yEnd=M.ends[l],N.yStart=M.starts[l])):I&&(r?j:U)?(N[z]=r?S[l]:E[l],N.gap=!0,y?(N.s=s,O=!0):N.s=0):N[D]=N[R]=s,P&&(N.id=String(P[l]))}if(u(C,e),c(t,e),f(C,e),I){for(l=0;l<C.length;)C[l][z]===s?C.splice(l,1):l++;if(i.sort(C,(function(t,e){return t[z]-e[z]||t.i-e.i})),O){for(l=0;l<C.length-1&&C[l].gap;)l++;for((x=C[l].s)||(x=C[l].s=0),g=0;g<l;g++)C[g].s=x;for(m=C.length-1;m>l&&C[m].gap;)m--;for(x=C[m].s,g=C.length-1;g>m;g--)C[g].s=x;for(;l<m;)if(C[++l].gap){for(g=l+1;C[g].gap;)g++;for(var V=C[l-1][z],q=C[l-1].s,H=(C[g].s-q)/(C[g][z]-V);l<g;)C[l].s=q+(C[l][z]-V)*H,l++}}}return C},calcMarkerSize:p,calcAxisExpansion:h,setFirstScatter:d,getStackOpts:v}},{"../../constants/numerical":479,"../../lib":503,"../../plots/cartesian/align_period":551,"../../plots/cartesian/axes":554,"./arrays_to_calcdata":926,"./calc_selection":929,"./colorscale_calc":930,"./subtypes":952,"fast-isnumeric":190}],929:[function(t,e,r){"use strict";var n=t("../../lib");e.exports=function(t,e){n.isArrayOrTypedArray(e.selectedpoints)&&n.tagSelected(t,e)}},{"../../lib":503}],930:[function(t,e,r){"use strict";var n=t("../../components/colorscale/helpers").hasColorscale,i=t("../../components/colorscale/calc"),a=t("./subtypes");e.exports=function(t,e){a.hasLines(e)&&n(e,"line")&&i(t,e,{vals:e.line.color,containerStr:"line",cLetter:"c"}),a.hasMarkers(e)&&(n(e,"marker")&&i(t,e,{vals:e.marker.color,containerStr:"marker",cLetter:"c"}),n(e,"marker.line")&&i(t,

e,{vals:e.marker.line.color,containerStr:"marker.line",cLetter:"c"}))}},{"../../components/colorscale/calc":374,"../../components/colorscale/helpers":377,"./subtypes":952}],931:[function(t,e,r){"use strict";e.exports={PTS_LINESONLY:20,minTolerance:.2,toleranceGrowth:10,maxScreensAway:20,eventDataKeys:[]}},{}],932:[function(t,e,r){"use strict";var n=t("./calc");function i(t,e,r,n,i,a,o){i[n]=!0;var s={i:null,gap:!0,s:0};if(s[o]=r,t.splice(e,0,s),e&&r===t[e-1][o]){var l=t[e-1];s.s=l.s,s.i=l.i,s.gap=l.gap}else a&&(s.s=function(t,e,r,n){var i=t[e-1],a=t[e+1];return a?i?i.s+(a.s-i.s)*(r-i[n])/(a[n]-i[n]):a.s:i.s}(t,e,r,o));e||(t[0].t=t[1].t,t[0].trace=t[1].trace,delete t[1].t,delete t[1].trace)}e.exports=function(t,e){var r=e.xaxis,a=e.yaxis,o=r._id+a._id,s=t._fullLayout._scatterStackOpts[o];if(s){var l,c,u,f,h,p,d,g,v,m,y,x,b,_,w,T=t.calcdata;for(var k in s){var A=(m=s[k]).traceIndices;if(A.length){for(y="interpolate"===m.stackgaps,x=m.groupnorm,"v"===m.orientation?(b="x",_="y"):(b="y",_="x"),w=new Array(A.length),l=0;l<w.length;l++)w[l]=!1;p=T[A[0]];var M=new Array(p.length);for(l=0;l<p.length;l++)M[l]=p[l][b];for(l=1;l<A.length;l++){for(h=T[A[l]],c=u=0;c<h.length;c++){for(d=h[c][b];d>M[u]&&u<M.length;u++)i(h,c,M[u],l,w,y,b),c++;if(d!==M[u]){for(f=0;f<l;f++)i(T[A[f]],u,d,f,w,y,b);M.splice(u,0,d)}u++}for(;u<M.length;u++)i(h,c,M[u],l,w,y,b),c++}var S=M.length;for(c=0;c<p.length;c++){for(g=p[c][_]=p[c].s,l=1;l<A.length;l++)(h=T[A[l]])[0].trace._rawLength=h[0].trace._length,h[0].trace._length=S,g+=h[c].s,h[c][_]=g;if(x)for(v=("fraction"===x?g:g/100)||1,l=0;l<A.length;l++){var E=T[A[l]][c];E[_]/=v,E.sNorm=E.s/v}}for(l=0;l<A.length;l++){var L=(h=T[A[l]])[0].trace,C=n.calcMarkerSize(L,L._rawLength),P=Array.isArray(C);if(C&&w[l]||P){var I=C;for(C=new Array(S),c=0;c<S;c++)C[c]=h[c].gap?0:P?I[h[c].i]:I}var O=new Array(S),z=new Array(S);for(c=0;c<S;c++)O[c]=h[c].x,z[c]=h[c].y;n.calcAxisExpansion(t,L,r,a,O,z,C),h[0].t.orientation=m.orientation}}}}}},{"./calc":928}],933:[function(t,e,r){"use strict";e.exports=function(t){for(var e=0;e<t.length;e++){var r=t[e];if("scatter"===r.type){var n=r.fill;if("none"!==n&&"toself"!==n&&(r.opacity=void 0,"tonexty"===n||"tonextx"===n))for(var i=e-1;i>=0;i--){var a=t[i];if("scatter"===a.type&&a.xaxis===r.xaxis&&a.yaxis===r.yaxis){a.opacity=void 0;break}}}}},{}],934:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../registry"),a=t("./attributes"),o=t("./constants"),s=t("./subtypes"),l=t("./xy_defaults"),c=t("./period_defaults"),u=t("./stack_defaults"),f=t("./marker_defaults"),h=t("./line_defaults"),p=t("./line_shape_defaults"),d=t("./text_defaults"),g=t("./fillcolor_defaults"),v=t("../../lib").coercePattern;e.exports=function(t,e,r,m){function y(r,i){return n.coerce(t,e,a,r,i)}var x=l(t,e,m,y);if(x||(e.visible=!1),e.visible){c(t,e,m,y),y("xhoverformat"),y("yhoverformat");var b=u(t,e,m,y),_=!b&&x<o.PTS_LINESONLY?"lines+markers":"lines";y("text"),y("hovertext"),y("mode",_),s.hasLines(e)&&(h(t,e,r,m,y),p(t,e,y),y("connectgaps"),y("line.simplify")),s.hasMarkers(e)&&f(t,e,r,m,y,{gradient:!0}),s.hasText(e)&&(y("texttemplate"),d(t,e,m,y));var w=[];(s.hasMarkers(e)||s.hasText(e))&&(y("cliponaxis"),y("marker.maxdisplayed"),w.push("points")),y("fill",b?b.fillDflt:"none"),"none"!==e.fill&&(g(t,e,r,y),s.hasLines(e)||p(t,e,y),v(y,"fillpattern",e.fillcolor,!1));var T=(e.line||{}).color,k=(e.marker||{}).color;"tonext"!==e.fill&&"toself"!==e.fill||w.push("fills"),y("hoveron",w.join("+")||"points"),"fills"!==e.hoveron&&y("hovertemplate");var A=i.getComponentMethod("errorbars","supplyDefaults");A(t,e,T||k||r,{axis:"y"}),A(t,e,T||k||r,{axis:"x",inherit:"y"}),n.coerceSelectionMarkerOpacity(e,y)}}},{"../../lib":503,"../../registry":638,"./attributes":927,"./constants":931,"./fillcolor_defaults":935,"./line_defaults":940,"./line_shape_defaults":942,"./marker_defaults":946,"./period_defaults":947,"./stack_defaults":950,"./subtypes":952,"./text_defaults":953,"./xy_defaults":954}],935:[function(t,e,r){"use strict";var n=t("../../components/color"),i=t("../../lib").isArrayOrTypedArray;e.exports=function(t,e,r,a){var o=!1;if(e.marker){var s=e.marker.color,l=(e.marker.line||{}).color;s&&!i(s)?o=s:l&&!i(l)&&(o=l)}a("fillcolor",n.addOpacity((e.line||{}).color||o||r,.5))}},{"../../components/color":366,"../../lib":503}],936:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes");e.exports=function(t,e,r){var i={},a={_fullLayout:r},o=n.getFromTrace(a,e,"x"),s=n.getFromTrace(a,e,"y");return i.xLabel=n.tickText(o,o.c2l(t.x),!0).text,i.yLabel=n.tickText(s,s.c2l(t.y),!0).text,i}},{"../../plots/cartesian/axes":554}]

,937:[function(t,e,r){"use strict";var n=t("../../components/color"),i=t("./subtypes");e.exports=function(t,e){var r,a;if("lines"===t.mode)return(r=t.line.color)&&n.opacity(r)?r:t.fillcolor;if("none"===t.mode)return t.fill?t.fillcolor:"";var o=e.mcc||(t.marker||{}).color,s=e.mlcc||((t.marker||{}).line||{}).color;return(a=o&&n.opacity(o)?o:s&&n.opacity(s)&&(e.mlw||((t.marker||{}).line||{}).width)?s:"")?n.opacity(a)<.3?n.addOpacity(a,.3):a:(r=(t.line||{}).color)&&n.opacity(r)&&i.hasLines(t)&&t.line.width?r:t.fillcolor}},{"../../components/color":366,"./subtypes":952}],938:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../components/fx"),a=t("../../registry"),o=t("./get_trace_color"),s=t("../../components/color"),l=n.fillText;e.exports=function(t,e,r,c){var u=t.cd,f=u[0].trace,h=t.xa,p=t.ya,d=h.c2p(e),g=p.c2p(r),v=[d,g],m=f.hoveron||"",y=-1!==f.mode.indexOf("markers")?3:.5,x=!!f.xperiodalignment,b=!!f.yperiodalignment;if(-1!==m.indexOf("points")){var _=function(t){var e=Math.max(y,t.mrc||0),r=h.c2p(t.x)-d,n=p.c2p(t.y)-g;return Math.max(Math.sqrt(r*r+n*n)-e,1-y/e)},w=i.getDistanceFunction(c,(function(t){if(x){var e=h.c2p(t.xStart),r=h.c2p(t.xEnd);return d>=Math.min(e,r)&&d<=Math.max(e,r)?0:1/0}var n=Math.max(3,t.mrc||0),i=1-1/n,a=Math.abs(h.c2p(t.x)-d);return a<n?i*a/n:a-n+i}),(function(t){if(b){var e=p.c2p(t.yStart),r=p.c2p(t.yEnd);return g>=Math.min(e,r)&&g<=Math.max(e,r)?0:1/0}var n=Math.max(3,t.mrc||0),i=1-1/n,a=Math.abs(p.c2p(t.y)-g);return a<n?i*a/n:a-n+i}),_);if(i.getClosest(u,w,t),!1!==t.index){var T=u[t.index],k=h.c2p(T.x,!0),A=p.c2p(T.y,!0),M=T.mrc||1;t.index=T.i;var S=u[0].t.orientation,E=S&&(T.sNorm||T.s),L="h"===S?E:void 0!==T.orig_x?T.orig_x:T.x,C="v"===S?E:void 0!==T.orig_y?T.orig_y:T.y;return n.extendFlat(t,{color:o(f,T),x0:k-M,x1:k+M,xLabelVal:L,y0:A-M,y1:A+M,yLabelVal:C,spikeDistance:_(T),hovertemplate:f.hovertemplate}),l(T,f,t),a.getComponentMethod("errorbars","hoverInfo")(T,f,t),[t]}}if(-1!==m.indexOf("fills")&&f._polygons){var P,I,O,z,D,R,F,B,N,j=f._polygons,U=[],V=!1,q=1/0,H=-1/0,G=1/0,Y=-1/0;for(P=0;P<j.length;P++)(O=j[P]).contains(v)&&(V=!V,U.push(O),G=Math.min(G,O.ymin),Y=Math.max(Y,O.ymax));if(V){var W=((G=Math.max(G,0))+(Y=Math.min(Y,p._length)))/2;for(P=0;P<U.length;P++)for(z=U[P].pts,I=1;I<z.length;I++)(B=z[I-1][1])>W!=(N=z[I][1])>=W&&(R=z[I-1][0],F=z[I][0],N-B&&(D=R+(F-R)*(W-B)/(N-B),q=Math.min(q,D),H=Math.max(H,D)));q=Math.max(q,0),H=Math.min(H,h._length);var X=s.defaultLine;return s.opacity(f.fillcolor)?X=f.fillcolor:s.opacity((f.line||{}).color)&&(X=f.line.color),n.extendFlat(t,{distance:t.maxHoverDistance,x0:q,x1:H,y0:W,y1:W,color:X,hovertemplate:!1}),delete t.index,f.text&&!Array.isArray(f.text)?t.text=String(f.text):t.text=f.name,[t]}}},{"../../components/color":366,"../../components/fx":406,"../../lib":503,"../../registry":638,"./get_trace_color":937}],939:[function(t,e,r){"use strict";var n=t("./subtypes");e.exports={hasLines:n.hasLines,hasMarkers:n.hasMarkers,hasText:n.hasText,isBubble:n.isBubble,attributes:t("./attributes"),supplyDefaults:t("./defaults"),crossTraceDefaults:t("./cross_trace_defaults"),calc:t("./calc").calc,crossTraceCalc:t("./cross_trace_calc"),arraysToCalcdata:t("./arrays_to_calcdata"),plot:t("./plot"),colorbar:t("./marker_colorbar"),formatLabels:t("./format_labels"),style:t("./style").style,styleOnSelect:t("./style").styleOnSelect,hoverPoints:t("./hover"),selectPoints:t("./select"),animatable:!0,moduleType:"trace",name:"scatter",basePlotModule:t("../../plots/cartesian"),categories:["cartesian","svg","symbols","errorBarsOK","showLegend","scatter-like","zoomScale"],meta:{}}},{"../../plots/cartesian":568,"./arrays_to_calcdata":926,"./attributes":927,"./calc":928,"./cross_trace_calc":932,"./cross_trace_defaults":933,"./defaults":934,"./format_labels":936,"./hover":938,"./marker_colorbar":945,"./plot":948,"./select":949,"./style":951,"./subtypes":952}],940:[function(t,e,r){"use strict";var n=t("../../lib").isArrayOrTypedArray,i=t("../../components/colorscale/helpers").hasColorscale,a=t("../../components/colorscale/defaults");e.exports=function(t,e,r,o,s,l){var c=(t.marker||{}).color;s("line.color",r),i(t,"line")?a(t,e,o,s,{prefix:"line.",cLetter:"c"}):s("line.color",!n(c)&&c||r),s("line.width"),(l||{}).noDash||s("line.dash")}},{"../../components/colorscale/defaults":376,"../../components/colorscale/helpers":377,"../../lib":503}],941:[function(t,e,r){"use strict";var n=t("../../constants/numerical"),i=n.BADNUM,a=n.LOG_CLIP,o=a+.5,s=a-

.5,l=t("../../lib"),c=l.segmentsIntersect,u=l.constrain,f=t("./constants");e.exports=function(t,e){var r,n,a,h,p,d,g,v,m,y,x,b,_,w,T,k,A,M,S=e.xaxis,E=e.yaxis,L="log"===S.type,C="log"===E.type,P=S._length,I=E._length,O=e.connectGaps,z=e.baseTolerance,D=e.shape,R="linear"===D,F=e.fill&&"none"!==e.fill,B=[],N=f.minTolerance,j=t.length,U=new Array(j),V=0;function q(r){var n=t[r];if(!n)return!1;var a=e.linearized?S.l2p(n.x):S.c2p(n.x),l=e.linearized?E.l2p(n.y):E.c2p(n.y);if(a===i){if(L&&(a=S.c2p(n.x,!0)),a===i)return!1;C&&l===i&&(a*=Math.abs(S._m*I*(S._m>0?o:s)/(E._m*P*(E._m>0?o:s))),a*=1e3}if(l===i){if(C&&(l=E.c2p(n.y,!0)),l===i)return!1;l*=1e3}return[a,l]}function H(t,e,r,n){var i=r-t,a=n-e,o=.5-t,s=.5-e,l=i*i+a*a,c=i*o+a*s;if(c>0&&c<l){var u=o*a-s*i;if(u*u<l)return!0}}function G(t,e){var r=t[0]/P,n=t[1]/I,i=Math.max(0,-r,r-1,-n,n-1);return i&&void 0!==A&&H(r,n,A,M)&&(i=0),i&&e&&H(r,n,e[0]/P,e[1]/I)&&(i=0),(1+f.toleranceGrowth*i)*z}function Y(t,e){var r=t[0]-e[0],n=t[1]-e[1];return Math.sqrt(r*r+n*n)}var W,X,Z,J,K,Q,$,tt=f.maxScreensAway,et=-P*tt,rt=P*(1+tt),nt=-I*tt,it=I*(1+tt),at=[[et,nt,rt,nt],[rt,nt,rt,it],[rt,it,et,it],[et,it,et,nt]];function ot(t){if(t[0]<et||t[0]>rt||t[1]<nt||t[1]>it)return[u(t[0],et,rt),u(t[1],nt,it)]}function st(t,e){return t[0]===e[0]&&(t[0]===et||t[0]===rt)||t[1]===e[1]&&(t[1]===nt||t[1]===it)||void 0}function lt(t,e,r){return function(n,i){var a=ot(n),o=ot(i),s=[];if(a&&o&&st(a,o))return s;a&&s.push(a),o&&s.push(o);var c=2*l.constrain((n[t]+i[t])/2,e,r)-((a||n)[t]+(o||i)[t]);return c&&((a&&o?c>0==a[t]>o[t]?a:o:a||o)[t]+=c),s}}function ct(t){var e=t[0],r=t[1],n=e===U[V-1][0],i=r===U[V-1][1];if(!n||!i)if(V>1){var a=e===U[V-2][0],o=r===U[V-2][1];n&&(e===et||e===rt)&&a?o?V--:U[V-1]=t:i&&(r===nt||r===it)&&o?a?V--:U[V-1]=t:U[V++]=t}else U[V++]=t}function ut(t){U[V-1][0]!==t[0]&&U[V-1][1]!==t[1]&&ct([Z,J]),ct(t),K=null,Z=J=0}function ft(t){if(A=t[0]/P,M=t[1]/I,W=t[0]<et?et:t[0]>rt?rt:0,X=t[1]<nt?nt:t[1]>it?it:0,W||X){if(V)if(K){var e=$(K,t);e.length>1&&(ut(e[0]),U[V++]=e[1])}else Q=$(U[V-1],t)[0],U[V++]=Q;else U[V++]=[W||t[0],X||t[1]];var r=U[V-1];W&&X&&(r[0]!==W||r[1]!==X)?(K&&(Z!==W&&J!==X?ct(Z&&J?(n=K,a=(i=t)[0]-n[0],o=(i[1]-n[1])/a,(n[1]*i[0]-i[1]*n[0])/a>0?[o>0?et:rt,it]:[o>0?rt:et,nt]):[Z||W,J||X]):Z&&J&&ct([Z,J])),ct([W,X])):Z-W&&J-X&&ct([W||Z,X||J]),K=t,Z=W,J=X}else K&&ut($(K,t)[0]),U[V++]=t;var n,i,a,o}for("linear"===D||"spline"===D?$=function(t,e){for(var r=[],n=0,i=0;i<4;i++){var a=at[i],o=c(t[0],t[1],e[0],e[1],a[0],a[1],a[2],a[3]);o&&(!n||Math.abs(o.x-r[0][0])>1||Math.abs(o.y-r[0][1])>1)&&(o=[o.x,o.y],n&&Y(o,t)<Y(r[0],t)?r.unshift(o):r.push(o),n++)}return r}:"hv"===D||"vh"===D?$=function(t,e){var r=[],n=ot(t),i=ot(e);return n&&i&&st(n,i)||(n&&r.push(n),i&&r.push(i)),r}:"hvh"===D?$=lt(0,et,rt):"vhv"===D&&($=lt(1,nt,it)),r=0;r<j;r++)if(n=q(r)){for(V=0,K=null,ft(n),r++;r<j;r++){if(!(h=q(r))){if(O)continue;break}if(R&&e.simplify){var ht=q(r+1);if(y=Y(h,n),F&&(0===V||V===j-1)||!(y<G(h,ht)*N)){for(v=[(h[0]-n[0])/y,(h[1]-n[1])/y],p=n,x=y,b=w=T=0,g=!1,a=h,r++;r<t.length;r++){if(d=ht,ht=q(r+1),!d){if(O)continue;break}if(k=(m=[d[0]-n[0],d[1]-n[1]])[0]*v[1]-m[1]*v[0],w=Math.min(w,k),(T=Math.max(T,k))-w>G(d,ht))break;a=d,(_=m[0]*v[0]+m[1]*v[1])>x?(x=_,h=d,g=!1):_<b&&(b=_,p=d,g=!0)}if(g?(ft(h),a!==p&&ft(p)):(p!==n&&ft(p),a!==h&&ft(h)),ft(a),r>=t.length||!d)break;ft(d),n=d}}else ft(h)}K&&ct([Z||K[0],J||K[1]]),B.push(U.slice(0,V))}return B}},{"../../constants/numerical":479,"../../lib":503,"./constants":931}],942:[function(t,e,r){"use strict";e.exports=function(t,e,r){"spline"===r("line.shape")&&r("line.smoothing")}},{}],943:[function(t,e,r){"use strict";var n={tonextx:1,tonexty:1,tonext:1};e.exports=function(t,e,r){var i,a,o,s,l,c={},u=!1,f=-1,h=0,p=-1;for(a=0;a<r.length;a++)(o=(i=r[a][0].trace).stackgroup||"")?o in c?l=c[o]:(l=c[o]=h,h++):i.fill in n&&p>=0?l=p:(l=p=h,h++),l<f&&(u=!0),i._groupIndex=f=l;var d=r.slice();u&&d.sort((function(t,e){var r=t[0].trace,n=e[0].trace;return r._groupIndex-n._groupIndex||r.index-n.index}));var g={};for(a=0;a<d.length;a++)o=(i=d[a][0].trace).stackgroup||"",!0===i.visible?(i._nexttrace=null,i.fill in n&&(s=g[o],i._prevtrace=s||null,s&&(s._nexttrace=i)),i._ownfill=i.fill&&("tozero"===i.fill.substr(0,6)||"toself"===i.fill||"to"===i.fill.substr(0,2)&&!i._prevtrace),g[o]=i):i._prevtrace=i._nexttrace=i._ownfill=null;return d}},{}],944:[function(t,e,r){"use strict";var n=t("fast-isnumeric");e.exports=function(t,e){e||(e=2);var r=t.marker,i=r.sizeref||1,a=r.sizemin||0,o="area"===r.sizemode?function(t){return Math.sqrt(t/i)}:function(t){return t/i};return function(t){var r=o(t/e);return n(r)&&r>0?Math.max(r,a):0}}},{"fast-

isnumeric":190}],945:[function(t,e,r){"use
strict";e.exports={container:"marker",min:"cmin",max:"cmax"}},{}],946:[function(t,e,r){"use strict";var
n=t("../../components/color"),i=t("../../components/colorscale/helpers").hasColorscale,a=t("../../components/colorscal
e/defaults"),o=t("./subtypes");e.exports=function(t,e,r,s,l,c){var
u=o.isBubble(t),f=(t.line||{}).color;c=c||{},f&&(r=f),l("marker.symbol"),l("marker.opacity",u?.7:1),l("marker.size"),
l("marker.color",r),i(t,"marker")&&a(t,e,s,l,{prefix:"marker.",cLetter:"c"}),c.noSelect||(l("selected.marker.color"),l(
"unselected.marker.color"),l("selected.marker.size"),l("unselected.marker.size")),c.noLine||(l("marker.line.color",f&
&!Array.isArray(f)&&e.marker.color!==f?f:u?n.background:n.defaultLine),i(t,"marker.line")&&a(t,e,s,l,{prefix:"m
arker.line.",cLetter:"c"}),l("marker.line.width",u?1:0)),u&&(l("marker.sizeref"),l("marker.sizemin"),l("marker.size
mode")),c.gradient&&"none"!==l("marker.gradient.type")&&l("marker.gradient.color")}},{"../../components/color"
:366,"../../components/colorscale/defaults":376,"../../components/colorscale/helpers":377,"./subtypes":952}],947:[fu
nction(t,e,r){"use strict";var n=t("../../lib").dateTick0,i=t("../../constants/numerical").ONEWEEK;function
a(t,e){return n(e,t%i==0?1:0)}e.exports=function(t,e,r,n,i){if(i||(i={x:!0,y:!0}),i.x){var
o=n("xperiod");o&&(n("xperiod0",a(o,e.xcalendar)),n("xperiodalignment"))}if(i.y){var
s=n("yperiod");s&&(n("yperiod0",a(s,e.ycalendar)),n("yperiodalignment"))}}},{"../../constants/numerical":479,"../..
/lib":503}],948:[function(t,e,r){"use strict";var
n=t("@plotly/d3"),i=t("../../registry"),a=t("../../lib"),o=a.ensureSingle,s=a.identity,l=t("../../components/drawing"),c=
t("./subtypes"),u=t("./line_points"),f=t("./link_traces"),h=t("../../lib/polygon").tester;function p(t,e,r,f,p,d,g){var
v;!function(t,e,r,i,o){var
s=r.xaxis,l=r.yaxis,u=n.extent(a.simpleMap(s.range,s.r2c)),f=n.extent(a.simpleMap(l.range,l.r2c)),h=i[0].trace;if(c.h
asMarkers(h)){var p=h.marker.maxdisplayed;if(0!==p){var d=i.filter((function(t){return
t.x>=u[0]&&t.x<=u[1]&&t.y>=f[0]&&t.y<=f[1]})),g=Math.ceil(d.length/p),v=0;o.forEach((function(t,r){var
n=t[0].trace;c.hasMarkers(n)&&n.marker.maxdisplayed>0&&r<e&&v++}));var
m=Math.round(v*g/3+Math.floor(v/3)*g/7.1);i.forEach((function(t){delete
t.vis})),d.forEach((function(t,e){0===Math.round((e+m)%g)&&(t.vis=!0)}))}}}(0,e,r,f,p);var
m=!!g&&g.duration>0;function y(t){return m?t.transition():t}var
x=r.xaxis,b=r.yaxis,_=f[0].trace,w=_.line,T=n.select(d),k=o(T,"g","errorbars"),A=o(T,"g","lines"),M=o(T,"g","point
s"),S=o(T,"g","text");if(i.getComponentMethod("errorbars","plot")(t,k,r,g),!0===_.visible){var
E,L;y(T).style("opacity",_.opacity);var C=_.fill.charAt(_.fill.length-
1);"x"!==C&&"y"!==C&&(C=""),f[0][r.isRangePlot?"nodeRangePlot3":"node3"]=T;var
P,I,O="",z=[],D=_._prevtrace;D&&(O=D._prevRevpath||"",L=D._nextFill,z=D._polygons);var
R,F,B,N,j,U,V,q="",H="",G=[],Y=a.noop;if(E=_._ownFill,c.hasLines(_)||"none"!==_.fill){for(L&&L.datum(f),-
1!==["hv","vh","hvh","vhv"].indexOf(w.shape)?(R=l.steps(w.shape),F=l.steps(w.shape.split("").reverse().join(""))):
R=F="spline"===w.shape?function(t){var e=t[t.length-1];return
t.length>1&&t[0][0]===e[0]&&t[0][1]===e[1]?l.smoothclosed(t.slice(1),w.smoothing):l.smoothopen(t,w.smoothin
g)}:function(t){return"M"+t.join("L")},B=function(t){return
F(t.reverse())},G=u(f,{xaxis:x,yaxis:b,connectGaps:_.connectgaps,baseTolerance:Math.max(w.width||1,3)/4,shape:
w.shape,simplify:w.simplify,fill:_.fill}),V=_._polygons=new
Array(G.length),v=0;v<G.length;v++)_._polygons[v]=h(G[v]);G.length&&(N=G[0][0],U=(j=G[G.length-
1])[j.length-1]),Y=function(t){return
function(e){if(P=R(e),I=B(e),q?C?(q+="L"+P.substr(1),H=I+"L"+H.substr(1)):(q+="Z"+P,H=I+"Z"+H):(q=P,H=I),
c.hasLines(_)&&e.length>1){var
r=n.select(this);if(r.datum(f),t)y(r.style("opacity",0).attr("d",P).call(l.lineGroupStyle)).style("opacity",1);else{var
i=y(r);i.attr("d",P),l.singleLineStyle(f,i)}}}}var W=A.selectAll(".js-
line").data(G);y(W.exit()).style("opacity",0).remove(),W.each(Y(!1)),W.enter().append("path").classed("js-
line",!0).style("vector-effect","non-scaling-
stroke").call(l.lineGroupStyle).each(Y(!0)),l.setClipUrl(W,r.layerClipId,t),G.length?(E?(E.datum(f),N&&U&&(C?(
"y"===C?N[1]=U[1]=b.c2p(0,!0):"x"===C&&(N[0]=U[0]=x.c2p(0,!0)),y(E).attr("d","M"+U+"L"+N+"L"+q.substr(

1)).call(l.singleFillStyle,t)):y(E).attr("d",q+"Z").call(l.singleFillStyle,t))):L&&("tonext"===_.fill.substr(0,6)&&q&&O?("tonext"===_.fill?y(L).attr("d",q+"Z"+O+"Z").call(l.singleFillStyle,t):y(L).attr("d",q+"L"+O.substr(1)+"Z").call(l.singleFillStyle,t),_._polygons=_._polygons.concat(z)):(Z(L),_._polygons=null)),_._prevRevpath=H,_._prevPolygons=V):(E?Z(E):L&&Z(L),_._polygons=_._prevRevpath=_._prevPolygons=null),M.datum(f),S.datum(f),function(e,i,a){var o,u=a[0].trace,f=c.hasMarkers(u),h=c.hasText(u),p=tt(u),d=et,g=et;if(f||h){var v=s,_=u.stackgroup,w=_&&"infer zero"===t._fullLayout._scatterStackOpts[x._id+b._id][_].stackgaps;u.marker.maxdisplayed||u._needsCull?v=w?K:J:_&&!w&&(v=Q),f&&(d=v),h&&(g=v)}var T,k=(o=e.selectAll("path.point").data(d,p)).enter().append("path").classed("point",!0);m&&k.call(l.pointStyle,u,t).call(l.translatePoints,x,b).style("opacity",0).transition().style("opacity",1),o.order(),f&&(T=l.makePointStyleFns(u)),o.each((function(e){var i=n.select(this),a=y(i);l.translatePoint(e,a,x,b)?(l.singlePointStyle(e,a,u,T,t),r.layerClipId&&l.hideOutsideRangePoint(e,a,x,b,u.xcalendar,u.ycalendar),u.customdata&&i.classed("plotly-customdata",null!==e.data&&void 0!==e.data)):a.remove()})),m?o.exit().transition().style("opacity",0).remove():o.exit().remove(),(o=i.selectAll("g").data(g,p)).enter().append("g").classed("textpoint",!0).append("text"),o.order(),o.each((function(t){var e=n.select(this),i=y(e.select("text"));l.translatePoint(t,i,x,b)?r.layerClipId&&l.hideOutsideRangePoint(t,e,x,b,u.xcalendar,u.ycalendar):e.remove()})),o.selectAll("text").call(l.textPointStyle,u,t).each((function(t){var e=x.c2p(t.x),r=b.c2p(t.y);n.select(this).selectAll("tspan.line").each((function(){y(n.select(this)).attr({x:e,y:r})}))}))),o.exit().remove()}(M,S,f);var X=!1===_.cliponaxis?null:r.layerClipId;l.setClipUrl(M,X,t),l.setClipUrl(S,X,t)}function Z(t){y(t).attr("d","M0,0Z")}function J(t){return t.filter((function(t){return!t.gap&&t.vis}))}function K(t){return t.filter((function(t){return t.vis}))}function Q(t){return t.filter((function(t){return!t.gap}))}function $(t){return t.id}function tt(t){if(t.ids)return $}function et(){return!1}e.exports=function(t,e,r,i,a,c){var u,h,d=!a,g=!!a&&a.duration>0,v=f(t,e,r);(u=i.selectAll("g.trace").data(v,(function(t){return t[0].trace.uid}))).enter().append("g").attr("class",(function(t){return"trace scatter trace"+t[0].trace.uid})).style("stroke-miterlimit",2),u.order(),function(t,e,r){e.each((function(e){var i=o(n.select(this),"g","fills");l.setClipUrl(i,r.layerClipId,t);var a=e[0].trace,c=[];a._ownfill&&c.push("_ownFill"),a._nexttrace&&c.push("_nextFill");var u=i.selectAll("g").data(c,s);u.enter().append("g"),u.exit().each((function(t){a[t]=null})).remove(),u.order().each((function(t){a[t]=o(n.select(this),"path","js-fill")}))}))}(t,u,e),g?(c&&(h=c()),n.transition().duration(a.duration).ease(a.easing).each("end",(function(){h&&h()})).each("interrupt",(function(){h&&h()}))).each((function(){i.selectAll("g.trace").each((function(r,n){p(t,n,e,r,v,this,a)}))})):u.each((function(r,n){p(t,n,e,r,v,this,a)})),d&&u.exit().remove(),i.selectAll("path:not([d])").remove()}},{"../../components/drawing":388,"../../lib":503,"../../lib/polygon":515,"../../registry":638,"./line_points":941,"./link_traces":943,"./subtypes":952,"@plotly/d3":58}],949:[function(t,e,r){"use strict";var n=t("./subtypes");e.exports=function(t,e){var r,i,a,o,s=t.cd,l=t.xaxis,c=t.yaxis,u=[],f=s[0].trace;if(!n.hasMarkers(f)&&!n.hasText(f))return[];if(!1===e)for(r=0;r<s.length;r++)s[r].selected=0;else for(r=0;r<s.length;r++)i=s[r],a=l.c2p(i.x),o=c.c2p(i.y),null!==i.i&&e.contains([a,o],!1,r,t)?(u.push({pointNumber:i.i,x:l.c2d(i.x),y:c.c2d(i.y)}),i.selected=1):i.selected=0;return u}},{"./subtypes":952}],950:[function(t,e,r){"use strict";var n=["orientation","groupnorm","stackgaps"];e.exports=function(t,e,r,i){var a=r._scatterStackOpts,o=i("stackgroup");if(o){var s=e.xaxis+e.yaxis,l=a[s];l||(l=a[s]={});var c=l[o],u=!1;c?c.traces.push(e):(c=l[o]={traceIndices:[],traces:[e]},u=!0);for(var f={orientation:e.x&&!e.y?"h":"v"},h=0;h<n.length;h++){var p=n[h],d=p+"Found";if(!c[d]){var g=void 0!==t[p],v="orientation"===p;if((g||u)&&(c[p]=i(p,f[p]),v&&(c.fillDflt="h"===c[p]?"tonextx":"tonexty"),g&&(c[d]=!0,!u&&(delete c.traces[0][p],v)))){for(var m=0;m<c.traces.length-1;m++){var y=c.traces[m];y._input.fill!==y.fill&&(y.fill=c.fillDflt)}}}return c}}},{}],951:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../components/drawing"),a=t("../../registry");function

o(t,e,r){i.pointStyle(t.selectAll("path.point"),e,r)}function
s(t,e,r){i.textPointStyle(t.selectAll("text"),e,r)}e.exports={style:function(t){var
e=n.select(t).selectAll("g.trace.scatter");e.style("opacity",(function(t){return
t[0].trace.opacity})),e.selectAll("g.points").each((function(e){o(n.select(this),e.trace||e[0].trace,t)})),e.selectAll("g.te
xt").each((function(e){s(n.select(this),e.trace||e[0].trace,t)})),e.selectAll("g.trace path.js-
line").call(i.lineGroupStyle),e.selectAll("g.trace path.js-
fill").call(i.fillGroupStyle,t),a.getComponentMethod("errorbars","style")(e)},stylePoints:o,styleText:s,styleOnSelect
:function(t,e,r){var
n=e[0].trace;n.selectedpoints?(i.selectedPointStyle(r.selectAll("path.point"),n),i.selectedTextStyle(r.selectAll("text")
,n)):(o(r,n,t),s(r,n,t))}}},{"../../components/drawing":388,"../../registry":638,"@plotly/d3":58}],952:[function(t,e,r){"
use strict";var n=t("../../lib");e.exports={hasLines:function(t){return t.visible&&t.mode&&-
1!==t.mode.indexOf("lines")},hasMarkers:function(t){return t.visible&&(t.mode&&-
1!==t.mode.indexOf("markers")||"splom"===t.type)},hasText:function(t){return t.visible&&t.mode&&-
1!==t.mode.indexOf("text")},isBubble:function(t){return
n.isPlainObject(t.marker)&&n.isArrayOrTypedArray(t.marker.size)}}},{"../../lib":503}],953:[function(t,e,r){"use
strict";var
n=t("../../lib");e.exports=function(t,e,r,i,a){a=a||{},i("textposition"),n.coerceFont(i,"textfont",r.font),a.noSelect||(i("se
lected.textfont.color"),i("unselected.textfont.color"))}},{"../../lib":503}],954:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("../../registry");e.exports=function(t,e,r,a){var
o,s=a("x"),l=a("y");if(i.getComponentMethod("calendars","handleTraceDefaults")(t,e,["x","y"],r),s){var
c=n.minRowLength(s);l?o=Math.min(c,n.minRowLength(l)):(o=c,a("y0"),a("dy"))}else{if(!l)return
0;o=n.minRowLength(l),a("x0"),a("dx")}return
e._length=o,o}},{"../../lib":503,"../../registry":638}],955:[function(t,e,r){"use strict";var
n=t("../scatter/attributes"),i=t("../../components/colorscale/attributes"),a=t("../../plots/cartesian/axis_format_attributes
").axisHoverFormat,o=t("../../plots/template_attributes").hovertemplateAttrs,s=t("../../plots/template_attributes").text
templateAttrs,l=t("../../plots/attributes"),c=t("../../constants/gl3d_dashes"),u=t("../../constants/gl3d_markers"),f=t("../.
./lib/extend").extendFlat,h=t("../../plot_api/edit_types").overrideAll,p=t("../../lib/sort_object_keys"),d=n.line,g=n.ma
rker,v=g.line,m=f({width:d.width,dash:{valType:"enumerated",values:p(c),dflt:"solid"}},i("line")),y=e.exports=h({
x:n.x,y:n.y,z:{valType:"data_array"},text:f({},n.text,{}),texttemplate:s({},{}),hovertext:f({},n.hovertext,{}),hoverte
mplate:o(),xhoverformat:a("x"),yhoverformat:a("y"),zhoverformat:a("z"),mode:f({},n.mode,{dflt:"lines+markers"}),
surfaceaxis:{valType:"enumerated",values:[-1,0,1,2],dflt:-
1},surfacecolor:{valType:"color"},projection:{x:{show:{valType:"boolean",dflt:!1},opacity:{valType:"number",mi
n:0,max:1,dflt:1},scale:{valType:"number",min:0,max:10,dflt:2/3}},y:{show:{valType:"boolean",dflt:!1},opacity:{
valType:"number",min:0,max:1,dflt:1},scale:{valType:"number",min:0,max:10,dflt:2/3}},z:{show:{valType:"boole
an",dflt:!1},opacity:{valType:"number",min:0,max:1,dflt:1},scale:{valType:"number",min:0,max:10,dflt:2/3}}},con
nectgaps:n.connectgaps,line:m,marker:f({symbol:{valType:"enumerated",values:p(u),dflt:"circle",arrayOk:!0},size:f
({},g.size,{dflt:8}),sizeref:g.sizeref,sizemin:g.sizemin,sizemode:g.sizemode,opacity:f({},g.opacity,{arrayOk:!1}),co
lorbar:g.colorbar,line:f({width:f({},v.width,{arrayOk:!1})},i("marker.line"))},i("marker")),textposition:f({},n.textpo
sition,{dflt:"top
center"}),textfont:{color:n.textfont.color,size:n.textfont.size,family:f({},n.textfont.family,{arrayOk:!1})},opacity:l.o
pacity,hoverinfo:f({},l.hoverinfo)},"calc","nested");y.x.editType=y.y.editType=y.z.editType="calc+clearAxisTypes
"},{"../../components/colorscale/attributes":373,"../../constants/gl3d_dashes":476,"../../constants/gl3d_markers":477,
"../../lib/extend":493,"../../lib/sort_object_keys":526,"../../plot_api/edit_types":536,"../../plots/attributes":550,"../../plo
ts/cartesian/axis_format_attributes":557,"../../plots/template_attributes":633,"../scatter/attributes":927}],956:[functio
n(t,e,r){"use strict";var
n=t("../scatter/arrays_to_calcdata"),i=t("../scatter/colorscale_calc");e.exports=function(t,e){var
r=[{x:!1,y:!1,trace:e,t:{}}];return
n(r,e),i(t,e),r}},{"../scatter/arrays_to_calcdata":926,"../scatter/colorscale_calc":930}],957:[function(t,e,r){"use

strict";var n=t("../../registry");function i(t,e,r,i){if(!e||!e.visible)return null;for(var a=n.getComponentMethod("errorbars","makeComputeError")(e),o=new Array(t.length),s=0;s<t.length;s++){var l=a(+t[s],s);if("log"===i.type){var c=i.c2l(t[s]),u=t[s]-l[0],f=t[s]+l[1];if(o[s]=[(i.c2l(u,!0)-c)*r,(i.c2l(f,!0)-c)*r],u>0){var h=i.c2l(u);i._lowerLogErrorBound||(i._lowerLogErrorBound=h),i._lowerErrorBound=Math.min(i._lowerLogErrorBound,h)}}else o[s]=[-l[0]*r,l[1]*r]}return o}e.exports=function(t,e,r){var n=[i(t.x,t.error_x,e[0],r.xaxis),i(t.y,t.error_y,e[1],r.yaxis),i(t.z,t.error_z,e[2],r.zaxis)],a=function(t){for(var e=0;e<t.length;e++)if(t[e])return t[e].length;return 0}(n);if(0===a)return null;for(var o=new Array(a),s=0;s<a;s++){for(var l=[[0,0,0],[0,0,0]],c=0;c<3;c++)if(n[c])for(var u=0;u<2;u++)l[u][c]=n[c][s][u];o[s]=l}return o}},{"../../registry":638}],958:[function(t,e,r){"use strict";var n=t("../../../stackgl_modules").gl_line3d,i=t("../../../stackgl_modules").gl_scatter3d,a=t("../../../stackgl_modules").gl_error3d,o=t("../../../stackgl_modules").gl_mesh3d,s=t("../../../stackgl_modules").delaunay_triangulate,l=t("../../lib"),c=t("../../lib/str2rgbarray"),u=t("../../lib/gl_format_color").formatColor,f=t("../scatter/make_bubble_size_func"),h=t("../../constants/gl3d_dashes"),p=t("../../constants/gl3d_markers"),d=t("../../plots/cartesian/axes"),g=t("../../components/fx/helpers").appendArrayPointValue,v=t("./calc_errors");function m(t,e){this.scene=t,this.uid=e,this.linePlot=null,this.scatterPlot=null,this.errorBars=null,this.textMarkers=null,this.delaunayMesh=null,this.color=null,this.mode="",this.dataPoints=[],this.axesBounds=[[-1/0,-1/0,-1/0],[1/0,1/0,1/0]],this.textLabels=null,this.data=null}var y=m.prototype;function x(t){return null==t?0:t.indexOf("left")>-1?-1:t.indexOf("right")>-1?1:0}function b(t){return null==t?0:t.indexOf("top")>-1?-1:t.indexOf("bottom")>-1?1:0}function _(t,e){return e(4*t)}function w(t){return p[t]}function T(t,e,r,n,i){var a=null;if(l.isArrayOrTypedArray(t)){a=[];for(var o=0;o<e;o++)void 0===t[o]?a[o]=n:a[o]=r(t[o],i)}else a=r(t,l.identity);return a}function k(t,e){var r,n,i,a,o,s,h=[],p=t.fullSceneLayout,m=t.dataScale,y=p.xaxis,k=p.yaxis,A=p.zaxis,M=e.marker,S=e.line,E=e.x||[],L=e.y||[],C=e.z||[],P=E.length,I=e.xcalendar,O=e.ycalendar,z=e.zcalendar;for(o=0;o<P;o++)r=y.d2l(E[o],0,I)*m[0],n=k.d2l(L[o],0,O)*m[1],i=A.d2l(C[o],0,z)*m[2],h[o]=[r,n,i];if(Array.isArray(e.text))s=e.text;else if(void 0!==e.text)for(s=new Array(P),o=0;o<P;o++)s[o]=e.text;function D(t,e){var r=p[t];return d.tickText(r,r.d2l(e),!0).text}var R=e.texttemplate;if(R){var F=t.fullLayout._d3locale,B=Array.isArray(R),N=B?Math.min(R.length,P):P,j=B?function(t){return R[t]}:function(){return R};for(s=new Array(N),o=0;o<N;o++){var U={x:E[o],y:L[o],z:C[o]},V={xLabel:D("xaxis",E[o]),yLabel:D("yaxis",L[o]),zLabel:D("zaxis",C[o])},q={};g(q,e,o);var H=e._meta||{};s[o]=l.texttemplateString(j(o),V,F,q,U,H)}}if(a={position:h,mode:e.mode,text:s},"line"in e&&(a.lineColor=u(S,1,P),a.lineWidth=S.width,a.lineDashes=S.dash),"marker"in e){var G=f(e);a.scatterColor=u(M,1,P),a.scatterSize=T(M.size,P,_,20,G),a.scatterMarker=T(M.symbol,P,w,""),a.scatterLineWidth=M.line.width,a.scatterLineColor=u(M.line,1,P),a.scatterAngle=0}"textposition"in e&&(a.textOffset=function(t){var e=[0,0];if(Array.isArray(t))for(var r=0;r<t.length;r++)e[r]=[0,0],t[r]&&(e[r][0]=x(t[r]),e[r][1]=b(t[r]));else e[0]=x(t),e[1]=b(t);return e}(e.textposition),a.textColor=u(e.textfont,1,P),a.textSize=T(e.textfont.size,P,l.identity,12),a.textFont=e.textfont.family,a.textAngle=0);var Y=["x","y","z"];for(a.project=[!1,!1,!1],a.projectScale=[1,1,1],a.projectOpacity=[1,1,1],o=0;o<3;++o){var W=e.projection[Y[o]];(a.project[o]=W.show)&&(a.projectOpacity[o]=W.opacity,a.projectScale[o]=W.scale)}a.errorBounds=v(e,m,p);var X=function(t){for(var e=[0,0,0],r=[[0,0,0],[0,0,0],[0,0,0]],n=[1,1,1],i=0;i<3;i++){var a=t[i];a&&!1!==a.copy_zstyle&&!1!==t[2].visible&&(a=t[2]),a&&a.visible&&(e[i]=a.width/2,r[i]=c(a.color),n[i]=a.thickness)}return{capSize:e,color:r,lineWidth:n}}([e.error_x,e.error_y,e.error_z]);return a.errorColor=X.color,a.errorLineWidth=X.lineWidth,a.errorCapSize=X.capSize,a.delaunayAxis=e.surfaceaxis,a.delaunayColor=c(e.surfacecolor),a}function A(t){if(l.isArrayOrTypedArray(t)){var e=t[0];return l.isArrayOrTypedArray(e)&&(t=e),"rgb("+t.slice(0,3).map((function(t){return Math.round(255*t)}))+")"}return null}function M(t){return l.isArrayOrTypedArray(t)?4===t.length&&"number"==typeof t[0]?A(t):t.map(A):null}y.handlePick=function(t){if(t.object&&(t.object===this.linePlot||t.object===this.delaunay

Mesh||t.object===this.textMarkers||t.object===this.scatterPlot)){var e=t.index=t.data.index;return t.object.highlight&&t.object.highlight(null),this.scatterPlot&&(t.object=this.scatterPlot,this.scatterPlot.highlight(t.data)),t.textLabel="",this.textLabels&&(Array.isArray(this.textLabels)?(this.textLabels[e]||0===this.textLabels[e])&&(t.textLabel=this.textLabels[e]):t.textLabel=this.textLabels),t.traceCoordinate=[this.data.x[e],this.data.y[e],this.data.z[e]],!0}},y.update=function(t){var e,r,l,c,u=this.scene.glplot.gl,f=h.solid;this.data=t;var p=k(this.scene,t);"mode"in p&&(this.mode=p.mode),"lineDashes"in p&&p.lineDashes in h&&(f=h[p.lineDashes]),this.color=M(p.scatterColor)||M(p.lineColor),this.dataPoints=p.position,e={gl:this.scene.glplot.gl,position:p.position,color:p.lineColor,lineWidth:p.lineWidth||1,dashes:f[0],dashScale:f[1],opacity:t.opacity,connectGaps:t.connectgaps},-1!==this.mode.indexOf("lines")?this.linePlot?this.linePlot.update(e):(this.linePlot=n(e),this.linePlot._trace=this,this.scene.glplot.add(this.linePlot)):this.linePlot&&(this.scene.glplot.remove(this.linePlot),this.linePlot.dispose(),this.linePlot=null);var d=t.opacity;if(t.marker&&t.marker.opacity&&(d*=t.marker.opacity),r={gl:this.scene.glplot.gl,position:p.position,color:p.scatterColor,size:p.scatterSize,glyph:p.scatterMarker,opacity:d,orthographic:!0,lineWidth:p.scatterLineWidth,lineColor:p.scatterLineColor,project:p.project,projectScale:p.projectScale,projectOpacity:p.projectOpacity},-1!==this.mode.indexOf("markers")?this.scatterPlot?this.scatterPlot.update(r):(this.scatterPlot=i(r),this.scatterPlot._trace=this,this.scatterPlot.highlightScale=1,this.scene.glplot.add(this.scatterPlot)):this.scatterPlot&&(this.scene.glplot.remove(this.scatterPlot),this.scatterPlot.dispose(),this.scatterPlot=null),c={gl:this.scene.glplot.gl,position:p.position,glyph:p.text,color:p.textColor,size:p.textSize,angle:p.textAngle,alignment:p.textOffset,font:p.textFont,orthographic:!0,lineWidth:0,project:!1,opacity:t.opacity},this.textLabels=t.hovertext||t.text,-1!==this.mode.indexOf("text")?this.textMarkers?this.textMarkers.update(c):(this.textMarkers=i(c),this.textMarkers._trace=this,this.textMarkers.highlightScale=1,this.scene.glplot.add(this.textMarkers)):this.textMarkers&&(this.scene.glplot.remove(this.textMarkers),this.textMarkers.dispose(),this.textMarkers=null),l={gl:this.scene.glplot.gl,position:p.position,color:p.errorColor,error:p.errorBounds,lineWidth:p.errorLineWidth,capSize:p.errorCapSize,opacity:t.opacity},this.errorBars?p.errorBounds?this.errorBars.update(l):(this.scene.glplot.remove(this.errorBars),this.errorBars.dispose(),this.errorBars=null):p.errorBounds&&(this.errorBars=a(l),this.errorBars._trace=this,this.scene.glplot.add(this.errorBars)),p.delaunayAxis>=0){var g=function(t,e,r){var n,i=(r+1)%3,a=(r+2)%3,o=[],l=[];for(n=0;n<t.length;++n){var c=t[n];!isNaN(c[i])&&isFinite(c[i])&&!isNaN(c[a])&&isFinite(c[a])&&(o.push([c[i],c[a]]),l.push(n))}var u=s(o);for(n=0;n<u.length;++n)for(var f=u[n],h=0;h<f.length;++h)f[h]=l[f[h]];return{positions:t,cells:u,meshColor:e}}(p.position,p.delaunayColor,p.delaunayAxis);g.opacity=t.opacity,this.delaunayMesh?this.delaunayMesh.update(g):(g.gl=u,this.delaunayMesh=o(g),this.delaunayMesh._trace=this,this.scene.glplot.add(this.delaunayMesh))}else this.delaunayMesh&&(this.scene.glplot.remove(this.delaunayMesh),this.delaunayMesh.dispose(),this.delaunayMesh=null)},y.dispose=function(){this.linePlot&&(this.scene.glplot.remove(this.linePlot),this.linePlot.dispose()),this.scatterPlot&&(this.scene.glplot.remove(this.scatterPlot),this.scatterPlot.dispose()),this.errorBars&&(this.scene.glplot.remove(this.errorBars),this.errorBars.dispose()),this.textMarkers&&(this.scene.glplot.remove(this.textMarkers),this.textMarkers.dispose()),this.delaunayMesh&&(this.scene.glplot.remove(this.delaunayMesh),this.delaunayMesh.dispose())},e.exports=function(t,e){var r=new m(t,e.uid);return r.update(e),r}},{"../../../stackgl_modules":1124,"../../components/fx/helpers":402,"../../constants/gl3d_dashes":476,"../../constants/gl3d_markers":477,"../../lib":503,"../../lib/gl_format_color":499,"../../lib/str2rgbarray":528,"../../plots/cartesian/axes":554,"../scatter/make_bubble_size_func":944,"./calc_errors":957}],959:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../lib"),a=t("../scatter/subtypes"),o=t("../scatter/marker_defaults"),s=t("../scatter/line_defaults"),l=t("../scatter/text_defaults"),c=t("./attributes");e.exports=function(t,e,r,u){function f(r,n){return i.coerce(t,e,c,r,n)}if(function(t,e,r,i){var a=0,o=r("x"),s=r("y"),l=r("z");return n.getComponentMethod("calendars","handleTraceDefaults")(t,e,["x","y","z"],i),o&&s&&l&&(a=Math.min(o.length,s.length,l.length),e._length=e._xlength=e._ylength=e._zlength=a),a}(t,e,f,u)){f("text"),f("hovertext"),f("hovertemplate"),f("xhoverformat"),f("yhoverformat"),f("zhoverformat"),f("mode"),a.hasLines(e)&&(f("connectgaps"),s(t,e,r,u,

f)),a.hasMarkers(e)&&o(t,e,r,u,f,{noSelect:!0}),a.hasText(e)&&(f("texttemplate"),l(t,e,u,f,{noSelect:!0}));var h=(e.line||{}).color,p=(e.marker||{}).color;f("surfaceaxis")>=0&&f("surfacecolor",h||p);for(var d=["x","y","z"],g=0;g<3;++g){var v="projection."+d[g];f(v+".show")&&(f(v+".opacity"),f(v+".scale"))}var m=n.getComponentMethod("errorbars","supplyDefaults");m(t,e,h||p||r,{axis:"z"}),m(t,e,h||p||r,{axis:"y",inherit:"z"}),m(t,e,h||p||r,{axis:"x",inherit:"z"})}else e.visible=!1}},{"../../lib":503,"../../registry":638,"../scatter/line_defaults":940,"../scatter/marker_defaults":946,"../scatter/subtypes":952,"../scatter/text_defaults":953,"./attributes":955}],960:[function(t,e,r){"use strict";e.exports={plot:t("./convert"),attributes:t("./attributes"),markerSymbols:t("../../constants/gl3d_markers"),supplyDefaults:t("./defaults"),colorbar:[{container:"marker",min:"cmin",max:"cmax"},{container:"line",min:"cmin",max:"cmax"}],calc:t("./calc"),moduleType:"trace",name:"scatter3d",basePlotModule:t("../../plots/gl3d"),categories:["gl3d","symbols","showLegend","scatter-like"],meta:{}}},{"../../constants/gl3d_markers":477,"../../plots/gl3d":598,"./attributes":955,"./calc":956,"./convert":958,"./defaults":959}],961:[function(t,e,r){"use strict";var n=t("../scatter/attributes"),i=t("../../plots/attributes"),a=t("../../plots/template_attributes").hovertemplateAttrs,o=t("../../plots/template_attributes").texttemplateAttrs,s=t("../../components/colorscale/attributes"),l=t("../../lib/extend").extendFlat,c=n.marker,u=n.line,f=c.line;e.exports={carpet:{valType:"string",editType:"calc"},a:{valType:"data_array",editType:"calc"},b:{valType:"data_array",editType:"calc"},mode:l({},n.mode,{dflt:"markers"}),text:l({},n.text,{}),texttemplate:o({editType:"plot"},{keys:["a","b","text"]}),hovertext:l({},n.hovertext,{}),line:{color:u.color,width:u.width,dash:u.dash,shape:l({},u.shape,{values:["linear","spline"]}),smoothing:u.smoothing,editType:"calc"},connectgaps:n.connectgaps,fill:l({},n.fill,{values:["none","toself","tonext"],dflt:"none"}),fillcolor:n.fillcolor,marker:l({symbol:c.symbol,opacity:c.opacity,maxdisplayed:c.maxdisplayed,size:c.size,sizeref:c.sizeref,sizemin:c.sizemin,sizemode:c.sizemode,line:l({width:f.width,editType:"calc"},s("marker.line")),gradient:c.gradient,editType:"calc"},s("marker")),textfont:n.textfont,textposition:n.textposition,selected:n.selected,unselected:n.unselected,hoverinfo:l({},i.hoverinfo,{flags:["a","b","text","name"]}),hoveron:n.hoveron,hovertemplate:a()},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plots/attributes":550,"../../plots/template_attributes":633,"../scatter/attributes":927}],962:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../scatter/colorscale_calc"),a=t("../scatter/arrays_to_calcdata"),o=t("../scatter/calc_selection"),s=t("../scatter/calc").calcMarkerSize,l=t("../carpet/lookup_carpetid");e.exports=function(t,e){var r=e._carpetTrace=l(t,e);if(r&&r.visible&&"legendonly"!==r.visible){var c;e.xaxis=r.xaxis,e.yaxis=r.yaxis;var u,f,h=e._length,p=new Array(h),d=!1;for(c=0;c<h;c++)if(u=e.a[c],f=e.b[c],n(u)&&n(f)){var g=r.ab2xy(+u,+f,!0),v=r.isVisible(+u,+f);v||(d=!0),p[c]={x:g[0],y:g[1],a:u,b:f,vis:v}}else p[c]={x:!1,y:!1};return e._needsCull=d,p[0].carpet=r,p[0].trace=e,s(e,h),i(t,e),a(p,e),o(p,e),p}}},{"../carpet/lookup_carpetid":708,"../scatter/arrays_to_calcdata":926,"../scatter/calc":928,"../scatter/calc_selection":929,"../scatter/colorscale_calc":930,"fast-isnumeric":190}],963:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../scatter/constants"),a=t("../scatter/subtypes"),o=t("../scatter/marker_defaults"),s=t("../scatter/line_defaults"),l=t("../scatter/line_shape_defaults"),c=t("../scatter/text_defaults"),u=t("../scatter/fillcolor_defaults"),f=t("./attributes");e.exports=function(t,e,r,h){function p(r,i){return n.coerce(t,e,f,r,i)}p("carpet"),e.xaxis="x",e.yaxis="y";var d=p("a"),g=p("b"),v=Math.min(d.length,g.length);if(v){e._length=v,p("text"),p("texttemplate"),p("hovertext"),p("mode",v<i.PTS_LINESONLY?"lines+markers":"lines"),a.hasLines(e)&&(s(t,e,r,h,p),l(t,e,p),p("connectgaps")),a.hasMarkers(e)&&o(t,e,r,h,p,{gradient:!0}),a.hasText(e)&&c(t,e,h,p);var m=[];(a.hasMarkers(e)||a.hasText(e))&&(p("marker.maxdisplayed"),m.push("points")),p("fill"),"none"!==e.fill&&(u(t,e,r,p),a.hasLines(e)||l(t,e,p)),"tonext"!==e.fill&&"toself"!==e.fill||m.push("fills"),"fills"!==p("hoveron",m.join("+")||"points")&&p("hovertemplate"),n.coerceSelectionMarkerOpacity(e,p)}else e.visible=!1}},{"../../lib":503,"../scatter/constants":931,"../scatter/fillcolor_defaults":935,"../scatter/line_defaults":940,"../scatter/line_shape_defaults":942,"../scatter/marker_defaults":946,"../scatter/subtypes":952,"../scatter/text_defaults":953,"./attributes":961}],964:[function(t,e,r){"use strict";e.exports=function(t,e,r,n,i){var a=n[i];return t.a=a.a,t.b=a.b,t.y=a.y,t}},{}],965:[function(t,e,r){"use strict";e.exports=function(t,e){var

r={},n=e._carpet,i=n.ab2ij([t.a,t.b]),a=Math.floor(i[0]),o=i[0]-a,s=Math.floor(i[1]),l=i[1]-s,c=n.evalxy([],a,s,o,l);return r.yLabel=c[1].toFixed(3),r}},{}],966:[function(t,e,r){"use strict";var n=t("../scatter/hover"),i=t("../../lib").fillText;e.exports=function(t,e,r,a){var o=n(t,e,r,a);if(o&&!1!==o[0].index){var s=o[0];if(void 0===s.index){var l=1-s.y0/t.ya._length,c=t.xa._length,u=c*l/2,f=c-u;return s.x0=Math.max(Math.min(s.x0,f),u),s.x1=Math.max(Math.min(s.x1,f),u),o}var h=s.cd[s.index];s.a=h.a,s.b=h.b,s.xLabelVal=void 0,s.yLabelVal=void 0;var p=s.trace,d=p._carpet,g=p._module.formatLabels(h,p);s.yLabel=g.yLabel,delete s.text;var v=[];if(!p.hovertemplate){var m=(h.hi||p.hoverinfo).split("+");-1!==m.indexOf("all")&&(m=["a","b","text"]),-1!==m.indexOf("a")&&y(d.aaxis,h.a),-1!==m.indexOf("b")&&y(d.baxis,h.b),v.push("y: "+s.yLabel),-1!==m.indexOf("text")&&i(h,p,v),s.extraText=v.join("<br>")}return o}function y(t,e){var r;r=t.labelprefix&&t.labelprefix.length>0?t.labelprefix.replace(/ = $/,""):t._hovertitle,v.push(r+": "+e.toFixed(3)+t.labelsuffix)}}},{"../../lib":503,"../scatter/hover":938}],967:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),colorbar:t("../scatter/marker_colorbar"),formatLabels:t("./format_labels"),calc:t("./calc"),plot:t("./plot"),style:t("../scatter/style").style,styleOnSelect:t("../scatter/style").styleOnSelect,hoverPoints:t("./hover"),selectPoints:t("../scatter/select"),eventData:t("./event_data"),moduleType:"trace",name:"scattercarpet",basePlotModule:t("../../plots/cartesian"),categories:["svg","carpet","symbols","showLegend","carpetDependent","zoomScale"],meta:{}}},{"../../plots/cartesian":568,"../scatter/marker_colorbar":945,"../scatter/select":949,"../scatter/style":951,"./attributes":961,"./calc":962,"./defaults":963,"./event_data":964,"./format_labels":965,"./hover":966,"./plot":968}],968:[function(t,e,r){"use strict";var n=t("../scatter/plot"),i=t("../../plots/cartesian/axes"),a=t("../../components/drawing");e.exports=function(t,e,r,o){var s,l,c,u=r[0][0].carpet,f={xaxis:i.getFromId(t,u.xaxis||"x"),yaxis:i.getFromId(t,u.yaxis||"y"),plot:e.plot};for(n(t,f,r,o),s=0;s<r.length;s++)l=r[s][0].trace,c=o.selectAll("g.trace"+l.uid+" .js-line"),a.setClipUrl(c,r[s][0].carpet._clipPathId,t)}},{"../../components/drawing":388,"../../plots/cartesian/axes":554,"../scatter/plot":948}],969:[function(t,e,r){"use strict";var n=t("../../plots/template_attributes").hovertemplateAttrs,i=t("../../plots/template_attributes").texttemplateAttrs,a=t("../scatter/attributes"),o=t("../../plots/attributes"),s=t("../../components/colorscale/attributes"),l=t("../../components/drawing/attributes").dash,c=t("../../lib/extend").extendFlat,u=t("../../plot_api/edit_types").overrideAll,f=a.marker,h=a.line,p=f.line;e.exports=u({lon:{valType:"data_array"},lat:{valType:"data_array"},locations:{valType:"data_array"},locationmode:{valType:"enumerated",values:["ISO-3","USA-states","country names","geojson-id"],dflt:"ISO-3"},geojson:{valType:"any",editType:"calc"},featureidkey:{valType:"string",editType:"calc",dflt:"id"},mode:c({},a.mode,{dflt:"markers"}),text:c({},a.text,{}),texttemplate:i({editType:"plot"},{keys:["lat","lon","location","text"]}),hovertext:c({},a.hovertext,{}),textfont:a.textfont,textposition:a.textposition,line:{color:h.color,width:h.width,dash:l},connectgaps:a.connectgaps,marker:c({symbol:f.symbol,opacity:f.opacity,size:f.size,sizeref:f.sizeref,sizemin:f.sizemin,sizemode:f.sizemode,colorbar:f.colorbar,line:c({width:p.width},s("marker.line")),gradient:f.gradient},s("marker")),fill:{valType:"enumerated",values:["none","toself"],dflt:"none"},fillcolor:a.fillcolor,selected:a.selected,unselected:a.unselected,hoverinfo:c({},o.hoverinfo,{flags:["lon","lat","location","text","name"]}),hovertemplate:n()},"calc","nested")},{"../../components/colorscale/attributes":373,"../../components/drawing/attributes":387,"../../lib/extend":493,"../../plot_api/edit_types":536,"../../plots/attributes":550,"../../plots/template_attributes":633,"../scatter/attributes":927}],970:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../constants/numerical").BADNUM,a=t("../scatter/colorscale_calc"),o=t("../scatter/arrays_to_calcdata"),s=t("../scatter/calc_selection"),l=t("../../lib")._;function c(t){return t&&"string"==typeof t}e.exports=function(t,e){var r,u=Array.isArray(e.locations),f=u?e.locations.length:e._length,h=new Array(f);r=e.geojson?function(t){return c(t)||n(t)}:c;for(var p=0;p<f;p++){var d=h[p]={};if(u){var g=e.locations[p];d.loc=r(g)?g:null}else{var v=e.lon[p],m=e.lat[p];n(v)&&n(m)?d.lonlat=[+v,+m]:d.lonlat=[i,i]}}return o(h,e),a(t,e),s(h,e),f&&(h[0].t={labels:{lat:l(t,"lat:")+" ",lon:l(t,"lon:")+" "}}),h}},{"../../constants/numerical":479,"../../lib":503,"../scatter/arrays_to_calcdata":926,"../scatter/calc_selection":929,"../scatter/colorscale_calc":930,"fast-isnumeric":190}],971:[function(t,e,r){"use strict";var

n=t("../../lib"),i=t("../scatter/subtypes"),a=t("../scatter/marker_defaults"),o=t("../scatter/line_defaults"),s=t("../scatter/text_defaults"),l=t("../scatter/fillcolor_defaults"),c=t("./attributes");e.exports=function(t,e,r,u){function f(r,i){return n.coerce(t,e,c,r,i)}var h,p=f("locations");if(p&&p.length){var d,g=f("geojson");("string"==typeof g&&""!==g||n.isPlainObject(g))&&(d="geojson-id"),"geojson-id"===f("locationmode",d)&&f("featureidkey"),h=p.length}else{var v=f("lon")||[],m=f("lat")||[];h=Math.min(v.length,m.length)}h?(e._length=h,f("text"),f("hovertext"),f("hovertemplate"),f("mode"),i.hasLines(e)&&(o(t,e,r,u,f),f("connectgaps")),i.hasMarkers(e)&&a(t,e,r,u,f,{gradient:!0}),i.hasText(e)&&(f("texttemplate"),s(t,e,u,f)),f("fill"),"none"!==e.fill&&l(t,e,r,f),n.coerceSelectionMarkerOpacity(e,f)):e.visible=!1}},{"../../lib":503,"../scatter/fillcolor_defaults":935,"../scatter/line_defaults":940,"../scatter/marker_defaults":946,"../scatter/subtypes":952,"../scatter/text_defaults":953,"./attributes":969}],972:[function(t,e,r){"use strict";e.exports=function(t,e,r,n,i){t.lon=e.lon,t.lat=e.lat,t.location=e.loc?e.loc:null;var a=n[i];return a.fIn&&a.fIn.properties&&(t.properties=a.fIn.properties),t}},{}],973:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes");e.exports=function(t,e,r){var i={},a=r[e.geo]._subplot.mockAxis,o=t.lonlat;return i.lonLabel=n.tickText(a,a.c2l(o[0]),!0).text,i.latLabel=n.tickText(a,a.c2l(o[1]),!0).text,i}},{"../../plots/cartesian/axes":554}],974:[function(t,e,r){"use strict";var n=t("../../components/fx"),i=t("../../constants/numerical").BADNUM,a=t("../scatter/get_trace_color"),o=t("../../lib").fillText,s=t("./attributes");e.exports=function(t,e,r){var l=t.cd,c=l[0].trace,u=t.xa,f=t.ya,h=t.subplot,p=h.projection.isLonLatOverEdges,d=h.project;if(n.getClosest(l,(function(t){var n=t.lonlat;if(n[0]===i)return 1/0;if(p(n))return 1/0;var a=d(n),o=d([e,r]),s=Math.abs(a[0]-o[0]),l=Math.abs(a[1]-o[1]),c=Math.max(3,t.mrc||0);return Math.max(Math.sqrt(s*s+l*l)-c,1-3/c)}),t),!1!==t.index){var g=l[t.index],v=g.lonlat,m=[u.c2p(v),f.c2p(v)],y=g.mrc||1;t.x0=m[0]-y,t.x1=m[0]+y,t.y0=m[1]-y,t.y1=m[1]+y,t.loc=g.loc,t.lon=v[0],t.lat=v[1];var x={};x[c.geo]={_subplot:h};var b=c._module.formatLabels(g,c,x);return t.lonLabel=b.lonLabel,t.latLabel=b.latLabel,t.color=a(c,g),t.extraText=function(t,e,r,n){if(!t.hovertemplate){var i=e.hi||t.hoverinfo,a="all"===i?s.hoverinfo.flags:i.split("+"),l=-1!==a.indexOf("location")&&Array.isArray(t.locations),c=-1!==a.indexOf("lon"),u=-1!==a.indexOf("lat"),f=-1!==a.indexOf("text"),h=[];return l?h.push(e.loc):c&&u?h.push("("+p(r.latLabel)+", "+p(r.lonLabel)+")"):c?h.push(n.lon+p(r.lonLabel)):u&&h.push(n.lat+p(r.latLabel)),f&&o(e,t,h),h.join("<br>")}function p(t){return t+"°"}}(c,g,t,l[0].t.labels),t.hovertemplate=c.hovertemplate,[t]}},{"../../components/fx":406,"../../constants/numerical":479,"../../lib":503,"../scatter/get_trace_color":937,"./attributes":969}],975:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),colorbar:t("../scatter/marker_colorbar"),formatLabels:t("./format_labels"),calc:t("./calc"),calcGeoJSON:t("./plot").calcGeoJSON,plot:t("./plot").plot,style:t("./style"),styleOnSelect:t("../scatter/style").styleOnSelect,hoverPoints:t("./hover"),eventData:t("./event_data"),selectPoints:t("./select"),moduleType:"trace",name:"scattergeo",basePlotModule:t("../../plots/geo"),categories:["geo","symbols","showLegend","scatter-like"],meta:{}}},{"../../plots/geo":589,"../scatter/marker_colorbar":945,"../scatter/style":951,"./attributes":969,"./calc":970,"./defaults":971,"./event_data":972,"./format_labels":973,"./hover":974,"./plot":976,"./select":977,"./style":978}],976:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../lib"),a=t("../../lib/topojson_utils").getTopojsonFeatures,o=t("../../lib/geojson_utils"),s=t("../../lib/geo_location_utils"),l=t("../../plots/cartesian/autorange").findExtremes,c=t("../../constants/numerical").BADNUM,u=t("../scatter/calc").calcMarkerSize,f=t("../scatter/subtypes"),h=t("./style");e.exports={calcGeoJSON:function(t,e){var r,n,i=t[0].trace,o=e[i.geo],f=o._subplot,h=i._length;if(Array.isArray(i.locations)){var p=i.locationmode,d="geojson-id"===p?s.extractTraceFeature(t):a(i,f.topojson);for(r=0;r<h;r++){n=t[r];var g="geojson-id"===p?n.fOut:s.locationToFeature(p,n.loc,d);n.lonlat=g?g.properties.ct:[c,c]}}var v,m,y={padded:!0};if("geojson"===o.fitbounds&&"geojson-id"===i.locationmode){var x=s.computeBbox(s.getTraceGeojson(i));v=[x[0],x[2]],m=[x[1],x[3]]}else{for(v=new Array(h),m=new Array(h),r=0;r<h;r++)n=t[r],v[r]=n.lonlat[0],m[r]=n.lonlat[1];y.ppad=u(i,h)}i._extremes.lon=l(o.lonaxis._ax,v,y),i._

extremes.lat=l(o.lataxis._ax,m,y)},plot:function(t,e,r){var
a=e.layers.frontplot.select(".scatterlayer"),s=i.makeTraceGroups(a,r,"trace scattergeo");function
l(t,e){t.lonlat[0]===c&&n.select(e).remove()}s.selectAll("*").remove(),s.each((function(e){var
r=n.select(this),a=e[0].trace;if(f.hasLines(a)||"none"!==a.fill){var
s=o.calcTraceToLineCoords(e),c="none"!==a.fill?o.makePolygon(s):o.makeLine(s);r.selectAll("path.js-
line").data([{geojson:c,trace:a}]).enter().append("path").classed("js-line",!0).style("stroke-
miterlimit",2)}f.hasMarkers(a)&&r.selectAll("path.point").data(i.identity).enter().append("path").classed("point",!0)
.each((function(t){l(t,this)})),f.hasText(a)&&r.selectAll("g").data(i.identity).enter().append("g").append("text").each
((function(t){l(t,this)})),h(t,e))}))}},{"../../constants/numerical":479,"../../lib":503,"../../lib/geo_location_utils":496,"
../../lib/geojson_utils":497,"../../lib/topojson_utils":532,"../../plots/cartesian/autorange":553,"../scatter/calc":928,"../sc
atter/subtypes":952,"./style":978,"@plotly/d3":58}],977:[function(t,e,r){"use strict";var
n=t("../scatter/subtypes"),i=t("../../constants/numerical").BADNUM;e.exports=function(t,e){var
r,a,o,s,l,c=t.cd,u=t.xaxis,f=t.yaxis,h=[],p=c[0].trace;if(!n.hasMarkers(p)&&!n.hasText(p))return[];if(!1===e)for(l=0;
l<c.length;l++)c[l].selected=0;else
for(l=0;l<c.length;l++)(a=(r=c[l]).lonlat)[0]!==i&&(o=u.c2p(a),s=f.c2p(a),e.contains([o,s],null,l,t)?(h.push({pointN
umber:l,lon:a[0],lat:a[1]}),r.selected=1):r.selected=0);return
h}},{"../../constants/numerical":479,"../scatter/subtypes":952}],978:[function(t,e,r){"use strict";var
n=t("@plotly/d3"),i=t("../../components/drawing"),a=t("../../components/color"),o=t("../scatter/style"),s=o.stylePoint
s,l=o.styleText;e.exports=function(t,e){e&&function(t,e){var
r=e[0].trace,o=e[0].node3;o.style("opacity",e[0].trace.opacity),s(o,r,t),l(o,r,t),o.selectAll("path.js-
line").style("fill","none").each((function(t){var
e=n.select(this),r=t.trace,o=r.line||{};e.call(a.stroke,o.color).call(i.dashLine,o.dash||"",o.width||0),"none"!==r.fill&&e
.call(a.fill,r.fillcolor)}))}(t,e)}},{"../../components/color":366,"../../components/drawing":388,"../scatter/style":951,"
@plotly/d3":58}],979:[function(t,e,r){"use strict";var
n=t("../../plots/attributes"),i=t("../scatter/attributes"),a=t("../../plots/cartesian/axis_format_attributes").axisHoverForm
at,o=t("../../components/colorscale/attributes"),s=t("../../lib/sort_object_keys"),l=t("../../lib/extend").extendFlat,c=t("
./../plot_api/edit_types").overrideAll,u=t("./constants").DASHES,f=i.line,h=i.marker,p=h.line,d=e.exports=c({x:i.x,x
0:i.x0,dx:i.dx,y:i.y,y0:i.y0,dy:i.dy,xperiod:i.xperiod,yperiod:i.yperiod,xperiod0:i.xperiod0,yperiod0:i.yperiod0,xperi
odalignment:i.xperiodalignment,yperiodalignment:i.yperiodalignment,xhoverformat:a("x"),yhoverformat:a("y"),text
:i.text,hovertext:i.hovertext,textposition:i.textposition,textfont:i.textfont,mode:{valType:"flaglist",flags:["lines","mar
kers","text"],extras:["none"]},line:{color:f.color,width:f.width,shape:{valType:"enumerated",values:["linear","hv","
vh","hvh","vhv"],dflt:"linear",editType:"plot"},dash:{valType:"enumerated",values:s(u),dflt:"solid"}},marker:l({},o
("marker"),{symbol:h.symbol,size:h.size,sizeref:h.sizeref,sizemin:h.sizemin,sizemode:h.sizemode,opacity:h.opacity,
colorbar:h.colorbar,line:l({},o("marker.line"),{width:p.width})}),connectgaps:i.connectgaps,fill:l({},i.fill,{dflt:"non
e"}),fillcolor:i.fillcolor,selected:{marker:i.selected.marker,textfont:i.selected.textfont},unselected:{marker:i.unselect
ed.marker,textfont:i.unselected.textfont},opacity:n.opacity},"calc","nested");d.x.editType=d.y.editType=d.x0.editTy
pe=d.y0.editType="calc+clearAxisTypes",d.hovertemplate=i.hovertemplate,d.texttemplate=i.texttemplate},{"../../co
mponents/colorscale/attributes":373,"../../lib/extend":493,"../../lib/sort_object_keys":526,"../../plot_api/edit_types":5
36,"../../plots/attributes":550,"../../plots/cartesian/axis_format_attributes":557,"../scatter/attributes":927,"./constants":
982}],980:[function(t,e,r){"use strict";var
n=t("./hover");e.exports={moduleType:"trace",name:"scattergl",basePlotModule:t("../../plots/cartesian"),categories:[
"gl","regl","cartesian","symbols","errorBarsOK","showLegend","scatter-
like"],attributes:t("./attributes"),supplyDefaults:t("./defaults"),crossTraceDefaults:t("../scatter/cross_trace_defaults"),
colorbar:t("../scatter/marker_colorbar"),formatLabels:t("./format_labels"),calc:t("./calc"),hoverPoints:n.hoverPoints,
selectPoints:t("./select"),meta:{}}},{"../../plots/cartesian":568,"../scatter/cross_trace_defaults":933,"../scatter/marker
_colorbar":945,"./attributes":979,"./calc":981,"./defaults":984,"./format_labels":986,"./hover":988,"./select":992}],9
81:[function(t,e,r){"use strict";var n=t("@plotly/point-
cluster"),i=t("../../lib"),a=t("../../plots/cartesian/axis_ids"),o=t("../../plots/cartesian/autorange").findExtremes,s=t("../..

/plots/cartesian/align_period"),l=t("../scatter/calc"),c=l.calcMarkerSize,u=l.calcAxisExpansion,f=l.setFirstScatter,h=t("../scatter/colorscale_calc"),p=t("./convert"),d=t("./scene_update"),g=t("../../constants/numerical").BADNUM,v=t("./constants").TOO_MANY_POINTS;function m(t,e,r){var n=t._extremes[e._id],i=o(e,r._bnds,{padded:!0});n.min=n.min.concat(i.min),n.max=n.max.concat(i.max)}e.exports=function(t,e){var r,o=t._fullLayout,l=a.getFromId(t,e.xaxis),y=a.getFromId(t,e.yaxis),x=o._plots[e.xaxis+e.yaxis],b=e._length,_=b>=v,w=2*b,T={},k=l.makeCalcdata(e,"x"),A=y.makeCalcdata(e,"y"),M=s(e,l,"x",k),S=s(e,y,"y",A),E=M.vals,L=S.vals;e._x=E,e._y=L,e.xperiodalignment&&(e._origX=k,e._xStarts=M.starts,e._xEnds=M.ends),e.yperiodalignment&&(e._origY=A,e._yStarts=S.starts,e._yEnds=S.ends);var C=new Array(w),P=new Array(b);for(r=0;r<b;r++)C[2*r]=E[r]===g?NaN:E[r],C[2*r+1]=L[r]===g?NaN:L[r],P[r]=r;if("log"===l.type)for(r=0;r<w;r+=2)C[r]=l.c2l(C[r]);if("log"===y.type)for(r=1;r<w;r+=2)C[r]=y.c2l(C[r]);_&&"log"!==l.type&&"log"!==y.type?T.tree=n(C):T.ids=P,h(t,e);var I,O=function(t,e,r,n,a,o){var s=p.style(t,r);if(s.marker&&(s.marker.positions=n),s.line&&n.length>1&&i.extendFlat(s.line,p.linePositions(t,r,n)),s.errorX||s.errorY){var l=p.errorBarPositions(t,r,n,a,o);s.errorX&&i.extendFlat(s.errorX,l.x),s.errorY&&i.extendFlat(s.errorY,l.y)}return s.text&&(i.extendFlat(s.text,{positions:n},p.textPosition(t,r,s.text,s.marker)),i.extendFlat(s.textSel,{positions:n},p.textPosition(t,r,s.text,s.markerSel)),i.extendFlat(s.textUnsel,{positions:n},p.textPosition(t,r,s.text,s.markerUnsel))),s}(t,0,e,C,E,L),z=d(t,x);return f(o,e),_?O.marker&&(I=O.marker.sizeAvg||Math.max(O.marker.size,3)):I=c(e,b),u(t,e,l,y,E,L,I),O.errorX&&m(e,l,O.errorX),O.errorY&&m(e,y,O.errorY),O.fill&&!z.fill2d&&(z.fill2d=!0),O.marker&&!z.scatter2d&&(z.scatter2d=!0),O.line&&!z.line2d&&(z.line2d=!0),!O.errorX&&!O.errorY||z.error2d||(z.error2d=!0),O.text&&!z.glText&&(z.glText=!0),O.marker&&(O.marker.snap=b),z.lineOptions.push(O.line),z.errorXOptions.push(O.errorX),z.errorYOptions.push(O.errorY),z.fillOptions.push(O.fill),z.markerOptions.push(O.marker),z.markerSelectedOptions.push(O.markerSel),z.markerUnselectedOptions.push(O.markerUnsel),z.textOptions.push(O.text),z.textSelectedOptions.push(O.textSel),z.textUnselectedOptions.push(O.textUnsel),z.selectBatch.push([]),z.unselectBatch.push([]),T._scene=z,T.index=z.count,T.x=E,T.y=L,T.positions=C,z.count++,[{x:!1,y:!1,t:T,trace:e}]}},{"../../constants/numerical":479,"../../lib":503,"../../plots/cartesian/align_period":551,"../../plots/cartesian/autorange":553,"../../plots/cartesian/axis_ids":558,"../scatter/calc":928,"../scatter/colorscale_calc":930,"./constants":982,"./convert":983,"./scene_update":991,"@plotly/point-cluster":59}],982:[function(t,e,r){"use strict";e.exports={TOO_MANY_POINTS:1e5,SYMBOL_SDF_SIZE:200,SYMBOL_SIZE:20,SYMBOL_STROKE:1,DOT_RE:/-dot/,OPEN_RE:/-open/,DASHES:{solid:[1],dot:[1,1],dash:[4,1],longdash:[8,1],dashdot:[4,1,1,1],longdashdot:[8,1,1,1]}}},{}],983:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("svg-path-sdf"),a=t("color-normalize"),o=t("../../registry"),s=t("../../lib"),l=t("../../components/drawing"),c=t("../../plots/cartesian/axis_ids"),u=t("../../lib/gl_format_color").formatColor,f=t("../scatter/subtypes"),h=t("../scatter/make_bubble_size_func"),p=t("./helpers"),d=t("./constants"),g=t("../../constants/interactions").DESELECTDIM,v={start:1,left:1,end:-1,right:-1,middle:0,center:0,bottom:1,top:-1},m=t("../../components/fx/helpers").appendArrayPointValue;function y(t,e){var r,i=t._fullLayout,a=e._length,o=e.textfont,l=e.textposition,c=Array.isArray(l)?l:[l],u=o.color,f=o.size,h=o.family,p={},d=t._context.plotGlPixelRatio,g=e.texttemplate;if(g){p.text=[];var v=i._d3locale,y=Array.isArray(g),x=y?Math.min(g.length,a):a,b=y?function(t){return g[t]}:function(){return g};for(r=0;r<x;r++){var _={i:r},w=e._module.formatLabels(_,e,i),T={};m(T,e,r);var k=e._meta||{};p.text.push(s.texttemplateString(b(r),w,v,T,_,k))}}else Array.isArray(e.text)&&e.text.length<a?p.text=e.text.slice():p.text=e.text;if(Array.isArray(p.text))for(r=p.text.length;r<a;r++)p.text[r]="";for(p.opacity=e.opacity,p.font={},p.align=[],p.baseline=[],r=0;r<c.length;r++){var A=c[r].split(/\s+/);switch(A[1]){case"left":p.align.push("right");break;case"right":p.align.push("left");break;default:p.align.push(A[1])}switch(A[0]){case"top":p.baseline.push("bottom");break;case"bottom":p.baseline.push("top");break;default:p.baseline.push(A[0])}}if(Array.isArray(u))for(p.color=new Array(a),r=0;r<a;r++)p.color[r]=u[r];else p.color=u;if(s.isArrayOrTypedArray(f)||Array.isArray(h))for(p.font=new Array(a),r=0;r<a;r++){var

M=p.font[r]={};M.size=(s.isTypedArray(f)?f[r]:Array.isArray(f)?n(f[r])?f[r]:0:f)*d,M.family=Array.isArray(h)?h[r]:h}else p.font={size:f*d,family:h};return p}function x(t){var e,r,n=t._length,i=t.marker,o={},l=s.isArrayOrTypedArray(i.symbol),c=s.isArrayOrTypedArray(i.color),f=s.isArrayOrTypedArray(i.line.color),d=s.isArrayOrTypedArray(i.opacity),g=s.isArrayOrTypedArray(i.size),v=s.isArrayOrTypedArray(i.line.width);if(l||(r=p.isOpenSymbol(i.symbol)),l||c||f||d){o.colors=new Array(n),o.borderColors=new Array(n);var m=u(i,i.opacity,n),y=u(i.line,i.opacity,n);if(!Array.isArray(y[0])){var x=y;for(y=Array(n),e=0;e<n;e++)y[e]=x}if(!Array.isArray(m[0])){var b=m;for(m=Array(n),e=0;e<n;e++)m[e]=b}for(o.colors=m,o.borderColors=y,e=0;e<n;e++){if(l){var _=i.symbol[e];r=p.isOpenSymbol(_)}r&&(y[e]=m[e].slice(),m[e]=m[e].slice(),m[e][3]=0)}o.opacity=t.opacity}else r?(o.color=a(i.color,"uint8"),o.color[3]=0,o.borderColor=a(i.color,"uint8")):(o.color=a(i.color,"uint8"),o.borderColor=a(i.line.color,"uint8")),o.opacity=t.opacity*i.opacity;if(l)for(o.markers=new Array(n),e=0;e<n;e++)o.markers[e]=E(i.symbol[e]);else o.marker=E(i.symbol);var w,T=h(t,1);if(g||v){var k,A=o.sizes=new Array(n),M=o.borderSizes=new Array(n),S=0;if(g){for(e=0;e<n;e++)A[e]=T(i.size[e]),S+=A[e];k=S/n}else for(w=T(i.size),e=0;e<n;e++)A[e]=w;if(v)for(e=0;e<n;e++)M[e]=i.line.width[e];else for(w=i.line.width,e=0;e<n;e++)M[e]=w;o.sizeAvg=k}else o.size=T(i&&i.size||10),o.borderSizes=T(i.line.width);return o}function b(t,e){var r=t.marker,n={};return e?(e.marker&&e.marker.symbol?n=x(s.extendFlat({},r,e.marker)):e.marker&&(e.marker.size&&(n.size=e.marker.size),e.marker.color&&(n.colors=e.marker.color),void 0!==e.marker.opacity&&(n.opacity=e.marker.opacity)),n):n}function _(t,e,r){var n={};if(!r)return n;if(r.textfont){var i={opacity:1,text:e.text,texttemplate:e.texttemplate,textposition:e.textposition,textfont:s.extendFlat({},e.textfont)};r.textfont&&s.extendFlat(i.textfont,r.textfont),n=y(t,i)}return n}function w(t,e,r){var n={capSize:2*e.width*r,lineWidth:e.thickness*r,color:e.color};return e.copy_ystyle&&(n=t.error_y),n}var T=d.SYMBOL_SDF_SIZE,k=d.SYMBOL_SIZE,A=d.SYMBOL_STROKE,M={},S=l.symbolFuncs[0](.05*k);function E(t){if("circle"===t)return null;var e,r,n=l.symbolNumber(t),a=l.symbolFuncs[n%100],o=!!l.symbolNoDot[n%100],s=!!l.symbolNoFill[n%100],c=p.isDotSymbol(t);return M[t]?M[t]:(e=c&&!o?a(1.1*k)+S:a(k),r=i(e,{w:T,h:T,viewBox:[-k,-k,k,k],stroke:s?A:-A}),M[t]=r,r||null)}e.exports={style:function(t,e){var r,n={marker:void 0,markerSel:void 0,markerUnsel:void 0,line:void 0,fill:void 0,errorX:void 0,errorY:void 0,text:void 0,textSel:void 0,textUnsel:void 0},i=t._context.plotGlPixelRatio;if(!0!==e.visible)return n;if(f.hasText(e)&&(n.text=y(t,e),n.textSel=_(t,e,e.selected),n.textUnsel=_(t,e,e.unselected)),f.hasMarkers(e)&&(n.marker=x(e),n.markerSel=b(e,e.selected),n.markerUnsel=b(e,e.unselected),!e.unselected&&s.isArrayOrTypedArray(e.marker.opacity))){var a=e.marker.opacity;for(n.markerUnsel.opacity=new Array(a.length),r=0;r<a.length;r++)n.markerUnsel.opacity[r]=g*a[r]}if(f.hasLines(e)){n.line={overlay:!0,thickness:e.line.width*i,color:e.line.color,opacity:e.opacity};var o=(d.DASHES[e.line.dash]||[1]).slice();for(r=0;r<o.length;++r)o[r]*=e.line.width*i;n.line.dashes=o}return e.error_x&&e.error_x.visible&&(n.errorX=w(e,e.error_x,i)),e.error_y&&e.error_y.visible&&(n.errorY=w(e,e.error_y,i)),e.fill&&"none"!==e.fill&&(n.fill={closed:!0,fill:e.fillcolor,thickness:0}),n},markerStyle:x,markerSelection:b,linePositions:function(t,e,r){var n,i,a=r.length,o=a/2;if(f.hasLines(e)&&o)if("hv"===e.line.shape){for(n=[],i=0;i<o-1;i++)isNaN(r[2*i])||isNaN(r[2*i+1])?n.push(NaN,NaN,NaN,NaN):(n.push(r[2*i],r[2*i+1]),isNaN(r[2*i+2])||isNaN(r[2*i+3])?n.push(NaN,NaN):n.push(r[2*i+2],r[2*i+1]));n.push(r[a-2],r[a-1])}else if("hvh"===e.line.shape){for(n=[],i=0;i<o-1;i++)if(isNaN(r[2*i])||isNaN(r[2*i+1])||isNaN(r[2*i+2])||isNaN(r[2*i+3]))isNaN(r[2*i])||isNaN(r[2*i+1])?n.push(NaN,NaN):n.push(r[2*i],r[2*i+1]),n.push(NaN,NaN);else{var s=(r[2*i]+r[2*i+2])/2;n.push(r[2*i],r[2*i+1],s,r[2*i+1],s,r[2*i+3])}n.push(r[a-2],r[a-1])}else if("vhv"===e.line.shape){for(n=[],i=0;i<o-1;i++)if(isNaN(r[2*i])||isNaN(r[2*i+1])||isNaN(r[2*i+2])||isNaN(r[2*i+3]))isNaN(r[2*i])||isNaN(r[2*i+1])?n.push(N

aN,NaN):n.push(r[2*i],r[2*i+1]),n.push(NaN,NaN);else{var
l=(r[2*i+1]+r[2*i+3])/2;n.push(r[2*i],r[2*i+1],r[2*i],l,r[2*i+2],l)}n.push(r[a-2],r[a-1])}else
if("vh"===e.line.shape){for(n=[],i=0;i<o-
1;i++)isNaN(r[2*i])||isNaN(r[2*i+1])?n.push(NaN,NaN,NaN,NaN):(n.push(r[2*i],r[2*i+1]),isNaN(r[2*i+2])||isNaN
(r[2*i+3])?n.push(NaN,NaN):n.push(r[2*i],r[2*i+3]));n.push(r[a-2],r[a-1])}else n=r;var
c=!1;for(i=0;i<n.length;i++)if(isNaN(n[i])){c=!0;break}var
u=c||n.length>d.TOO_MANY_POINTS||f.hasMarkers(e)?"rect":"round";if(c&&e.connectgaps){var
h=n[0],p=n[1];for(i=0;i<n.length;i+=2)isNaN(n[i])||isNaN(n[i+1])?(n[i]=h,n[i+1]=p):(h=n[i],p=n[i+1])}return{join:
u,positions:n}},errorBarPositions:function(t,e,r,i,a){var
s=o.getComponentMethod("errorbars","makeComputeError"),l=c.getFromId(t,e.xaxis),u=c.getFromId(t,e.yaxis),f=r.
length/2,h={};function p(t,i){var
a=i._id.charAt(0),o=e["error_"+a];if(o&&o.visible&&("linear"===i.type||"log"===i.type)){for(var
l=s(o),c={x:0,y:1}[a],u={x:[0,1,2,3],y:[2,3,0,1]}[a],p=new Float64Array(4*f),d=1/0,g=-
1/0,v=0,m=0;v<f;v++,m+=4){var y=t[v];if(n(y)){var x=r[2*v+c],b=l(y,v),_=b[0],w=b[1];if(n(_)&&n(w)){var T=y-
_,k=y+w;p[m+u[0]]=x-i.c2l(T),p[m+u[1]]=i.c2l(k)-x,p[m+u[2]]=0,p[m+u[3]]=0,d=Math.min(d,y-
_),g=Math.max(g,y+w)}}}h[a]={positions:r,errors:p,_bnds:[d,g]}}}return
p(i,l),p(a,u),h},textPosition:function(t,e,r,n){var i,a=e._length,o={};if(f.hasMarkers(e)){var
s=r.font,l=r.align,c=r.baseline;for(o.offset=new Array(a),i=0;i<a;i++){var
u=n.sizes?n.sizes[i]:n.size,h=Array.isArray(s)?s[i].size:s.size,p=Array.isArray(l)?l.length>1?l[i]:l[0]:l,d=Array.isArr
ay(c)?c.length>1?c[i]:c[0]:c,g=v[p],m=v[d],y=u?u/.8+1:0,x=-m*y-.5*m;o.offset[i]=[g*y/h,x/h]}}return
o}}},{"../../components/drawing":388,"../../components/fx/helpers":402,"../../constants/interactions":478,"../../lib":50
3,"../../lib/gl_format_color":499,"../../plots/cartesian/axis_ids":558,"../../registry":638,"../scatter/make_bubble_size_f
unc":944,"../scatter/subtypes":952,"./constants":982,"./helpers":987,"color-normalize":89,"fast-isnumeric":190,"svg-
path-sdf":310}],984:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("../../registry"),a=t("./helpers"),o=t("./attributes"),s=t("../scatter/constants"),l=t("../scatter/subtypes"
),c=t("../scatter/xy_defaults"),u=t("../scatter/period_defaults"),f=t("../scatter/marker_defaults"),h=t("../scatter/line_de
faults"),p=t("../scatter/fillcolor_defaults"),d=t("../scatter/text_defaults");e.exports=function(t,e,r,g){function
v(r,i){return n.coerce(t,e,o,r,i)}var
m=!!t.marker&&a.isOpenSymbol(t.marker.symbol),y=l.isBubble(t),x=c(t,e,g,v);if(x){u(t,e,g,v),v("xhoverformat"),v
("yhoverformat");var
b=x<s.PTS_LINESONLY?"lines+markers":"lines";v("text"),v("hovertext"),v("hovertemplate"),v("mode",b),l.hasLi
nes(e)&&(v("connectgaps"),h(t,e,r,g,v),v("line.shape")),l.hasMarkers(e)&&(f(t,e,r,g,v),v("marker.line.width",m||y?1
:0)),l.hasText(e)&&(v("texttemplate"),d(t,e,g,v));var
_=(e.line||{}).color,w=(e.marker||{}).color;v("fill"),"none"!==e.fill&&p(t,e,r,v);var
T=i.getComponentMethod("errorbars","supplyDefaults");T(t,e,_||w||r,{axis:"y"}),T(t,e,_||w||r,{axis:"x",inherit:"y"}),
n.coerceSelectionMarkerOpacity(e,v)}else
e.visible=!1}},{"../../lib":503,"../../registry":638,"../scatter/constants":931,"../scatter/fillcolor_defaults":935,"../scatter
/line_defaults":940,"../scatter/marker_defaults":946,"../scatter/period_defaults":947,"../scatter/subtypes":952,"../scatt
er/text_defaults":953,"../scatter/xy_defaults":954,"./attributes":979,"./helpers":987}],985:[function(t,e,r){"use
strict";var
n=t("../../lib"),i=t("../../components/color"),a=t("../../constants/interactions").DESELECTDIM;e.exports={styleTextS
election:function(t){var
e,r,o=t[0],s=o.trace,l=o.t,c=l._scene,u=l.index,f=c.selectBatch[u],h=c.unselectBatch[u],p=c.textOptions[u],d=c.textS
electedOptions[u]||{},g=c.textUnselectedOptions[u]||{},v=n.extendFlat({},p);if(f.length||h.length){var
m=d.color,y=g.color,x=p.color,b=Array.isArray(x);for(v.color=new
Array(s._length),e=0;e<f.length;e++)r=f[e],v.color[r]=m||(b?x[r]:x);for(e=0;e<h.length;e++){r=h[e];var
=b?x[r]:x;v.color[r]=y||(m?:i.addOpacity(_,a))}}c.glText[u].update(v)}}},{"../../components/color":366,"../../cons
tants/interactions":478,"../../lib":503}],986:[function(t,e,r){"use strict";var

n=t("../scatter/format_labels");e.exports=function(t,e,r){var i=t.i;return"x"in t||(t.x=e._x[i]),"y"in t||(t.y=e._y[i]),n(t,e,r)}},{"../scatter/format_labels":936}],987:[function(t,e,r){"use strict";var n=t("./constants");r.isOpenSymbol=function(t){return"string"==typeof t?n.OPEN_RE.test(t):t%200>100},r.isDotSymbol=function(t){return"string"==typeof t?n.DOT_RE.test(t):t>200}},{"./constants":982}],988:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../lib"),a=t("../scatter/get_trace_color");function o(t,e,r,o){var s=t.xa,l=t.ya,c=t.distance,u=t.dxy,f=t.index,h={pointNumber:f,x:e[f],y:r[f]};h.tx=Array.isArray(o.text)?o.text[f]:o.text,h.htx=Array.isArray(o.hovertext)?o.hovertext[f]:o.hovertext,h.data=Array.isArray(o.customdata)?o.customdata[f]:o.customdata,h.tp=Array.isArray(o.textposition)?o.textposition[f]:o.textposition;var p=o.textfont;p&&(h.ts=i.isArrayOrTypedArray(p.size)?p.size[f]:p.size,h.tc=Array.isArray(p.color)?p.color[f]:p.color,h.tf=Array.isArray(p.family)?p.family[f]:p.family);var d=o.marker;d&&(h.ms=i.isArrayOrTypedArray(d.size)?d.size[f]:d.size,h.mo=i.isArrayOrTypedArray(d.opacity)?d.opacity[f]:d.opacity,h.mx=i.isArrayOrTypedArray(d.symbol)?d.symbol[f]:d.symbol,h.mc=i.isArrayOrTypedArray(d.color)?d.color[f]:d.color);var g=d&&d.line;g&&(h.mlc=Array.isArray(g.color)?g.color[f]:g.color,h.mlw=i.isArrayOrTypedArray(g.width)?g.width[f]:g.width);var v=d&&d.gradient;v&&"none"!==v.type&&(h.mgt=Array.isArray(v.type)?v.type[f]:v.type,h.mgc=Array.isArray(v.color)?v.color[f]:v.color);var m=s.c2p(h.x,!0),y=l.c2p(h.y,!0),x=h.mrc||1,b=o.hoverlabel;b&&(h.hbg=Array.isArray(b.bgcolor)?b.bgcolor[f]:b.bgcolor,h.hbc=Array.isArray(b.bordercolor)?b.bordercolor[f]:b.bordercolor,h.hts=i.isArrayOrTypedArray(b.font.size)?b.font.size[f]:b.font.size,h.htc=Array.isArray(b.font.color)?b.font.color[f]:b.font.color,h.htf=Array.isArray(b.font.family)?b.font.family[f]:b.font.family,h.hnl=i.isArrayOrTypedArray(b.namelength)?b.namelength[f]:b.namelength);var _=o.hoverinfo;_&&(h.hi=Array.isArray(_)?_[f]:_);var w=o.hovertemplate;w&&(h.ht=Array.isArray(w)?w[f]:w);var T={};T[t.index]=h;var k=o._origX,A=o._origY,M=i.extendFlat({},t,{color:a(o,h),x0:m-x,x1:m+x,xLabelVal:k?k[f]:h.x,y0:y-x,y1:y+x,yLabelVal:A?A[f]:h.y,cd:T,distance:c,spikeDistance:u,hovertemplate:h.ht});return h.htx?M.text=h.htx:h.tx?M.text=h.tx:o.text&&(M.text=o.text),i.fillText(h,o,M),n.getComponentMethod("errorbars","hoverInfo")(h,o,M),M}e.exports={hoverPoints:function(t,e,r,n){var i,a,s,l,c,u,f,h,p,d,g=t.cd,v=g[0].t,m=g[0].trace,y=t.xa,x=t.ya,b=v.x,_=v.y,w=y.c2p(e),T=x.c2p(r),k=t.distance;if(v.tree){var A=y.p2c(w-k),M=y.p2c(w+k),S=x.p2c(T-k),E=x.p2c(T+k);i="x"===n?v.tree.range(Math.min(A,M),Math.min(x._rl[0],x._rl[1]),Math.max(A,M),Math.max(x._rl[0],x._rl[1])):v.tree.range(Math.min(A,M),Math.min(S,E),Math.max(A,M),Math.max(S,E))}else i=v.ids;var L=k;if("x"===n){var C=!!m.xperiodalignment,P=!!m.yperiodalignment;for(u=0;u<i.length;u++){if(l=b[a=i[u]],f=Math.abs(y.c2p(l)-w),C){var I=y.c2p(m._xStarts[a]),O=y.c2p(m._xEnds[a]);f=w>=Math.min(I,O)&&w<=Math.max(I,O)?0:1/0}if(f<L){if(L=f,c=_[a],h=x.c2p(c)-T,P){var z=x.c2p(m._yStarts[a]),D=x.c2p(m._yEnds[a]);h=T>=Math.min(z,D)&&T<=Math.max(z,D)?0:1/0}d=Math.sqrt(f*f+h*h),s=i[u]}}}else for(u=i.length-1;u>-1;u--)l=b[a=i[u]],c=_[a],f=y.c2p(l)-w,h=x.c2p(c)-T,(p=Math.sqrt(f*f+h*h))<L&&(L=d=p,s=a);return t.index=s,t.distance=L,t.dxy=d,void 0===s?[t]:[o(t,b,_,m)]},calcHover:o}},{"../../lib":503,"../../registry":638,"../scatter/get_trace_color":937}],989:[function(t,e,r){arguments[4][896][0].apply(r,arguments)},{"./base_index":980,"./plot":990,dup:896}],990:[function(t,e,r){"use strict";var n=t("regl-scatter2d"),i=t("regl-line2d"),a=t("regl-error2d"),o=t("gl-text"),s=t("../../lib"),l=t("../../components/dragelement/helpers").selectMode,c=t("../../lib/prepare_regl"),u=t("../scatter/subtypes"),f=t("../scatter/link_traces"),h=t("./edit_style").styleTextSelection,p={};function d(t,e,r,n){var i=t._size,a=t.width*n,o=t.height*n,s=i.l*n,l=i.b*n,c=i.r*n,u=i.t*n,f=i.w*n,h=i.h*n;return[s+e.domain[0]*f,l+r.domain[0]*h,a-c-(1-e.domain[1])*f,o-u-(1-r.domain[1])*h]}(e.exports=function(t,e,r){if(r.length){var g,v,m=t._fullLayout,y=e._scene,x=e.xaxis,b=e.yaxis;if(y)if(c(t,["ANGLE_instanced_arrays","OES_element_index_

uint"],p)){var
_=y.count,w=m._glcanvas.data()[0].regl;if(f(t,e,r),y.dirty){if(!0===y.error2d&&(y.error2d=a(w)),!0===y.line2d&&(y.line2d=i(w)),!0===y.scatter2d&&(y.scatter2d=n(w)),!0===y.fill2d&&(y.fill2d=i(w)),!0===y.glText)for(y.glText=new Array(_),g=0;g<_;g++)y.glText[g]=new o(w);if(y.glText){if(_>y.glText.length){var T=_-y.glText.length;for(g=0;g<T;g++)y.glText.push(new o(w))}else if(_<y.glText.length){var k=y.glText.length-_;y.glText.splice(_,k).forEach((function(t){t.destroy()}))}for(g=0;g<_;g++)y.glText[g].update(y.textOptions[g])}if(y.line2d&&(y.line2d.update(y.lineOptions),y.lineOptions=y.lineOptions.map((function(t){if(t&&t.positions){for(var e=t.positions,r=0;r<e.length&&(isNaN(e[r])||isNaN(e[r+1]));)r+=2;for(var n=e.length-2;n>r&&(isNaN(e[n])||isNaN(e[n+1]));)n-=2;t.positions=e.slice(r,n+2)}return t})),y.line2d.update(y.lineOptions)),y.error2d){var
A=(y.errorXOptions||[]).concat(y.errorYOptions||[]);y.error2d.update(A)}y.scatter2d&&y.scatter2d.update(y.markerOptions),y.fillOrder=s.repeat(null,_),y.fill2d&&(y.fillOptions=y.fillOptions.map((function(t,e){var
n=r[e];if(t&&n&&n[0]&&n[0].trace){var
i,a,o=n[0],s=o.trace,l=o.t,c=y.lineOptions[e],u=[];s._ownfill&&u.push(e),s._nexttrace&&u.push(e+1),u.length&&(y.fillOrder[e]=u);var
f,h,p=[],d=c&&c.positions||l.positions;if("tozeroy"===s.fill){for(f=0;f<d.length&&isNaN(d[f+1]);)f+=2;for(h=d.length-2;h>f&&isNaN(d[h+1]);)h-=2;0!==d[f+1]&&(p=[d[f],0]),p=p.concat(d.slice(f,h+2)),0!==d[h+1]&&(p=p.concat([d[h],0]))}else if("tozerox"===s.fill){for(f=0;f<d.length&&isNaN(d[f]);)f+=2;for(h=d.length-2;h>f&&isNaN(d[h]);)h-=2;0!==d[f]&&(p=[0,d[f+1]]),p=p.concat(d.slice(f,h+2)),0!==d[h]&&(p=p.concat([0,d[h+1]]))}else if("toself"===s.fill||"tonext"===s.fill){for(p=[],i=0,t.splitNull=!0,a=0;a<d.length;a+=2)(isNaN(d[a])||isNaN(d[a+1]))&&((p=p.concat(d.slice(i,a))).push(d[i],d[i+1]),p.push(null,null),i=a+2);p=p.concat(d.slice(i)),i&&p.push(d[i],d[i+1])}else{var g=s._nexttrace;if(g){var v=y.lineOptions[e+1];if(v){var
m=v.positions;if("tonexty"===s.fill){for(p=d.slice(),e=Math.floor(m.length/2);e--;){var
x=m[2*e],b=m[2*e+1];isNaN(x)||isNaN(b)||p.push(x,b)}t.fill=g.fillcolor}}}if(s._prevtrace&&"tonext"===s._prevtrace.fill){var _=y.lineOptions[e-1].positions,w=p.length/2,T=[i=w];for(a=0;a<_.length;a+=2)(isNaN(_[a])||isNaN(_[a+1]))&&(T.push(a/2+w+1),i=a+2);p=p.concat(_),t.hole=T}return
t.fillmode=s.fill,t.opacity=s.opacity,t.positions=p,t})),y.fill2d.update(y.fillOptions))}var
M=m.dragmode,S=l(M),E=m.clickmode.indexOf("select")>-1;for(g=0;g<_;g++){var
L=r[g][0],C=L.trace,P=L.t,I=P.index,O=C._length,z=P.x,D=P.y;if(C.selectedpoints||S||E){if(S||(S=!0),C.selectedpoints){var R=y.selectBatch[I]=s.selIndices2selPoints(C),F={};for(v=0;v<R.length;v++)F[R[v]]=1;var
B=[];for(v=0;v<O;v++)F[v]||B.push(v);y.unselectBatch[I]=B}var N=P.xpx=new Array(O),j=P.ypx=new
Array(O);for(v=0;v<O;v++)N[v]=x.c2p(z[v]),j[v]=b.c2p(D[v])}else
P.xpx=P.ypx=null}if(S){if(y.select2d||(y.select2d=n(m._glcanvas.data()[1].regl)),y.scatter2d){var U=new
Array(_);for(g=0;g<_;g++)U[g]=y.selectBatch[g].length||y.unselectBatch[g].length?y.markerUnselectedOptions[g]:{};y.scatter2d.update(U)}y.select2d&&(y.select2d.update(y.markerOptions),y.select2d.update(y.markerSelectedOptions)),y.glText&&r.forEach((function(t){var e=((t||[])[0]||{}).trace||{};u.hasText(e)&&h(t)}))}else
y.scatter2d&&y.scatter2d.update(y.markerOptions);var
V={viewport:d(m,x,b,t._context.plotGlPixelRatio),range:[(x._rl||x.range)[0],(b._rl||b.range)[0],(x._rl||x.range)[1],(b._rl||b.range)[1]]},q=s.repeat(V,y.count);y.fill2d&&y.fill2d.update(q),y.line2d&&y.line2d.update(q),y.error2d&&y.error2d.update(q.concat(q)),y.scatter2d&&y.scatter2d.update(q),y.select2d&&y.select2d.update(q),y.glText&&y.glText.forEach((function(t){t.update(V)}))}else
y.init()}}).reglPrecompiled=p},{"../../components/dragelement/helpers":384,"../../lib":503,"../../lib/prepare_regl":516,"../scatter/link_traces":943,"../scatter/subtypes":952,"./edit_style":985,"gl-text":225,"regl-error2d":279,"regl-line2d":280,"regl-scatter2d":281}],991:[function(t,e,r){"use strict";var n=t("../../lib");e.exports=function(t,e){var
r=e._scene,i={count:0,dirty:!0,lineOptions:[],fillOptions:[],markerOptions:[],markerSelectedOptions:[],markerUnselectedOptions:[],errorXOptions:[],errorYOptions:[],textOptions:[],textSelectedOptions:[],textUnselectedOptions:[],se

lectBatch:[],unselectBatch:[]},a={fill2d:!1,scatter2d:!1,error2d:!1,line2d:!1,glText:!1,select2d:!1};return e._scene||((r=e._scene={}).init=function(){n.extendFlat(r,a,i)},r.init(),r.update=function(t){var e=n.repeat(t,r.count);if(r.fill2d&&r.fill2d.update(e),r.scatter2d&&r.scatter2d.update(e),r.line2d&&r.line2d.update(e),r.error2d&&r.error2d.update(e.concat(e)),r.select2d&&r.select2d.update(e),r.glText)for(var i=0;i<r.count;i++)r.glText[i].update(t)},r.draw=function(){for(var t=r.count,e=r.fill2d,i=r.error2d,a=r.line2d,o=r.scatter2d,s=r.glText,l=r.select2d,c=r.selectBatch,u=r.unselectBatch,f=0;f<t;f++){if(e&&r.fillOrder[f]&&e.draw(r.fillOrder[f]),a&&r.lineOptions[f]&&a.draw(f),i&&(r.errorXOptions[f]&&i.draw(f),r.errorYOptions[f]&&i.draw(f+t)),o&&r.markerOptions[f])if(u[f].length){var h=n.repeat([],r.count);h[f]=u[f],o.draw(h)}else c[f].length||o.draw(f);s[f]&&r.textOptions[f]&&s[f].render()}l&&l.draw(c),r.dirty=!1},r.destroy=function(){r.fill2d&&r.fill2d.destroy&&r.fill2d.destroy(),r.scatter2d&&r.scatter2d.destroy&&r.scatter2d.destroy(),r.error2d&&r.error2d.destroy&&r.error2d.destroy(),r.line2d&&r.line2d.destroy&&r.line2d.destroy(),r.select2d&&r.select2d.destroy&&r.select2d.destroy(),r.glText&&r.glText.forEach((function(t){t.destroy&&t.destroy()})),r.lineOptions=null,r.fillOptions=null,r.markerOptions=null,r.markerSelectedOptions=null,r.markerUnselectedOptions=null,r.errorXOptions=null,r.errorYOptions=null,r.textOptions=null,r.textSelectedOptions=null,r.textUnselectedOptions=null,r.selectBatch=null,r.unselectBatch=null,e._scene=null}),r.dirty||n.extendFlat(r,i),r}},{"../../lib":503}],992:[function(t,e,r){"use strict";var n=t("../scatter/subtypes"),i=t("./edit_style").styleTextSelection;e.exports=function(t,e){var r=t.cd,a=t.xaxis,o=t.yaxis,s=[],l=r[0].trace,c=r[0].t,u=l._length,f=c.x,h=c.y,p=c._scene,d=c.index;if(!p)return s;var g=n.hasText(l),v=n.hasMarkers(l),m=!v&&!g;if(!0!==l.visible||m)return s;var y=[],x=[];if(!1!==e&&!e.degenerate)for(var b=0;b<u;b++)e.contains([c.xpx[b],c.ypx[b]],!1,b,t)?(y.push(b),s.push({pointNumber:b,x:a.c2d(f[b]),y:o.c2d(h[b])})):x.push(b);if(v){var _=p.scatter2d;if(y.length||x.length){if(!p.selectBatch[d].length&&!p.unselectBatch[d].length){var w=new Array(p.count);w[d]=p.markerUnselectedOptions[d],_.update.apply(_,w)}}else{var T=new Array(p.count);T[d]=p.markerOptions[d],_.update.apply(_,T)}}return p.selectBatch[d]=y,p.unselectBatch[d]=x,g&&i(r),s}},{"../scatter/subtypes":952,"./edit_style":985}],993:[function(t,e,r){"use strict";var n=t("../../plots/template_attributes").hovertemplateAttrs,i=t("../../plots/template_attributes").texttemplateAttrs,a=t("../scattergeo/attributes"),o=t("../scatter/attributes"),s=t("../../plots/mapbox/layout_attributes"),l=t("../../plots/attributes"),c=t("../../components/colorscale/attributes"),u=t("../../lib/extend").extendFlat,f=t("../../plot_api/edit_types").overrideAll,h=a.line,p=a.marker;e.exports=f({lon:a.lon,lat:a.lat,mode:u({},o.mode,{dflt:"markers"}),text:u({},o.text,{}),texttemplate:i({editType:"plot"},{keys:["lat","lon","text"]}),hovertext:u({},o.hovertext,{}),line:{color:h.color,width:h.width},connectgaps:o.connectgaps,marker:u({symbol:{valType:"string",dflt:"circle",arrayOk:!0},angle:{valType:"number",dflt:"auto",arrayOk:!0},allowoverlap:{valType:"boolean",dflt:!1},opacity:p.opacity,size:p.size,sizeref:p.sizeref,sizemin:p.sizemin,sizemode:p.sizemode},c("marker")),fill:a.fill,fillcolor:o.fillcolor,textfont:s.layers.symbol.textfont,textposition:s.layers.symbol.textposition,below:{valType:"string"},selected:{marker:o.selected.marker},unselected:{marker:o.unselected.marker},hoverinfo:u({},l.hoverinfo,{flags:["lon","lat","text","name"]}),hovertemplate:n()},"calc","nested")},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plot_api/edit_types":536,"../../plots/attributes":550,"../../plots/mapbox/layout_attributes":615,"../../plots/template_attributes":633,"../scatter/attributes":927,"../scattergeo/attributes":969}],994:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../lib"),a=t("../../constants/numerical").BADNUM,o=t("../../lib/geojson_utils"),s=t("../../components/colorscale"),l=t("../../components/drawing"),c=t("../scatter/make_bubble_size_func"),u=t("../scatter/subtypes"),f=t("../../plots/mapbox/convert_text_opts"),h=t("../../components/fx/helpers").appendArrayPointValue,p=t("../../lib/svg_text_utils").NEWLINES,d=t("../../lib/svg_text_utils").BR_TAG_ALL;function g(){return{geojson:o.makeBlank(),layout:{visibility:"none"},paint:{}}}function v(t,e){return i.isArrayOrTypedArray(t)?e?function(e){return n(t[e])?+t[e]:0}:function(e){return t[e]}:t?function(){return t}:m}function m(){return""}function y(t){return t[0]===a}e.exports=function(t,e){var r,a=e[0].trace,x=!0===a.visible&&0!==a._length,b="none"!==a.fill,_=u.hasLines(a),w=u.hasMarkers(a),T=u.hasTe

xt(a),k=w&&"circle"===a.marker.symbol,A=w&&"circle"!==a.marker.symbol,M=g(),S=g(),E=g(),L=g(),C={fill:M,line:S,circle:E,symbol:L};if(!x)return C;if((b||_)&&(r=o.calcTraceToLineCoords(e)),b&&(M.geojson=o.makePolygon(r),M.layout.visibility="visible",i.extendFlat(M.paint,{"fill-color":a.fillcolor})),_&&(S.geojson=o.makeLine(r),S.layout.visibility="visible",i.extendFlat(S.paint,{"line-width":a.line.width,"line-color":a.line.color,"line-opacity":a.opacity})),k){var P=function(t){var e,r,a,o,u=t[0].trace,f=u.marker,h=u.selectedpoints,p=i.isArrayOrTypedArray(f.color),d=i.isArrayOrTypedArray(f.size),g=i.isArrayOrTypedArray(f.opacity);function v(t){return u.opacity*t}p&&(r=s.hasColorscale(u,"marker")?s.makeColorScaleFuncFromTrace(f):i.identity),d&&(a=c(u)),g&&(o=function(t){return v(n(t)?+i.constrain(t,0,1):0)});var m,x,b=[];for(e=0;e<t.length;e++){var _=t[e],w=_.lonlat;if(!y(w)){var T={};r&&(T.mcc=_.mcc=r(_.mc)),a&&(T.mrc=_.mrc=a(_.ms)),o&&(T.mo=o(_.mo)),h&&(T.selected=_.selected||0),b.push({type:"Feature",geometry:{type:"Point",coordinates:w},properties:T})}}if(h)for(m=l.makeSelectedPointStyleFns(u),e=0;e<b.length;e++){var k=b[e].properties;m.selectedOpacityFn&&(k.mo=v(m.selectedOpacityFn(k))),m.selectedColorFn&&(k.mcc=m.selectedColorFn(k)),m.selectedSizeFn&&(k.mrc=m.selectedSizeFn(k))}return{geojson:{type:"FeatureCollection",features:b},mcc:p||m&&m.selectedColorFn?{type:"identity",property:"mcc"}:f.color,mrc:d||m&&m.selectedSizeFn?{type:"identity",property:"mrc"}:(x=f.size,x/2),mo:g||m&&m.selectedOpacityFn?{type:"identity",property:"mo"}:v(f.opacity)}}(e);E.geojson=P.geojson,E.layout.visibility="visible",i.extendFlat(E.paint,{"circle-color":P.mcc,"circle-radius":P.mrc,"circle-opacity":P.mo})}if((A||T)&&(L.geojson=function(t,e){for(var r=e._fullLayout,n=t[0].trace,a=n.marker||{},o=a.symbol,s=a.angle,l="circle"!==o?v(o):m,c="auto"!==s?v(s,!0):m,f=u.hasText(n)?v(n.text):m,g=[],x=0;x<t.length;x++){var b=t[x];if(!y(b.lonlat)){var _,w=n.texttemplate;if(w){var T=Array.isArray(w)?w[x]||"":w,k=n._module.formatLabels(b,n,r),A={};h(A,n,b.i);var M=n._meta||{};_=i.texttemplateString(T,k,r._d3locale,A,b,M)}else _=f(x);_&&(_=_.replace(p,"").replace(d,"\n")),g.push({type:"Feature",geometry:{type:"Point",coordinates:b.lonlat},properties:{symbol:l(x),angle:c(x),text:_}})}}return{type:"FeatureCollection",features:g}}(e,t),i.extendFlat(L.layout,{visibility:"visible","icon-image":"{symbol}-15","text-field":"{text}"}),A&&(i.extendFlat(L.layout,{"icon-size":a.marker.size/10}),"angle"in a.marker&&"auto"!==a.marker.angle&&i.extendFlat(L.layout,{"icon-rotate":{type:"identity",property:"angle"},"icon-rotation-alignment":"map"}),L.layout["icon-allow-overlap"]=a.marker.allowoverlap,i.extendFlat(L.paint,{"icon-opacity":a.opacity*a.marker.opacity,"icon-color":a.marker.color})),T)){var I=(a.marker||{}).size,O=f(a.textposition,I);i.extendFlat(L.layout,{"text-size":a.textfont.size,"text-anchor":O.anchor,"text-offset":O.offset}),i.extendFlat(L.paint,{"text-color":a.textfont.color,"text-opacity":a.opacity})}return C}},{"../../components/colorscale":378,"../../components/drawing":388,"../../components/fx/helpers":402,"../../constants/numerical":479,"../../lib":503,"../../lib/geojson_utils":497,"../../lib/svg_text_utils":529,"../../plots/mapbox/convert_text_opts":612,"../scatter/make_bubble_size_func":944,"../scatter/subtypes":952,"fast-isnumeric":190}],995:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../scatter/subtypes"),a=t("../scatter/marker_defaults"),o=t("../scatter/line_defaults"),s=t("../scatter/text_defaults"),l=t("../scatter/fillcolor_defaults"),c=t("./attributes");e.exports=function(t,e,r,u){function f(r,i){return n.coerce(t,e,c,r,i)}if(function(t,e,r){var n=r("lon")||[],i=r("lat")||[],a=Math.min(n.length,i.length);return e._length=a,a}(0,e,f)){if(f("text"),f("texttemplate"),f("hovertext"),f("hovertemplate"),f("mode"),f("below"),i.hasLines(e)&&(o(t,e,r,u,f,{noDash:!0}),f("connectgaps")),i.hasMarkers(e)){a(t,e,r,u,f,{noLine:!0}),f("marker.allowoverlap"),f("marker.angle");var h=e.marker;"circle"!==h.symbol&&(n.isArrayOrTypedArray(h.size)&&(h.size=h.size[0]),n.isArrayOrTypedArray(h.color)&&(h.color=h.color[0]))}i.hasText(e)&&s(t,e,u,f,{noSelect:!0}),f("fill"),"none"!==e.fill&&l(t,e,r,f),n.coerceSelectionMarkerOpacity(e,f)}else e.visible=!1}},{"../../lib":503,"../scatter/fillcolor_defaults":935,"../scatter/line_defaults":940,"../scatter/marker_defaults":946,"../scatter/subtypes":952,"../scatter/text_defaults":953,"./attributes":993}],996:[function(t,e,r){"use

strict";e.exports=function(t,e){return t.lon=e.lon,t.lat=e.lat,t}},{}],997:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes");e.exports=function(t,e,r){var i={},a=r[e.subplot]._subplot.mockAxis,o=t.lonlat;return i.lonLabel=n.tickText(a,a.c2l(o[0]),!0).text,i.latLabel=n.tickText(a,a.c2l(o[1]),!0).text,i}},{"../../plots/cartesian/axes":554}],998:[function(t,e,r){"use strict";var n=t("../../components/fx"),i=t("../../lib"),a=t("../scatter/get_trace_color"),o=i.fillText,s=t("../../constants/numerical").BADNUM;function l(t,e,r){if(!t.hovertemplate){var n=(e.hi||t.hoverinfo).split("+"),i=-1!==n.indexOf("all"),a=-1!==n.indexOf("lon"),s=-1!==n.indexOf("lat"),l=e.lonlat,c=[];return i||a&&s?c.push("("+u(l[1])+", "+u(l[0])+")"):a?c.push(r.lon+u(l[0])):s&&c.push(r.lat+u(l[1])),(i||-1!==n.indexOf("text"))&&o(e,t,c),c.join("<br>")}function u(t){return t+"°"}}e.exports={hoverPoints:function(t,e,r){var o=t.cd,c=o[0].trace,u=t.xa,f=t.ya,h=t.subplot,p=360*(e>=0?Math.floor((e+180)/360):Math.ceil((e-180)/360)),d=e-p;if(n.getClosest(o,(function(t){var e=t.lonlat;if(e[0]===s)return 1/0;var n=i.modHalf(e[0],360),a=e[1],o=h.project([n,a]),l=o.x-u.c2p([d,a]),c=o.y-f.c2p([n,r]),p=Math.max(3,t.mrc||0);return Math.max(Math.sqrt(l*l+c*c)-p,1-3/p)}),t),!1!==t.index){var g=o[t.index],v=g.lonlat,m=[i.modHalf(v[0],360)+p,v[1]],y=u.c2p(m),x=f.c2p(m),b=g.mrc||1;t.x0=y-b,t.x1=y+b,t.y0=x-b,t.y1=x+b;var _={};_[c.subplot]={_subplot:h};var w=c._module.formatLabels(g,c,_);return t.lonLabel=w.lonLabel,t.latLabel=w.latLabel,t.color=a(c,g),t.extraText=l(c,g,o[0].t.labels),t.hovertemplate=c.hovertemplate,[t]}},getExtraText:l}},{"../../components/fx":406,"../../constants/numerical":479,"../../lib":503,"../scatter/get_trace_color":937}],999:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),colorbar:t("../scatter/marker_colorbar"),formatLabels:t("./format_labels"),calc:t("../scattergeo/calc"),plot:t("./plot"),hoverPoints:t("./hover").hoverPoints,eventData:t("./event_data"),selectPoints:t("./select"),styleOnSelect:function(t,e){e&&e[0].trace._glTrace.update(e)},moduleType:"trace",name:"scattermapbox",basePlotModule:t("../../plots/mapbox"),categories:["mapbox","gl","symbols","showLegend","scatter-like"],meta:{}}},{"../../plots/mapbox":613,"../scatter/marker_colorbar":945,"../scattergeo/calc":970,"./attributes":993,"./defaults":995,"./event_data":996,"./format_labels":997,"./hover":998,"./plot":1e3,"./select":1001}],1e3:[function(t,e,r){"use strict";var n=t("./convert"),i=t("../../plots/mapbox/constants").traceLayerPrefix,a=["fill","line","circle","symbol"];function o(t,e){this.type="scattermapbox",this.subplot=t,this.uid=e,this.sourceIds={fill:"source-"+e+"-fill",line:"source-"+e+"-line",circle:"source-"+e+"-circle",symbol:"source-"+e+"-symbol"},this.layerIds={fill:i+e+"-fill",line:i+e+"-line",circle:i+e+"-circle",symbol:i+e+"-symbol"},this.below=null}var s=o.prototype;s.addSource=function(t,e){this.subplot.map.addSource(this.sourceIds[t],{type:"geojson",data:e.geojson})},s.setSourceData=function(t,e){this.subplot.map.getSource(this.sourceIds[t]).setData(e.geojson)},s.addLayer=function(t,e,r){this.subplot.addLayer({type:t,id:this.layerIds[t],source:this.sourceIds[t],layout:e.layout,paint:e.paint},r)},s.update=function(t){var e,r,i,o=this.subplot,s=o.map,l=n(o.gd,t),c=o.belowLookup["trace-"+this.uid];if(c!==this.below){for(e=a.length-1;e>=0;e--)r=a[e],s.removeLayer(this.layerIds[r]);for(e=0;e<a.length;e++)i=l[r=a[e]],this.addLayer(r,i,c);this.below=c}for(e=0;e<a.length;e++)i=l[r=a[e]],o.setOptions(this.layerIds[r],"setLayoutProperty",i.layout),"visible"===i.layout.visibility&&(this.setSourceData(r,i),o.setOptions(this.layerIds[r],"setPaintProperty",i.paint));t[0].trace._glTrace=this},s.dispose=function(){for(var t=this.subplot.map,e=a.length-1;e>=0;e--){var r=a[e];t.removeLayer(this.layerIds[r]),t.removeSource(this.sourceIds[r])}},e.exports=function(t,e){for(var r=e[0].trace,i=new o(t,r.uid),s=n(t.gd,e),l=i.below=t.belowLookup["trace-"+r.uid],c=0;c<a.length;c++){var u=a[c],f=s[u];i.addSource(u,f),i.addLayer(u,f,l)}return e[0].trace._glTrace=i,i}},{"../../plots/mapbox/constants":611,"./convert":994}],1001:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../scatter/subtypes"),a=t("../../constants/numerical").BADNUM;e.exports=function(t,e){var r,o=t.cd,s=t.xaxis,l=t.yaxis,c=[],u=o[0].trace;if(!i.hasMarkers(u))return[];if(!1===e)for(r=0;r<o.length;r++)o[r].selected=0;else for(r=0;r<o.length;r++){var f=o[r],h=f.lonlat;if(h[0]!==a){var p=[n.modHalf(h[0],360),h[1]],d=[s.c2p(p),l.c2p(p)];e.contains(d,null,r,t)?(c.push({pointNumber:r,lon:h[0],lat:h[1]})

,f.selected=1):f.selected=0}}return
c}},{"../../constants/numerical":479,"../../lib":503,"../scatter/subtypes":952}],1002:[function(t,e,r){"use strict";var
n=t("../../plots/template_attributes").hovertemplateAttrs,i=t("../../plots/template_attributes").texttemplateAttrs,a=t("../
../lib/extend").extendFlat,o=t("../scatter/attributes"),s=t("../../plots/attributes"),l=o.line;e.exports={mode:o.mode,r:{v
alType:"data_array",editType:"calc+clearAxisTypes"},theta:{valType:"data_array",editType:"calc+clearAxisTypes
"},r0:{valType:"any",dflt:0,editType:"calc+clearAxisTypes"},dr:{valType:"number",dflt:1,editType:"calc"},theta0:
{valType:"any",dflt:0,editType:"calc+clearAxisTypes"},dtheta:{valType:"number",editType:"calc"},thetaunit:{valT
ype:"enumerated",values:["radians","degrees","gradians"],dflt:"degrees",editType:"calc+clearAxisTypes"},text:o.te
xt,texttemplate:i({editType:"plot"},{keys:["r","theta","text"]}),hovertext:o.hovertext,line:{color:l.color,width:l.widt
h,dash:l.dash,shape:a({},l.shape,{values:["linear","spline"]}),smoothing:l.smoothing,editType:"calc"},connectgaps:
o.connectgaps,marker:o.marker,cliponaxis:a({},o.cliponaxis,{dflt:!1}),textposition:o.textposition,textfont:o.textfont,
fill:a({},o.fill,{values:["none","toself","tonext"],dflt:"none"}),fillcolor:o.fillcolor,hoverinfo:a({},s.hoverinfo,{flags:[
"r","theta","text","name"]}),hoveron:o.hoveron,hovertemplate:n(),selected:o.selected,unselected:o.unselected}},{"../
../lib/extend":493,"../../plots/attributes":550,"../../plots/template_attributes":633,"../scatter/attributes":927}],1003:[fu
nction(t,e,r){"use strict";var n=t("fast-
isnumeric"),i=t("../../constants/numerical").BADNUM,a=t("../../plots/cartesian/axes"),o=t("../scatter/colorscale_calc"
),s=t("../scatter/arrays_to_calcdata"),l=t("../scatter/calc_selection"),c=t("../scatter/calc").calcMarkerSize;e.exports=fu
nction(t,e){for(var
r=t._fullLayout,u=e.subplot,f=r[u].radialaxis,h=r[u].angularaxis,p=f.makeCalcdata(e,"r"),d=h.makeCalcdata(e,"theta
"),g=e._length,v=new Array(g),m=0;m<g;m++){var
y=p[m],x=d[m],b=v[m]={};n(y)&&n(x)?(b.r=y,b.theta=x):b.r=i}var _=c(e,g);return
e._extremes.x=a.findExtremes(f,p,{ppad:_}),o(t,e),s(v,e),l(v,e),v}},{"../../constants/numerical":479,"../../plots/cartesi
an/axes":554,"../scatter/arrays_to_calcdata":926,"../scatter/calc":928,"../scatter/calc_selection":929,"../scatter/colorsc
ale_calc":930,"fast-isnumeric":190}],1004:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("../scatter/subtypes"),a=t("../scatter/marker_defaults"),o=t("../scatter/line_defaults"),s=t("../scatter/l
ine_shape_defaults"),l=t("../scatter/text_defaults"),c=t("../scatter/fillcolor_defaults"),u=t("../scatter/constants").PTS_
LINESONLY,f=t("./attributes");function h(t,e,r,n){var
i,a=n("r"),o=n("theta");if(a)o?i=Math.min(a.length,o.length):(i=a.length,n("theta0"),n("dtheta"));else{if(!o)return
0;i=e.theta.length,n("r0"),n("dr")}return
e._length=i,i}e.exports={handleRThetaDefaults:h,supplyDefaults:function(t,e,r,p){function d(r,i){return
n.coerce(t,e,f,r,i)}var
g=h(0,e,0,d);if(g){d("thetaunit"),d("mode",g<u?"lines+markers":"lines"),d("text"),d("hovertext"),"fills"!==e.hovero
n&&d("hovertemplate"),i.hasLines(e)&&(o(t,e,r,p,d),s(t,e,d),d("connectgaps")),i.hasMarkers(e)&&a(t,e,r,p,d,{gradi
ent:!0}),i.hasText(e)&&(d("texttemplate"),l(t,e,p,d));var
v=[];(i.hasMarkers(e)||i.hasText(e))&&(d("cliponaxis"),d("marker.maxdisplayed"),v.push("points")),d("fill"),"none"
!==e.fill&&(c(t,e,r,d),i.hasLines(e)||s(t,e,d)),"tonext"!==e.fill&&"toself"!==e.fill||v.push("fills"),d("hoveron",v.join(
"+")||"points"),n.coerceSelectionMarkerOpacity(e,d)}else
e.visible=!1}}},{"../../lib":503,"../scatter/constants":931,"../scatter/fillcolor_defaults":935,"../scatter/line_defaults":9
40,"../scatter/line_shape_defaults":942,"../scatter/marker_defaults":946,"../scatter/subtypes":952,"../scatter/text_defa
ults":953,"./attributes":1002}],1005:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("../../plots/cartesian/axes");e.exports=function(t,e,r){var
a,o,s={},l=r[e.subplot]._subplot;l?(a=l.radialAxis,o=l.angularAxis):(a=(l=r[e.subplot]).radialaxis,o=l.angularaxis);va
r c=a.c2l(t.r);s.rLabel=i.tickText(a,c,!0).text;var u="degrees"===o.thetaunit?n.rad2deg(t.theta):t.theta;return
s.thetaLabel=i.tickText(o,u,!0).text,s}},{"../../lib":503,"../../plots/cartesian/axes":554}],1006:[function(t,e,r){"use
strict";var n=t("../scatter/hover");function i(t,e,r,n){var
i=r.radialAxis,a=r.angularAxis;i._hovertitle="r",a._hovertitle="";var o={};o[e.subplot]={_subplot:r};var
s=e._module.formatLabels(t,e,o);n.rLabel=s.rLabel,n.thetaLabel=s.thetaLabel;var l=t.hi||e.hoverinfo,c=[];function
u(t,e){c.push(t._hovertitle+": "+e)}if(!e.hovertemplate){var f=l.split("+");-

1!==f.indexOf("all")&&(f=["r","theta","text"]),-1!==f.indexOf("r")&&u(i,n.rLabel),-1!==f.indexOf("theta")&&u(a,n.thetaLabel),-1!==f.indexOf("text")&&n.text&&(c.push(n.text),delete n.text),n.extraText=c.join("<br>")}}e.exports={hoverPoints:function(t,e,r,a){var o=n(t,e,r,a);if(o&&!1!==o[0].index){var s=o[0];if(void 0===s.index)return o;var l=t.subplot,c=s.cd[s.index],u=s.trace;if(l.isPtInside(c))return s.xLabelVal=void 0,s.yLabelVal=void 0,i(c,u,l,s),s.hovertemplate=u.hovertemplate,o}},makeHoverPointText:i}},{"../scatter/hover":938}],1007:[function(t,e,r){"use strict";e.exports={moduleType:"trace",name:"scatterpolar",basePlotModule:t("../../plots/polar"),categories:["polar","symbols","showLegend","scatter-like"],attributes:t("./attributes"),supplyDefaults:t("./defaults").supplyDefaults,colorbar:t("../scatter/marker_colorbar"),formatLabels:t("./format_labels"),calc:t("./calc"),plot:t("./plot"),style:t("../scatter/style").style,styleOnSelect:t("../scatter/style").styleOnSelect,hoverPoints:t("./hover").hoverPoints,selectPoints:t("../scatter/select"),meta:{}}},{"../../plots/polar":622,"../scatter/marker_colorbar":945,"../scatter/select":949,"../scatter/style":951,"./attributes":1002,"./calc":1003,"./defaults":1004,"./format_labels":1005,"./hover":1006,"./plot":1008}],1008:[function(t,e,r){"use strict";var n=t("../scatter/plot"),i=t("../../constants/numerical").BADNUM;e.exports=function(t,e,r){for(var a=e.layers.frontplot.select("g.scatterlayer"),o={xaxis:e.xaxis,yaxis:e.yaxis,plot:e.framework,layerClipId:e._hasClipOnAxisFalse?e.clipIds.forTraces:null},s=e.radialAxis,l=e.angularAxis,c=0;c<r.length;c++)for(var u=r[c],f=0;f<u.length;f++){var h=u[f],p=h.r;if(p===i)h.x=h.y=i;else{var d=s.c2g(p),g=l.c2g(h.theta);h.x=d*Math.cos(g),h.y=d*Math.sin(g)}}n(t,o,r,a)}},{"../../constants/numerical":479,"../scatter/plot":948}],1009:[function(t,e,r){"use strict";var n=t("../scatterpolar/attributes"),i=t("../scattergl/attributes"),a=t("../../plots/template_attributes").texttemplateAttrs;e.exports={mode:n.mode,r:n.r,theta:n.theta,r0:n.r0,dr:n.dr,theta0:n.theta0,dtheta:n.dtheta,thetaunit:n.thetaunit,text:n.text,texttemplate:a({editType:"plot"},{keys:["r","theta","text"]}),hovertext:n.hovertext,hovertemplate:n.hovertemplate,line:i.line,connectgaps:i.connectgaps,marker:i.marker,fill:i.fill,fillcolor:i.fillcolor,textposition:i.textposition,textfont:i.textfont,hoverinfo:n.hoverinfo,selected:n.selected,unselected:n.unselected}},{"../../plots/template_attributes":633,"../scattergl/attributes":979,"../scatterpolar/attributes":1002}],1010:[function(t,e,r){"use strict";e.exports={moduleType:"trace",name:"scatterpolargl",basePlotModule:t("../../plots/polar"),categories:["gl","regl","polar","symbols","showLegend","scatter-like"],attributes:t("./attributes"),supplyDefaults:t("./defaults"),colorbar:t("../scatter/marker_colorbar"),formatLabels:t("./format_labels"),calc:t("./calc"),hoverPoints:t("./hover").hoverPoints,selectPoints:t("../scattergl/select"),meta:{}}},{"../../plots/polar":622,"../scatter/marker_colorbar":945,"../scattergl/select":992,"./attributes":1009,"./calc":1011,"./defaults":1012,"./format_labels":1013,"./hover":1014}],1011:[function(t,e,r){"use strict";var n=t("../scatter/colorscale_calc"),i=t("../scatter/calc").calcMarkerSize,a=t("../scattergl/convert"),o=t("../../plots/cartesian/axes"),s=t("../scattergl/constants").TOO_MANY_POINTS;e.exports=function(t,e){var r=t._fullLayout,l=e.subplot,c=r[l].radialaxis,u=r[l].angularaxis,f=e._r=c.makeCalcdata(e,"r"),h=e._theta=u.makeCalcdata(e,"theta"),p=e._length,d={};p<f.length&&(f=f.slice(0,p)),p<h.length&&(h=h.slice(0,p)),d.r=f,d.theta=h,n(t,e);var g,v=d.opts=a.style(t,e);return p<s?g=i(e,p):v.marker&&(g=2*(v.marker.sizeAvg||Math.max(v.marker.size,3))),e._extremes.x=o.findExtremes(c,f,{ppad:g}),[{x:!1,y:!1,t:d,trace:e}]}},{"../../plots/cartesian/axes":554,"../scatter/calc":928,"../scatter/colorscale_calc":930,"../scattergl/constants":982,"../scattergl/convert":983}],1012:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../scatter/subtypes"),a=t("../scatterpolar/defaults").handleRThetaDefaults,o=t("../scatter/marker_defaults"),s=t("../scatter/line_defaults"),l=t("../scatter/text_defaults"),c=t("../scatter/fillcolor_defaults"),u=t("../scatter/constants").PTS_LINESONLY,f=t("./attributes");e.exports=function(t,e,r,h){function p(r,i){return n.coerce(t,e,f,r,i)}var d=a(t,e,h,p);d?(p("thetaunit"),p("mode",d<u?"lines+markers":"lines"),p("text"),p("hovertext"),"fills"!==e.hoveron&&p("hovertemplate"),i.hasLines(e)&&(s(t,e,r,h,p),p("connectgaps")),i.hasMarkers(e)&&o(t,e,r,h,p),i.hasText(e)&&(p("texttemplate"),l(t,e,h,p)),p("fill"),"none"!==e.fill&&c(t,e,r,p),n.coerceSelectionMarkerOpacity(e,p)):e.visible=!1}},{"../../lib":503,"../scatter/constants":931,"../scatter/fillcolor_defaults":935,"../scatter/line_defaults":940,"../scatter/

marker_defaults":946,"../scatter/subtypes":952,"../scatter/text_defaults":953,"../scatterpolar/defaults":1004,"./attributes":1009}],1013:[function(t,e,r){"use strict";var n=t("../scatterpolar/format_labels");e.exports=function(t,e,r){var i=t.i;return"r"in t||(t.r=e._r[i]),"theta"in t||(t.theta=e._theta[i]),n(t,e,r)}},{"../scatterpolar/format_labels":1005}],1014:[function(t,e,r){"use strict";var n=t("../scattergl/hover"),i=t("../scatterpolar/hover").makeHoverPointText;e.exports={hoverPoints:function(t,e,r,a){var o=t.cd[0].t,s=o.r,l=o.theta,c=n.hoverPoints(t,e,r,a);if(c&&!1!==c[0].index){var u=c[0];if(void 0===u.index)return c;var f=t.subplot,h=u.cd[u.index],p=u.trace;if(h.r=s[u.index],h.theta=l[u.index],f.isPtInside(h))return u.xLabelVal=void 0,u.yLabelVal=void 0,i(h,p,f,u),c}}},{"../scattergl/hover":988,"../scatterpolar/hover":1006}],1015:[function(t,e,r){arguments[4][896][0].apply(r,arguments)},{"./base_index":1010,"./plot":1016,dup:896}],1016:[function(t,e,r){"use strict";var n=t("@plotly/point-cluster"),i=t("fast-isnumeric"),a=t("../scattergl/plot"),o=t("../scattergl/scene_update"),s=t("../scattergl/convert"),l=t("../../lib"),c=t("../scattergl/constants").TOO_MANY_POINTS;e.exports=function(t,e,r){if(r.length){var u=e.radialAxis,f=e.angularAxis,h=o(t,e);return r.forEach((function(r){if(r&&r[0]&&r[0].trace){var a,o=r[0],p=o.trace,d=o.t,g=p._length,v=d.r,m=d.theta,y=d.opts,x=v.slice(),b=m.slice();for(a=0;a<v.length;a++)e.isPtInside({r:v[a],theta:m[a]})||(x[a]=NaN,b[a]=NaN);var _=new Array(2*g),w=Array(g),T=Array(g);for(a=0;a<g;a++){var k,A,M=x[a];if(i(M)){var S=u.c2g(M),E=f.c2g(b[a],p.thetaunit);k=S*Math.cos(E),A=S*Math.sin(E)}else k=A=NaN;w[a]=_[2*a]=k,T[a]=_[2*a+1]=A}d.tree=n(_),y.marker&&g>=c&&(y.marker.cluster=d.tree),y.marker&&(y.markerSel.positions=y.markerUnsel.positions=y.marker.positions=_),y.line&&_.length>1&&l.extendFlat(y.line,s.linePositions(t,p,_)),y.text&&(l.extendFlat(y.text,{positions:_},s.textPosition(t,p,y.text,y.marker)),l.extendFlat(y.textSel,{positions:_},s.textPosition(t,p,y.text,y.markerSel)),l.extendFlat(y.textUnsel,{positions:_},s.textPosition(t,p,y.text,y.markerUnsel))),y.fill&&!h.fill2d&&(h.fill2d=!0),y.marker&&!h.scatter2d&&(h.scatter2d=!0),y.line&&!h.line2d&&(h.line2d=!0),y.text&&!h.glText&&(h.glText=!0),h.lineOptions.push(y.line),h.fillOptions.push(y.fill),h.markerOptions.push(y.marker),h.markerSelectedOptions.push(y.markerSel),h.markerUnselectedOptions.push(y.markerUnsel),h.textOptions.push(y.text),h.textSelectedOptions.push(y.textSel),h.textUnselectedOptions.push(y.textUnsel),h.selectBatch.push([]),h.unselectBatch.push([]),d.x=w,d.y=T,d.rawx=w,d.rawy=T,d.r=v,d.theta=m,d.positions=_,d._scene=h,d.index=h.count,h.count++}})),a(t,e,r)}},e.exports.reglPrecompiled={}},{"../../lib":503,"../scattergl/constants":982,"../scattergl/convert":983,"../scattergl/plot":990,"../scattergl/scene_update":991,"@plotly/point-cluster":59,"fast-isnumeric":190}],1017:[function(t,e,r){"use strict";var n=t("../../plots/template_attributes").hovertemplateAttrs,i=t("../../plots/template_attributes").texttemplateAttrs,a=t("../../lib/extend").extendFlat,o=t("../scatter/attributes"),s=t("../../plots/attributes"),l=o.line;e.exports={mode:o.mode,real:{valType:"data_array",editType:"calc+clearAxisTypes"},imag:{valType:"data_array",editType:"calc+clearAxisTypes"},text:o.text,texttemplate:i({editType:"plot"},{keys:["real","imag","text"]}),hovertext:o.hovertext,line:{color:l.color,width:l.width,dash:l.dash,shape:a({},l.shape,{values:["linear","spline"]}),smoothing:l.smoothing,editType:"calc"},connectgaps:o.connectgaps,marker:o.marker,cliponaxis:a({},o.cliponaxis,{dflt:!1}),textposition:o.textposition,textfont:o.textfont,fill:a({},o.fill,{values:["none","toself","tonext"],dflt:"none"}),fillcolor:o.fillcolor,hoverinfo:a({},s.hoverinfo,{flags:["real","imag","text","name"]}),hoveron:o.hoveron,hovertemplate:n(),selected:o.selected,unselected:o.unselected}},{"../../lib/extend":493,"../../plots/attributes":550,"../../plots/template_attributes":633,"../scatter/attributes":927}],1018:[function(t,e,r){"use strict";var n=t("fast-isnumeric"),i=t("../../constants/numerical").BADNUM,a=t("../scatter/colorscale_calc"),o=t("../scatter/arrays_to_calcdata"),s=t("../scatter/calc_selection"),l=t("../scatter/calc").calcMarkerSize;e.exports=function(t,e){for(var r=t._fullLayout,c=e.subplot,u=r[c].realaxis,f=r[c].imaginaryaxis,h=u.makeCalcdata(e,"real"),p=f.makeCalcdata(e,"imag"),d=e._length,g=new Array(d),v=0;v<d;v++){var m=h[v],y=p[v],x=g[v]={};n(m)&&n(y)?(x.real=m,x.imag=y):x.real=i}return l(e,d),a(t,e),o(g,e),s(g,e),g}},{"../../constants/numerical":479,"../scatter/arrays_to_calcdata":926,"../scatter/calc":928,"../scatter/calc_selection":929,"../scatter/colorscale_calc":930,"fast-isnumeric":190}],1019:[function(t,e,r){"use strict";var

n=t("../../lib"),i=t("../scatter/subtypes"),a=t("../scatter/marker_defaults"),o=t("../scatter/line_defaults"),s=t("../scatter/line_shape_defaults"),l=t("../scatter/text_defaults"),c=t("../scatter/fillcolor_defaults"),u=t("../scatter/constants").PTS_LINESONLY,f=t("./attributes");e.exports=function(t,e,r,h){function p(r,i){return n.coerce(t,e,f,r,i)}var d=function(t,e,r,n){var i,a=n("real"),o=n("imag");return a&&o&&(i=Math.min(a.length,o.length)),e._length=i,i}(0,e,0,p);if(d){p("mode",d<u?"lines+markers":"lines"),p("text"),p("hovertext"),"fills"!==e.hoveron&&p("hovertemplate"),i.hasLines(e)&&(o(t,e,r,h,p),s(t,e,p),p("connectgaps")),i.hasMarkers(e)&&a(t,e,r,h,p,{gradient:!0}),i.hasText(e)&&(p("texttemplate"),l(t,e,h,p));var g=[];(i.hasMarkers(e)||i.hasText(e))&&(p("cliponaxis"),p("marker.maxdisplayed"),g.push("points")),p("fill"),"none"!==e.fill&&(c(t,e,r,p),i.hasLines(e)||s(t,e,p)),"tonext"!==e.fill&&"toself"!==e.fill||g.push("fills"),p("hoveron",g.join("+")||"points"),n.coerceSelectionMarkerOpacity(e,p)}else e.visible=!1}},{"../../lib":503,"../scatter/constants":931,"../scatter/fillcolor_defaults":935,"../scatter/line_defaults":940,"../scatter/line_shape_defaults":942,"../scatter/marker_defaults":946,"../scatter/subtypes":952,"../scatter/text_defaults":953,"./attributes":1017}],1020:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes");e.exports=function(t,e,r){var i={},a=r[e.subplot]._subplot;return i.realLabel=n.tickText(a.radialAxis,t.real,!0).text,i.imagLabel=n.tickText(a.angularAxis,t.imag,!0).text,i}},{"../../plots/cartesian/axes":554}],1021:[function(t,e,r){"use strict";var n=t("../scatter/hover");function i(t,e,r,n){var i=r.radialAxis,a=r.angularAxis;i._hovertitle="real",a._hovertitle="imag";var o={};o[e.subplot]={_subplot:r};var s=e._module.formatLabels(t,e,o);n.realLabel=s.realLabel,n.imagLabel=s.imagLabel;var l=t.hi||e.hoverinfo,c=[];function u(t,e){c.push(t._hovertitle+": "+e)}if(!e.hovertemplate){var f=l.split("+");-1!==f.indexOf("all")&&(f=["real","imag","text"]),-1!==f.indexOf("real")&&u(i,n.realLabel),-1!==f.indexOf("imag")&&u(a,n.imagLabel),-1!==f.indexOf("text")&&n.text&&(c.push(n.text),delete n.text),n.extraText=c.join("<br>")}}e.exports={hoverPoints:function(t,e,r,a){var o=n(t,e,r,a);if(o&&!1!==o[0].index){var s=o[0];if(void 0===s.index)return o;var l=t.subplot,c=s.cd[s.index],u=s.trace;if(l.isPtInside(c))return s.xLabelVal=void 0,s.yLabelVal=void 0,i(c,u,l,s),s.hovertemplate=u.hovertemplate,o}},makeHoverPointText:i}},{"../scatter/hover":938}],1022:[function(t,e,r){"use strict";e.exports={moduleType:"trace",name:"scattersmith",basePlotModule:t("../../plots/smith"),categories:["smith","symbols","showLegend","scatter-like"],attributes:t("./attributes"),supplyDefaults:t("./defaults"),colorbar:t("../scatter/marker_colorbar"),formatLabels:t("./format_labels"),calc:t("./calc"),plot:t("./plot"),style:t("../scatter/style").style,styleOnSelect:t("../scatter/style").styleOnSelect,hoverPoints:t("./hover").hoverPoints,selectPoints:t("../scatter/select"),meta:{}}},{"../../plots/smith":629,"../scatter/marker_colorbar":945,"../scatter/select":949,"../scatter/style":951,"./attributes":1017,"./calc":1018,"./defaults":1019,"./format_labels":1020,"./hover":1021,"./plot":1023}],1023:[function(t,e,r){"use strict";var n=t("../scatter/plot"),i=t("../../constants/numerical").BADNUM,a=t("../../plots/smith/helpers").smith;e.exports=function(t,e,r){for(var o=e.layers.frontplot.select("g.scatterlayer"),s={xaxis:e.xaxis,yaxis:e.yaxis,plot:e.framework,layerClipId:e._hasClipOnAxisFalse?e.clipIds.forTraces:null},l=0;l<r.length;l++)for(var c=r[l],u=0;u<c.length;u++){var f=c[u],h=f.real;if(h===i)f.x=f.y=i;else{var p=a([h,f.imag]);f.x=p[0],f.y=p[1]}}n(t,s,r,o)}},{"../../constants/numerical":479,"../../plots/smith/helpers":628,"../scatter/plot":948}],1024:[function(t,e,r){"use strict";var n=t("../../plots/template_attributes").hovertemplateAttrs,i=t("../../plots/template_attributes").texttemplateAttrs,a=t("../scatter/attributes"),o=t("../../plots/attributes"),s=t("../../components/colorscale/attributes"),l=t("../../components/drawing/attributes").dash,c=t("../../lib/extend").extendFlat,u=a.marker,f=a.line,h=u.line;e.exports={a:{valType:"data_array",editType:"calc"},b:{valType:"data_array",editType:"calc"},c:{valType:"data_array",editType:"calc"},sum:{valType:"number",dflt:0,min:0,editType:"calc"},mode:c({},a.mode,{dflt:"markers"}),text:c({},a.text,{}),texttemplate:i({editType:"plot"},{keys:["a","b","c","text"]}),hovertext:c({},a.hovertext,{}),line:{color:f.color,width:f.width,dash:l,shape:c({},f.shape,{values:["linear","spline"]}),smoothing:f.smoothing,editType:"calc"},connectgaps:a.connectgaps,cliponaxis:a.cliponaxis,fill:c({},a.fill,{values:["none","toself","tonext"],dflt:"none"}),fillcolor:a.fillcolor,marker:c({s

ymbol:u.symbol,opacity:u.opacity,maxdisplayed:u.maxdisplayed,size:u.size,sizeref:u.sizeref,sizemin:u.sizemin,size
mode:u.sizemode,line:c({width:h.width,editType:"calc"},s("marker.line")),gradient:u.gradient,editType:"calc"},s("
marker")),textfont:a.textfont,textposition:a.textposition,selected:a.selected,unselected:a.unselected,hoverinfo:c({},o.
hoverinfo,{flags:["a","b","c","text","name"]}),hoveron:a.hoveron,hovertemplate:n()}},{"../../components/colorscale/
attributes":373,"../../components/drawing/attributes":387,"../../lib/extend":493,"../../plots/attributes":550,"../../plots/te
mplate_attributes":633,"../scatter/attributes":927}],1025:[function(t,e,r){"use strict";var n=t("fast-
isnumeric"),i=t("../scatter/colorscale_calc"),a=t("../scatter/arrays_to_calcdata"),o=t("../scatter/calc_selection"),s=t("..
/scatter/calc").calcMarkerSize,l=["a","b","c"],c={a:["b","c"],b:["a","c"],c:["a","b"]};e.exports=function(t,e){var
r,u,f,h,p,d,g=t._fullLayout[e.subplot].sum,v=e.sum||g,m={a:e.a,b:e.b,c:e.c};for(r=0;r<l.length;r++)if(!m[f=l[r]]){for(
p=m[c[f][0]],d=m[c[f][1]],h=new Array(p.length),u=0;u<p.length;u++)h[u]=v-p[u]-d[u];m[f]=h}var
y,x,b,_,w,T,k=e._length,A=new
Array(k);for(r=0;r<k;r++)y=m.a[r],x=m.b[r],b=m.c[r],n(y)&&n(x)&&n(b)?(1!=(_=g/((y=+y)+(x=+x)+(b=+b)))&&(
y*=_,x*=_,b*=_),T=y,w=b-x,A[r]={x:w,y:T,a:y,b:x,c:b}):A[r]={x:!1,y:!1};return
s(e,k),i(t,e),a(A,e),o(A,e),A}},{"../scatter/arrays_to_calcdata":926,"../scatter/calc":928,"../scatter/calc_selection":929
,"../scatter/colorscale_calc":930,"fast-isnumeric":190}],1026:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("../scatter/constants"),a=t("../scatter/subtypes"),o=t("../scatter/marker_defaults"),s=t("../scatter/line
_defaults"),l=t("../scatter/line_shape_defaults"),c=t("../scatter/text_defaults"),u=t("../scatter/fillcolor_defaults"),f=t("./
attributes");e.exports=function(t,e,r,h){function p(r,i){return n.coerce(t,e,f,r,i)}var
d,g=p("a"),v=p("b"),m=p("c");if(g?(d=g.length,v?(d=Math.min(d,v.length),m&&(d=Math.min(d,m.length))):d=m?
Math.min(d,m.length):0):v&&m&&(d=Math.min(v.length,m.length)),d){e._length=d,p("sum"),p("text"),p("hoverte
xt"),"fills"!==e.hoveron&&p("hovertemplate"),p("mode",d<i.PTS_LINESONLY?"lines+markers":"lines"),a.hasLin
es(e)&&(s(t,e,r,h,p),l(t,e,p),p("connectgaps")),a.hasMarkers(e)&&o(t,e,r,h,p,{gradient:!0}),a.hasText(e)&&(p("textt
emplate"),c(t,e,h,p));var
y=[];(a.hasMarkers(e)||a.hasText(e))&&(p("cliponaxis"),p("marker.maxdisplayed"),y.push("points")),p("fill"),"none
"!==e.fill&&(u(t,e,r,p),a.hasLines(e)||l(t,e,p)),"tonext"!==e.fill&&"toself"!==e.fill||y.push("fills"),p("hoveron",y.join
("+")||"points"),n.coerceSelectionMarkerOpacity(e,p)}else
e.visible=!1}},{"../../lib":503,"../scatter/constants":931,"../scatter/fillcolor_defaults":935,"../scatter/line_defaults":94
0,"../scatter/line_shape_defaults":942,"../scatter/marker_defaults":946,"../scatter/subtypes":952,"../scatter/text_defaul
ts":953,"./attributes":1024}],1027:[function(t,e,r){"use
strict";e.exports=function(t,e,r,n,i){if(e.xa&&(t.xaxis=e.xa),e.ya&&(t.yaxis=e.ya),n[i]){var
a=n[i];t.a=a.a,t.b=a.b,t.c=a.c}else t.a=e.a,t.b=e.b,t.c=e.c;return t}},{}],1028:[function(t,e,r){"use strict";var
n=t("../../plots/cartesian/axes");e.exports=function(t,e,r){var i={},a=r[e.subplot]._subplot;return
i.aLabel=n.tickText(a.aaxis,t.a,!0).text,i.bLabel=n.tickText(a.baxis,t.b,!0).text,i.cLabel=n.tickText(a.caxis,t.c,!0).text
,i}},{"../../plots/cartesian/axes":554}],1029:[function(t,e,r){"use strict";var
n=t("../scatter/hover");e.exports=function(t,e,r,i){var a=n(t,e,r,i);if(a&&!1!==a[0].index){var o=a[0];if(void
0===o.index){var s=1-o.y0/t.ya._length,l=t.xa._length,c=l*s/2,u=l-c;return
o.x0=Math.max(Math.min(o.x0,u),c),o.x1=Math.max(Math.min(o.x1,u),c),a}var
f=o.cd[o.index],h=o.trace,p=o.subplot;o.a=f.a,o.b=f.b,o.c=f.c,o.xLabelVal=void 0,o.yLabelVal=void 0;var
d={};d[h.subplot]={_subplot:p};var
g=h._module.formatLabels(f,h,d);o.aLabel=g.aLabel,o.bLabel=g.bLabel,o.cLabel=g.cLabel;var
v=f.hi||h.hoverinfo,m=[];if(!h.hovertemplate){var y=v.split("+");-1!==y.indexOf("all")&&(y=["a","b","c"]),-
1!==y.indexOf("a")&&x(p.aaxis,o.aLabel),-1!==y.indexOf("b")&&x(p.baxis,o.bLabel),-
1!==y.indexOf("c")&&x(p.caxis,o.cLabel)}return
o.extraText=m.join("<br>"),o.hovertemplate=h.hovertemplate,a}function x(t,e){m.push(t._hovertitle+":
"+e)}}},{"../scatter/hover":938}],1030:[function(t,e,r){"use
strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),colorbar:t("../scatter/marker_colorbar"),for
matLabels:t("./format_labels"),calc:t("./calc"),plot:t("./plot"),style:t("../scatter/style").style,styleOnSelect:t("../scatter
/style").styleOnSelect,hoverPoints:t("./hover"),selectPoints:t("../scatter/select"),eventData:t("./event_data"),moduleT

ype:"trace",name:"scatterternary",basePlotModule:t("../../plots/ternary"),categories:["ternary","symbols","showLegend","scatter-
like"],meta:{}}},{"../../plots/ternary":634,"../scatter/marker_colorbar":945,"../scatter/select":949,"../scatter/style":951,"./attributes":1024,"./calc":1025,"./defaults":1026,"./event_data":1027,"./format_labels":1028,"./hover":1029,"./plot":1031}],1031:[function(t,e,r){"use strict";var n=t("../scatter/plot");e.exports=function(t,e,r){var i=e.plotContainer;i.select(".scatterlayer").selectAll("*").remove();var a={xaxis:e.xaxis,yaxis:e.yaxis,plot:i,layerClipId:e._hasClipOnAxisFalse?e.clipIdRelative:null},o=e.layers.frontplot.select("g.scatterlayer");n(t,a,r,o)}},{"../scatter/plot":948}],1032:[function(t,e,r){"use strict";var n=t("../scatter/attributes"),i=t("../../components/colorscale/attributes"),a=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,o=t("../../plots/template_attributes").hovertemplateAttrs,s=t("../scattergl/attributes"),l=t("../../plots/cartesian/constants").idRegex,c=t("../../plot_api/plot_template").templatedArray,u=t("../../lib/extend").extendFlat,f=n.marker,h=f.line,p=u(i("marker.line",{editTypeOverride:"calc"}),{width:u({},h.width,{editType:"calc"}),editType:"calc"}),d=u(i("marker"),{symbol:f.symbol,size:u({},f.size,{editType:"markerSize"}),sizeref:f.sizeref,sizemin:f.sizemin,sizemode:f.sizemode,opacity:f.opacity,colorbar:f.colorbar,line:p,editType:"calc"});function g(t){return{valType:"info_array",freeLength:!0,editType:"calc",items:{valType:"subplotid",regex:l[t],editType:"plot"}}}d.color.editType=d.cmin.editType=d.cmax.editType="style",e.exports={dimensions:c("dimension",{visible:{valType:"boolean",dflt:!0,editType:"calc"},label:{valType:"string",editType:"calc"},values:{valType:"data_array",editType:"calc+clearAxisTypes"},axis:{type:{valType:"enumerated",values:["linear","log","date","category"],editType:"calc+clearAxisTypes"},matches:{valType:"boolean",dflt:!1,editType:"calc"},editType:"calc+clearAxisTypes"},editType:"calc+clearAxisTypes"}),text:u({},s.text,{}),hovertext:u({},s.hovertext,{}),hovertemplate:o(),xhoverformat:a("x"),yhoverformat:a("y"),marker:d,xaxes:g("x"),yaxes:g("y"),diagonal:{visible:{valType:"boolean",dflt:!0,editType:"calc"},editType:"calc"},showupperhalf:{valType:"boolean",dflt:!0,editType:"calc"},showlowerhalf:{valType:"boolean",dflt:!0,editType:"calc"},selected:{marker:s.selected.marker,editType:"calc"},unselected:{marker:s.unselected.marker,editType:"calc"},opacity:s.opacity}},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plot_api/plot_template":543,"../../plots/cartesian/axis_format_attributes":557,"../../plots/cartesian/constants":561,"../../plots/template_attributes":633,"../scatter/attributes":927,"../scattergl/attributes":979}],1033:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../components/grid");e.exports={moduleType:"trace",name:"splom",categories:["gl","regl","cartesian","symbols","showLegend","scatter-
like"],attributes:t("./attributes"),supplyDefaults:t("./defaults"),colorbar:t("../scatter/marker_colorbar"),calc:t("./calc"),plot:t("./plot"),hoverPoints:t("./hover").hoverPoints,selectPoints:t("./select"),editStyle:t("./edit_style"),meta:{}},n.register(i)},{"../../components/grid":410,"../../registry":638,"../scatter/marker_colorbar":945,"./attributes":1032,"./calc":1035,"./defaults":1036,"./edit_style":1037,"./hover":1039,"./plot":1041,"./select":1043}],1034:[function(t,e,r){"use strict";var n=t("regl-
line2d"),i=t("../../registry"),a=t("../../lib/prepare_regl"),o=t("../../plots/get_data").getModuleCalcData,s=t("../../plots/cartesian"),l=t("../../plots/cartesian/axis_ids").getFromId,c=t("../../plots/cartesian/axes").shouldShowZeroLine,u="splom",f={};function h(t,e,r){for(var n=r.matrixOptions.data.length,i=e._visibleDims,a=r.viewOpts.ranges=new Array(n),o=0;o<i.length;o++){var s=i[o],c=a[o]=new Array(4),u=l(t,e._diag[s][0]);u&&(c[0]=u.r2l(u.range[0]),c[2]=u.r2l(u.range[1]));var f=l(t,e._diag[s][1]);f&&(c[1]=f.r2l(f.range[0]),c[3]=f.r2l(f.range[1]))}r.selectBatch.length||r.unselectBatch.length?r.matrix.update({ranges:a},{ranges:a}):r.matrix.update({ranges:a})}function p(t){var e=t._fullLayout,r=e._glcanvas.data()[0].regl,i=e._splomGrid;i||(i=e._splomGrid=n(r)),i.update(function(t){var e,r=t._context.plotGlPixelRatio,n=t._fullLayout,i=n._size,a=[0,0,n.width*r,n.height*r],o={};function s(t,e,n,i,s,l){n*=r,i*=r,s*=r,l*=r;var c=e[t+"color"],u=e[t+"width"],f=String(c+u);f in o?o[f].data.push(NaN,NaN,n,i,s,l):o[f]={data:[n,i,s,l],join:"rect",thickness:u*r,color:c,viewport:a,range:a,overlay:!1}}for(e in n._splomSubplots){var l,u,f=n._plots[e],h=f.xaxis,p=f.yaxis,d=h._gridVals,g=p._gridVals,v=h._offset,m=h._length,y=p._length,x=i.b+p.domain[0]*i.h,b=-p._m,_=-

b*p.r2l(p.range[0],p.calendar);if(h.showgrid)for(e=0;e<d.length;e++)l=v+h.l2p(d[e].x),s("grid",h,l,x,l,x+y);if(p.showgrid)for(e=0;e<g.length;e++)s("grid",p,v,u=x+_+b*g[e].x,v+m,u);c(t,h,p)&&(l=v+h.l2p(0),s("zeroline",h,l,x,l,x+y)),c(t,p,h)&&s("zeroline",p,v,u=x+_+0,v+m,u)}var w=[];for(e in o)w.push(o[e]);return w}(t))}e.exports={name:u,attr:s.attr,attrRegex:s.attrRegex,layoutAttributes:s.layoutAttributes,supplyLayoutDefaults:s.supplyLayoutDefaults,drawFramework:s.drawFramework,plot:function(t){var e=t._fullLayout,r=i.getModule(u),n=o(t.calcdata,r)[0];a(t,["ANGLE_instanced_arrays","OES_element_index_uint"],f)&&(e._hasOnlyLargeSploms&&p(t),r.plot(t,{},n))},drag:function(t){var e=t.calcdata,r=t._fullLayout;r._hasOnlyLargeSploms&&p(t);for(var n=0;n<e.length;n++){var i=e[n][0].trace,a=r._splomScenes[i.uid];"splom"===i.type&&a&&a.matrix&&h(t,i,a)}},updateGrid:p,clean:function(t,e,r,n){var i,a={};if(n._splomScenes){for(i=0;i<t.length;i++){var o=t[i];"splom"===o.type&&(a[o.uid]=1)}for(i=0;i<r.length;i++){var l=r[i];if(!a[l.uid]){var c=n._splomScenes[l.uid];c&&c.destroy&&c.destroy(),n._splomScenes[l.uid]=null,delete n._splomScenes[l.uid]}}}0===Object.keys(n._splomScenes||{}).length&&delete n._splomScenes,n._splomGrid&&!e._hasOnlyLargeSploms&&n._hasOnlyLargeSploms&&(n._splomGrid.destroy(),n._splomGrid=null,delete n._splomGrid),s.clean(t,e,r,n)},updateFx:s.updateFx,toSVG:s.toSVG,reglPrecompiled:f}},{"../../lib/prepare_regl":516,"../../plots/cartesian":568,"../../plots/cartesian/axes":554,"../../plots/cartesian/axis_ids":558,"../../plots/get_data":593,"../../registry":638,"regl-line2d":280}],1035:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plots/cartesian/axis_ids"),a=t("../scatter/calc").calcMarkerSize,o=t("../scatter/calc").calcAxisExpansion,s=t("../scatter/colorscale_calc"),l=t("../scattergl/convert").markerSelection,c=t("../scattergl/convert").markerStyle,u=t("./scene_update"),f=t("../../constants/numerical").BADNUM,h=t("../scattergl/constants").TOO_MANY_POINTS;e.exports=function(t,e){var r,p,d,g,v,m,y=e.dimensions,x=e._length,b={},_=b.cdata=[],w=b.data=[],T=e._visibleDims=[];function k(t,r){for(var i=t.makeCalcdata({v:r.values,vcalendar:e.calendar},"v"),a=0;a<i.length;a++)i[a]=i[a]===f?NaN:i[a];_.push(i),w.push("log"===t.type?n.simpleMap(i,t.c2l):i)}for(r=0;r<y.length;r++)if((d=y[r]).visible){if(g=i.getFromId(t,e._diag[r][0]),v=i.getFromId(t,e._diag[r][1]),g&&v&&g.type!==v.type){n.log("Skipping splom dimension "+r+" with conflicting axis types");continue}g?(k(g,d),v&&"category"===v.type&&(v._categories=g._categories.slice())):k(v,d),T.push(r)}for(s(t,e),n.extendFlat(b,c(e)),m=_.length*x>h?b.sizeAvg||Math.max(b.size,3):a(e,x),p=0;p<T.length;p++)d=y[r=T[p]],g=i.getFromId(t,e._diag[r][0])||{},v=i.getFromId(t,e._diag[r][1])||{},o(t,e,g,v,_[p],_[p],m);var A=u(t,e);return A.matrix||(A.matrix=!0),A.matrixOptions=b,A.selectedOptions=l(e,e.selected),A.unselectedOptions=l(e,e.unselected),[{x:!1,y:!1,t:{},trace:e}]}},{"../../constants/numerical":479,"../../lib":503,"../../plots/cartesian/axis_ids":558,"../scatter/calc":928,"../scatter/colorscale_calc":930,"../scattergl/constants":982,"../scattergl/convert":983,"./scene_update":1042}],1036:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plots/array_container_defaults"),a=t("./attributes"),o=t("../scatter/subtypes"),s=t("../scatter/marker_defaults"),l=t("../parcoords/merge_length"),c=t("../scattergl/helpers").isOpenSymbol;function u(t,e){function r(r,i){return n.coerce(t,e,a.dimensions,r,i)}r("label");var i=r("values");i&&i.length?r("visible"):e.visible=!1,r("axis.type"),r("axis.matches")}e.exports=function(t,e,r,f){function h(r,i){return n.coerce(t,e,a,r,i)}var p=i(t,e,{name:"dimensions",handleItemDefaults:u}),d=h("diagonal.visible"),g=h("showupperhalf"),v=h("showlowerhalf");if(l(e,p,"values")&&(d||g||v)){h("text"),h("hovertext"),h("hovertemplate"),h("xhoverformat"),h("yhoverformat"),s(t,e,r,f,h);var m=c(e.marker.symbol),y=o.isBubble(e);h("marker.line.width",m||y?1:0),function(t,e,r,n){var i,a,o=e.dimensions,s=o.length,l=e.showupperhalf,c=e.showlowerhalf,u=e.diagonal.visible,f=new Array(s),h=new Array(s);for(i=0;i<s;i++){var p=i?i+1:"";f[i]="x"+p,h[i]="y"+p}var d=n("xaxes",f),g=n("yaxes",h),v=e._diag=new Array(s);e._xaxes={},e._yaxes={};var m=[],y=[];function x(t,n,i,a){if(t){var o=t.charAt(0),s=r._splomAxes[o];if(e["_"+o+"axes"][t]=1,a.push(t),!(t in s)){var l=s[t]={};i&&(l.label=i.label||"",i.visible&&i.axis&&(i.axis.type&&(l.type=i.axis.type),i.axis.matches&&(l.matches=n)))}}}var b=!u&&!c,_=!u&&!l;for(e._axesDim={},i=0;i<s;i++){var w=o[i],T=0===i,k=i===s-

1,A=T&&b||k&&_?void 0:d[i],M=T&&_||k&&b?void
0:g[i];x(A,M,w,m),x(M,A,w,y),v[i]=[A,M],e._axesDim[A]=i,e._axesDim[M]=i}for(i=0;i<m.length;i++)for(a=0;a<y
.length;a++){var
S=m[i]+y[a];i>a&&l||i<a&&c?r._splomSubplots[S]=1:i!==a||!u&&c&&l||(r._splomSubplots[S]=1)}(!c||!u&&l&&c)
&&(r._splomGridDflt.xside="bottom",r._splomGridDflt.yside="left")}(0,e,f,h),n.coerceSelectionMarkerOpacity(e,h
)}else
e.visible=!1}},{"../../lib":503,"../../plots/array_container_defaults":549,"../parcoords/merge_length":898,"../scatter/m
arker_defaults":946,"../scatter/subtypes":952,"../scattergl/helpers":987,"./attributes":1032}],1037:[function(t,e,r){"us
e strict";var
n=t("../../lib"),i=t("../scatter/colorscale_calc"),a=t("../scattergl/convert").markerStyle;e.exports=function(t,e){var
r=e.trace,o=t._fullLayout._splomScenes[r.uid];if(o){i(t,r),n.extendFlat(o.matrixOptions,a(r));var
s=n.extendFlat({},o.matrixOptions,o.viewOpts);o.matrix.update(s,null)}}},{"../../lib":503,"../scatter/colorscale_calc
":930,"../scattergl/convert":983}],1038:[function(t,e,r){"use strict";r.getDimIndex=function(t,e){for(var
r=e._id,n={x:0,y:1}[r.charAt(0)],i=t._visibleDims,a=0;a<i.length;a++){var o=i[a];if(t._diag[o][n]===r)return
a}return!1}},{}],1039:[function(t,e,r){"use strict";var
n=t("./helpers"),i=t("../scattergl/hover").calcHover;e.exports={hoverPoints:function(t,e,r){var
a=t.cd[0].trace,o=t.scene.matrixOptions.cdata,s=t.xa,l=t.ya,c=s.c2p(e),u=l.c2p(r),f=t.distance,h=n.getDimIndex(a,s),
p=n.getDimIndex(a,l);if(!1===h||!1===p)return[t];for(var d,g,v=o[h],m=o[p],y=f,x=0;x<v.length;x++){var
b=v[x],_=m[x],w=s.c2p(b)-c,T=l.c2p(_)-u,k=Math.sqrt(w*w+T*T);k<y&&(y=g=k,d=x)}return
t.index=d,t.distance=y,t.dxy=g,void
0===d?[t]:[i(t,v,m,a)]}}},{"../scattergl/hover":988,"./helpers":1038}],1040:[function(t,e,r){"use strict";var
n=t("./base_index");n.basePlotModule=t("./base_plot"),e.exports=n},{"./base_index":1033,"./base_plot":1034}],104
1:[function(t,e,r){"use strict";var n=t("regl-
splom"),i=t("../../lib"),a=t("../../plots/cartesian/axis_ids"),o=t("../../components/dragelement/helpers").selectMode;fu
nction s(t,e){var
r,s,l,c,u,f=t._fullLayout,h=f._size,p=e.trace,d=e.t,g=f._splomScenes[p.uid],v=g.matrixOptions,m=v.cdata,y=f._glcan
vas.data()[0].regl,x=f.dragmode;if(0!==m.length){v.lower=p.showupperhalf,v.upper=p.showlowerhalf,v.diagonal=p
.diagonal.visible;var b=p._visibleDims,_=m.length,w=g.viewOpts={};for(w.ranges=new Array(_),w.domains=new
Array(_),u=0;u<b.length;u++){l=b[u];var T=w.ranges[u]=new Array(4),k=w.domains[u]=new
Array(4);(r=a.getFromId(t,p._diag[l][0]))&&(T[0]=r._rl[0],T[2]=r._rl[1],k[0]=r.domain[0],k[2]=r.domain[1]),(s=a.g
etFromId(t,p._diag[l][1]))&&(T[1]=s._rl[0],T[3]=s._rl[1],k[1]=s.domain[0],k[3]=s.domain[1])}var
A=t._context.plotGlPixelRatio,M=h.l*A,S=h.b*A,E=h.w*A,L=h.h*A;w.viewport=[M,S,E+M,L+S],!0===g.matrix
&&(g.matrix=n(y));var C=f.clickmode.indexOf("select")>-1,P=!0;if(o(x)||p.selectedpoints||C){var
I=p._length;if(p.selectedpoints){g.selectBatch=p.selectedpoints;var
O=p.selectedpoints,z={};for(l=0;l<O.length;l++)z[O[l]]=!0;var
D=[];for(l=0;l<I;l++)z[l]||D.push(l);g.unselectBatch=D}var R=d.xpx=new Array(_),F=d.ypx=new
Array(_);for(u=0;u<b.length;u++){if(l=b[u],r=a.getFromId(t,p._diag[l][0]))for(R[u]=new
Array(I),c=0;c<I;c++)R[u][c]=r.c2p(m[u][c]);if(s=a.getFromId(t,p._diag[l][1]))for(F[u]=new
Array(I),c=0;c<I;c++)F[u][c]=s.c2p(m[u][c])}if(g.selectBatch.length||g.unselectBatch.length){var
B=i.extendFlat({},v,g.unselectedOptions,w),N=i.extendFlat({},v,g.selectedOptions,w);g.matrix.update(B,N),P=!1}}
else d.xpx=d.ypx=null;if(P){var
j=i.extendFlat({},v,w);g.matrix.update(j,null)}}}e.exports=function(t,e,r){if(r.length)for(var
n=0;n<r.length;n++)s(t,r[n][0])}},{"../../components/dragelement/helpers":384,"../../lib":503,"../../plots/cartesian/axi
s_ids":558,"regl-splom":282}],1042:[function(t,e,r){"use strict";var n=t("../../lib");e.exports=function(t,e){var
r=t._fullLayout,i=e.uid,a=r._splomScenes;a||(a=r._splomScenes={});var
o={dirty:!0,selectBatch:[],unselectBatch:[]},s=a[e.uid];return
s||((s=a[i]=n.extendFlat({},o,{matrix:!1,selectBatch:[],unselectBatch:[]})).draw=function(){s.matrix&&s.matrix.dra
w&&(s.selectBatch.length||s.unselectBatch.length?s.matrix.draw(s.unselectBatch,s.selectBatch):s.matrix.draw()),s.d

irty=!1},s.destroy=function(){s.matrix&&s.matrix.destroy&&s.matrix.destroy(),s.matrixOptions=null,s.selectBatch=null,s.unselectBatch=null,s=null}),s.dirty||n.extendFlat(s,o),s}},{"../../lib":503}],1043:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../scatter/subtypes"),a=t("./helpers");e.exports=function(t,e){var r=t.cd,o=r[0].trace,s=r[0].t,l=t.scene,c=l.matrixOptions.cdata,u=t.xaxis,f=t.yaxis,h=[];if(!l)return h;var p=!i.hasMarkers(o)&&!i.hasText(o);if(!0!==o.visible||p)return h;var d=a.getDimIndex(o,u),g=a.getDimIndex(o,f);if(!1===d||!1===g)return h;var v=s.xpx[d],m=s.ypx[g],y=c[d],x=c[g],b=[],_=[];if(!1!==e&&!e.degenerate)for(var w=0;w<y.length;w++)e.contains([v[w],m[w]],null,w,t)?(b.push(w),h.push({pointNumber:w,x:y[w],y:x[w]})):_.push(w);var T=l.matrixOptions;return b.length||_.length?l.selectBatch.length||l.unselectBatch.length||l.matrix.update(l.unselectedOptions,n.extendFlat({},T,l.selectedOptions,l.viewOpts)):l.matrix.update(T,null),l.selectBatch=b,l.unselectBatch=_,h}},{"../../lib":503,"../scatter/subtypes":952,"./helpers":1038}],1044:[function(t,e,r){"use strict";var n=t("../../components/colorscale/attributes"),i=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,a=t("../../plots/template_attributes").hovertemplateAttrs,o=t("../mesh3d/attributes"),s=t("../../plots/attributes"),l=t("../../lib/extend").extendFlat,c={x:{valType:"data_array",editType:"calc+clearAxisTypes"},y:{valType:"data_array",editType:"calc+clearAxisTypes"},z:{valType:"data_array",editType:"calc+clearAxisTypes"},u:{valType:"data_array",editType:"calc"},v:{valType:"data_array",editType:"calc"},w:{valType:"data_array",editType:"calc"},starts:{x:{valType:"data_array",editType:"calc"},y:{valType:"data_array",editType:"calc"},z:{valType:"data_array",editType:"calc"},editType:"calc"},maxdisplayed:{valType:"integer",min:0,dflt:1e3,editType:"calc"},sizeref:{valType:"number",editType:"calc",min:0,dflt:1},text:{valType:"string",dflt:"",editType:"calc"},hovertext:{valType:"string",dflt:"",editType:"calc"},hovertemplate:a({editType:"calc"},{keys:["tubex","tubey","tubez","tubeu","tubev","tubew","norm","divergence"]}),uhoverformat:i("u",1),vhoverformat:i("v",1),whoverformat:i("w",1),xhoverformat:i("x"),yhoverformat:i("y"),zhoverformat:i("z"),showlegend:l({},s.showlegend,{dflt:!1})};l(c,n("",{colorAttr:"u/v/w norm",showScaleDflt:!0,editTypeOverride:"calc"})),["opacity","lightposition","lighting"].forEach((function(t){c[t]=o[t]})),c.hoverinfo=l({},s.hoverinfo,{editType:"calc",flags:["x","y","z","u","v","w","norm","divergence","text","name"],dflt:"x+y+z+norm+text+name"}),c.transforms=void 0,e.exports=c},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plots/attributes":550,"../../plots/cartesian/axis_format_attributes":557,"../../plots/template_attributes":633,"../mesh3d/attributes":867}],1045:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../components/colorscale/calc");function a(t){var e,r,i,a,s,l,c,u,f,h,p,d,g=t._x,v=t._y,m=t._z,y=t._len,x=-1/0,b=1/0,_=-1/0,w=1/0,T=-1/0,k=1/0,A="";for(y&&(c=g[0],f=v[0],p=m[0]),y>1&&(u=g[y-1],h=v[y-1],d=m[y-1]),e=0;e<y;e++)x=Math.max(x,g[e]),b=Math.min(b,g[e]),_=Math.max(_,v[e]),w=Math.min(w,v[e]),T=Math.max(T,m[e]),k=Math.min(k,m[e]),a||g[e]===c||(a=!0,A+="x"),s||v[e]===f||(s=!0,A+="y"),l||m[e]===p||(l=!0,A+="z");a||(A+="x"),s||(A+="y"),l||(A+="z");var M=o(t._x),S=o(t._y),E=o(t._z);A=(A=(A=A.replace("x",(c>u?"-":"+")+"x")).replace("y",(f>h?"-":"+")+"y")).replace("z",(p>d?"-":"+")+"z");var L=function(){y=0,M=[],S=[],E=[]};(!y||y<M.length*S.length*E.length)&&L();var C=function(t){return"x"===t?g:"y"===t?v:m},P=function(t){return"x"===t?M:"y"===t?S:E},I=function(t){return t[y-1]<t[0]?-1:1},O=C(A[1]),z=C(A[3]),D=C(A[5]),R=P(A[1]).length,F=P(A[3]).length,B=P(A[5]).length,N=!1,j=function(t,e,r){return R*(F*t+e)+r},U=I(C(A[1])),V=I(C(A[3])),q=I(C(A[5]));for(e=0;e<B-1;e++){for(r=0;r<F-1;r++){for(i=0;i<R-1;i++){var H=j(e,r,i),G=j(e,r,i+1),Y=j(e,r+1,i),W=j(e+1,r,i);if(O[H]*U<O[G]*U&&z[H]*V<z[Y]*V&&D[H]*q<D[W]*q||(N=!0),N)break}if(N)break}if(N)break}return N&&(n.warn("Encountered arbitrary coordinates! Unable to input data grid."),L()),{xMin:b,yMin:w,zMin:k,xMax:x,yMax:_,zMax:T,Xs:M,Ys:S,Zs:E,len:y,fill:A}}function o(t){return n.distinctVals(t).vals}function s(t,e){if(void 0===e&&(e=t.length),n.isTypedArray(t))return t.subarray(0,e);for(var r=[],i=0;i<e;i++)r[i]=+t[i];return r}e.exports={calc:function(t,e){e._len=Math.min(e.u.length,e.v.length,e.w.length,e.x.length,e.y.length,e.z.length),e._u=s(e.u,e._len),e._v=s(e.v,e._len),e._w=s(e.w,e._len),e._x=s(e.x,e._len),e._y=s(e.y,e._len),e._z=s(e.z,e._len);var

r=a(e);e._gridFill=r.fill,e._Xs=r.Xs,e._Ys=r.Ys,e._Zs=r.Zs,e._len=r.len;var
n,o,l,c=0;e.starts&&(n=s(e.starts.x||[]),o=s(e.starts.y||[]),l=s(e.starts.z||[]),c=Math.min(n.length,o.length,l.length)),e._
startsX=n||[],e._startsY=o||[],e._startsZ=l||[];var u,f=0,h=1/0;for(u=0;u<e._len;u++){var
p=e._u[u],d=e._v[u],g=e._w[u],v=Math.sqrt(p*p+d*d+g*g);f=Math.max(f,v),h=Math.min(h,v)}for(i(t,e,{vals:[h,f],c
ontainerStr:"",cLetter:"c"}),u=0;u<c;u++){var
m=n[u];r.xMax=Math.max(r.xMax,m),r.xMin=Math.min(r.xMin,m);var
y=o[u];r.yMax=Math.max(r.yMax,y),r.yMin=Math.min(r.yMin,y);var
x=l[u];r.zMax=Math.max(r.zMax,x),r.zMin=Math.min(r.zMin,x)}e._slen=c,e._normMax=f,e._xbnds=[r.xMin,r.xM
ax],e._ybnds=[r.yMin,r.yMax],e._zbnds=[r.zMin,r.zMax]},filter:s,processGrid:a}},{"../../components/colorscale/cal
c":374,"../../lib":503}],1046:[function(t,e,r){"use strict";var
n=t("../../../stackgl_modules").gl_streamtube3d,i=n.createTubeMesh,a=t("../../lib"),o=t("../../lib/gl_format_color").pa
rseColorScale,s=t("../../components/colorscale").extractOpts,l=t("../../plots/gl3d/zip3"),c={xaxis:0,yaxis:1,zaxis:2};f
unction u(t,e){this.scene=t,this.uid=e,this.mesh=null,this.data=null}var f=u.prototype;function h(t){var
e=t.length;return e>2?t.slice(1,e-1):2===e?[(t[0]+t[1])/2]:t}function p(t){var e=t.length;return 1===e?[.5,.5]:[t[1]-
t[0],t[e-1]-t[e-2]]}function d(t,e){var r=t.fullSceneLayout,i=t.dataScale,u=e._len,f={};function d(t,e){var
n=r[e],o=i[c[e]];return a.simpleMap(t,(function(t){return
n.d2l(t)*o}))}if(f.vectors=l(d(e._u,"xaxis"),d(e._v,"yaxis"),d(e._w,"zaxis"),u),!u)return{positions:[],cells:[]};var
g=d(e._Xs,"xaxis"),v=d(e._Ys,"yaxis"),m=d(e._Zs,"zaxis");if(f.meshgrid=[g,v,m],f.gridFill=e._gridFill,e._slen)f.star
tingPositions=l(d(e._startsX,"xaxis"),d(e._startsY,"yaxis"),d(e._startsZ,"zaxis"));else{for(var
y=v[0],x=h(g),b=h(m),_=new Array(x.length*b.length),w=0,T=0;T<x.length;T++)for(var
k=0;k<b.length;k++)_[w++]=[x[T],y,b[k]];f.startingPositions=_}f.colormap=o(e),f.tubeSize=e.sizeref,f.maxLength
=e.maxdisplayed;var
A=d(e._xbnds,"xaxis"),M=d(e._ybnds,"yaxis"),S=d(e._zbnds,"zaxis"),E=p(g),L=p(v),C=p(m),P=[[A[0]-E[0],M[0]-
L[0],S[0]-
C[0]],[A[1]+E[1],M[1]+L[1],S[1]+C[1]]],I=n(f,P),O=s(e);I.vertexIntensityBounds=[O.min/e._normMax,O.max/e._
normMax];var z=e.lightposition;return
I.lightPosition=[z.x,z.y,z.z],I.ambient=e.lighting.ambient,I.diffuse=e.lighting.diffuse,I.specular=e.lighting.specular,I
.roughness=e.lighting.roughness,I.fresnel=e.lighting.fresnel,I.opacity=e.opacity,e._pad=I.tubeScale*e.sizeref*2,I}f.h
andlePick=function(t){var e=this.scene.fullSceneLayout,r=this.scene.dataScale;function n(t,n){var
i=e[n],a=r[c[n]];return i.l2c(t)/a}if(t.object===this.mesh){var i=t.data.position,a=t.data.velocity;return
t.traceCoordinate=[n(i[0],"xaxis"),n(i[1],"yaxis"),n(i[2],"zaxis"),n(a[0],"xaxis"),n(a[1],"yaxis"),n(a[2],"zaxis"),t.data
.intensity*this.data._normMax,t.data.divergence],t.textLabel=this.data.hovertext||this.data.text,!0}},f.update=functio
n(t){this.data=t;var
e=d(this.scene,t);this.mesh.update(e)},f.dispose=function(){this.scene.glplot.remove(this.mesh),this.mesh.dispose()}
,e.exports=function(t,e){var r=t.glplot.gl,n=d(t,e),a=i(r,n),o=new u(t,e.uid);return
o.mesh=a,o.data=e,a._trace=o,t.glplot.add(a),o}},{"../../../stackgl_modules":1124,"../../components/colorscale":378,"
../../lib":503,"../../lib/gl_format_color":499,"../../plots/gl3d/zip3":609}],1047:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("../../components/colorscale/defaults"),a=t("./attributes");e.exports=function(t,e,r,o){function
s(r,i){return n.coerce(t,e,a,r,i)}var
l=s("u"),c=s("v"),u=s("w"),f=s("x"),h=s("y"),p=s("z");l&&l.length&&c&&c.length&&u&&u.length&&f&&f.lengt
h&&h&&h.length&&p&&p.length?(s("starts.x"),s("starts.y"),s("starts.z"),s("maxdisplayed"),s("sizeref"),s("lighting
.ambient"),s("lighting.diffuse"),s("lighting.specular"),s("lighting.roughness"),s("lighting.fresnel"),s("lightposition.x"
),s("lightposition.y"),s("lightposition.z"),i(t,e,o,s,{prefix:"",cLetter:"c"}),s("text"),s("hovertext"),s("hovertemplate"),
s("uhoverformat"),s("vhoverformat"),s("whoverformat"),s("xhoverformat"),s("yhoverformat"),s("zhoverformat"),e._
length=null):e.visible=!1}},{"../../components/colorscale/defaults":376,"../../lib":503,"./attributes":1044}],1048:[fun
ction(t,e,r){"use
strict";e.exports={moduleType:"trace",name:"streamtube",basePlotModule:t("../../plots/gl3d"),categories:["gl3d","sh
owLegend"],attributes:t("./attributes"),supplyDefaults:t("./defaults"),colorbar:{min:"cmin",max:"cmax"},calc:t("./ca

lc").calc,plot:t("./convert"),eventData:function(t,e){return
t.tubex=t.x,t.tubey=t.y,t.tubez=t.z,t.tubeu=e.traceCoordinate[3],t.tubev=e.traceCoordinate[4],t.tubew=e.traceCoordinate[5],t.norm=e.traceCoordinate[6],t.divergence=e.traceCoordinate[7],delete t.x,delete t.y,delete
t.z,t},meta:{}}},{"../../plots/gl3d":598,"./attributes":1044,"./calc":1045,"./convert":1046,"./defaults":1047}],1049:[function(t,e,r){"use strict";var
n=t("../../plots/attributes"),i=t("../../plots/template_attributes").hovertemplateAttrs,a=t("../../plots/template_attributes").texttemplateAttrs,o=t("../../components/colorscale/attributes"),s=t("../../plots/domain").attributes,l=t("../pie/attributes"),c=t("./constants"),u=t("../../lib/extend").extendFlat;e.exports={labels:{valType:"data_array",editType:"calc"},parents:{valType:"data_array",editType:"calc"},values:{valType:"data_array",editType:"calc"},branchvalues:{valType:"enumerated",values:["remainder","total"],dflt:"remainder",editType:"calc"},count:{valType:"flaglist",flags:["branches","leaves"],dflt:"leaves",editType:"calc"},level:{valType:"any",editType:"plot",anim:!0},maxdepth:{valType:"integer",editType:"plot",dflt:-
1},marker:u({colors:{valType:"data_array",editType:"calc"},line:{color:u({},l.marker.line.color,{dflt:null}),width:u({},l.marker.line.width,{dflt:1}),editType:"calc"},editType:"calc"},o("marker",{colorAttr:"colors",anim:!1})),leaf:{opacity:{valType:"number",editType:"style",min:0,max:1},editType:"plot"},text:l.text,textinfo:{valType:"flaglist",flags:["label","text","value","current path","percent root","percent entry","percent
parent"],extras:["none"],editType:"plot"},texttemplate:a({editType:"plot"},{keys:c.eventDataKeys.concat(["label","value"])}),hovertext:l.hovertext,hoverinfo:u({},n.hoverinfo,{flags:["label","text","value","name","current path","percent root","percent entry","percent
parent"],dflt:"label+text+value+name"}),hovertemplate:i({},{keys:c.eventDataKeys}),textfont:l.textfont,insidetextorientation:l.insidetextorientation,insidetextfont:l.insidetextfont,outsidetextfont:u({},l.outsidetextfont,{}),rotation:{valType:"angle",dflt:0,editType:"plot"},sort:l.sort,root:{color:{valType:"color",editType:"calc",dflt:"rgba(0,0,0,0)"},editType:"calc"},domain:s({name:"sunburst",trace:!0,editType:"calc"})}},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plots/attributes":550,"../../plots/domain":584,"../../plots/template_attributes":633,"../pie/attributes":901,"./constants":1052}],1050:[function(t,e,r){"use strict";var
n=t("../../plots/plots");r.name="sunburst",r.plot=function(t,e,i,a){n.plotBasePlot(r.name,t,e,i,a)},r.clean=function(t,e,i,a){n.cleanBasePlot(r.name,t,e,i,a)}},{"../../plots/plots":619}],1051:[function(t,e,r){"use strict";var n=t("d3-hierarchy"),i=t("fast-
isnumeric"),a=t("../../lib"),o=t("../../components/colorscale").makeColorScaleFuncFromTrace,s=t("../pie/calc").makePullColorFn,l=t("../pie/calc").generateExtendedColors,c=t("../../components/colorscale").calc,u=t("../../constants/numerical").ALMOST_EQUAL,f={},h={},p={};function d(t,e,r){var n=0,i=t.children;if(i){for(var
a=i.length,o=0;o<a;o++)n+=d(i[o],e,r);r.branches&&n++}else r.leaves&&n++;return
t.value=t.data.data.value=n,e._values||(e._values=[]),e._values[t.data.data.i]=n,n}r.calc=function(t,e){var
r,l,f,h,p,g,v=t._fullLayout,m=e.ids,y=a.isArrayOrTypedArray(m),x=e.labels,b=e.parents,_=e.values,w=a.isArrayOrTypedArray(_),T=[],k={},A={},M=function(t){return t||"number"==typeof
t},S=function(t){return!w||i(_[t])&&_[t]>=0};y?(r=Math.min(m.length,b.length),l=function(t){return
M(m[t])&&S(t)},f=function(t){return String(m[t])}):(r=Math.min(x.length,b.length),l=function(t){return
M(x[t])&&S(t)},f=function(t){return String(x[t])}),w&&(r=Math.min(r,_.length));for(var E=0;E<r;E++)if(l(E)){var
L=f(E),C=M(b[E])?String(b[E]):"",P={i:E,id:L,pid:C,label:M(x[E])?String(x[E]):""};w&&(P.v=+_[E]),T.push(P),g=L,k[p=C]?k[p].push(g):k[p]=[g],A[g]=1}if(k[""]){if(k[""].length>1){for(var
I=a.randstr(),O=0;O<T.length;O++)""===T[O].pid&&(T[O].pid=I);T.unshift({hasMultipleRoots:!0,id:I,pid:"",label:""})}}else{var z,D=[];for(z in k)A[z]||D.push(z);if(1!==D.length)return a.warn(["Multiple implied roots, cannot
build",e.type,"hierarchy of",e.name+".","These roots include:",D.join(", ")].join("
"));z=D[0],T.unshift({hasImpliedRoot:!0,id:z,pid:"",label:z})}try{h=n.stratify().id((function(t){return
t.id})).parentId((function(t){return t.pid}))(T)}catch(t){return a.warn(["Failed to build",e.type,"hierarchy
of",e.name+".","Error:",t.message].join(" "))}var
R=n.hierarchy(h),F=!1;if(w)switch(e.branchvalues){case"remainder":R.sum((function(t){return
t.data.v}));break;case"total":R.each((function(t){var r=t.data.data,n=r.v;if(t.children){var

i=t.children.reduce((function(t,e){return
t+e.data.data.v}),0);if((r.hasImpliedRoot||r.hasMultipleRoots)&&(n=i),n<i*u)return F=!0,a.warn(["Total value for node",t.data.data.id,"of",e.name,"is smaller than the sum of its children.","\nparent value =",n,"\nchildren sum =",i].join(" "))}t.value=n}))}else d(R,e,{branches:-1!==e.count.indexOf("branches"),leaves:-1!==e.count.indexOf("leaves")});if(!F){var B,N;e.sort&&R.sort((function(t,e){return e.value-t.value}));var j=e.marker.colors||[],U=!!j.length;return
e._hasColorscale?(U||(j=w?e.values:e._values),c(t,e,{vals:j,containerStr:"marker",cLetter:"c"}),N=o(e.marker)):B=s(v["_"+e.type+"colormap"]),R.each((function(t){var
r=t.data.data;r.color=e._hasColorscale?N(j[r.i]):B(j[r.i],r.id)})),T[0].hierarchy=R,T}},r._runCrossTraceCalc=function(t,e){var
r=e._fullLayout,n=e.calcdata,i=r[t+"colorway"],a=r["_"+t+"colormap"];r["extend"+t+"colors"]&&(i=l(i,"icicle"===t?p:"treemap"===t?h:f));var o,s=0;function c(t){var
e=t.data.data,r=e.id;!1===e.color&&(a[r]?e.color=a[r]:t.parent?t.parent.parent?e.color=t.parent.data.data.color:(a[r]=e.color=i[s%i.length],s++):e.color=o)}for(var u=0;u<n.length;u++){var
d=n[u][0];d.trace.type===t&&d.hierarchy&&(o=d.trace.root.color,d.hierarchy.each(c))}},r.crossTraceCalc=function(t){return
r._runCrossTraceCalc("sunburst",t)}},{"../../components/colorscale":378,"../../constants/numerical":479,"../../lib":503,"../pie/calc":903,"d3-hierarchy":115,"fast-isnumeric":190}],1052:[function(t,e,r){"use
strict";e.exports={CLICK_TRANSITION_TIME:750,CLICK_TRANSITION_EASING:"linear",eventDataKeys:["currentPath","root","entry","percentRoot","percentEntry","percentParent"]}},{}],1053:[function(t,e,r){"use
strict";var
n=t("../../lib"),i=t("./attributes"),a=t("../../plots/domain").defaults,o=t("../bar/defaults").handleText,s=t("../../components/colorscale"),l=s.hasColorscale,c=s.handleDefaults;e.exports=function(t,e,r,s){function u(r,a){return
n.coerce(t,e,i,r,a)}var f=u("labels"),h=u("parents");if(f&&f.length&&h&&h.length){var
p=u("values");p&&p.length?u("branchvalues"):u("count"),u("level"),u("maxdepth"),u("marker.line.width")&&u("marker.line.color",s.paper_bgcolor),u("marker.colors");var
d=e._hasColorscale=l(t,"marker","colors")||(t.marker||{}).coloraxis;d&&c(t,e,s,u,{prefix:"marker.",cLetter:"c"}),u("leaf.opacity",d?1:.7);var
g=u("text");u("texttemplate"),e.texttemplate||u("textinfo",Array.isArray(g)?"text+label":"label"),u("hovertext"),u("hovertemplate"),o(t,e,s,u,"auto",{moduleHasSelected:!1,moduleHasUnselected:!1,moduleHasConstrain:!1,moduleHasCliponaxis:!1,moduleHasTextangle:!1,moduleHasInsideanchor:!1}),u("insidetextorientation"),u("sort"),u("rotation"),u("root.color"),a(e,s,u),e._length=null}else
e.visible=!1}},{"../../components/colorscale":378,"../../lib":503,"../../plots/domain":584,"../bar/defaults":652,"./attributes":1049}],1054:[function(t,e,r){"use strict";var
n=t("@plotly/d3"),i=t("../../registry"),a=t("../../components/fx/helpers").appendArrayPointValue,o=t("../../components/fx"),s=t("../../lib"),l=t("../../lib/events"),c=t("./helpers"),u=t("../pie/helpers").formatPieValue;function
f(t,e,r){for(var
n=t.data.data,i={curveNumber:e.index,pointNumber:n.i,data:e._input,fullData:e},o=0;o<r.length;o++){var s=r[o];s in t&&(i[s]=t[s])}return"parentString"in
t&&!c.isHierarchyRoot(t)&&(i.parent=t.parentString),a(i,e,n.i),i}e.exports=function(t,e,r,a,h){var
p=a[0],d=p.trace,g=p.hierarchy,v="sunburst"===d.type,m="treemap"===d.type||"icicle"===d.type;"_hasHoverLabel"in d||(d._hasHoverLabel=!1),"_hasHoverEvent"in d||(d._hasHoverEvent=!1),t.on("mouseover",(function(i){var
a=r._fullLayout;if(!r._dragging&&!1!==a.hovermode){var
l,y=r._fullData[d.index],x=i.data.data,b=x.i,_=c.isHierarchyRoot(i),w=c.getParent(g,i),T=c.getValue(i),k=function(t){return
s.castOption(y,b,t)},A=k("hovertemplate"),M=o.castHoverinfo(y,a,b),S=a.separators;if(A||M&&"none"!==M&&"skip"!==M){var E,L;v&&(E=p.cx+i.pxmid[0]*(1-i.rInscribed),L=p.cy+i.pxmid[1]*(1-i.rInscribed)),m&&(E=i._hoverX,L=i._hoverY);var C,P={},I=[],O=[],z=function(t){return-

1!==I.indexOf(t)};M&&(I="all"===M?y._module.attributes.hoverinfo.flags:M.split("+")),P.label=x.label,z("label")&&P.label&&O.push(P.label),x.hasOwnProperty("v")&&(P.value=x.v,P.valueLabel=u(P.value,S),z("value")&&O.push(P.valueLabel)),P.currentPath=i.currentPath=c.getPath(i.data),z("current path")&&!_&&O.push(P.currentPath);var D=[],R=function(){-1===D.indexOf(C)&&(O.push(C),D.push(C))};P.percentParent=i.percentParent=T/c.getValue(w),P.parent=i.parentString=c.getPtLabel(w),z("percent parent")&&(C=c.formatPercent(P.percentParent,S)+" of "+P.parent,R()),P.percentEntry=i.percentEntry=T/c.getValue(e),P.entry=i.entry=c.getPtLabel(e),!z("percent entry")||_||i.onPathbar||(C=c.formatPercent(P.percentEntry,S)+" of "+P.entry,R()),P.percentRoot=i.percentRoot=T/c.getValue(g),P.root=i.root=c.getPtLabel(g),z("percent root")&&!_&&(C=c.formatPercent(P.percentRoot,S)+" of "+P.root,R()),P.text=k("hovertext")||k("text"),z("text")&&(C=P.text,s.isValidTextValue(C)&&O.push(C)),l=[f(i,y,h.eventDataKeys)];var F={trace:y,y:L,_x0:i._x0,_x1:i._x1,_y0:i._y0,_y1:i._y1,text:O.join("<br>"),name:A||z("name")?y.name:void 0,color:k("hoverlabel.bgcolor")||x.color,borderColor:k("hoverlabel.bordercolor"),fontFamily:k("hoverlabel.font.family"),fontSize:k("hoverlabel.font.size"),fontColor:k("hoverlabel.font.color"),nameLength:k("hoverlabel.namelength"),textAlign:k("hoverlabel.align"),hovertemplate:A,hovertemplateLabels:P,eventData:l};v&&(F.x0=E-i.rInscribed*i.rpx1,F.x1=E+i.rInscribed*i.rpx1,F.idealAlign=i.pxmid[0]<0?"left":"right"),m&&(F.x=E,F.idealAlign=E<0?"left":"right");var B=[];o.loneHover(F,{container:a._hoverlayer.node(),outerContainer:a._paper.node(),gd:r,inOut_bbox:B}),l[0].bbox=B[0],d._hasHoverLabel=!0}if(m){var N=t.select("path.surface");h.styleOne(N,i,y,{hovered:!0})}d._hasHoverEvent=!0,r.emit("plotly_hover",{points:l||[f(i,y,h.eventDataKeys)],event:n.event})}})),t.on("mouseout",(function(e){var i=r._fullLayout,a=r._fullData[d.index],s=n.select(this).datum();if(d._hasHoverEvent&&(e.originalEvent=n.event,r.emit("plotly_unhover",{points:[f(s,a,h.eventDataKeys)],event:n.event}),d._hasHoverEvent=!1),d._hasHoverLabel&&(o.loneUnhover(i._hoverlayer.node()),d._hasHoverLabel=!1),m){var l=t.select("path.surface");h.styleOne(l,s,a,{hovered:!1})}})),t.on("click",(function(t){var e=r._fullLayout,a=r._fullData[d.index],s=v&&(c.isHierarchyRoot(t)||c.isLeaf(t)),u=c.getPtId(t),p=c.isEntry(t)?c.findEntryWithChild(g,u):c.findEntryWithLevel(g,u),m=c.getPtId(p),y={points:[f(t,a,h.eventDataKeys)],event:n.event};s||(y.nextLevel=m);var x=l.triggerHandler(r,"plotly_"+d.type+"click",y);if(!1!==x&&e.hovermode&&(r._hoverdata=[f(t,a,h.eventDataKeys)],o.click(r,n.event)),!s&&!1!==x&&!r._dragging&&!r._transitioning){i.call("_storeDirectGUIEdit",a,e._tracePreGUI[a.uid],{level:a.level});var b={data:[{level:m}],traces:[d.index]},_={frame:{redraw:!1,duration:h.transitionTime},transition:{duration:h.transitionTime,easing:h.transitionEasing},mode:"immediate",fromcurrent:!0};o.loneUnhover(e._hoverlayer.node()),i.call("animate",r,b,_)}}))}},{"../../components/fx":406,"../../components/fx/helpers":402,"../../lib":503,"../../lib/events":492,"../../registry":638,"../pie/helpers":906,"./helpers":1055,"@plotly/d3":58}],1055:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../components/color"),a=t("../../lib/setcursor"),o=t("../pie/helpers");function s(t){return t.data.data.pid}r.findEntryWithLevel=function(t,e){var n;return e&&t.eachAfter((function(t){if(r.getPtId(t)===e)return n=t.copy()})),n||t},r.findEntryWithChild=function(t,e){var n;return t.eachAfter((function(t){for(var i=t.children||[],a=0;a<i.length;a++){var o=i[a];if(r.getPtId(o)===e)return n=t.copy()}})),n||t},r.isEntry=function(t){return!t.parent},r.isLeaf=function(t){return!t.children},r.getPtId=function(t){return t.data.data.id},r.getPtLabel=function(t){return t.data.data.label},r.getValue=function(t){return t.value},r.isHierarchyRoot=function(t){return""===s(t)},r.setSliceCursor=function(t,e,n){var i=n.isTransitioning;if(!i){var o=t.datum();i=n.hideOnRoot&&r.isHierarchyRoot(o)||n.hideOnLeaves&&r.isLeaf(o)}a(t,i?null:"pointer")},r.getInsideTextFontKey=function(t,e,r,i,a){var o=(a||{}).onPathbar?"pathbar.textfont":"insidetextfont",s=r.data.data.i;return n.castOption(e,s,o+"."+t)||n.castOption(e,s,"textfont."+t)||i.size},r.getOutsideTextFontKey=function(t,e,r,i){var a=r.data.data.i;return

n.castOption(e,a,"outsidetextfont."+t)||n.castOption(e,a,"textfont."+t)||i.size},r.isOutsideText=function(t,e){return!t._hasColorscale&&r.isHierarchyRoot(e)},r.determineTextFont=function(t,e,a,o){return r.isOutsideText(t,e)?function(t,e,n){return{color:r.getOutsideTextFontKey("color",t,e,n),family:r.getOutsideTextFontKey("family",t,e,n),size:r.getOutsideTextFontKey("size",t,e,n)}}(t,e,a):function(t,e,a,o){var s=(o||{}).onPathbar,l=e.data.data,c=l.i,u=n.castOption(t,c,(s?"pathbar.textfont":"insidetextfont")+".color");return!u&&t._input.textfont&&(u=n.castOption(t._input,c,"textfont.color")),{color:u||i.contrast(l.color),family:r.getInsideTextFontKey("family",t,e,a,o),size:r.getInsideTextFontKey("size",t,e,a,o)}}(t,e,a,o)},r.hasTransition=function(t){return!!(t&&t.duration>0)},r.getMaxDepth=function(t){return t.maxdepth>=0?t.maxdepth:1/0},r.isHeader=function(t,e){return!(r.isLeaf(t)||t.depth===e._maxDepth-1)},r.getParent=function(t,e){return r.findEntryWithLevel(t,s(e))},r.listPath=function(t,e){var n=t.parent;if(!n)return[];var i=e?[n.data[e]]:[n];return r.listPath(n,e).concat(i)},r.getPath=function(t){return r.listPath(t,"label").join("/")+"/"},r.formatValue=o.formatPieValue,r.formatPercent=function(t,e){var r=n.formatPercent(t,0);return"0%"===r&&(r=o.formatPiePercent(t,e)),r}},{"../../components/color":366,"../../lib":503,"../../lib/setcursor":524,"../pie/helpers":906}],1056:[function(t,e,r){"use strict";e.exports={moduleType:"trace",name:"sunburst",basePlotModule:t("./base_plot"),categories:[],animatable:!0,attributes:t("./attributes"),layoutAttributes:t("./layout_attributes"),supplyDefaults:t("./defaults"),supplyLayoutDefaults:t("./layout_defaults"),calc:t("./calc").calc,crossTraceCalc:t("./calc").crossTraceCalc,plot:t("./plot").plot,style:t("./style").style,colorbar:t("../scatter/marker_colorbar"),meta:{}}},{"../scatter/marker_colorbar":945,"./attributes":1049,"./base_plot":1050,"./calc":1051,"./defaults":1053,"./layout_attributes":1057,"./layout_defaults":1058,"./plot":1059,"./style":1060}],1057:[function(t,e,r){"use strict";e.exports={sunburstcolorway:{valType:"colorlist",editType:"calc"},extendsunburstcolors:{valType:"boolean",dflt:!0,editType:"calc"}}},{}],1058:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./layout_attributes");e.exports=function(t,e){function r(r,a){return n.coerce(t,e,i,r,a)}r("sunburstcolorway",e.colorway),r("extendsunburstcolors")}},{"../../lib":503,"./layout_attributes":1057}],1059:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("d3-hierarchy"),a=t("d3-interpolate").interpolate,o=t("../../components/drawing"),s=t("../../lib"),l=t("../../lib/svg_text_utils"),c=t("../bar/uniform_text"),u=c.recordMinTextSize,f=c.clearMinTextSize,h=t("../pie/plot"),p=t("../pie/helpers").getRotationAngle,d=h.computeTransform,g=h.transformInsideText,v=t("./style").styleOne,m=t("../bar/style").resizeText,y=t("./fx"),x=t("./constants"),b=t("./helpers");function _(t,e,c,f){var h=t._fullLayout,m=!h.uniformtext.mode&&b.hasTransition(f),_=n.select(c).selectAll("g.slice"),T=e[0],k=T.trace,A=T.hierarchy,M=b.findEntryWithLevel(A,k.level),S=b.getMaxDepth(k),E=h._size,L=k.domain,C=E.w*(L.x[1]-L.x[0]),P=E.h*(L.y[1]-L.y[0]),I=.5*Math.min(C,P),O=T.cx=E.l+E.w*(L.x[1]+L.x[0])/2,z=T.cy=E.t+E.h*(1-L.y[0])-P/2;if(!M)return _.remove();var D=null,R={};m&&_.each((function(t){R[b.getPtId(t)]={rpx0:t.rpx0,rpx1:t.rpx1,x0:t.x0,x1:t.x1,transform:t.transform},!D&&b.isEntry(t)&&(D=t)}));var F=function(t){return i.partition().size([2*Math.PI,t.height+1])(t)}(M).descendants(),B=M.height+1,N=0,j=S;T.hasMultipleRoots&&b.isHierarchyRoot(M)&&(F=F.slice(1),B-=1,N=1,j+=1),F=F.filter((function(t){return t.y1<=j}));var U=p(k.rotation);U&&F.forEach((function(t){t.x0+=U,t.x1+=U}));var V=Math.min(B,S),q=function(t){return(t-N)/V*I},H=function(t,e){return[t*Math.cos(e),-t*Math.sin(e)]},G=function(t){return s.pathAnnulus(t.rpx0,t.rpx1,t.x0,t.x1,O,z)},Y=function(t){return O+w(t)[0]*(t.transform.rCenter||0)+(t.transform.x||0)},W=function(t){return z+w(t)[1]*(t.transform.rCenter||0)+(t.transform.y||0)};(_=_.data(F,b.getPtId)).enter().append("g").classed("slice",!0),m?_.exit().transition().each((function(){var t=n.select(this);t.select("path.surface").transition().attrTween("d",(function(t){var e=function(t){var e,r=b.getPtId(t),n=R[r],i=R[b.getPtId(M)];if(i){var o=(t.x1>i.x1?2*Math.PI:0)+U;e=t.rpx1<i.rpx1?{x0:t.x0,x1:t.x1,rpx0:0,rpx1:0}:{x0:o,x1:o,rpx0:t.rpx0,rpx1:t.rpx1}}else{var s,l=b.getPtId(t.parent);_.each((function(t){if(b.getPtId(t)===l)return s=t}));var c,u=s.children;u.forEach((function(t,e){if(b.getPtId(t)===r)return c=e}));var

f=u.length,h=a(s.x0,s.x1);e={rpx0:I,rpx1:I,x0:h(c/f),x1:h((c+1)/f)}}return a(n,e)}(t);return function(t){return G(e(t))}})),t.select("g.slicetext").attr("opacity",0)})).remove():_.exit().remove(),_.order();var X=null;if(m&&D){var Z=b.getPtId(D);_.each((function(t){null===X&&b.getPtId(t)===Z&&(X=t.x1)}))}var J=_;function K(t){var e,r=R[b.getPtId(t)],n=t.transform;if(r)e=r;else if(e={rpx1:t.rpx1,transform:{textPosAngle:n.textPosAngle,scale:0,rotate:n.rotate,rCenter:n.rCenter,x:n.x,y:n.y}},D)if(t.parent)if(X){var i=t.x1>X?2*Math.PI:0;e.x0=e.x1=i}else s.extendFlat(e,Q(t));else e.x0=e.x1=U;else e.x0=e.x1=U;var o=a(e.transform.textPosAngle,t.transform.textPosAngle),l=a(e.rpx1,t.rpx1),c=a(e.x0,t.x0),f=a(e.x1,t.x1),p=a(e.transform.scale,n.scale),d=a(e.transform.rotate,n.rotate),g=0===n.rCenter?3:0===e.transform.rCenter?1/3:1,v=a(e.transform.rCenter,n.rCenter);return function(t){var e=l(t),r=c(t),i=f(t),a=function(t){return v(Math.pow(t,g))}(t),s={pxmid:H(e,(r+i)/2),rpx1:e,transform:{textPosAngle:o(t),rCenter:a,x:n.x,y:n.y}};return u(k.type,n,h),{transform:{targetX:Y(s),targetY:W(s),scale:p(t),rotate:d(t),rCenter:a}}}}function Q(t){var e=t.parent,r=R[b.getPtId(e)],n={};if(r){var i=e.children,o=i.indexOf(t),s=i.length,l=a(r.x0,r.x1);n.x0=l(o/s),n.x1=l(o/s)}else n.x0=n.x1=0;return n}m&&(J=J.transition().each("end",(function(){var e=n.select(this);b.setSliceCursor(e,t,{hideOnRoot:!0,hideOnLeaves:!0,isTransitioning:!1})}))),J.each((function(i){var c=n.select(this),f=s.ensureSingle(c,"path","surface",(function(t){t.style("pointer-events","all")}));i.rpx0=q(i.y0),i.rpx1=q(i.y1),i.xmid=(i.x0+i.x1)/2,i.pxmid=H(i.rpx1,i.xmid),i.midangle=-(i.xmid-Math.PI/2),i.startangle=-(i.x0-Math.PI/2),i.stopangle=-(i.x1-Math.PI/2),i.halfangle=.5*Math.min(s.angleDelta(i.x0,i.x1)||Math.PI,Math.PI),i.ring=1-i.rpx0/i.rpx1,i.rInscribed=function(t){return 0===t.rpx0&&s.isFullCircle([t.x0,t.x1])?1:Math.max(0,Math.min(1/(1+1/Math.sin(t.halfangle)),t.ring/2))}(i),m?f.transition().attrTween("d",(function(t){var e=function(t){var e,r=R[b.getPtId(t)],n={x0:t.x0,x1:t.x1,rpx0:t.rpx0,rpx1:t.rpx1};if(r)e=r;else if(D)if(t.parent)if(X){var i=(t.x1>X?2*Math.PI:0)+U;e={x0:i,x1:i}}else e={rpx0:I,rpx1:I},s.extendFlat(e,Q(t));else e={rpx0:0,rpx1:0};else e={x0:U,x1:U};return a(e,n)}(t);return function(t){return G(e(t))}})):f.attr("d",G),c.call(y,M,t,e,{eventDataKeys:x.eventDataKeys,transitionTime:x.CLICK_TRANSITION_TIME,transitionEasing:x.CLICK_TRANSITION_EASING}).call(b.setSliceCursor,t,{hideOnRoot:!0,hideOnLeaves:!0,isTransitioning:t._transitioning}),f.call(v,i,k);var p=s.ensureSingle(c,"g","slicetext"),_=s.ensureSingle(p,"text","",(function(t){t.attr("data-notex",1)})),w=s.ensureUniformFontSize(t,b.determineTextFont(k,i,h.font));_.text(r.formatSliceLabel(i,M,k,e,h)).classed("slicetext",!0).attr("text-anchor","middle").call(o.font,w).call(l.convertToTspans,t);var A=o.bBox(_.node());i.transform=g(A,i,T),i.transform.targetX=Y(i),i.transform.targetY=W(i);var S=function(t,e){var r=t.transform;return d(r,e),r.fontSize=w.size,u(k.type,r,h),s.getTextTransform(r)};m?_.transition().attrTween("transform",(function(t){var e=K(t);return function(t){return S(e(t),A)}})):_.attr("transform",S(i,A))}))}function w(t){return e=t.rpx1,r=t.transform.textPosAngle,[e*Math.sin(r),-e*Math.cos(r)];var e,r}r.plot=function(t,e,r,i){var a,o,s=t._fullLayout,l=s._sunburstlayer,c=!r,u=!s.uniformtext.mode&&b.hasTransition(r);f("sunburst",s),(a=l.selectAll("g.trace.sunburst").data(e,(function(t){return t[0].trace.uid}))).enter().append("g").classed("trace",!0).classed("sunburst",!0).attr("stroke-linejoin","round"),a.order(),u?(i&&(o=i()),n.transition().duration(r.duration).ease(r.easing).each("end",(function(){o&&o()})).each("interrupt",(function(){o&&o()}))).each((function(){l.selectAll("g.trace").each((function(e){_(t,e,this,r)}))})):(a.each((function(e){_(t,e,this,r)})),s.uniformtext.mode&&m(t,s._sunburstlayer.selectAll(".trace"),"sunburst")),c&&a.exit().remove()},r.formatSliceLabel=function(t,e,r,n,i){var a=r.texttemplate,o=r.textinfo;if(!(a||o&&"none"!==o))return"";var l=i.separators,c=n[0],u=t.data.data,f=c.hierarchy,h=b.isHierarchyRoot(t),p=b.getParent(f,t),d=b.getValue(t);if(!a){var g,v=o.split("+"),m=function(t){return-1!==v.indexOf(t)},y=[];if(m("label")&&u.label&&y.push(u.label),u.hasOwnProperty("v")&&m("value")&&y.push

(b.formatValue(u.v,l)),!h){m("current path")&&y.push(b.getPath(t.data));var x=0;m("percent parent")&&x++,m("percent entry")&&x++,m("percent root")&&x++;var _=x>1;if(x){var w,T=function(t){g=b.formatPercent(w,l),_&&(g+=" of "+t),y.push(g)};m("percent parent")&&!h&&(w=d/b.getValue(p),T("parent")),m("percent entry")&&(w=d/b.getValue(e),T("entry")),m("percent root")&&(w=d/b.getValue(f),T("root"))}}return m("text")&&(g=s.castOption(r,u.i,"text"),s.isValidTextValue(g)&&y.push(g)),y.join("<br>")}var k=s.castOption(r,u.i,"texttemplate");if(!k)return"";var A={};u.label&&(A.label=u.label),u.hasOwnProperty("v")&&(A.value=u.v,A.valueLabel=b.formatValue(u.v,l)),A.currentPath=b.getPath(t.data),h||(A.percentParent=d/b.getValue(p),A.percentParentLabel=b.formatPercent(A.percentParent,l),A.parent=b.getPtLabel(p)),A.percentEntry=d/b.getValue(e),A.percentEntryLabel=b.formatPercent(A.percentEntry,l),A.entry=b.getPtLabel(e),A.percentRoot=d/b.getValue(f),A.percentRootLabel=b.formatPercent(A.percentRoot,l),A.root=b.getPtLabel(f),u.hasOwnProperty("color")&&(A.color=u.color);var M=s.castOption(r,u.i,"text");return(s.isValidTextValue(M)||""===M)&&(A.text=M),A.customdata=s.castOption(r,u.i,"customdata"),s.texttemplateString(k,A,i._d3locale,A,r._meta||{})}},{"../../components/drawing":388,"../../lib":503,"../../lib/svg_text_utils":529,"../bar/style":662,"../bar/uniform_text":664,"../pie/helpers":906,"../pie/plot":910,"./constants":1052,"./fx":1054,"./helpers":1055,"./style":1060,"@plotly/d3":58,"d3-hierarchy":115,"d3-interpolate":116}],1060:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../components/color"),a=t("../../lib"),o=t("../bar/uniform_text").resizeText;function s(t,e,r){var n=e.data.data,o=!e.children,s=n.i,l=a.castOption(r,s,"marker.line.color")||i.defaultLine,c=a.castOption(r,s,"marker.line.width")||0;t.style("stroke-width",c).call(i.fill,n.color).call(i.stroke,l).style("opacity",o?r.leaf.opacity:null)}e.exports={style:function(t){var e=t._fullLayout._sunburstlayer.selectAll(".trace");o(t,e,"sunburst"),e.each((function(t){var e=n.select(this),r=t[0].trace;e.style("opacity",r.opacity),e.selectAll("path.surface").each((function(t){n.select(this).call(s,t,r)}))}))},styleOne:s}},{"../../components/color":366,"../../lib":503,"../bar/uniform_text":664,"@plotly/d3":58}],1061:[function(t,e,r){"use strict";var n=t("../../components/color"),i=t("../../components/colorscale/attributes"),a=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,o=t("../../plots/template_attributes").hovertemplateAttrs,s=t("../../plots/attributes"),l=t("../../lib/extend").extendFlat,c=t("../../plot_api/edit_types").overrideAll;function u(t){return{show:{valType:"boolean",dflt:!1},start:{valType:"number",dflt:null,editType:"plot"},end:{valType:"number",dflt:null,editType:"plot"},size:{valType:"number",dflt:null,min:0,editType:"plot"},project:{x:{valType:"boolean",dflt:!1},y:{valType:"boolean",dflt:!1},z:{valType:"boolean",dflt:!1}},color:{valType:"color",dflt:n.defaultLine},usecolormap:{valType:"boolean",dflt:!1},width:{valType:"number",min:1,max:16,dflt:2},highlight:{valType:"boolean",dflt:!0},highlightcolor:{valType:"color",dflt:n.defaultLine},highlightwidth:{valType:"number",min:1,max:16,dflt:2}}}var f=e.exports=c(l({z:{valType:"data_array"},x:{valType:"data_array"},y:{valType:"data_array"},text:{valType:"string",dflt:"",arrayOk:!0},hovertext:{valType:"string",dflt:"",arrayOk:!0},hovertemplate:o(),xhoverformat:a("x"),yhoverformat:a("y"),zhoverformat:a("z"),connectgaps:{valType:"boolean",dflt:!1,editType:"calc"},surfacecolor:{valType:"data_array"}},i("",{colorAttr:"z or surfacecolor",showScaleDflt:!0,autoColorDflt:!1,editTypeOverride:"calc"}),{contours:{x:u(),y:u(),z:u()},hidesurface:{valType:"boolean",dflt:!1},lightposition:{x:{valType:"number",min:-1e5,max:1e5,dflt:10},y:{valType:"number",min:-1e5,max:1e5,dflt:1e4},z:{valType:"number",min:-1e5,max:1e5,dflt:0}},lighting:{ambient:{valType:"number",min:0,max:1,dflt:.8},diffuse:{valType:"number",min:0,max:1,dflt:.8},specular:{valType:"number",min:0,max:2,dflt:.05},roughness:{valType:"number",min:0,max:1,dflt:.5},fresnel:{valType:"number",min:0,max:5,dflt:.2}},opacity:{valType:"number",min:0,max:1,dflt:1},opacityscale:{valType:"any",editType:"calc"},_deprecated:{zauto:l({},i.zauto,{}),zmin:l({},i.zmin,{}),zmax:l({},i.zmax,{})},hoverinfo:l({},s.hoverinfo),showlegend:l({},s.showlegend,{dflt:!1})}),"calc","nested");f.x.editType=f.y.editType=f.z.editType="calc+clearAxisTypes",f.transforms=void

0},{"../../components/color":366,"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plot_api/edit_types":536,"../../plots/attributes":550,"../../plots/cartesian/axis_format_attributes":557,"../../plots/template_attributes":633}],1062:[function(t,e,r){"use strict";var n=t("../../components/colorscale/calc");e.exports=function(t,e){e.surfacecolor?n(t,e,{vals:e.surfacecolor,containerStr:"",cLetter:"c"}):n(t,e,{vals:e.z,containerStr:"",cLetter:"c"})}},{"../../components/colorscale/calc":374}],1063:[function(t,e,r){"use strict";var n=t("../../../stackgl_modules").gl_surface3d,i=t("../../../stackgl_modules").ndarray,a=t("../../../stackgl_modules").ndarray_linear_interpolate.d2,o=t("../heatmap/interp2d"),s=t("../heatmap/find_empties"),l=t("../../lib").isArrayOrTypedArray,c=t("../../lib/gl_format_color").parseColorScale,u=t("../../lib/str2rgbarray"),f=t("../../components/colorscale").extractOpts;function h(t,e,r){this.scene=t,this.uid=r,this.surface=e,this.data=null,this.showContour=[!1,!1,!1],this.contourStart=[null,null,null],this.contourEnd=[null,null,null],this.contourSize=[0,0,0],this.minValues=[1/0,1/0,1/0],this.maxValues=[-1/0,-1/0,-1/0],this.dataScaleX=1,this.dataScaleY=1,this.refineData=!0,this.objectOffset=[0,0,0]}var p=h.prototype;p.getXat=function(t,e,r,n){var i=l(this.data.x)?l(this.data.x[0])?this.data.x[e][t]:this.data.x[t]:t;return void 0===r?i:n.d2l(i,0,r)},p.getYat=function(t,e,r,n){var i=l(this.data.y)?l(this.data.y[0])?this.data.y[e][t]:this.data.y[e]:e;return void 0===r?i:n.d2l(i,0,r)},p.getZat=function(t,e,r,n){var i=this.data.z[e][t];return null===i&&this.data.connectgaps&&this.data._interpolatedZ&&(i=this.data._interpolatedZ[e][t]),void 0===r?i:n.d2l(i,0,r)},p.handlePick=function(t){if(t.object===this.surface){var e=(t.data.index[0]-1)/this.dataScaleX-1,r=(t.data.index[1]-1)/this.dataScaleY-1,n=Math.max(Math.min(Math.round(e),this.data.z[0].length-1),0),i=Math.max(Math.min(Math.round(r),this.data._ylength-1),0);t.index=[n,i],t.traceCoordinate=[this.getXat(n,i),this.getYat(n,i),this.getZat(n,i)],t.dataCoordinate=[this.getXat(n,i,this.data.xcalendar,this.scene.fullSceneLayout.xaxis),this.getYat(n,i,this.data.ycalendar,this.scene.fullSceneLayout.yaxis),this.getZat(n,i,this.data.zcalendar,this.scene.fullSceneLayout.zaxis)];for(var a=0;a<3;a++)null!=t.dataCoordinate[a]&&(t.dataCoordinate[a]*=this.scene.dataScale[a]);var o=this.data.hovertext||this.data.text;return Array.isArray(o)&&o[i]&&void 0!==o[i][n]?t.textLabel=o[i][n]:t.textLabel=o||"",t.data.dataCoordinate=t.dataCoordinate.slice(),this.surface.highlight(t.data),this.scene.glplot.spikes.position=t.dataCoordinate,!0}};var d=[2,3,5,7,11,13,17,19,23,29,31,37,41,43,47,53,59,61,67,71,73,79,83,89,97,101,103,107,109,113,127,131,137,139,149,151,157,163,167,173,179,181,191,193,197,199,211,223,227,229,233,239,241,251,257,263,269,271,277,281,283,293,307,311,313,317,331,337,347,349,353,359,367,373,379,383,389,397,401,409,419,421,431,433,439,443,449,457,461,463,467,479,487,491,499,503,509,521,523,541,547,557,563,569,571,577,587,593,599,601,607,613,617,619,631,641,643,647,653,659,661,673,677,683,691,701,709,719,727,733,739,743,751,757,761,769,773,787,797,809,811,821,823,827,829,839,853,857,859,863,877,881,883,887,907,911,919,929,937,941,947,953,967,971,977,983,991,997,1009,1013,1019,1021,1031,1033,1039,1049,1051,1061,1063,1069,1087,1091,1093,1097,1103,1109,1117,1123,1129,1151,1153,1163,1171,1181,1187,1193,1201,1213,1217,1223,1229,1231,1237,1249,1259,1277,1279,1283,1289,1291,1297,1301,1303,1307,1319,1321,1327,1361,1367,1373,1381,1399,1409,1423,1427,1429,1433,1439,1447,1451,1453,1459,1471,1481,1483,1487,1489,1493,1499,1511,1523,1531,1543,1549,1553,1559,1567,1571,1579,1583,1597,1601,1607,1609,1613,1619,1621,1627,1637,1657,1663,1667,1669,1693,1697,1699,1709,1721,1723,1733,1741,1747,1753,1759,1777,1783,1787,1789,1801,1811,1823,1831,1847,1861,1867,1871,1873,1877,1879,1889,1901,1907,1913,1931,1933,1949,1951,1973,1979,1987,1993,1997,1999,2003,2011,2017,2027,2029,2039,2053,2063,2069,2081,2083,2087,2089,2099,2111,2113,2129,2131,2137,2141,2143,2153,2161,2179,2203,2207,2213,2221,2237,2239,2243,2251,2267,2269,2273,2281,2287,2293,2297,2309,2311,2333,2339,2341,2347,2351,2357,2371,2377,2381,2383,2389,2393,2399,2411,2417,2423,2437,2441,2447,2459,2467,2473,2477,2503,2521,2531,2539,2543,2549,2551,2557,2579,2591,2593,2609,2617,2621,2633,2647,2657,2659,2663,2671,2677,2683,2687,2689,2693,2699,2707,2711,2713,2719,2729,2731,2741,2749,2753,2767,2777,2789,2791,2797,2801,2803,2819,2833,2837,2843,2851,2857,2861,2879,2887,2897,2903,2909,2917,2927,2939,2953,2957,2963,2969,2971,2999];function g(t,e){if(t<e)return 0;for(var

r=0;0===Math.floor(t%e);)t/=e,r++;return r}function v(t){for(var e=[],r=0;r<d.length;r++){var n=d[r];e.push(g(t,n))}return e}function m(t){for(var e=v(t),r=t,n=0;n<d.length;n++)if(e[n]>0){r=d[n];break}return r}function y(t,e){if(!(t<1||e<1)){for(var r=v(t),n=v(e),i=1,a=0;a<d.length;a++)i*=Math.pow(d[a],Math.max(r[a],n[a]));return i}}p.calcXnums=function(t){var e,r=[];for(e=1;e<t;e++){var n=this.getXat(e-1,0),i=this.getXat(e,0);r[e-1]=i!==n&&null!=n&&null!=i?Math.abs(i-n):0}var a=0;for(e=1;e<t;e++)a+=r[e-1];for(e=1;e<t;e++)0===r[e-1]?r[e-1]=1:r[e-1]=Math.round(a/r[e-1]);return r},p.calcYnums=function(t){var e,r=[];for(e=1;e<t;e++){var n=this.getYat(0,e-1),i=this.getYat(0,e);r[e-1]=i!==n&&null!=n&&null!=i?Math.abs(i-n):0}var a=0;for(e=1;e<t;e++)a+=r[e-1];for(e=1;e<t;e++)0===r[e-1]?r[e-1]=1:r[e-1]=Math.round(a/r[e-1]);return r};var x=[1,2,4,6,12,24,36,48,60,120,180,240,360,720,840,1260],b=x[9],_=x[13];function w(t,e,r){var n=r[8]+r[2]*e[0]+r[5]*e[1];return t[0]=(r[6]+r[0]*e[0]+r[3]*e[1])/n,t[1]=(r[7]+r[1]*e[0]+r[4]*e[1])/n,t}function T(t,e,r){return function(t,e,r,n){for(var i=[0,0],o=t.shape[0],s=t.shape[1],l=0;l<o;l++)for(var c=0;c<s;c++)r(i,[l,c],n),t.set(l,c,a(e,i[0],i[1]))}(t,e,w,r),t}function k(t,e){for(var r=!1,n=0;n<t.length;n++)if(e===t[n]){r=!0;break}!1===r&&t.push(e)}p.estimateScale=function(t,e){for(var r=1+function(t){if(0!==t.length){for(var e=1,r=0;r<t.length;r++)e=y(e,t[r]);return e}}(0===e?this.calcXnums(t):this.calcYnums(t));r<b;)r*=2;for(;r>_;)r--,r/=m(r),++r<b&&(r=_);var n=Math.round(r/t);return n>1?n:1},p.refineCoords=function(t){for(var e=this.dataScaleX,r=this.dataScaleY,n=t[0].shape[0],a=t[0].shape[1],o=0|Math.floor(t[0].shape[0]*e+1),s=0|Math.floor(t[0].shape[1]*r+1),l=1+n+1,c=1+a+1,u=i(new Float32Array(l*c),[l,c]),f=[1/e,0,0,0,1/r,0,0,0,1],h=0;h<t.length;++h){this.surface.padField(u,t[h]);var p=i(new Float32Array(o*s),[o,s]);T(p,u,f),t[h]=p}},p.setContourLevels=function(){var t,e,r,n=[[],[],[]],i=[!1,!1,!1],a=!1;for(t=0;t<3;++t)if(this.showContour[t]&&(a=!0,this.contourSize[t]>0&&null!==this.contourStart[t]&&null!==this.contourEnd[t]&&this.contourEnd[t]>this.contourStart[t]))for(i[t]=!0,e=this.contourStart[t];e<this.contourEnd[t];e+=this.contourSize[t])r=e*this.scene.dataScale[t],k(n[t],r);if(a){var o=[[],[],[]];for(t=0;t<3;++t)this.showContour[t]&&(o[t]=i[t]?n[t]:this.scene.contourLevels[t]);this.surface.update({levels:o})}},p.update=function(t){var e,r,n,a,l=this.scene,h=l.fullSceneLayout,p=this.surface,d=c(t),g=l.dataScale,v=t.z[0].length,m=t._ylength,y=l.contourLevels;this.data=t;var x=[];for(e=0;e<3;e++)for(x[e]=[],r=0;r<v;r++)x[e][r]=[];for(r=0;r<v;r++)for(n=0;n<m;n++)x[0][r][n]=this.getXat(r,n,t.xcalendar,h.xaxis),x[1][r][n]=this.getYat(r,n,t.ycalendar,h.yaxis),x[2][r][n]=this.getZat(r,n,t.zcalendar,h.zaxis);if(t.connectgaps)for(t._emptypoints=s(x[2]),o(x[2],t._emptypoints),t._interpolatedZ=[],r=0;r<v;r++)for(t._interpolatedZ[r]=[],n=0;n<m;n++)t._interpolatedZ[r][n]=x[2][r][n];for(e=0;e<3;e++)for(r=0;r<v;r++)for(n=0;n<m;n++)null==(a=x[e][r][n])?x[e][r][n]=NaN:a=x[e][r][n]*=g[e];for(e=0;e<3;e++)for(r=0;r<v;r++)for(n=0;n<m;n++)null!=(a=x[e][r][n])&&(this.minValues[e]>a&&(this.minValues[e]=a),this.maxValues[e]<a&&(this.maxValues[e]=a));for(e=0;e<3;e++)this.objectOffset[e]=.5*(this.minValues[e]+this.maxValues[e]);for(e=0;e<3;e++)for(r=0;r<v;r++)for(n=0;n<m;n++)null!=(a=x[e][r][n])&&(x[e][r][n]-=this.objectOffset[e]);var b=[i(new Float32Array(v*m),[v,m]),i(new Float32Array(v*m),[v,m]),i(new Float32Array(v*m),[v,m])];for(e=0;e<3;e++)for(r=0;r<v;r++)for(n=0;n<m;n++)b[e].set(r,n,x[e][r][n]);x=[];var w={colormap:d,levels:[[],[],[]],showContour:[!0,!0,!0],showSurface:!t.hidesurface,contourProject:[[!1,!1,!1],[!1,!1,!1],[!1,!1,!1]],contourWidth:[1,1,1],contourColor:[[1,1,1,1],[1,1,1,1],[1,1,1,1]],contourTint:[1,1,1],dynamicColor:[[1,1,1,1],[1,1,1,1],[1,1,1,1]],dynamicWidth:[1,1,1],dynamicTint:[1,1,1],opacityscale:t.opacityscale,opacity:t.opacity},T=f(t);if(w.intensityBounds=[T.min,T.max],t.surfacecolor){var k=i(new Float32Array(v*m),[v,m]);for(r=0;r<v;r++)for(n=0;n<m;n++)k.set(r,n,t.surfacecolor[n][r]);b.push(k)}else w.intensityBounds[0]*=g[2],w.intensityBounds[1]*=g[2];(_<b[0].shape[0]||_<b[0].shape[1])&&(this.refineData=!1),!0===this.refineData&&(this.dataScaleX=this.estimateScale(b[0].shape[0],0),this.dataScaleY=this.estimateScale(b[0].shape[1],1),1===this.dataScaleX&&1===this.dataScaleY||this.refineCoords(b)),t.surfacecolor&&(w.intensity=b.pop());var A=[!0,!0,!0],M=["x","y","z"];for(e=0;e<3;++e){var S=t.contours[M[e]];A[e]=S.highlight,w.showContour[e]=S.show||S.highlight,w.showContour[e]&&(w.contourProje

ct[e]=[S.project.x,S.project.y,S.project.z],S.show?(this.showContour[e]=!0,w.levels[e]=y[e],p.highlightColor[e]=w.contourColor[e]=u(S.color),S.usecolormap?p.highlightTint[e]=w.contourTint[e]=0:p.highlightTint[e]=w.contourTint[e]=1,w.contourWidth[e]=S.width,this.contourStart[e]=S.start,this.contourEnd[e]=S.end,this.contourSize[e]=S.size):(this.showContour[e]=!1,this.contourStart[e]=null,this.contourEnd[e]=null,this.contourSize[e]=0),S.highlight&&(w.dynamicColor[e]=u(S.highlightcolor),w.dynamicWidth[e]=S.highlightwidth))}(function(t){var e=t[0].rgb,r=t[t.length-1].rgb;return e[0]===r[0]&&e[1]===r[1]&&e[2]===r[2]&&e[3]===r[3]})(d)&&(w.vertexColor=!0),w.objectOffset=this.objectOffset,w.coords=b,p.update(w),p.visible=t.visible,p.enableDynamic=A,p.enableHighlight=A,p.snapToData=!0,"lighting"in t&&(p.ambientLight=t.lighting.ambient,p.diffuseLight=t.lighting.diffuse,p.specularLight=t.lighting.specular,p.roughness=t.lighting.roughness,p.fresnel=t.lighting.fresnel),"lightposition"in t&&(p.lightPosition=[t.lightposition.x,t.lightposition.y,t.lightposition.z])},p.dispose=function(){this.scene.glplot.remove(this.surface),this.surface.dispose()},e.exports=function(t,e){var r=t.glplot.gl,i=n({gl:r}),a=new h(t,i,e.uid);return i._trace=a,a.update(e),t.glplot.add(i),a}},{"../../../stackgl_modules":1124,"../../components/colorscale":378,"../../lib":503,"../../lib/gl_format_color":499,"../../lib/str2rgbarray":528,"../heatmap/find_empties":798,"../heatmap/interp2d":801}],1064:[function(t,e,r){"use strict";var n=t("../../registry"),i=t("../../lib"),a=t("../../components/colorscale/defaults"),o=t("./attributes");function s(t,e,r,n){var i=n("opacityscale");"max"===i?e.opacityscale=[[0,.1],[1,1]]:"min"===i?e.opacityscale=[[0,1],[1,.1]]:"extremes"===i?e.opacityscale=function(t,e){for(var r=[],n=0;n<32;n++){var i=n/31,a=e+(1-e)*(1-Math.pow(Math.sin(t*i*Math.PI),2));r.push([i,Math.max(0,Math.min(1,a))])}return r}(1,.1):function(t){var e=0;if(!Array.isArray(t)||t.length<2)return!1;if(!t[0]||!t[t.length-1])return!1;if(0!=+t[0][0]||1!=+t[t.length-1][0])return!1;for(var r=0;r<t.length;r++){var n=t[r];if(2!==n.length||+n[0]<e)return!1;e=+n[0]}return!0}(i)||(e.opacityscale=void 0)}function l(t,e,r){e in t&&!(r in t)&&(t[r]=t[e])}e.exports={supplyDefaults:function(t,e,r,c){var u,f;function h(r,n){return i.coerce(t,e,o,r,n)}var p=h("x"),d=h("y"),g=h("z");if(!g||!g.length||p&&p.length<1||d&&d.length<1)e.visible=!1;else{e._xlength=Array.isArray(p)&&i.isArrayOrTypedArray(p[0])?g.length:g[0].length,e._ylength=g.length,n.getComponentMethod("calendars","handleTraceDefaults")(t,e,["x","y","z"],c),h("text"),h("hovertext"),h("hovertemplate"),h("xhoverformat"),h("yhoverformat"),h("zhoverformat"),["lighting.ambient","lighting.diffuse","lighting.specular","lighting.roughness","lighting.fresnel","lightposition.x","lightposition.y","lightposition.z","hidesurface","connectgaps","opacity"].forEach((function(t){h(t)}));var v=h("surfacecolor"),m=["x","y","z"];for(u=0;u<3;++u){var y="contours."+m[u],x=h(y+".show"),b=h(y+".highlight");if(x||b)for(f=0;f<3;++f)h(y+".project."+m[f]);x&&(h(y+".color"),h(y+".width"),h(y+".usecolormap")),b&&(h(y+".highlightcolor"),h(y+".highlightwidth")),h(y+".start"),h(y+".end"),h(y+".size")}v||(l(t,"zmin","cmin"),l(t,"zmax","cmax"),l(t,"zauto","cauto")),a(t,e,c,h,{prefix:"",cLetter:"c"}),s(0,e,0,h),e._length=null}},opacityscaleDefaults:s}},{"../../components/colorscale/defaults":376,"../../lib":503,"../../registry":638,"./attributes":1061}],1065:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults").supplyDefaults,colorbar:{min:"cmin",max:"cmax"},calc:t("./calc"),plot:t("./convert"),moduleType:"trace",name:"surface",basePlotModule:t("../../plots/gl3d"),categories:["gl3d","2dMap","showLegend"],meta:{}}},{"../../plots/gl3d":598,"./attributes":1061,"./calc":1062,"./convert":1063,"./defaults":1064}],1066:[function(t,e,r){"use strict";var n=t("../../components/annotations/attributes"),i=t("../../lib/extend").extendFlat,a=t("../../plot_api/edit_types").overrideAll,o=t("../../plots/font_attributes"),s=t("../../plots/domain").attributes,l=t("../../plots/cartesian/axis_format_attributes").descriptionOnlyNumbers;(e.exports=a({domain:s({name:"table",trace:!0}),columnwidth:{valType:"number",arrayOk:!0,dflt:null},columnorder:{valType:"data_array"},header:{values:{valType:"data_array",dflt:[]},format:{valType:"data_array",dflt:[],description:l("cell value")},prefix:{valType:"string",arrayOk:!0,dflt:null},suffix:{valType:"string",arrayOk:!0,dflt:null},height:{valType:"number",dflt:28},align:i({},n.align,{arrayOk:!0}),line:{width:{valType:"number",arrayOk:!0,dflt:1},color:{valType:"color",arrayOk:!0,dflt:"grey"}},fill:{color:{valType:"color",arrayOk:!0,dflt:"white"}},font:i({},o({arrayOk:!

0}))},cells:{values:{valType:"data_array",dflt:[]},format:{valType:"data_array",dflt:[],description:l("cell value")},prefix:{valType:"string",arrayOk:!0,dflt:null},suffix:{valType:"string",arrayOk:!0,dflt:null},height:{valType:"number",dflt:20},align:i({},n.align,{arrayOk:!0}),line:{width:{valType:"number",arrayOk:!0,dflt:1},color:{valType:"color",arrayOk:!0,dflt:"grey"}},fill:{color:{valType:"color",arrayOk:!0,dflt:"white"}},font:i({},o({arrayOk:!0}))}},"calc","from-root")).transforms=void 0},{"../../components/annotations/attributes":349,"../../lib/extend":493,"../../plot_api/edit_types":536,"../../plots/cartesian/axis_format_attributes":557,"../../plots/domain":584,"../../plots/font_attributes":585}],1067:[function(t,e,r){"use strict";var n=t("../../plots/get_data").getModuleCalcData,i=t("./plot"),a="table";r.name=a,r.plot=function(t){var e=n(t.calcdata,a)[0];e.length&&i(t,e)},r.clean=function(t,e,r,n){var i=n._has&&n._has(a),o=e._has&&e._has(a);i&&!o&&n._paperdiv.selectAll(".table").remove()}},{"../../plots/get_data":593,"./plot":1074}],1068:[function(t,e,r){"use strict";var n=t("../../lib/gup").wrap;e.exports=function(){return n({})}},{"../../lib/gup":500}],1069:[function(t,e,r){"use strict";e.exports={cellPad:8,columnExtentOffset:10,columnTitleOffset:28,emptyHeaderHeight:16,latexCheck:/^\$.*\$/,goldenRatio:1.618,lineBreaker:"<br>",maxDimensionCount:60,overdrag:45,releaseTransitionDuration:120,releaseTransitionEase:"cubic-out",scrollbarCaptureWidth:18,scrollbarHideDelay:1e3,scrollbarHideDuration:1e3,scrollbarOffset:5,scrollbarWidth:8,transitionDuration:100,transitionEase:"cubic-out",uplift:5,wrapSpacer:" ",wrapSplitCharacter:" ",cn:{table:"table",tableControlView:"table-control-view",scrollBackground:"scroll-background",yColumn:"y-column",columnBlock:"column-block",scrollAreaClip:"scroll-area-clip",scrollAreaClipRect:"scroll-area-clip-rect",columnBoundary:"column-boundary",columnBoundaryClippath:"column-boundary-clippath",columnBoundaryRect:"column-boundary-rect",columnCells:"column-cells",columnCell:"column-cell",cellRect:"cell-rect",cellText:"cell-text",cellTextHolder:"cell-text-holder",scrollbarKit:"scrollbar-kit",scrollbar:"scrollbar",scrollbarSlider:"scrollbar-slider",scrollbarGlyph:"scrollbar-glyph",scrollbarCaptureZone:"scrollbar-capture-zone"}}},{}],1070:[function(t,e,r){"use strict";var n=t("./constants"),i=t("../../lib/extend").extendFlat,a=t("fast-isnumeric");function o(t){if(Array.isArray(t)){for(var e=0,r=0;r<t.length;r++)e=Math.max(e,o(t[r]));return e}return t}function s(t,e){return t+e}function l(t){var e,r=t.slice(),n=1/0,i=0;for(e=0;e<r.length;e++)Array.isArray(r[e])||(r[e]=[r[e]]),n=Math.min(n,r[e].length),i=Math.max(i,r[e].length);if(n!==i)for(e=0;e<r.length;e++){var a=i-r[e].length;a&&(r[e]=r[e].concat(c(a)))}return r}function c(t){for(var e=new Array(t),r=0;r<t;r++)e[r]="";return e}function u(t){return t.calcdata.columns.reduce((function(e,r){return r.xIndex<t.xIndex?e+r.columnWidth:e}),0)}function f(t,e){return Object.keys(t).map((function(r){return i({},t[r],{auxiliaryBlocks:e})}))}function h(t,e){for(var r,n={},i=0,a=0,o={firstRowIndex:null,lastRowIndex:null,rows:[]},s=0,l=0,c=0;c<t.length;c++)r=t[c],o.rows.push({rowIndex:c,rowHeight:r}),((a+=r)>=e||c===t.length-1)&&(n[i]=o,o.key=l++,o.firstRowIndex=s,o.lastRowIndex=c,o={firstRowIndex:null,lastRowIndex:null,rows:[]},i+=a,s=c+1,a=0);return n}e.exports=function(t,e){var r=l(e.cells.values),p=function(t){return t.slice(e.header.values.length,t.length)},d=l(e.header.values);d.length&&!d[0].length&&(d[0]=[""],d=l(d));var g=d.concat(p(r).map((function(){return c((d[0]||[""]).length)}))),v=e.domain,m=Math.floor(t._fullLayout._size.w*(v.x[1]-v.x[0])),y=Math.floor(t._fullLayout._size.h*(v.y[1]-v.y[0])),x=e.header.values.length?g[0].map((function(){return e.header.height})):[n.emptyHeaderHeight],b=r.length?r[0].map((function(){return e.cells.height})):[],_=x.reduce(s,0),w=h(b,y-_+n.uplift),T=f(h(x,_),[]),k=f(w,T),A={},M=e._fullInput.columnorder.concat(p(r.map((function(t,e){return e})))),S=g.map((function(t,r){var n=Array.isArray(e.columnwidth)?e.columnwidth[Math.min(r,e.columnwidth.length-1)]:e.columnwidth;return a(n)?Number(n):1})),E=S.reduce(s,0);S=S.map((function(t){return t/E*m}));var L=Math.max(o(e.header.line.width),o(e.cells.line.width)),C={key:e.uid+t._context.staticPlot,translateX:v.x[0]*t._fullLayout._size.w,translateY:t._fullLayout._size.h*(1-v.y[1]),size:t._fullLayout._size,width:m,maxLineWidth:L,height:y,columnOrder:M,groupHeight:y,rowBlocks:k,hea

derRowBlocks:T,scrollY:0,cells:i({},e.cells,{values:r}),headerCells:i({},e.header,{values:g}),gdColumns:g.map((function(t){return t[0]})),gdColumnsOriginalOrder:g.map((function(t){return t[0]})),prevPages:[0,0],scrollbarState:{scrollbarScrollInProgress:!1},columns:g.map((function(t,e){var r=A[t];return A[t]=(r||0)+1,{key:t+"__"+A[t],label:t,specIndex:e,xIndex:M[e],xScale:u,x:void 0,calcdata:void 0,columnWidth:S[e]}}))};return C.columns.forEach((function(t){t.calcdata=C,t.x=u(t)})),C}},{"../../lib/extend":493,"./constants":1069,"fast-isnumeric":190}],1071:[function(t,e,r){"use strict";var n=t("../../lib/extend").extendFlat;r.splitToPanels=function(t){var e=[0,0],r=n({},t,{key:"header",type:"header",page:0,prevPages:e,currentRepaint:[null,null],dragHandle:!0,values:t.calcdata.headerCells.values[t.specIndex],rowBlocks:t.calcdata.headerRowBlocks,calcdata:n({},t.calcdata,{cells:t.calcdata.headerCells})});return[n({},t,{key:"cells1",type:"cells",page:0,prevPages:e,currentRepaint:[null,null],dragHandle:!1,values:t.calcdata.cells.values[t.specIndex],rowBlocks:t.calcdata.rowBlocks}),n({},t,{key:"cells2",type:"cells",page:1,prevPages:e,currentRepaint:[null,null],dragHandle:!1,values:t.calcdata.cells.values[t.specIndex],rowBlocks:t.calcdata.rowBlocks}),r]},r.splitToCells=function(t){var e=function(t){var e=t.rowBlocks[t.page],r=e?e.rows[0].rowIndex:0;return[r,e?r+e.rows.length:0]}(t);return(t.values||[]).slice(e[0],e[1]).map((function(r,n){return{keyWithinBlock:n+("string"==typeof r&&r.match(/[<$&>]/)?"_keybuster_"+Math.random():""),key:e[0]+n,column:t,calcdata:t.calcdata,page:t.page,rowBlocks:t.rowBlocks,value:r}}))}},{"../../lib/extend":493}],1072:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./attributes"),a=t("../../plots/domain").defaults;e.exports=function(t,e,r,o){function s(r,a){return n.coerce(t,e,i,r,a)}a(e,o,s),s("columnwidth"),s("header.values"),s("header.format"),s("header.align"),s("header.prefix"),s("header.suffix"),s("header.height"),s("header.line.width"),s("header.line.color"),s("header.fill.color"),n.coerceFont(s,"header.font",n.extendFlat({},o.font)),function(t,e){for(var r=t.columnorder||[],n=t.header.values.length,i=r.slice(0,n),a=i.slice().sort((function(t,e){return t-e})),o=i.map((function(t){return a.indexOf(t)})),s=o.length;s<n;s++)o.push(s);e("columnorder",o)}(e,s),s("cells.values"),s("cells.format"),s("cells.align"),s("cells.prefix"),s("cells.suffix"),s("cells.height"),s("cells.line.width"),s("cells.line.color"),s("cells.fill.color"),n.coerceFont(s,"cells.font",n.extendFlat({},o.font)),e._length=null}},{"../../lib":503,"../../plots/domain":584,"./attributes":1066}],1073:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),calc:t("./calc"),plot:t("./plot"),moduleType:"trace",name:"table",basePlotModule:t("./base_plot"),categories:["noOpacity"],meta:{}}},{"./attributes":1066,"./base_plot":1067,"./calc":1068,"./defaults":1072,"./plot":1074}],1074:[function(t,e,r){"use strict";var n=t("./constants"),i=t("@plotly/d3"),a=t("../../lib").numberFormat,o=t("../../lib/gup"),s=t("../../components/drawing"),l=t("../../lib/svg_text_utils"),c=t("../../lib").raiseToTop,u=t("../../lib").strTranslate,f=t("../../lib").cancelTransition,h=t("./data_preparation_helper"),p=t("./data_split_helpers"),d=t("../../components/color");function g(t){return Math.ceil(t.calcdata.maxLineWidth/2)}function v(t,e){return"clip"+t._fullLayout._uid+"_scrollAreaBottomClip_"+e.key}function m(t,e){return"clip"+t._fullLayout._uid+"_columnBoundaryClippath_"+e.calcdata.key+"_"+e.specIndex}function y(t){return[].concat.apply([],t.map((function(t){return t})).map((function(t){return t.__data__})))}function x(t,e,r){var a=t.selectAll("."+n.cn.scrollbarKit).data(o.repeat,o.keyFun);a.enter().append("g").classed(n.cn.scrollbarKit,!0).style("shape-rendering","geometricPrecision"),a.each((function(t){var e=t.scrollbarState;e.totalHeight=function(t){var e=t.rowBlocks;return D(e,e.length-1)+(e.length?R(e[e.length-1],1/0):1)}(t),e.scrollableAreaHeight=t.groupHeight-S(t),e.currentlyVisibleHeight=Math.min(e.totalHeight,e.scrollableAreaHeight),e.ratio=e.currentlyVisibleHeight/e.totalHeight,e.barLength=Math.max(e.ratio*e.currentlyVisibleHeight,n.goldenRatio*n.scrollbarWidth),e.barWiggleRoom=e.currentlyVisibleHeight-e.barLength,e.wiggleRoom=Math.max(0,e.totalHeight-e.scrollableAreaHeight),e.topY=0===e.barWiggleRoom?0:t.scrollY/e.wiggleRoom*e.barWiggleRoom,e.bottomY=e.topY+e.barLength,e.dragMultiplier=e.wiggleRoom/e.barWiggleRoom})).attr("transform",(function(t){var e=t.width+n.scrollbarWidth/2+n.scrollbarOffset;return u(e,S(t))}));var

s=a.selectAll("."+n.cn.scrollbar).data(o.repeat,o.keyFun);s.enter().append("g").classed(n.cn.scrollbar,!0);var l=s.selectAll("."+n.cn.scrollbarSlider).data(o.repeat,o.keyFun);l.enter().append("g").classed(n.cn.scrollbarSlider,!0),l.attr("transform",(function(t){return u(0,t.scrollbarState.topY||0)}));var c=l.selectAll("."+n.cn.scrollbarGlyph).data(o.repeat,o.keyFun);c.enter().append("line").classed(n.cn.scrollbarGlyph,!0).attr("stroke","black").attr("stroke-width",n.scrollbarWidth).attr("stroke-linecap","round").attr("y1",n.scrollbarWidth/2),c.attr("y2",(function(t){return t.scrollbarState.barLength-n.scrollbarWidth/2})).attr("stroke-opacity",(function(t){return t.columnDragInProgress||!t.scrollbarState.barWiggleRoom||r?0:.4})),c.transition().delay(0).duration(0),c.transition().delay(n.scrollbarHideDelay).duration(n.scrollbarHideDuration).attr("stroke-opacity",0);var f=s.selectAll("."+n.cn.scrollbarCaptureZone).data(o.repeat,o.keyFun);f.enter().append("line").classed(n.cn.scrollbarCaptureZone,!0).attr("stroke","white").attr("stroke-opacity",.01).attr("stroke-width",n.scrollbarCaptureWidth).attr("stroke-linecap","butt").attr("y1",0).on("mousedown",(function(r){var n=i.event.y,a=this.getBoundingClientRect(),o=r.scrollbarState,s=n-a.top,l=i.scale.linear().domain([0,o.scrollableAreaHeight]).range([0,o.totalHeight]).clamp(!0);o.topY<=s&&s<=o.bottomY||L(e,t,null,l(s-o.barLength/2))(r)})).call(i.behavior.drag().origin((function(t){return i.event.stopPropagation(),t.scrollbarState.scrollbarScrollInProgress=!0,t})).on("drag",L(e,t)).on("dragend",(function(){}))),f.attr("y2",(function(t){return t.scrollbarState.scrollableAreaHeight})),e._context.staticPlot&&(c.remove(),f.remove())}function b(t,e,r,a){var l=function(t){var e=t.selectAll("."+n.cn.columnCell).data(p.splitToCells,(function(t){return t.keyWithinBlock}));return e.enter().append("g").classed(n.cn.columnCell,!0),e.exit().remove(),e}(function(t){var e=t.selectAll("."+n.cn.columnCells).data(o.repeat,o.keyFun);return e.enter().append("g").classed(n.cn.columnCells,!0),e.exit().remove(),e}(r));(function(t){t.each((function(t,e){var r=t.calcdata.cells.font,n=t.column.specIndex,i={size:T(r.size,n,e),color:T(r.color,n,e),family:T(r.family,n,e)};t.rowNumber=t.key,t.align=T(t.calcdata.cells.align,n,e),t.cellBorderWidth=T(t.calcdata.cells.line.width,n,e),t.font=i}))})(l),function(t){var e=t.selectAll("."+n.cn.cellRect).data(o.repeat,(function(t){return t.keyWithinBlock}));return e.enter().append("rect").classed(n.cn.cellRect,!0),e}(l).attr("width",(function(t){return t.column.columnWidth})).attr("stroke-width",(function(t){return t.cellBorderWidth})).each((function(t){var e=i.select(this);d.stroke(e,T(t.calcdata.cells.line.color,t.column.specIndex,t.rowNumber)),d.fill(e,T(t.calcdata.cells.fill.color,t.column.specIndex,t.rowNumber))}));var c=function(t){var e=t.selectAll("."+n.cn.cellText).data(o.repeat,(function(t){return t.keyWithinBlock}));return e.enter().append("text").classed(n.cn.cellText,!0).style("cursor",(function(){return"auto"})).on("mousedown",(function(){i.event.stopPropagation()})),e}(function(t){var e=t.selectAll("."+n.cn.cellTextHolder).data(o.repeat,(function(t){return t.keyWithinBlock}));return e.enter().append("g").classed(n.cn.cellTextHolder,!0).style("shape-rendering","geometricPrecision"),e}(l));(function(t){t.each((function(t){s.font(i.select(this),t.font)}))})(c),_(c,e,a,t),z(l)}function _(t,e,r,o){t.text((function(t){var e=t.column.specIndex,r=t.rowNumber,i=t.value,o="string"==typeof i,s=o&&i.match(/
/i),l=!o||s;t.mayHaveMarkup=o&&i.match(/[<&>]/);var c,u="string"==typeof(c=i)&&c.match(n.latexCheck);t.latex=u;var f,h,p=u?"":T(t.calcdata.cells.prefix,e,r)||"",d=u?"":T(t.calcdata.cells.suffix,e,r)||"",g=u?null:T(t.calcdata.cells.format,e,r)||null,v=p+(g?a(g)(t.value):t.value)+d;if(t.wrappingNeeded=!t.wrapped&&!l&&!u&&(f=w(v)),t.cellHeightMayIncrease=s||u||t.mayHaveMarkup||(void 0===f?w(v):f),t.needsConvertToTspans=t.mayHaveMarkup||t.wrappingNeeded||t.latex,t.wrappingNeeded){var m=(""===n.wrapSplitCharacter?v.replace(/<a href=/gi,"<a_href="):v).split(n.wrapSplitCharacter),y=""===n.wrapSplitCharacter?m.map((function(t){return t.replace(/<a_href=/gi,"<a href=")})):m;t.fragments=y.map((function(t){return{text:t,width:null}})),t.fragments.push({fragment:n.wrapSpacer,width:null}),h=y.join(n.lineBreaker)+n.lineBreaker+n.wrapSpacer}else delete t.fragments,h=v;return h})).attr("dy",(function(t){return t.needsConvertToTspans?0:"0.75em"})).each((function(t){var a=this,s=i.select(a),c=t.wrappingNeeded?P:I;t.needsConvertToTspans?l.convertToTspans(s,o,c(r,a,e,o,t)):i.select(a.p

arentNode).attr("transform",(function(t){return u(O(t),n.cellPad)})).attr("text-anchor",(function(t){return{left:"start",center:"middle",right:"end"}[t.align]}))}))}function w(t){return-1!==t.indexOf(n.wrapSplitCharacter)}function T(t,e,r){if(Array.isArray(t)){var n=t[Math.min(e,t.length-1)];return Array.isArray(n)?n[Math.min(r,n.length-1)]:n}return t}function k(t,e,r){t.transition().ease(n.releaseTransitionEase).duration(n.releaseTransitionDuration).attr("transform",u(e.x,r))}function A(t){return"cells"===t.type}function M(t){return"header"===t.type}function S(t){return(t.rowBlocks.length?t.rowBlocks[0].auxiliaryBlocks:[]).reduce((function(t,e){return t+R(e,1/0)}),0)}function E(t,e,r){var n=y(e)[0];if(void 0!==n){var i=n.rowBlocks,a=n.calcdata,o=D(i,i.length),s=n.calcdata.groupHeight-S(n),l=a.scrollY=Math.max(0,Math.min(o-s,a.scrollY)),c=function(t,e,r){for(var n=[],i=0,a=0;a<t.length;a++){for(var o=t[a],s=o.rows,l=0,c=0;c<s.length;c++)l+=s[c].rowHeight;o.allRowsHeight=l,e<i+l&&e+r>i&&n.push(a),i+=l}return n}(i,l,s);1===c.length&&(c[0]===i.length-1?c.unshift(c[0]-1):c.push(c[0]+1)),c[0]%2&&c.reverse(),e.each((function(t,e){t.page=c[e],t.scrollY=l})),e.attr("transform",(function(t){var e=D(t.rowBlocks,t.page)-t.scrollY;return u(0,e)})),t&&(C(t,r,e,c,n.prevPages,n,0),C(t,r,e,c,n.prevPages,n,1),x(r,t))}}function L(t,e,r,a){return function(o){var s=o.calcdata?o.calcdata:o,l=e.filter((function(t){return s.key===t.key})),c=r||s.scrollbarState.dragMultiplier,u=s.scrollY;s.scrollY=void 0===a?s.scrollY+c*i.event.dy:a;var f=l.selectAll("."+n.cn.yColumn).selectAll("."+n.cn.columnBlock).filter(A);return E(t,f,l),s.scrollY===u}}function C(t,e,r,n,i,a,o){n[o]!==i[o]&&(clearTimeout(a.currentRepaint[o]),a.currentRepaint[o]=setTimeout((function(){var a=r.filter((function(t,e){return e===o&&n[e]!==i[e]}));b(t,e,a,r),i[o]=n[o]})))}function P(t,e,r,a){return function(){var o=i.select(e.parentNode);o.each((function(t){var e=t.fragments;o.selectAll("tspan.line").each((function(t,r){e[r].width=this.getComputedTextLength()}));var r,i,a=e[e.length-1].width,s=e.slice(0,-1),l=[],c=0,u=t.column.columnWidth-2*n.cellPad;for(t.value="";s.length;)c+(i=(r=s.shift()).width+a)>u&&(t.value+=l.join(n.wrapSpacer)+n.lineBreaker,l=[],c=0),l.push(r.text),c+=i;c&&(t.value+=l.join(n.wrapSpacer)),t.wrapped=!0})),o.selectAll("tspan.line").remove(),_(o.select("."+n.cn.cellText),r,t,a),i.select(e.parentNode.parentNode).call(z)}}function I(t,e,r,a,o){return function(){if(!o.settledY){var s=i.select(e.parentNode),l=B(o),c=o.key-l.firstRowIndex,f=l.rows[c].rowHeight,h=o.cellHeightMayIncrease?e.parentNode.getBoundingClientRect().height+2*n.cellPad:f,p=Math.max(h,f);p-l.rows[c].rowHeight&&(l.rows[c].rowHeight=p,t.selectAll("."+n.cn.columnCell).call(z),E(null,t.filter(A),0),x(r,a,!0),s.attr("transform",(function(){var t=this,e=t.parentNode.getBoundingClientRect(),r=i.select(t.parentNode).select("."+n.cn.cellRect).node().getBoundingClientRect(),a=t.transform.baseVal.consolidate(),s=r.top-e.top+(a?a.matrix.f:n.cellPad);return u(O(o,i.select(t.parentNode).select("."+n.cn.cellTextHolder).node().getBoundingClientRect().width),s)})),o.settledY=!0}}}function O(t,e){switch(t.align){case"left":return n.cellPad;case"right":return t.column.columnWidth-(e||0)-n.cellPad;case"center":return(t.column.columnWidth-(e||0))/2;default:return n.cellPad}}function z(t){t.attr("transform",(function(t){var e=t.rowBlocks[0].auxiliaryBlocks.reduce((function(t,e){return t+R(e,1/0)}),0),r=R(B(t),t.key);return u(0,r+e)})).selectAll("."+n.cn.cellRect).attr("height",(function(t){return(e=B(t),r=t.key,e.rows[r-e.firstRowIndex]).rowHeight;var e,r}))}function D(t,e){for(var r=0,n=e-1;n>=0;n--)r+=F(t[n]);return r}function R(t,e){for(var r=0,n=0;n<t.rows.length&&t.rows[n].rowIndex<e;n++)r+=t.rows[n].rowHeight;return r}function F(t){var e=t.allRowsHeight;if(void 0!==e)return e;for(var r=0,n=0;n<t.rows.length;n++)r+=t.rows[n].rowHeight;return t.allRowsHeight=r,r}function B(t){return t.rowBlocks[t.page]}e.exports=function(t,e){var r=!t._context.staticPlot,a=t._fullLayout._paper.selectAll("."+n.cn.table).data(e.map((function(e){var r=o.unwrap(e).trace;return h(t,r)})),o.keyFun);a.exit().remove(),a.enter().append("g").classed(n.cn.table,!0).attr("overflow","visible").style("bo

x-sizing","content-box").style("position","absolute").style("left",0).style("overflow","visible").style("shape-rendering","crispEdges").style("pointer-events","all"),a.attr("width",(function(t){return t.width+t.size.l+t.size.r})).attr("height",(function(t){return t.height+t.size.t+t.size.b})).attr("transform",(function(t){return u(t.translateX,t.translateY)}));var l=a.selectAll("."+n.cn.tableControlView).data(o.repeat,o.keyFun),d=l.enter().append("g").classed(n.cn.tableControlView,!0).style("box-sizing","content-box");if(r){var _="onwheel"in document?"wheel":"mousewheel";d.on("mousemove",(function(e){l.filter((function(t){return e===t})).call(x,t)})).on(_,(function(e){if(!e.scrollbarState.wheeling){e.scrollbarState.wheeling=!0;var r=e.scrollY+i.event.deltaY;L(t,l,null,r)(e)||(i.event.stopPropagation(),i.event.preventDefault()),e.scrollbarState.wheeling=!1}})).call(x,t,!0)}l.attr("transform",(function(t){return u(t.size.l,t.size.t)}));var w=l.selectAll("."+n.cn.scrollBackground).data(o.repeat,o.keyFun);w.enter().append("rect").classed(n.cn.scrollBackground,!0).attr("fill","none"),w.attr("width",(function(t){return t.width})).attr("height",(function(t){return t.height})),l.each((function(e){s.setClipUrl(i.select(this),v(t,e),t)}));var T=l.selectAll("."+n.cn.yColumn).data((function(t){return t.columns}),o.keyFun);T.enter().append("g").classed(n.cn.yColumn,!0),T.exit().remove(),T.attr("transform",(function(t){return u(t.x,0)})),r&&T.call(i.behavior.drag().origin((function(e){return k(i.select(this),e,-n.uplift),c(this),e.calcdata.columnDragInProgress=!0,x(l.filter((function(t){return e.calcdata.key===t.key})),t),e})).on("drag",(function(t){var e=i.select(this),r=function(e){return(t===e?i.event.x:e.x)+e.columnWidth/2};t.x=Math.max(-n.overdrag,Math.min(t.calcdata.width+n.overdrag-t.columnWidth,i.event.x)),y(T).filter((function(e){return e.calcdata.key===t.calcdata.key})).sort((function(t,e){return r(t)-r(e)})).forEach((function(e,r){e.xIndex=r,e.x=t===e?e.x:e.xScale(e)})),T.filter((function(e){return t!==e})).transition().ease(n.transitionEase).duration(n.transitionDuration).attr("transform",(function(t){return u(t.x,0)})),e.call(f).attr("transform",u(t.x,-n.uplift))})).on("dragend",(function(e){var r=i.select(this),n=e.calcdata;e.x=e.xScale(e),e.calcdata.columnDragInProgress=!1,k(r,e,0),function(t,e,r){var n=e.gdColumnsOriginalOrder;e.gdColumns.sort((function(t,e){return r[n.indexOf(t)]-r[n.indexOf(e)]})),e.columnorder=r,t.emit("plotly_restyle")}(t,n,n.columns.map((function(t){return t.xIndex}))),T.each((function(e){s.setClipUrl(i.select(this),m(t,e),t)}));var S=T.selectAll("."+n.cn.columnBlock).data(p.splitToPanels,o.keyFun);S.enter().append("g").classed(n.cn.columnBlock,!0).attr("id",(function(t){return t.key})),S.style("cursor",(function(t){return t.dragHandle?"ew-resize":t.calcdata.scrollbarState.barWiggleRoom?"ns-resize":"default"}));var C=S.filter(M),P=S.filter(A);r&&P.call(i.behavior.drag().origin((function(t){return i.event.stopPropagation(),t})).on("drag",L(t,l,-1)).on("dragend",(function(){}))),b(t,l,C,S),b(t,l,P,S);var I=l.selectAll("."+n.cn.scrollAreaClip).data(o.repeat,o.keyFun);I.enter().append("clipPath").classed(n.cn.scrollAreaClip,!0).attr("id",(function(e){return v(t,e)}));var O=I.selectAll("."+n.cn.scrollAreaClipRect).data(o.repeat,o.keyFun);O.enter().append("rect").classed(n.cn.scrollAreaClipRect,!0).attr("x",-n.overdrag).attr("y",-n.uplift).attr("fill","none"),O.attr("width",(function(t){return t.width+2*n.overdrag})).attr("height",(function(t){return t.height+n.uplift})),T.selectAll("."+n.cn.columnBoundary).data(o.repeat,o.keyFun).enter().append("g").classed(n.cn.columnBoundary,!0);var z=T.selectAll("."+n.cn.columnBoundaryClippath).data(o.repeat,o.keyFun);z.enter().append("clipPath").classed(n.cn.columnBoundaryClippath,!0),z.attr("id",(function(e){return m(t,e)}));var D=z.selectAll("."+n.cn.columnBoundaryRect).data(o.repeat,o.keyFun);D.enter().append("rect").classed(n.cn.columnBoundaryRect,!0).attr("fill","none"),D.attr("width",(function(t){return t.columnWidth+2*g(t)})).attr("height",(function(t){return t.calcdata.height+2*g(t)+n.uplift})).attr("x",(function(t){return-g(t)})).attr("y",(function(t){return-g(t)})),E(null,P,l)}},{"../../components/color":366,"../../components/drawing":388,"../../lib":503,"../../lib/gup":500,"../../lib/svg_text_utils":529,"./constants":1069,"./data_preparation_helper":1070,"./data_split_helpers":1071,"@plotly/

d3":58}],1075:[function(t,e,r){"use strict";var
n=t("../../plots/template_attributes").hovertemplateAttrs,i=t("../../plots/template_attributes").texttemplateAttrs,a=t("../
../components/colorscale/attributes"),o=t("../../plots/domain").attributes,s=t("../pie/attributes"),l=t("../sunburst/attribu
tes"),c=t("./constants"),u=t("../../lib/extend").extendFlat;e.exports={labels:l.labels,parents:l.parents,values:l.values,br
anchvalues:l.branchvalues,count:l.count,level:l.level,maxdepth:l.maxdepth,tiling:{packing:{valType:"enumerated",v
alues:["squarify","binary","dice","slice","slice-dice","dice-
slice"],dflt:"squarify",editType:"plot"},squarifyratio:{valType:"number",min:1,dflt:1,editType:"plot"},flip:{valType
:"flaglist",flags:["x","y"],dflt:"",editType:"plot"},pad:{valType:"number",min:0,dflt:3,editType:"plot"},editType:"ca
lc"},marker:u({pad:{t:{valType:"number",min:0,editType:"plot"},l:{valType:"number",min:0,editType:"plot"},r:{v
alType:"number",min:0,editType:"plot"},b:{valType:"number",min:0,editType:"plot"},editType:"calc"},colors:l.ma
rker.colors,depthfade:{valType:"enumerated",values:[!0,!1,"reversed"],editType:"style"},line:l.marker.line,editType
:"calc"},a("marker",{colorAttr:"colors",anim:!1})),pathbar:{visible:{valType:"boolean",dflt:!0,editType:"plot"},sid
e:{valType:"enumerated",values:["top","bottom"],dflt:"top",editType:"plot"},edgeshape:{valType:"enumerated",val
ues:[">","<","|","/","\\"],dflt:">",editType:"plot"},thickness:{valType:"number",min:12,editType:"plot"},textfont:u(
{},s.textfont,{}),editType:"calc"},text:s.text,textinfo:l.textinfo,texttemplate:i({editType:"plot"},{keys:c.eventDataK
eys.concat(["label","value"])}),hovertext:s.hovertext,hoverinfo:l.hoverinfo,hovertemplate:n({},{keys:c.eventDataKe
ys}),textfont:s.textfont,insidetextfont:s.insidetextfont,outsidetextfont:u({},s.outsidetextfont,{}),textposition:{valTyp
e:"enumerated",values:["top left","top center","top right","middle left","middle center","middle right","bottom
left","bottom center","bottom right"],dflt:"top
left",editType:"plot"},sort:s.sort,root:l.root,domain:o({name:"treemap",trace:!0,editType:"calc"})}},{"../../compone
nts/colorscale/attributes":373,"../../lib/extend":493,"../../plots/domain":584,"../../plots/template_attributes":633,"../pie
/attributes":901,"../sunburst/attributes":1049,"./constants":1078}],1076:[function(t,e,r){"use strict";var
n=t("../../plots/plots");r.name="treemap",r.plot=function(t,e,i,a){n.plotBasePlot(r.name,t,e,i,a)},r.clean=function(t,e,i
,a){n.cleanBasePlot(r.name,t,e,i,a)}},{"../../plots/plots":619}],1077:[function(t,e,r){"use strict";var
n=t("../sunburst/calc");r.calc=function(t,e){return n.calc(t,e)},r.crossTraceCalc=function(t){return
n._runCrossTraceCalc("treemap",t)}},{"../sunburst/calc":1051}],1078:[function(t,e,r){"use
strict";e.exports={CLICK_TRANSITION_TIME:750,CLICK_TRANSITION_EASING:"poly",eventDataKeys:["cu
rrentPath","root","entry","percentRoot","percentEntry","percentParent"],gapWithPathbar:1}},{}],1079:[function(t,e,
r){"use strict";var
n=t("../../lib"),i=t("./attributes"),a=t("../../components/color"),o=t("../../plots/domain").defaults,s=t("../bar/defaults").h
andleText,l=t("../bar/constants").TEXTPAD,c=t("../../components/colorscale"),u=c.hasColorscale,f=c.handleDefault
s;e.exports=function(t,e,r,c){function h(r,a){return n.coerce(t,e,i,r,a)}var
p=h("labels"),d=h("parents");if(p&&p.length&&d&&d.length){var
g=h("values");g&&g.length?h("branchvalues"):h("count"),h("level"),h("maxdepth"),"squarify"===h("tiling.packing
")&&h("tiling.squarifyratio"),h("tiling.flip"),h("tiling.pad");var
v=h("text");h("texttemplate"),e.texttemplate||h("textinfo",Array.isArray(v)?"text+label":"label"),h("hovertext"),h("h
overtemplate");var
m=h("pathbar.visible");s(t,e,c,h,"auto",{hasPathbar:m,moduleHasSelected:!1,moduleHasUnselected:!1,moduleHasC
onstrain:!1,moduleHasCliponaxis:!1,moduleHasTextangle:!1,moduleHasInsideanchor:!1}),h("textposition");var y=-
1!==e.textposition.indexOf("bottom");h("marker.line.width")&&h("marker.line.color",c.paper_bgcolor);var
x=h("marker.colors");(e._hasColorscale=u(t,"marker","colors")||(t.marker||{}).coloraxis)?f(t,e,c,h,{prefix:"marker.",
cLetter:"c"}):h("marker.depthfade",!(x||[]).length);var
b=2*e.textfont.size;h("marker.pad.t",y?b/4:b),h("marker.pad.l",b/4),h("marker.pad.r",b/4),h("marker.pad.b",y?b:b/4)
,e._hovered={marker:{line:{width:2,color:a.contrast(c.paper_bgcolor)}}},m&&(h("pathbar.thickness",e.pathbar.tex
tfont.size+2*l),h("pathbar.side"),h("pathbar.edgeshape")),h("sort"),h("root.color"),o(e,c,h),e._length=null}else
e.visible=!1}},{"../../components/color":366,"../../components/colorscale":378,"../../lib":503,"../../plots/domain":584,
"../bar/constants":650,"../bar/defaults":652,"./attributes":1075}],1080:[function(t,e,r){"use strict";var
n=t("@plotly/d3"),i=t("../sunburst/helpers"),a=t("../bar/uniform_text").clearMinTextSize,o=t("../bar/style").resizeTe

xt,s=t("./plot_one");e.exports=function(t,e,r,l,c){var
u,f,h=c.type,p=c.drawDescendants,d=t._fullLayout,g=d["_"+h+"layer"],v=!r;a(h,d),(u=g.selectAll("g.trace."+h).data(e,(function(t){return
t[0].trace.uid}))).enter().append("g").classed("trace",!0).classed(h,!0),u.order(),!d.uniformtext.mode&&i.hasTransition(r)?(l&&(f=l()),n.transition().duration(r.duration).ease(r.easing).each("end",(function(){f&&f()})).each("interrupt",(function(){f&&f()})).each((function(){g.selectAll("g.trace").each((function(e){s(t,e,this,r,p)}))}))):(u.each((function(e){s(t,e,this,r,p)})),d.uniformtext.mode&&o(t,g.selectAll(".trace"),h)),v&&u.exit().remove()}},{"../bar/style":662,"../bar/uniform_text":664,"../sunburst/helpers":1055,"./plot_one":1089,"@plotly/d3":58}],1081:[function(t,e,r){"use strict";var
n=t("@plotly/d3"),i=t("../../lib"),a=t("../../components/drawing"),o=t("../../lib/svg_text_utils"),s=t("./partition"),l=t("./style").styleOne,c=t("./constants"),u=t("../sunburst/helpers"),f=t("../sunburst/fx"),h=!0;e.exports=function(t,e,r,p,d){var
g=d.barDifY,v=d.width,m=d.height,y=d.viewX,x=d.viewY,b=d.pathSlice,_=d.toMoveInsideSlice,w=d.strTransform,T=d.hasTransition,k=d.handleSlicesExit,A=d.makeUpdateSliceInterpolator,M=d.makeUpdateTextInterpolator,S={},E=t._fullLayout,L=e[0],C=L.trace,P=L.hierarchy,I=v/C._entryDepth,O=u.listPath(r.data,"id"),z=s(P.copy(),[v,m],{packing:"dice",pad:{inner:0,top:0,left:0,right:0,bottom:0}}).descendants();(z=z.filter((function(t){var
e=O.indexOf(t.data.id);return-1!==e&&(t.x0=I*e,t.x1=I*(e+1),t.y0=g,t.y1=g+m,t.onPathbar=!0,!0)}))).reverse(),(p=p.data(z,u.getPtId)).enter().append("g").classed("pathbar",!0),k(p,h,S,[v,m],b),p.order();var
D=p;T&&(D=D.transition().each("end",(function(){var
e=n.select(this);u.setSliceCursor(e,t,{hideOnRoot:!1,hideOnLeaves:!1,isTransitioning:!1})}))),D.each((function(s){s._x0=y(s.x0),s._x1=y(s.x1),s._y0=x(s.y0),s._y1=x(s.y1),s._hoverX=y(s.x1-Math.min(v,m)/2),s._hoverY=x(s.y1-m/2);var p=n.select(this),d=i.ensureSingle(p,"path","surface",(function(t){t.style("pointer-events","all")}));T?d.transition().attrTween("d",(function(t){var e=A(t,h,S,[v,m]);return function(t){return b(e(t))}})):d.attr("d",b),p.call(f,r,t,e,{styleOne:l,eventDataKeys:c.eventDataKeys,transitionTime:c.CLICK_TRANSITION_TIME,transitionEasing:c.CLICK_TRANSITION_EASING}).call(u.setSliceCursor,t,{hideOnRoot:!1,hideOnLeaves:!1,isTransitioning:t._transitioning}),d.call(l,s,C,{hovered:!1}),s._text=(u.getPtLabel(s)||"").split("<br>").join(" ")||"";var g=i.ensureSingle(p,"g","slicetext"),k=i.ensureSingle(g,"text","",(function(t){t.attr("data-notex",1)})),L=i.ensureUniformFontSize(t,u.determineTextFont(C,s,E.font,{onPathbar:!0}));k.text(s._text||"").classed("slicetext",!0).attr("text-anchor","start").call(a.font,L).call(o.convertToTspans,t),s.textBB=a.bBox(k.node()),s.transform=_(s,{fontSize:L.size,onPathbar:!0}),s.transform.fontSize=L.size,T?k.transition().attrTween("transform",(function(t){var
e=M(t,h,S,[v,m]);return function(t){return
w(e(t))}})):k.attr("transform",w(s))}))}},{"../../components/drawing":388,"../../lib":503,"../../lib/svg_text_utils":529,"../sunburst/fx":1054,"../sunburst/helpers":1055,"./constants":1078,"./partition":1087,"./style":1090,"@plotly/d3":58}],1082:[function(t,e,r){"use strict";var
n=t("@plotly/d3"),i=t("../../lib"),a=t("../../components/drawing"),o=t("../../lib/svg_text_utils"),s=t("./partition"),l=t("./style").styleOne,c=t("./constants"),u=t("../sunburst/helpers"),f=t("../sunburst/fx"),h=t("../sunburst/plot").formatSliceLabel,p=!1;e.exports=function(t,e,r,d,g){var
v=g.width,m=g.height,y=g.viewX,x=g.viewY,b=g.pathSlice,_=g.toMoveInsideSlice,w=g.strTransform,T=g.hasTransition,k=g.handleSlicesExit,A=g.makeUpdateSliceInterpolator,M=g.makeUpdateTextInterpolator,S=g.prevEntry,E=t._fullLayout,L=e[0].trace,C=-1!==L.textposition.indexOf("left"),P=-1!==L.textposition.indexOf("right"),I=-1!==L.textposition.indexOf("bottom"),O=!I&&!L.marker.pad.t||I&&!L.marker.pad.b,z=s(r,[v,m],{packing:L.tiling.packing,squarifyratio:L.tiling.squarifyratio,flipX:L.tiling.flip.indexOf("x")>-1,flipY:L.tiling.flip.indexOf("y")>-1,pad:{inner:L.tiling.pad,top:L.marker.pad.t,left:L.marker.pad.l,right:L.marker.pad.r,bottom:L.marker.pad.b}}).descendants(),D=1/0,R=-1/0;z.forEach((function(t){var
e=t.depth;e>=L._maxDepth?(t.x0=t.x1=(t.x0+t.x1)/2,t.y0=t.y1=(t.y0+t.y1)/2):(D=Math.min(D,e),R=Math.max(R,e))})),d=d.data(z,u.getPtId),L._maxVisibleLayers=isFinite(R)?R-

D+1:0,d.enter().append("g").classed("slice",!0),k(d,p,{},[v,m],b),d.order();var F=null;if(T&&S){var B=u.getPtId(S);d.each((function(t){null===F&&u.getPtId(t)===B&&(F={x0:t.x0,x1:t.x1,y0:t.y0,y1:t.y1})}))}var N=function(){return F||{x0:0,x1:v,y0:0,y1:m}},j=d;return T&&(j=j.transition().each("end",(function(){var e=n.select(this);u.setSliceCursor(e,t,{hideOnRoot:!0,hideOnLeaves:!1,isTransitioning:!1})}))),j.each((function(s){var d=u.isHeader(s,L);s._x0=y(s.x0),s._x1=y(s.x1),s._y0=x(s.y0),s._y1=x(s.y1),s._hoverX=y(s.x1-L.marker.pad.r),s._hoverY=x(I?s.y1-L.marker.pad.b/2:s.y0+L.marker.pad.t/2);var g=n.select(this),k=i.ensureSingle(g,"path","surface",(function(t){t.style("pointer-events","all")}));T?k.transition().attrTween("d",(function(t){var e=A(t,p,N(),[v,m]);return function(t){return b(e(t))}})):k.attr("d",b),g.call(f,r,t,e,{styleOne:l,eventDataKeys:c.eventDataKeys,transitionTime:c.CLICK_TRANSITION_TIME,transitionEasing:c.CLICK_TRANSITION_EASING}).call(u.setSliceCursor,t,{isTransitioning:t._transitioning}),k.call(l,s,L,{hovered:!1}),s.x0===s.x1||s.y0===s.y1?s._text="":s._text=d?O?"":u.getPtLabel(s)||"":h(s,r,L,e,E)||"";var S=i.ensureSingle(g,"g","slicetext"),z=i.ensureSingle(S,"text","",(function(t){t.attr("data-notex",1)})),D=i.ensureUniformFontSize(t,u.determineTextFont(L,s,E.font));z.text(s._text||" ").classed("slicetext",!0).attr("text-anchor",P?"end":C||d?"start":"middle").call(a.font,D).call(o.convertToTspans,t),s.textBB=a.bBox(z.node()),s.transform=_(s,{fontSize:D.size,isHeader:d}),s.transform.fontSize=D.size,T?z.transition().attrTween("transform",(function(t){var e=M(t,p,N(),[v,m]);return function(t){return w(e(t))}})):z.attr("transform",w(s))})),F}},{"../../components/drawing":388,"../../lib":503,"../../lib/svg_text_utils":529,"../sunburst/fx":1054,"../sunburst/helpers":1055,"../sunburst/plot":1059,"./constants":1078,"./partition":1087,"./style":1090,"@plotly/d3":58}],1083:[function(t,e,r){"use strict";e.exports=function t(e,r,n){var i;n.swapXY&&(i=e.x0,e.x0=e.y0,e.y0=i,i=e.x1,e.x1=e.y1,e.y1=i),n.flipX&&(i=e.x0,e.x0=r[0]-e.x1,e.x1=r[0]-i),n.flipY&&(i=e.y0,e.y0=r[1]-e.y1,e.y1=r[1]-i);var a=e.children;if(a)for(var o=0;o<a.length;o++)t(a[o],r,n)}},{}],1084:[function(t,e,r){"use strict";e.exports={moduleType:"trace",name:"treemap",basePlotModule:t("./base_plot"),categories:[],animatable:!0,attributes:t("./attributes"),layoutAttributes:t("./layout_attributes"),supplyDefaults:t("./defaults"),supplyLayoutDefaults:t("./layout_defaults"),calc:t("./calc").calc,crossTraceCalc:t("./calc").crossTraceCalc,plot:t("./plot"),style:t("./style").style,colorbar:t("../scatter/marker_colorbar"),meta:{}}},{"../scatter/marker_colorbar":945,"./attributes":1075,"./base_plot":1076,"./calc":1077,"./defaults":1079,"./layout_attributes":1085,"./layout_defaults":1086,"./plot":1088,"./style":1090}],1085:[function(t,e,r){"use strict";e.exports={treemapcolorway:{valType:"colorlist",editType:"calc"},extendtreemapcolors:{valType:"boolean",dflt:!0,editType:"calc"}}},{}],1086:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./layout_attributes");e.exports=function(t,e){function r(r,a){return n.coerce(t,e,i,r,a)}r("treemapcolorway",e.colorway),r("extendtreemapcolors")}},{"../../lib":503,"./layout_attributes":1085}],1087:[function(t,e,r){"use strict";var n=t("d3-hierarchy"),i=t("./flip_tree");e.exports=function(t,e,r){var a,o=r.flipX,s=r.flipY,l="dice-slice"===r.packing,c=r.pad[s?"bottom":"top"],u=r.pad[o?"right":"left"],f=r.pad[o?"left":"right"],h=r.pad[s?"top":"bottom"];l&&(a=u,u=c,c=a,a=f,f=h,h=a);var p=n.treemap().tile(function(t,e){switch(t){case"squarify":return n.treemapSquarify.ratio(e);case"binary":return n.treemapBinary;case"dice":return n.treemapDice;case"slice":return n.treemapSlice;default:return n.treemapSliceDice}}(r.packing,r.squarifyratio)).paddingInner(r.pad.inner).paddingLeft(u).paddingRight(f).paddingTop(c).paddingBottom(h).size(l?[e[1],e[0]]:e)(t);return(l||o||s)&&i(p,e,{swapXY:l,flipX:o,flipY:s}),p}},{"./flip_tree":1083,"d3-hierarchy":115}],1088:[function(t,e,r){"use strict";var n=t("./draw"),i=t("./draw_descendants");e.exports=function(t,e,r,a){return n(t,e,r,a,{type:"treemap",drawDescendants:i})}},{"./draw":1080,"./draw_descendants":1082}],1089:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("d3-interpolate").interpolate,a=t("../sunburst/helpers"),o=t("../../lib"),s=t("../bar/constants").TEXTPAD,l=t("../bar/plot").toMoveInsideBar,c=t("../bar/uniform_text").recordMinTextSize,u=t("./constants"),f=t("./draw_ancestors");function h(t){return a.isHierarchyRoot(t)?"":a.getPtId(t)}e.exports=function(t,e,r,p,d){var

g=t._fullLayout,v=e[0],m=v.trace,y="icicle"===m.type,x=v.hierarchy,b=a.findEntryWithLevel(x,m.level),_=n.select(r),w=_.selectAll("g.pathbar"),T=_.selectAll("g.slice");if(!b)return w.remove(),void T.remove();var k=a.isHierarchyRoot(b),A=!g.uniformtext.mode&&a.hasTransition(p),M=a.getMaxDepth(m),S=g._size,E=m.domain,L=S.w*(E.x[1]-E.x[0]),C=S.h*(E.y[1]-E.y[0]),P=L,I=m.pathbar.thickness,O=m.marker.line.width+u.gapWithPathbar,z=m.pathbar.visible?m.pathbar.side.indexOf("bottom")>-1?C+O:-(I+O):0,D={x0:P,x1:P,y0:z,y1:z+I},R=function(t,e,r){var n=m.tiling.pad,i=function(t){return t-n<=e.x0},a=function(t){return t+n>=e.x1},o=function(t){return t-n<=e.y0},s=function(t){return t+n>=e.y1};return t.x0===e.x0&&t.x1===e.x1&&t.y0===e.y0&&t.y1===e.y1?{x0:t.x0,x1:t.x1,y0:t.y0,y1:t.y1}:{x0:i(t.x0-n)?0:a(t.x0-n)?r[0]:t.x0,x1:i(t.x1+n)?0:a(t.x1+n)?r[0]:t.x1,y0:o(t.y0-n)?0:s(t.y0-n)?r[1]:t.y0,y1:o(t.y1+n)?0:s(t.y1+n)?r[1]:t.y1}},F=null,B={},N={},j=null,U=function(t,e){return e?B[h(t)]:N[h(t)]},V=function(t,e,r,n){if(e)return B[h(x)]||D;var i=N[m.level]||r;return function(t){return t.data.depth-b.data.depth<M}(t)?R(t,i,n):{}};v.hasMultipleRoots&&k&&M++,m._maxDepth=M,m._backgroundColor=g.paper_bgcolor,m._entryDepth=b.data.depth,m._atRootLevel=k;var q=-L/2+S.l+S.w*(E.x[1]+E.x[0])/2,H=-C/2+S.t+S.h*(1-(E.y[1]+E.y[0])/2),G=function(t){return q+t},Y=function(t){return H+t},W=Y(0),X=G(0),Z=function(t){return X+t},J=function(t){return W+t};function K(t,e){return t+","+e}var Q=Z(0),$=function(t){t.x=Math.max(Q,t.x)},tt=m.pathbar.edgeshape,et=function(t,e){var r=t.x0,n=t.x1,i=t.y0,a=t.y1,o=t.textBB,u=function(t){return-1!==m.textposition.indexOf(t)},f=u("bottom"),h=u("top")||e.isHeader&&!f?"start":f?"end":"middle",p=u("right"),d=u("left")||e.onPathbar?-1:p?1:0,v=m[y?"tiling":"marker"].pad;if(e.isHeader){if((r+=(y?v:v.l)-s)>=(n-=(y?v:v.r)-s)){var x=(r+n)/2;r=x,n=x}var b;f?i<(b=a-(y?v:v.b))&&b<a&&(i=b):i<(b=i+(y?v:v.t))&&b<a&&(a=b)}var _=l(r,n,i,a,o,{isHorizontal:!1,constrained:!0,angle:0,anchor:h,leftToRight:d});return _.fontSize=e.fontSize,_.targetX=G(_.targetX),_.targetY=Y(_.targetY),isNaN(_.targetX)||isNaN(_.targetY)?{}:(r!==n&&i!==a&&c(m.type,_,g),{scale:_.scale,rotate:_.rotate,textX:_.textX,textY:_.textY,anchorX:_.anchorX,anchorY:_.anchorY,targetX:_.targetX,targetY:_.targetY})},rt=function(t,e){for(var r,n=0,i=t;!r&&n<M;)n++,(i=i.parent)?r=U(i,e):n=M;return r||{}},nt=function(t,e,r,n,a){var s,l=U(t,e);if(l)s=l;else if(e)s=D;else if(F)if(t.parent){var c=j||r;c&&!e?s=R(t,c,n):(s={},o.extendFlat(s,rt(t,e)))}else s=o.extendFlat({},t),y&&("h"===a.orientation?a.flipX?s.x0=t.x1:s.x1=0:a.flipY?s.y0=t.y1:s.y1=0);else s={};return i(s,{x0:t.x0,x1:t.x1,y0:t.y0,y1:t.y1})},it=function(t,e,r,n){var s=U(t,e),l={},u=V(t,e,r,n);o.extendFlat(l,{transform:et({x0:u.x0,x1:u.x1,y0:u.y0,y1:u.y1,textBB:t.textBB,_text:t._text},{isHeader:a.isHeader(t,m)})}),s?l=s:t.parent&&o.extendFlat(l,rt(t,e));var f=t.transform;return t.x0!==t.x1&&t.y0!==t.y1&&c(m.type,f,g),i(l,{transform:{scale:f.scale,rotate:f.rotate,textX:f.textX,textY:f.textY,anchorX:f.anchorX,anchorY:f.anchorY,targetX:f.targetX,targetY:f.targetY}})},at=function(t,e,r,a,o){var s=a[0],l=a[1];A?t.exit().transition().each((function(){var t=n.select(this);t.select("path.surface").transition().attrTween("d",(function(t){var r=function(t,e,r,n){var a,o=U(t,e);if(e)a=D;else{var s=U(b,e);a=s?R(t,s,n):{}}return i(o,a)}(t,e,0,[s,l]);return function(t){return o(r(t))}})),t.select("g.slicetext").attr("opacity",0)})).remove():t.exit().remove()},ot=function(t){var e=t.transform;return t.x0!==t.x1&&t.y0!==t.y1&&c(m.type,e,g),o.getTextTransform({textX:e.textX,textY:e.textY,anchorX:e.anchorX,anchorY:e.anchorY,targetX:e.targetX,targetY:e.targetY,scale:e.scale,rotate:e.rotate})};A&&(w.each((function(t){B[h(t)]={x0:t.x0,x1:t.x1,y0:t.y0,y1:t.y1},t.transform&&(B[h(t)].transform={textX:t.transform.textX,textY:t.transform.textY,anchorX:t.transform.anchorX,anchorY:t.transform.anchorY,targetX:t.transform.targetX,targetY:t.transform.targetY,scale:t.transform.scale,rotate:t.transform.rotate})})),T.each((function(t){N[h(t)]={x0:t.x0,x1:t.x1,y0:t.y0,y1:t.y1},t.transform&&(N[h(t)].transform={textX:t.transform.textX,textY:t.transform.textY,anchorX:t.transform.anchorX,anchorY:t.transform.anchorY,targetX:t.transform.targetX,targetY:t.transform.targetY,scale:t.transform.scale,rotate:t.transform.rotate})},!F&&a.isEntry(t)&&(F=t)}))),j=d(t,e,b,T,{width:L,height:C,viewX:G,viewY:Y,pathSlice:function(t){var e=G(t.x0),r=G(t.x1),n=Y(t.y0),i=Y(t.y1),a=r-e,o=i-n;return a&&o?"M"+K(e,n+0)+"L"+K(r-

0,n)+"L"+K(r,i-
0)+"L"+K(e+0,i)+"Z":""},toMoveInsideSlice:et,prevEntry:F,makeUpdateSliceInterpolator:nt,makeUpdateTextInterpolator:it,handleSlicesExit:at,hasTransition:A,strTransform:ot}),m.pathbar.visible?f(t,e,b,w,{barDifY:z,width:P,height:I,viewX:Z,viewY:J,pathSlice:function(t){var
e=Z(Math.max(Math.min(t.x0,t.x0),0)),r=Z(Math.min(Math.max(t.x1,t.x1),P)),n=J(t.y0),i=J(t.y1),a=I/2,o={},s={};o.x=e,s.x=r,o.y=s.y=(n+i)/2;var l={x:e,y:n},c={x:r,y:n},u={x:r,y:i},f={x:e,y:i};return">"===tt?(l.x-=a,c.x-=a,u.x-=a,f.x-=a):"/"===tt?(u.x-=a,f.x-=a,o.x-=a/2,s.x-=a/2):"\\"===tt?(l.x-=a,c.x-=a,o.x-=a/2,s.x-=a/2):"<"===tt&&(o.x-=a,s.x-
=a),$(l),$(f),$(o),$(c),$(u),$(s),"M"+K(l.x,l.y)+"L"+K(c.x,c.y)+"L"+K(s.x,s.y)+"L"+K(u.x,u.y)+"L"+K(f.x,f.y)+"L"+K(o.x,o.y)+"Z"},toMoveInsideSlice:et,makeUpdateSliceInterpolator:nt,makeUpdateTextInterpolator:it,handleSlicesExit:at,hasTransition:A,strTransform:ot}):w.remove()}},{"../../lib":503,"../bar/constants":650,"../bar/plot":659,"../bar/uniform_text":664,"../sunburst/helpers":1055,"./constants":1078,"./draw_ancestors":1081,"@plotly/d3":58,"d3-interpolate":116}],1090:[function(t,e,r){"use strict";var
n=t("@plotly/d3"),i=t("../../components/color"),a=t("../../lib"),o=t("../sunburst/helpers"),s=t("../bar/uniform_text").resizeText;function l(t,e,r,n){var
s,l,c=(n||{}).hovered,u=e.data.data,f=u.i,h=u.color,p=o.isHierarchyRoot(e),d=1;if(c)s=r._hovered.marker.line.color,l=r._hovered.marker.line.width;else if(p&&h===r.root.color)d=100,s="rgba(0,0,0,0)",l=0;else
if(s=a.castOption(r,f,"marker.line.color")||i.defaultLine,l=a.castOption(r,f,"marker.line.width")||0,!r._hasColorscale&&!e.onPathbar){var g=r.marker.depthfade;if(g){var
v,m=i.combine(i.addOpacity(r._backgroundColor,.75),h);if(!0===g){var
y=o.getMaxDepth(r);v=isFinite(y)?o.isLeaf(e)?0:r._maxVisibleLayers-(e.data.depth-r._entryDepth):e.data.height+1}else v=e.data.depth-r._entryDepth,r._atRootLevel||v++;if(v>0)for(var
x=0;x<v;x++){var b=.5*x/v;h=i.combine(i.addOpacity(m,b),h)}}}t.style("stroke-width",l).call(i.fill,h).call(i.stroke,s).style("opacity",d)}e.exports={style:function(t){var
e=t._fullLayout._treemaplayer.selectAll(".trace");s(t,e,"treemap"),e.each((function(t){var
e=n.select(this),r=t[0].trace;e.style("opacity",r.opacity),e.selectAll("path.surface").each((function(t){n.select(this).call(l,t,r,{hovered:!1})}))}))},styleOne:l}},{"../../components/color":366,"../../lib":503,"../bar/uniform_text":664,"../sunburst/helpers":1055,"@plotly/d3":58}],1091:[function(t,e,r){"use strict";var
n=t("../box/attributes"),i=t("../../lib/extend").extendFlat,a=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat;e.exports={y:n.y,x:n.x,x0:n.x0,y0:n.y0,xhoverformat:a("x"),yhoverformat:a("y"),name:i({},n.name,{}),orientation:i({},n.orientation,{}),bandwidth:{valType:"number",min:0,editType:"calc"},scalegroup:{valType:"string",dflt:"",editType:"calc"},scalemode:{valType:"enumerated",values:["width","count"],dflt:"width",editType:"calc"},spanmode:{valType:"enumerated",values:["soft","hard","manual"],dflt:"soft",editType:"calc"},span:{valType:"info_array",items:[{valType:"any",editType:"calc"},{valType:"any",editType:"calc"}],editType:"calc"},line:{color:{valType:"color",editType:"style"},width:{valType:"number",min:0,dflt:2,editType:"style"},editType:"plot"},fillcolor:n.fillcolor,points:i({},n.boxpoints,{}),jitter:i({},n.jitter,{}),pointpos:i({},n.pointpos,{}),width:i({},n.width,{}),marker:n.marker,text:n.text,hovertext:n.hovertext,hovertemplate:n.hovertemplate,box:{visible:{valType:"boolean",dflt:!1,editType:"plot"},width:{valType:"number",min:0,max:1,dflt:.25,editType:"plot"},fillcolor:{valType:"color",editType:"style"},line:{color:{valType:"color",editType:"style"},width:{valType:"number",min:0,editType:"style"},editType:"style"},editType:"plot"},meanline:{visible:{valType:"boolean",dflt:!1,editType:"plot"},color:{valType:"color",editType:"style"},width:{valType:"number",min:0,editType:"style"},editType:"plot"},side:{valType:"enumerated",values:["both","positive","negative"],dflt:"both",editType:"calc"},offsetgroup:n.offsetgroup,alignmentgroup:n.alignmentgroup,selected:n.selected,unselected:n.unselected,hoveron:{valType:"flaglist",flags:["violins","points","kde"],dflt:"violins+points+kde",extras:["all"],editType:"style"}}},{"../../lib/extend":493,"../../plots/cartesian/axis_format_attributes":557,"../box/attributes":673}],1092:[function(t,e,r){"use strict";var
n=t("../../lib"),i=t("../../plots/cartesian/axes"),a=t("../box/calc"),o=t("./helpers"),s=t("../../constants/numerical").BADNUM;function l(t,e,r){var i=e.max-e.min;if(!i)return t.bandwidth?t.bandwidth:0;if(t.bandwidth)return
Math.max(t.bandwidth,i/1e4);var a=r.length,o=n.stdev(r,a-1,e.mean);return Math.max(function(t,e,r){return

1.059*Math.min(e,r/1.349)*Math.pow(t,-.2)}(a,o,e.q3-e.q1),i/100)}function c(t,e,r,n){var a,o=t.spanmode,l=t.span||[],c=[e.min,e.max],u=[e.min-2*n,e.max+2*n];function f(n){var i=l[n],a="multicategory"===r.type?r.r2c(i):r.d2c(i,0,t[e.valLetter+"calendar"]);return a===s?u[n]:a}var h={type:"linear",range:a="soft"===o?u:"hard"===o?c:[f(0),f(1)]};return i.setConvert(h),h.cleanRange(),a}e.exports=function(t,e){var r=a(t,e);if(r[0].t.empty)return r;for(var s=t._fullLayout,u=i.getFromId(t,e["h"===e.orientation?"xaxis":"yaxis"]),f=1/0,h=-1/0,p=0,d=0,g=0;g<r.length;g++){var v=r[g],m=v.pts.map(o.extractVal),y=v.bandwidth=l(e,v,m),x=v.span=c(e,v,u,y);if(v.min===v.max&&0===y)x=v.span=[v.min,v.max],v.density=[{v:1,t:x[0]}],v.bandwidth=y,p=Math.max(p,1);else{var b=x[1]-x[0],_=Math.ceil(b/(y/3)),w=b/_;if(!isFinite(w)||!isFinite(_))return n.error("Something went wrong with computing the violin span"),r[0].t.empty=!0,r;var T=o.makeKDE(v,e,m);v.density=new Array(_);for(var k=0,A=x[0];A<x[1]+w/2;k++,A+=w){var M=T(A);v.density[k]={v:M,t:A},p=Math.max(p,M)}}d=Math.max(d,m.length),f=Math.min(f,x[0]),h=Math.max(h,x[1])}var S=i.findExtremes(u,[f,h],{padded:!0});if(e._extremes[u._id]=S,e.width)r[0].t.maxKDE=p;else{var E=s._violinScaleGroupStats,L=e.scalegroup,C=E[L];C?(C.maxKDE=Math.max(C.maxKDE,p),C.maxCount=Math.max(C.maxCount,d)):E[L]={maxKDE:p,maxCount:d}}return r[0].t.labels.kde=n._(t,"kde:"),r}},{"../../constants/numerical":479,"../../lib":503,"../../plots/cartesian/axes":554,"../box/calc":674,"./helpers":1095}],1093:[function(t,e,r){"use strict";var n=t("../box/cross_trace_calc").setPositionOffset,i=["v","h"];e.exports=function(t,e){for(var r=t.calcdata,a=e.xaxis,o=e.yaxis,s=0;s<i.length;s++){for(var l=i[s],c="h"===l?o:a,u=[],f=0;f<r.length;f++){var h=r[f],p=h[0].t,d=h[0].trace;!0!==d.visible||"violin"!==d.type||p.empty||d.orientation!==l||d.xaxis!==a._id||d.yaxis!==o._id||u.push(f)}n("violin",t,u,c)}},{"../box/cross_trace_calc":675}],1094:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../components/color"),a=t("../box/defaults"),o=t("./attributes");e.exports=function(t,e,r,s){function l(r,i){return n.coerce(t,e,o,r,i)}function c(r,i){return n.coerce2(t,e,o,r,i)}if(a.handleSampleDefaults(t,e,l,s),!1!==e.visible){l("bandwidth"),l("side"),l("width")||(l("scalegroup",e.name),l("scalemode"));var u,f=l("span");Array.isArray(f)&&(u="manual"),l("spanmode",u);var h=l("line.color",(t.marker||{}).color||r),p=l("line.width"),d=l("fillcolor",i.addOpacity(e.line.color,.5));a.handlePointsDefaults(t,e,l,{prefix:""});var g=c("box.width"),v=c("box.fillcolor",d),m=c("box.line.color",h),y=c("box.line.width",p);l("box.visible",Boolean(g||v||m||y))||(e.box={visible:!1});var x=c("meanline.color",h),b=c("meanline.width",p);l("meanline.visible",Boolean(x||b))||(e.meanline={visible:!1})}}},{"../../components/color":366,"../../lib":503,"../box/defaults":676,"./attributes":1091}],1095:[function(t,e,r){"use strict";var n=t("../../lib"),i=function(t){return 1/Math.sqrt(2*Math.PI)*Math.exp(-.5*t*t)};r.makeKDE=function(t,e,r){var n=r.length,a=i,o=t.bandwidth,s=1/(n*o);return function(t){for(var e=0,i=0;i<n;i++)e+=a((t-r[i])/o);return s*e}},r.getPositionOnKdePath=function(t,e,r){var i,a;"h"===e.orientation?(i="y",a="x"):(i="x",a="y");var o=n.findPointOnPath(t.path,r,a,{pathLength:t.pathLength}),s=t.posCenterPx,l=o[i];return[l,"both"===e.side?2*s-l:s]},r.getKdeValue=function(t,e,n){var i=t.pts.map(r.extractVal);return r.makeKDE(t,e,i)(n)/t.posDensityScale},r.extractVal=function(t){return t.v}},{"../../lib":503}],1096:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../../plots/cartesian/axes"),a=t("../box/hover"),o=t("./helpers");e.exports=function(t,e,r,s,l){l||(l={});var c,u,f=l.hoverLayer,h=t.cd,p=h[0].trace,d=p.hoveron,g=-1!==d.indexOf("violins"),v=-1!==d.indexOf("kde"),m=[];if(g||v){var y=a.hoverOnBoxes(t,e,r,s);if(v&&y.length>0){var x,b,_,w,T,k=t.xa,A=t.ya;"h"===p.orientation?(T=e,x="y",_=A,b="x",w=k):(T=r,x="x",_=k,b="y",w=A);var M=h[t.index];if(T>=M.span[0]&&T<=M.span[1]){var S=n.extendFlat({},t),E=w.c2p(T,!0),L=o.getKdeValue(M,p,T),C=o.getPositionOnKdePath(M,p,E),P=_._offset,I=_._length;S[x+"0"]=C[0],S[x+"1"]=C[1],S[b+"0"]=S[b+"1"]=E,S[b+"Label"]=b+": "+i.hoverLabelText(w,T,p[b+"hoverformat"])+", "+h[0].t.labels.kde+"

"+L.toFixed(3),S.spikeDistance=y[0].spikeDistance;var O=x+"Spike";S[O]=y[0][O],y[0].spikeDistance=void 0,y[0][O]=void 0,S.hovertemplate=!1,m.push(S),(u={stroke:t.color})[x+"1"]=n.constrain(P+C[0],P,P+I),u[x+"2"]=n.constrain(P+C[1],P,P+I),u[b+"1"]=u[b+"2"]=w._offset+E}}g&&(m=m.concat(y))}-1!==d.indexOf("points")&&(c=a.hoverOnPoints(t,e,r));var z=f.selectAll(".violinline-"+p.uid).data(u?[0]:[]);return z.enter().append("line").classed("violinline-"+p.uid,!0).attr("stroke-width",1.5),z.exit().remove(),z.attr(u),"closest"===s?c?[c]:m:c?(m.push(c),m):m}},{"../../lib":503,"../../plots/cartesian/axes":554,"../box/hover":678,"./helpers":1095}],1097:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),layoutAttributes:t("./layout_attributes"),supplyDefaults:t("./defaults"),crossTraceDefaults:t("../box/defaults").crossTraceDefaults,supplyLayoutDefaults:t("./layout_defaults"),calc:t("./calc"),crossTraceCalc:t("./cross_trace_calc"),plot:t("./plot"),style:t("./style"),styleOnSelect:t("../scatter/style").styleOnSelect,hoverPoints:t("./hover"),selectPoints:t("../box/select"),moduleType:"trace",name:"violin",basePlotModule:t("../../plots/cartesian"),categories:["cartesian","svg","symbols","oriented","box-violin","showLegend","violinLayout","zoomScale"],meta:{}}},{"../../plots/cartesian":568,"../box/defaults":676,"../box/select":683,"../scatter/style":951,"./attributes":1091,"./calc":1092,"./cross_trace_calc":1093,"./defaults":1094,"./hover":1096,"./layout_attributes":1098,"./layout_defaults":1099,"./plot":1100,"./style":1101}],1098:[function(t,e,r){"use strict";var n=t("../box/layout_attributes"),i=t("../../lib").extendFlat;e.exports={violinmode:i({},n.boxmode,{}),violingap:i({},n.boxgap,{}),violingroupgap:i({},n.boxgroupgap,{})}},{"../../lib":503,"../box/layout_attributes":680}],1099:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("./layout_attributes"),a=t("../box/layout_defaults");e.exports=function(t,e,r){a._supply(t,e,r,(function(r,a){return n.coerce(t,e,i,r,a)}),"violin")}},{"../../lib":503,"../box/layout_defaults":681,"./layout_attributes":1098}],1100:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../lib"),a=t("../../components/drawing"),o=t("../box/plot"),s=t("../scatter/line_points"),l=t("./helpers");e.exports=function(t,e,r,c){var u=t._fullLayout,f=e.xaxis,h=e.yaxis;function p(t){var e=s(t,{xaxis:f,yaxis:h,connectGaps:!0,baseTolerance:.75,shape:"spline",simplify:!0,linearized:!0});return a.smoothopen(e[0],1)}i.makeTraceGroups(c,r,"trace violins").each((function(t){var r=n.select(this),a=t[0],s=a.t,c=a.trace;if(!0!==c.visible||s.empty)r.remove();else{var d=s.bPos,g=s.bdPos,v=e[s.valLetter+"axis"],m=e[s.posLetter+"axis"],y="both"===c.side,x=y||"positive"===c.side,b=y||"negative"===c.side,_=r.selectAll("path.violin").data(i.identity);_.enter().append("path").style("vector-effect","non-scaling-stroke").attr("class","violin"),_.exit().remove(),_.each((function(t){var e,r,i,a,o,l,f,h,_=n.select(this),w=t.density,T=w.length,k=m.c2l(t.pos+d,!0),A=m.l2p(k);if(c.width)e=s.maxKDE/g;else{var M=u._violinScaleGroupStats[c.scalegroup];e="count"===c.scalemode?M.maxKDE/g*(M.maxCount/t.pts.length):M.maxKDE/g}if(x){for(f=new Array(T),o=0;o<T;o++)(h=f[o]={})[s.posLetter]=k+w[o].v/e,h[s.valLetter]=v.c2l(w[o].t,!0);r=p(f)}if(b){for(f=new Array(T),l=0,o=T-1;l<T;l++,o--)(h=f[l]={})[s.posLetter]=k-w[o].v/e,h[s.valLetter]=v.c2l(w[o].t,!0);i=p(f)}if(y)a=r+"L"+i.substr(1)+"Z";else{var S=[A,v.c2p(w[0].t)],E=[A,v.c2p(w[T-1].t)];"h"===c.orientation&&(S.reverse(),E.reverse()),a=x?"M"+S+"L"+r.substr(1)+"L"+E:"M"+E+"L"+i.substr(1)+"L"+S}_.attr("d",a),t.posCenterPx=A,t.posDensityScale=e*g,t.path=_.node(),t.pathLength=t.path.getTotalLength()/(y?2:1)}));var w,T,k,A=c.box,M=A.width,S=(A.line||{}).width;y?(w=g*M,T=0):x?(w=[0,g*M/2],T=S*{x:1,y:-1}[s.posLetter]):(w=[g*M/2,0],T=S*{x:-1,y:1}[s.posLetter]),o.plotBoxAndWhiskers(r,{pos:m,val:v},c,{bPos:d,bdPos:w,bPosPxOffset:T}),o.plotBoxMean(r,{pos:m,val:v},c,{bPos:d,bdPos:w,bPosPxOffset:T}),!c.box.visible&&c.meanline.visible&&(k=i.identity);var E=r.selectAll("path.meanline").data(k||[]);E.enter().append("path").attr("class","meanline").style("fill","none").style("vector-effect","non-scaling-stroke"),E.exit().remove(),E.each((function(t){var

e=v.c2p(t.mean,!0),r=l.getPositionOnKdePath(t,c,e);n.select(this).attr("d","h"===c.orientation?"M"+e+","+r[0]+"V"+r[1]:"M"+r[0]+","+e+"H"+r[1])})),o.plotPoints(r,{x:f,y:h},c,s)}))}},{"../../components/drawing":388,"../../lib":503,"../box/plot":682,"../scatter/line_points":941,"./helpers":1095,"@plotly/d3":58}],1101:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../components/color"),a=t("../scatter/style").stylePoints;e.exports=function(t){var e=n.select(t).selectAll("g.trace.violins");e.style("opacity",(function(t){return t[0].trace.opacity})),e.each((function(e){var r=e[0].trace,o=n.select(this),s=r.box||{},l=s.line||{},c=r.meanline||{},u=c.width;o.selectAll("path.violin").style("stroke-width",r.line.width+"px").call(i.stroke,r.line.color).call(i.fill,r.fillcolor),o.selectAll("path.box").style("stroke-width",l.width+"px").call(i.stroke,l.color).call(i.fill,s.fillcolor);var f={"stroke-width":u+"px","stroke-dasharray":2*u+"px,"+u+"px"};o.selectAll("path.mean").style(f).call(i.stroke,c.color),o.selectAll("path.meanline").style(f).call(i.stroke,c.color),a(o,r,t)}))}},{"../../components/color":366,"../scatter/style":951,"@plotly/d3":58}],1102:[function(t,e,r){"use strict";var n=t("../../components/colorscale/attributes"),i=t("../isosurface/attributes"),a=t("../surface/attributes"),o=t("../../plots/attributes"),s=t("../../lib/extend").extendFlat,l=t("../../plot_api/edit_types").overrideAll,c=e.exports=l(s({x:i.x,y:i.y,z:i.z,value:i.value,isomin:i.isomin,isomax:i.isomax,surface:i.surface,spaceframe:{show:{valType:"boolean",dflt:!1},fill:{valType:"number",min:0,max:1,dflt:1}},slices:i.slices,caps:i.caps,text:i.text,hovertext:i.hovertext,xhoverformat:i.xhoverformat,yhoverformat:i.yhoverformat,zhoverformat:i.zhoverformat,valuehoverformat:i.valuehoverformat,hovertemplate:i.hovertemplate},n("",{colorAttr:"`value`",showScaleDflt:!0,editTypeOverride:"calc"}),{colorbar:i.colorbar,opacity:i.opacity,opacityscale:a.opacityscale,lightposition:i.lightposition,lighting:i.lighting,flatshading:i.flatshading,contour:i.contour,hoverinfo:s({},o.hoverinfo),showlegend:s({},o.showlegend,{dflt:!1})}),"calc","nested");c.x.editType=c.y.editType=c.z.editType=c.value.editType="calc+clearAxisTypes",c.transforms=void 0},{"../../components/colorscale/attributes":373,"../../lib/extend":493,"../../plot_api/edit_types":536,"../../plots/attributes":550,"../isosurface/attributes":862,"../surface/attributes":1061}],1103:[function(t,e,r){"use strict";var n=t("../../../stackgl_modules").gl_mesh3d,i=t("../../lib/gl_format_color").parseColorScale,a=t("../../lib/str2rgbarray"),o=t("../../components/colorscale").extractOpts,s=t("../../plots/gl3d/zip3"),l=t("../isosurface/convert").findNearestOnAxis,c=t("../isosurface/convert").generateIsoMeshes;function u(t,e,r){this.scene=t,this.uid=r,this.mesh=e,this.name="",this.data=null,this.showContour=!1}var f=u.prototype;f.handlePick=function(t){if(t.object===this.mesh){var e=t.data.index,r=this.data._meshX[e],n=this.data._meshY[e],i=this.data._meshZ[e],a=this.data._Ys.length,o=this.data._Zs.length,s=l(r,this.data._Xs).id,c=l(n,this.data._Ys).id,u=l(i,this.data._Zs).id,f=t.index=u+o*c+o*a*s;t.traceCoordinate=[this.data._meshX[f],this.data._meshY[f],this.data._meshZ[f],this.data._value[f]];var h=this.data.hovertext||this.data.text;return Array.isArray(h)&&void 0!==h[f]?t.textLabel=h[f]:h&&(t.textLabel=h),!0}},f.update=function(t){var e=this.scene,r=e.fullSceneLayout;function n(t,e,r,n){return e.map((function(e){return t.d2l(e,0,n)*r}))}this.data=c(t);var l={positions:s(n(r.xaxis,t._meshX,e.dataScale[0],t.xcalendar),n(r.yaxis,t._meshY,e.dataScale[1],t.ycalendar),n(r.zaxis,t._meshZ,e.dataScale[2],t.zcalendar)),cells:s(t._meshI,t._meshJ,t._meshK),lightPosition:[t.lightposition.x,t.lightposition.y,t.lightposition.z],ambient:t.lighting.ambient,diffuse:t.lighting.diffuse,specular:t.lighting.specular,roughness:t.lighting.roughness,fresnel:t.lighting.fresnel,vertexNormalsEpsilon:t.lighting.vertexnormalsepsilon,faceNormalsEpsilon:t.lighting.facenormalsepsilon,opacity:t.opacity,opacityscale:t.opacityscale,contourEnable:t.contour.show,contourColor:a(t.contour.color).slice(0,3),contourWidth:t.contour.width,useFacetNormals:t.flatshading},u=o(t);l.vertexIntensity=t._meshIntensity,l.vertexIntensityBounds=[u.min,u.max],l.colormap=i(t),this.mesh.update(l)},f.dispose=function(){this.scene.glplot.remove(this.mesh),this.mesh.dispose()},e.exports=function(t,e){var r=t.glplot.gl,i=n({gl:r}),a=new u(t,i,e.uid);return i._trace=a,a.update(e),t.glplot.add(i),a}},{"../../../stackgl_modules":1124,"../../components/colorscale":378,"../../lib/gl_format_color":499,"../../lib/str2rgbarray":528,"../../plots/gl3d/zip3":609,"../isosurface/convert":864}],1104:[function(t,e,r){"use strict";var

n=t("../../lib"),i=t("./attributes"),a=t("../isosurface/defaults").supplyIsoDefaults,o=t("../surface/defaults").opacityscaleDefaults;e.exports=function(t,e,r,s){function l(r,a){return n.coerce(t,e,i,r,a)}a(t,e,r,s,l),o(t,e,s,l)}},{"../../lib":503,"../isosurface/defaults":865,"../surface/defaults":1064,"./attributes":1102}],1105:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),supplyDefaults:t("./defaults"),calc:t("../isosurface/calc"),colorbar:{min:"cmin",max:"cmax"},plot:t("./convert"),moduleType:"trace",name:"volume",basePlotModule:t("../../plots/gl3d"),categories:["gl3d","showLegend"],meta:{}}},{"../../plots/gl3d":598,"../isosurface/calc":863,"./attributes":1102,"./convert":1103,"./defaults":1104}],1106:[function(t,e,r){"use strict";var n=t("../bar/attributes"),i=t("../scatter/attributes").line,a=t("../../plots/attributes"),o=t("../../plots/cartesian/axis_format_attributes").axisHoverFormat,s=t("../../plots/template_attributes").hovertemplateAttrs,l=t("../../plots/template_attributes").texttemplateAttrs,c=t("./constants"),u=t("../../lib/extend").extendFlat,f=t("../../components/color");function h(t){return{marker:{color:u({},n.marker.color,{arrayOk:!1,editType:"style"}),line:{color:u({},n.marker.line.color,{arrayOk:!1,editType:"style"}),width:u({},n.marker.line.width,{arrayOk:!1,editType:"style"}),editType:"style"},editType:"style"},editType:"style"}}e.exports={measure:{valType:"data_array",dflt:[],editType:"calc"},base:{valType:"number",dflt:null,arrayOk:!1,editType:"calc"},x:n.x,x0:n.x0,dx:n.dx,y:n.y,y0:n.y0,dy:n.dy,xperiod:n.xperiod,yperiod:n.yperiod,xperiod0:n.xperiod0,yperiod0:n.yperiod0,xperiodalignment:n.xperiodalignment,yperiodalignment:n.yperiodalignment,xhoverformat:o("x"),yhoverformat:o("y"),hovertext:n.hovertext,hovertemplate:s({},{keys:c.eventDataKeys}),hoverinfo:u({},a.hoverinfo,{flags:["name","x","y","text","initial","delta","final"]}),textinfo:{valType:"flaglist",flags:["label","text","initial","delta","final"],extras:["none"],editType:"plot",arrayOk:!1},texttemplate:l({editType:"plot"},{keys:c.eventDataKeys.concat(["label"])}),text:n.text,textposition:n.textposition,insidetextanchor:n.insidetextanchor,textangle:n.textangle,textfont:n.textfont,insidetextfont:n.insidetextfont,outsidetextfont:n.outsidetextfont,constraintext:n.constraintext,cliponaxis:n.cliponaxis,orientation:n.orientation,offset:n.offset,width:n.width,increasing:h(),decreasing:h(),totals:h(),connector:{line:{color:u({},i.color,{dflt:f.defaultLine}),width:u({},i.width,{editType:"plot"}),dash:i.dash,editType:"plot"},mode:{valType:"enumerated",values:["spanning","between"],dflt:"between",editType:"plot"},visible:{valType:"boolean",dflt:!0,editType:"plot"},editType:"plot"},offsetgroup:n.offsetgroup,alignmentgroup:n.alignmentgroup}},{"../../components/color":366,"../../lib/extend":493,"../../plots/attributes":550,"../../plots/cartesian/axis_format_attributes":557,"../../plots/template_attributes":633,"../bar/attributes":648,"../scatter/attributes":927,"./constants":1108}],1107:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes"),i=t("../../plots/cartesian/align_period"),a=t("../../lib").mergeArray,o=t("../scatter/calc_selection"),s=t("../../constants/numerical").BADNUM;function l(t){return"a"===t||"absolute"===t}function c(t){return"t"===t||"total"===t}e.exports=function(t,e){var r,u,f,h,p,d,g=n.getFromId(t,e.xaxis||"x"),v=n.getFromId(t,e.yaxis||"y");"h"===e.orientation?(r=g.makeCalcdata(e,"x"),f=v.makeCalcdata(e,"y"),h=i(e,v,"y",f),p=!!e.yperiodalignment,d="y"):(r=v.makeCalcdata(e,"y"),f=g.makeCalcdata(e,"x"),h=i(e,g,"x",f),p=!!e.xperiodalignment,d="x"),u=h.vals;for(var m,y=Math.min(u.length,r.length),x=new Array(y),b=0,_=!1,w=0;w<y;w++){var T=r[w]||0,k=!1;(r[w]!==s||c(e.measure[w])||l(e.measure[w]))&&w+1<y&&(r[w+1]!==s||c(e.measure[w+1])||l(e.measure[w+1]))&&(k=!0);var A=x[w]={i:w,p:u[w],s:T,rawS:T,cNext:k};l(e.measure[w])?(b=A.s,A.isSum=!0,A.dir="totals",A.s=b):c(e.measure[w])?(A.isSum=!0,A.dir="totals",A.s=b):(A.isSum=!1,A.dir=A.rawS<0?"decreasing":"increasing",m=A.s,A.s=b+m,b+=m),"totals"===A.dir&&(_=!0),p&&(x[w].orig_p=f[w],x[w][d+"End"]=h.ends[w],x[w][d+"Start"]=h.starts[w]),e.ids&&(A.id=String(e.ids[w])),A.v=(e.base||0)+b}return x.length&&(x[0].hasTotals=_),a(e.text,x,"tx"),a(e.hovertext,x,"htx"),o(x,e),x}},{"../../constants/numerical":479,"../../lib":503,"../../plots/cartesian/align_period":551,"../../plots/cartesian/axes":554,"../scatter/calc_selection":929}],1108:[function(t,e,r){"use strict";e.exports={eventDataKeys:["initial","delta","final"]}},{}],1109:[function(t,e,r){"use strict";var n=t("../bar/cross_trace_calc").setGroupPositions;e.exports=function(t,e){var r,i,a=t._fullLayout,o=t._fullData,s=t.calcdata,l=e.xaxis,c=e.yaxis,u=[],f=[],h=[];for(i=0;i<o.length;i++){var p=o[i];!0===p.visible&&p.xaxis===l._id&&p.yaxis===c._id&&"waterfall"===p.type&&(r=s[i],"h"===p.orientation?h.push(r):f.push(r),u.push(r))}var

d={mode:a.waterfallmode,norm:a.waterfallnorm,gap:a.waterfallgap,groupgap:a.waterfallgroupgap};for(n(t,l,c,f,d),n(t,c,l,h,d),i=0;i<u.length;i++){r=u[i];for(var g=0;g<r.length;g++){var v=r[g];!1===v.isSum&&(v.s0+=0===g?0:r[g-1].s),g+1<r.length&&(r[g].nextP0=r[g+1].p0,r[g].nextS0=r[g+1].s0)}}},{"../bar/cross_trace_calc":651}],1110:[function(t,e,r){"use strict";var n=t("../../lib"),i=t("../bar/defaults").handleGroupingDefaults,a=t("../bar/defaults").handleText,o=t("../scatter/xy_defaults"),s=t("../scatter/period_defaults"),l=t("./attributes"),c=t("../../components/color"),u=t("../../constants/delta.js"),f=u.INCREASING.COLOR,h=u.DECREASING.COLOR;function p(t,e,r){t(e+".marker.color",r),t(e+".marker.line.color",c.defaultLine),t(e+".marker.line.width")}e.exports={supplyDefaults:function(t,e,r,i){function c(r,i){return n.coerce(t,e,l,r,i)}if(o(t,e,i,c)){s(t,e,i,c),c("xhoverformat"),c("yhoverformat"),c("measure"),c("orientation",e.x&&!e.y?"h":"v"),c("base"),c("offset"),c("width"),c("text"),c("hovertext"),c("hovertemplate");var u=c("textposition");a(t,e,i,c,u,{moduleHasSelected:!1,moduleHasUnselected:!1,moduleHasConstrain:!0,moduleHasCliponaxis:!0,moduleHasTextangle:!0,moduleHasInsideanchor:!0}),"none"!==e.textposition&&(c("texttemplate"),e.texttemplate||c("textinfo")),p(c,"increasing",f),p(c,"decreasing",h),p(c,"totals","#4499FF"),c("connector.visible")&&(c("connector.mode"),c("connector.line.width")&&(c("connector.line.color"),c("connector.line.dash")))}else e.visible=!1},crossTraceDefaults:function(t,e){var r,a;function o(t){return n.coerce(a._input,a,l,t)}if("group"===e.waterfallmode)for(var s=0;s<t.length;s++)r=(a=t[s])._input,i(r,a,e,o)}},{"../../components/color":366,"../../constants/delta.js":473,"../../lib":503,"../bar/defaults":652,"../scatter/period_defaults":947,"../scatter/xy_defaults":954,"./attributes":1106}],1111:[function(t,e,r){"use strict";e.exports=function(t,e){return t.x="xVal"in e?e.xVal:e.x,t.y="yVal"in e?e.yVal:e.y,"initial"in e&&(t.initial=e.initial),"delta"in e&&(t.delta=e.delta),"final"in e&&(t.final=e.final),e.xa&&(t.xaxis=e.xa),e.ya&&(t.yaxis=e.ya),t}},{}],1112:[function(t,e,r){"use strict";var n=t("../../plots/cartesian/axes").hoverLabelText,i=t("../../components/color").opacity,a=t("../bar/hover").hoverOnBars,o=t("../../constants/delta.js"),s=o.INCREASING.SYMBOL,l=o.DECREASING.SYMBOL;e.exports=function(t,e,r,o,c){var u=a(t,e,r,o,c);if(u){var f=u.cd,h=f[0].trace,p="h"===h.orientation,d=p?"x":"y",g=p?t.xa:t.ya,v=f[u.index],m=v.isSum?v.b+v.s:v.rawS;if(!v.isSum){u.initial=v.b+v.s-m,u.delta=m,u.final=u.initial+u.delta;var y=k(Math.abs(u.delta));u.deltaLabel=m<0?"("+y+")":y,u.finalLabel=k(u.final),u.initialLabel=k(u.initial)}var x=v.hi||h.hoverinfo,b=[];if(x&&"none"!==x&&"skip"!==x){var _="all"===x,w=x.split("+"),T=function(t){return _||-1!==w.indexOf(t)};v.isSum||(!T("final")||T(p?"x":"y")||b.push(u.finalLabel),T("delta")&&(m<0?b.push(u.deltaLabel+" "+l):b.push(u.deltaLabel+" "+s)),T("initial")&&b.push("Initial: "+u.initialLabel))}return b.length&&(u.extraText=b.join("<br>")),u.color=function(t,e){var r=t[e.dir].marker,n=r.color,a=r.line.color,o=r.line.width;return i(n)?n:i(a)&&o?a:void 0}(h,v),[u]}function k(t){return n(g,t,h[d+"hoverformat"])}}},{"../../components/color":366,"../../constants/delta.js":473,"../../plots/cartesian/axes":554,"../bar/hover":655}],1113:[function(t,e,r){"use strict";e.exports={attributes:t("./attributes"),layoutAttributes:t("./layout_attributes"),supplyDefaults:t("./defaults").supplyDefaults,crossTraceDefaults:t("./defaults").crossTraceDefaults,supplyLayoutDefaults:t("./layout_defaults"),calc:t("./calc"),crossTraceCalc:t("./cross_trace_calc"),plot:t("./plot"),style:t("./style").style,hoverPoints:t("./hover"),eventData:t("./event_data"),selectPoints:t("../bar/select"),moduleType:"trace",name:"waterfall",basePlotModule:t("../../plots/cartesian"),categories:["bar-like","cartesian","svg","oriented","showLegend","zoomScale"],meta:{}}},{"../../plots/cartesian":568,"../bar/select":660,"./attributes":1106,"./calc":1107,"./cross_trace_calc":1109,"./defaults":1110,"./event_data":1111,"./hover":1112,"./layout_attributes":1114,"./layout_defaults":1115,"./plot":1116,"./style":1117}],1114:[function(t,e,r){"use strict";e.exports={waterfallmode:{valType:"enumerated",values:["group","overlay"],dflt:"group",editType:"calc"},waterfallgap:{valType:"number",min:0,max:1,editType:"calc"},waterfallgroupgap:{valType:"number",min:0,max:1,dflt:0,editType:"calc"}}},{}],1115:[function(t,e,r){"use strict";var

n=t("../../lib"),i=t("./layout_attributes");e.exports=function(t,e,r){var a=!1;function o(r,a){return n.coerce(t,e,i,r,a)}for(var s=0;s<r.length;s++){var l=r[s];if(l.visible&&"waterfall"===l.type){a=!0;break}}a&&(o("waterfallmode"),o("waterfallgap",.2),o("waterfallgroupgap"))}},{"../../lib":503,"./layout_attributes":1114}],1116:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../lib"),a=t("../../components/drawing"),o=t("../../constants/numerical").BADNUM,s=t("../bar/plot"),l=t("../bar/uniform_text").clearMinTextSize;e.exports=function(t,e,r,c){var u=t._fullLayout;l("waterfall",u),s.plot(t,e,r,c,{mode:u.waterfallmode,norm:u.waterfallmode,gap:u.waterfallgap,groupgap:u.waterfallgroupgap}),function(t,e,r,s){var l=e.xaxis,c=e.yaxis;i.makeTraceGroups(s,r,"trace bars").each((function(r){var s=n.select(this),u=r[0].trace,f=i.ensureSingle(s,"g","lines");if(u.connector&&u.connector.visible){var h="h"===u.orientation,p=u.connector.mode,d=f.selectAll("g.line").data(i.identity);d.enter().append("g").classed("line",!0),d.exit().remove();var g=d.size();d.each((function(r,s){if(s===g-1||r.cNext){var u=function(t,e,r,n){var i=[],a=[],o=n?e:r,s=n?r:e;return i[0]=o.c2p(t.s0,!0),a[0]=s.c2p(t.p0,!0),i[1]=o.c2p(t.s1,!0),a[1]=s.c2p(t.p1,!0),i[2]=o.c2p(t.nextS0,!0),a[2]=s.c2p(t.nextP0,!0),n?[i,a]:[a,i]}(r,l,c,h),f=u[0],d=u[1],v="";f[0]!==o&&d[0]!==o&&f[1]!==o&&d[1]!==o&&("spanning"===p&&!r.isSum&&s>0&&(v+=h?"M"+f[0]+","+d[1]+"V"+d[0]:"M"+f[1]+","+d[0]+"H"+f[0]),"between"!==p&&(r.isSum||s<g-1)&&(v+=h?"M"+f[1]+","+d[0]+"V"+d[1]:"M"+f[0]+","+d[1]+"H"+f[1]),f[2]!==o&&d[2]!==o&&(v+=h?"M"+f[1]+","+d[1]+"V"+d[2]:"M"+f[1]+","+d[1]+"H"+f[2])),""===v&&(v="M0,0Z"),i.ensureSingle(n.select(this),"path").attr("d",v).call(a.setClipUrl,e.layerClipId,t)}else f.remove()}))}(t,e,r,c)}},{"../../components/drawing":388,"../../constants/numerical":479,"../../lib":503,"../bar/plot":659,"../bar/uniform_text":664,"@plotly/d3":58}],1117:[function(t,e,r){"use strict";var n=t("@plotly/d3"),i=t("../../components/drawing"),a=t("../../components/color"),o=t("../../constants/interactions").DESELECTDIM,s=t("../bar/style"),l=t("../bar/uniform_text").resizeText,c=s.styleTextPoints;e.exports={style:function(t,e,r){var s=r||n.select(t).selectAll("g.waterfalllayer").selectAll("g.trace");l(t,s,"waterfall"),s.style("opacity",(function(t){return t[0].trace.opacity})),s.each((function(e){var r=n.select(this),s=e[0].trace;r.selectAll(".point > path").each((function(t){if(!t.isBlank){var e=s[t.dir].marker;n.select(this).call(a.fill,e.color).call(a.stroke,e.line.color).call(i.dashLine,e.line.dash,e.line.width).style("opacity",s.selectedpoints&&!t.selected?o:1)}})),c(r,s,t),r.selectAll(".lines").each((function(){var t=s.connector.line;i.lineGroupStyle(n.select(this).selectAll("path"),t.width,t.color,t.dash)}))}))}},{"../../components/color":366,"../../components/drawing":388,"../../constants/interactions":478,"../bar/style":662,"../bar/uniform_text":664,"@plotly/d3":58}],1118:[function(t,e,r){"use strict";var n=t("../plots/cartesian/axes"),i=t("../lib"),a=t("../plot_api/plot_schema"),o=t("./helpers").pointsAccessorFunction,s=t("../constants/numerical").BADNUM;r.moduleType="transform",r.name="aggregate";var l=r.attributes={enabled:{valType:"boolean",dflt:!0,editType:"calc"},groups:{valType:"string",strict:!0,noBlank:!0,arrayOk:!0,dflt:"x",editType:"calc"},aggregations:{_isLinkedToArray:"aggregation",target:{valType:"string",editType:"calc"},func:{valType:"enumerated",values:["count","sum","avg","median","mode","rms","stddev","min","max","first","last","change","range"],dflt:"first",editType:"calc"},funcmode:{valType:"enumerated",values:["sample","population"],dflt:"sample",editType:"calc"},enabled:{valType:"boolean",dflt:!0,editType:"calc"},editType:"calc"},editType:"calc"},c=l.aggregations;function u(t,e,r,a){if(a.enabled){for(var o=a.target,l=i.nestedProperty(e,o),c=l.get(),u=function(t,e){var r=t.func,n=e.d2c,a=e.c2d;switch(r){case"count":return f;case"first":return h;case"last":return p;case"sum":return function(t,e){for(var r=0,i=0;i<e.length;i++){var o=n(t[e[i]]);o!==s&&(r+=o)}return a(r)};case"avg":return function(t,e){for(var r=0,i=0,o=0;o<e.length;o++){var l=n(t[e[o]]);l!==s&&(r+=l,i++)}return i?a(r/i):s};case"min":return function(t,e){for(var r=1/0,i=0;i<e.length;i++){var o=n(t[e[i]]);o!==s&&(r=Math.min(r,o))}return r===1/0?s:a(r)};case"max":return function(t,e){for(var r=-1/0,i=0;i<e.length;i++){var o=n(t[e[i]]);o!==s&&(r=Math.max(r,o))}return r===-1/0?s:a(r)};case"range":return

function(t,e){for(var r=1/0,i=-1/0,o=0;o<e.length;o++){var l=n(t[e[o]]);l!==s&&(r=Math.min(r,l),i=Math.max(i,l))}return i===-1/0||r===1/0?s:a(i-r)};case"change":return function(t,e){var r=n(t[e[0]]),i=n(t[e[e.length-1]]);return r===s||i===s?s:a(i-r)};case"median":return function(t,e){for(var r=[],o=0;o<e.length;o++){var l=n(t[e[o]]);l!==s&&r.push(l)}if(!r.length)return s;r.sort(i.sorterAsc);var c=(r.length-1)/2;return a((r[Math.floor(c)]+r[Math.ceil(c)])/2)};case"mode":return function(t,e){for(var r={},i=0,o=s,l=0;l<e.length;l++){var c=n(t[e[l]]);if(c!==s){var u=r[c]=(r[c]||0)+1;u>i&&(i=u,o=c)}}return i?a(o):s};case"rms":return function(t,e){for(var r=0,i=0,o=0;o<e.length;o++){var l=n(t[e[o]]);l!==s&&(r+=l*l,i++)}return i?a(Math.sqrt(r/i)):s};case"stddev":return function(e,r){var i,a=0,o=0,l=1,c=s;for(i=0;i<r.length&&c===s;i++)c=n(e[r[i]]);if(c===s)return s;for(;i<r.length;i++){var u=n(e[r[i]]);if(u!==s){var f=u-c;a+=f,o+=f*f,l++}}var h="sample"===t.funcmode?l-1:l;return h?Math.sqrt((o-a*a/l)/h):0}}}(a,n.getDataConversions(t,e,o,c)),d=new Array(r.length),g=0;g<r.length;g++)d[g]=u(c,r[g]);l.set(d),"count"===a.func&&i.pushUnique(e._arrayAttrs,o)}}function f(t,e){return e.length}function h(t,e){return t[e[0]]}function p(t,e){return t[e[e.length-1]]}r.supplyDefaults=function(t,e){var r,n={};function o(e,r){return i.coerce(t,n,l,e,r)}if(!o("enabled"))return n;var s=a.findArrayAttributes(e),u={};for(r=0;r<s.length;r++)u[s[r]]=1;var f=o("groups");if(!Array.isArray(f)){if(!u[f])return n.enabled=!1,n;u[f]=0}var h,p=t.aggregations||[],d=n.aggregations=new Array(p.length);function g(t,e){return i.coerce(p[r],h,c,t,e)}for(r=0;r<p.length;r++){h={_index:r};var v=g("target"),m=g("func");g("enabled")&&v&&(u[v]||"count"===m&&void 0===u[v])?("stddev"===m&&g("funcmode"),u[v]=0,d[r]=h):d[r]={enabled:!1,_index:r}}for(r=0;r<s.length;r++)u[s[r]]&&d.push({target:s[r],func:c.func.dflt,enabled:!0,_index:-1});return n},r.calcTransform=function(t,e,r){if(r.enabled){var n=r.groups,a=i.getTargetArray(e,{target:n});if(a){var s,l,c,f,h={},p={},d=[],g=o(e.transforms,r),v=a.length;for(e._length&&(v=Math.min(v,e._length)),s=0;s<v;s++)void 0===(c=h[l=a[s]])?(h[l]=d.length,f=[s],d.push(f),p[h[l]]=g(s)):(d[c].push(s),p[h[l]]=(p[h[l]]||[]).concat(g(s)));r._indexToPoints=p;var m=r.aggregations;for(s=0;s<m.length;s++)u(t,e,d,m[s]);"string"==typeof n&&u(t,e,d,{target:n,func:"first",enabled:!0}),e._length=d.length}}},{"../constants/numerical":479,"../lib":503,"../plot_api/plot_schema":542,"../plots/cartesian/axes":554,"./helpers":1121}],1119:[function(t,e,r){"use strict";var n=t("../lib"),i=t("../registry"),a=t("../plots/cartesian/axes"),o=t("./helpers").pointsAccessorFunction,s=t("../constants/filter_ops"),l=s.COMPARISON_OPS,c=s.INTERVAL_OPS,u=s.SET_OPS;r.moduleType="transform",r.name="filter",r.attributes={enabled:{valType:"boolean",dflt:!0,editType:"calc"},target:{valType:"string",strict:!0,noBlank:!0,arrayOk:!0,dflt:"x",editType:"calc"},operation:{valType:"enumerated",values:[].concat(l).concat(c).concat(u),dflt:"=",editType:"calc"},value:{valType:"any",dflt:0,editType:"calc"},preservegaps:{valType:"boolean",dflt:!1,editType:"calc"},editType:"calc"},r.supplyDefaults=function(t){var e={};function a(i,a){return n.coerce(t,e,r.attributes,i,a)}if(a("enabled")){var o=a("target");if(n.isArrayOrTypedArray(o)&&0===o.length)return e.enabled=!1,e;a("preservegaps"),a("operation"),a("value");var s=i.getComponentMethod("calendars","handleDefaults");s(t,e,"valuecalendar",null),s(t,e,"targetcalendar",null)}return e},r.calcTransform=function(t,e,r){if(r.enabled){var i=n.getTargetArray(e,r);if(i){var s=r.target,f=i.length;e._length&&(f=Math.min(f,e._length));var h=r.targetcalendar,p=e._arrayAttrs,d=r.preservegaps;if("string"==typeof s){var g=n.nestedProperty(e,s+"calendar").get();g&&(h=g)}var v,m,y=function(t,e,r){var n=t.operation,i=t.value,a=Array.isArray(i);function o(t){return-1!==t.indexOf(n)}var s,f=function(r){return e(r,0,t.valuecalendar)},h=function(t){return e(t,0,r)};switch(o(l)?s=f(a?i[0]:i):o(c)?s=a?[f(i[0]),f(i[1])]:[f(i),f(i)]:o(u)&&(s=a?i.map(f):[f(i)]),n){case"=":return function(t){return h(t)===s};case"!=":return function(t){return h(t)!==s};case"<":return function(t){return h(t)<s};case"<=":return function(t){return h(t)<=s};case">":return function(t){return h(t)>s};case">=":return function(t){return h(t)>=s};case"[]":return function(t){var e=h(t);return e>=s[0]&&e<=s[1]};case"()":return function(t){var e=h(t);return e>s[0]&&e<s[1]};case"[)":return function(t){var e=h(t);return e>=s[0]&&e<s[1]};case"(]":return function(t){var e=h(t);return e>s[0]&&e<=s[1]};case"][":return function(t){var

e=h(t);return e<=s[0]||e>=s[1]};case")(":return function(t){var e=h(t);return e<s[0]||e>s[1]};case"](":return function(t){var e=h(t);return e<=s[0]||e>s[1]};case")[":return function(t){var e=h(t);return e<s[0]||e>=s[1]};case"{}":return function(t){return-1!==s.indexOf(h(t))};case"}{":return function(t){return-1===s.indexOf(h(t))}}}(r,a.getDataToCoordFunc(t,e,s,i),h),x={},b={},_=0;d?(v=function(t){x[t.astr]=n.extendDeep([],t.get()),t.set(new Array(f))},m=function(t,e){var r=x[t.astr][e];t.get()[e]=r}):(v=function(t){x[t.astr]=n.extendDeep([],t.get()),t.set([])},m=function(t,e){var r=x[t.astr][e];t.get().push(r)}),k(v);for(var w=o(e.transforms,r),T=0;T<f;T++)y(i[T])?(k(m,T),b[_++]=w(T)):d&&_++;r._indexToPoints=b,e._length=_}}function k(t,r){for(var i=0;i<p.length;i++)t(n.nestedProperty(e,p[i]),r)}},{"../constants/filter_ops":475,"../lib":503,"../plots/cartesian/axes":554,"../registry":638,"./helpers":1121}],1120:[function(t,e,r){"use strict";var n=t("../lib"),i=t("../plot_api/plot_schema"),a=t("../plots/plots"),o=t("./helpers").pointsAccessorFunction;function s(t,e){var r,s,l,c,u,f,h,p,d,g,v=e.transform,m=e.transformIndex,y=t.transforms[m].groups,x=o(t.transforms,v);if(!n.isArrayOrTypedArray(y)||0===y.length)return[t];var b=n.filterUnique(y),_=new Array(b.length),w=y.length,T=i.findArrayAttributes(t),k=v.styles||[],A={};for(r=0;r<k.length;r++)A[k[r].target]=k[r].value;v.styles&&(g=n.keyedContainer(v,"styles","target","value.name"));var M={},S={};for(r=0;r<b.length;r++){M[f=b[r]]=r,S[f]=0,(h=_[r]=n.extendDeepNoArrays({},t))._group=f,h.transforms[m]._indexToPoints={};var E=null;for(g&&(E=g.get(f)),h.name=E||""===E?E:n.templateString(v.nameformat,{trace:t.name,group:f}),p=h.transforms,h.transforms=[],s=0;s<p.length;s++)h.transforms[s]=n.extendDeepNoArrays({},p[s]);for(s=0;s<T.length;s++)n.nestedProperty(h,T[s]).set([])}for(l=0;l<T.length;l++){for(c=T[l],s=0,d=[];s<b.length;s++)d[s]=n.nestedProperty(_[s],c).get();for(u=n.nestedProperty(t,c).get(),s=0;s<w;s++)d[M[y[s]]].push(u[s])}for(s=0;s<w;s++)(h=_[M[y[s]]]).transforms[m]._indexToPoints[S[y[s]]]=x(s),S[y[s]]++;for(r=0;r<b.length;r++)f=b[r],h=_[r],a.clearExpandedTraceDefaultColors(h),h=n.extendDeepNoArrays(h,A[f]||{});return _}r.moduleType="transform",r.name="groupby",r.attributes={enabled:{valType:"boolean",dflt:!0,editType:"calc"},groups:{valType:"data_array",dflt:[],editType:"calc"},nameformat:{valType:"string",editType:"calc"},styles:{_isLinkedToArray:"style",target:{valType:"string",editType:"calc"},value:{valType:"any",dflt:{},editType:"calc",_compareAsJSON:!0},editType:"calc"},editType:"calc"},r.supplyDefaults=function(t,e,i){var a,o={};function s(e,i){return n.coerce(t,o,r.attributes,e,i)}if(!s("enabled"))return o;s("groups"),s("nameformat",i._dataLength>1?"%{group} (%{trace})":"%{group}");var l=t.styles,c=o.styles=[];if(l)for(a=0;a<l.length;a++){var u=c[a]={};n.coerce(l[a],c[a],r.attributes.styles,"target");var f=n.coerce(l[a],c[a],r.attributes.styles,"value");n.isPlainObject(f)?u.value=n.extendDeep({},f):f&&delete u.value}return o},r.transform=function(t,e){var r,n,i,a=[];for(n=0;n<t.length;n++)for(r=s(t[n],e),i=0;i<r.length;i++)a.push(r[i]);return a}},{"../lib":503,"../plot_api/plot_schema":542,"../plots/plots":619,"./helpers":1121}],1121:[function(t,e,r){"use strict";r.pointsAccessorFunction=function(t,e){for(var r,n,i=0;i<t.length&&(r=t[i])!==e;i++)r._indexToPoints&&!1!==r.enabled&&(n=r._indexToPoints);return n?function(t){return n[t]}:function(t){return[t]}}},{}],1122:[function(t,e,r){"use strict";var n=t("../lib"),i=t("../plots/cartesian/axes"),a=t("./helpers").pointsAccessorFunction,o=t("../constants/numerical").BADNUM;function s(t,e,r,n){var i,a=new Array(n),s=new Array(n);for(i=0;i<n;i++)a[i]={v:e[i],i};for(a.sort(function(t,e){switch(t.order){case"ascending":return function(t,r){var n=e(t.v),i=e(r.v);return n===o?1:i===o?-1:n-i};case"descending":return function(t,r){var n=e(t.v),i=e(r.v);return n===o?1:i===o?-1:i-n}}}(r)),i=0;i<n;i++)s[i]=a[i].i;return s}r.moduleType="transform",r.name="sort",r.attributes={enabled:{valType:"boolean",dflt:!0,editType:"calc"},target:{valType:"string",strict:!0,noBlank:!0,arrayOk:!0,dflt:"x",editType:"calc"},order:{valType:"enumerated",values:["ascending","descending"],dflt:"ascending",editType:"calc"},editType:"calc"},r.supplyDefaults=function(t){var e={};function i(i,a){return n.coerce(t,e,r.attributes,i,a)}return

i("enabled")&&(i("target"),i("order")),e},r.calcTransform=function(t,e,r){if(r.enabled){var o=n.getTargetArray(e,r);if(o){var l=r.target,c=o.length;e._length&&(c=Math.min(c,e._length));var u,f,h=e._arrayAttrs,p=s(r,o,i.getDataToCoordFunc(t,e,l,o),c),d=a(e.transforms,r),g={};for(u=0;u<h.length;u++){var v=n.nestedProperty(e,h[u]),m=v.get(),y=new Array(c);for(f=0;f<c;f++)y[f]=m[p[f]];v.set(y)}for(f=0;f<c;f++)g[f]=d(p[f]);r._indexToPoints=g,e._length=c}}},{"../constants/numerical":479,"../lib":503,"../plots/cartesian/axes":554,"./helpers":1121}],1123:[function(t,e,r){"use strict";r.version="2.12.1"},{}],1124:[function(t,e,n){(function(r){(function(){!function(t){"object"==typeof n&&void 0!==e?e.exports=t():("undefined"!=typeof window?window:void 0!==r?r:"undefined"!=typeof self?self:this).stackgl=t()}((function(){return function e(r,n,i){function a(s,l){if(!n[s]){if(!r[s]){var c="function"==typeof t&&t;if(!l&&c)return c(s,!0);if(o)return o(s,!0);var u=new Error("Cannot find module '"+s+"'");throw u.code="MODULE_NOT_FOUND",u}var f=n[s]={exports:{}};r[s][0].call(f.exports,(function(t){return a(r[s][1][t]||t)}),f,f.exports,e,r,n,i)}return n[s].exports}for(var o="function"==typeof t&&t,s=0;s<i.length;s++)a(i[s]);return a}({1:[function(t,e,r){"use strict";r.byteLength=function(t){var e=c(t),r=e[0],n=e[1];return 3*(r+n)/4-n},r.toByteArray=function(t){var e,r,n=c(t),o=n[0],s=n[1],l=new a(function(t,e,r){return 3*(e+r)/4-r}(0,o,s)),u=0,f=s>0?o-4:o;for(r=0;r<f;r+=4)e=i[t.charCodeAt(r)]<<18|i[t.charCodeAt(r+1)]<<12|i[t.charCodeAt(r+2)]<<6|i[t.charCodeAt(r+3)],l[u++]=e>>16&255,l[u++]=e>>8&255,l[u++]=255&e;return 2===s&&(e=i[t.charCodeAt(r)]<<2|i[t.charCodeAt(r+1)]>>4,l[u++]=255&e),1===s&&(e=i[t.charCodeAt(r)]<<10|i[t.charCodeAt(r+1)]<<4|i[t.charCodeAt(r+2)]>>2,l[u++]=e>>8&255,l[u++]=255&e),l},r.fromByteArray=function(t){for(var e,r=t.length,i=r%3,a=[],o=16383,s=0,l=r-i;s<l;s+=o)a.push(u(t,s,s+o>l?l:s+o));return 1===i?(e=t[r-1],a.push(n[e>>2]+n[e<<4&63]+"==")):2===i&&(e=(t[r-2]<<8)+t[r-1],a.push(n[e>>10]+n[e>>4&63]+n[e<<2&63]+"=")),a.join("")};for(var n=[],i=[],a="undefined"!=typeof Uint8Array?Uint8Array:Array,o="ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz0123456789+/",s=0,l=o.length;s<l;++s)n[s]=o[s],i[o.charCodeAt(s)]=s;function c(t){var e=t.length;if(e%4>0)throw new Error("Invalid string. Length must be a multiple of 4");var r=t.indexOf("=");return-1===r&&(r=e),[r,r===e?0:4-r%4]}function u(t,e,r){for(var i,a=[],o=e;o<r;o+=3)i=(t[o]<<16&16711680)+(t[o+1]<<8&65280)+(255&t[o+2]),a.push(n[(s=i)>>18&63]+n[s>>12&63]+n[s>>6&63]+n[63&s]);var s;return a.join("")}i["-".charCodeAt(0)]=62,i["_".charCodeAt(0)]=63},{}],2:[function(t,e,r){},{}],3:[function(t,e,r){(function(e){(function(){"use strict";var e=t("base64-js"),n=t("ieee754");r.Buffer=o,r.SlowBuffer=function(t){return+t!=t&&(t=0),o.alloc(+t)},r.INSPECT_MAX_BYTES=50;var i=2147483647;function a(t){if(t>i)throw new RangeError('The value "'+t+'" is invalid for option "size"');var e=new Uint8Array(t);return e.__proto__=o.prototype,e}function o(t,e,r){if("number"==typeof t){if("string"==typeof e)throw new TypeError('The "string" argument must be of type string. Received type number');return c(t)}return s(t,e,r)}function s(t,e,r){if("string"==typeof t)return function(t,e){if("string"==typeof e&&""!==e||(e="utf8"),!o.isEncoding(e))throw new TypeError("Unknown encoding: "+e);var r=0|h(t,e),n=a(r),i=n.write(t,e);return i!==r&&(n=n.slice(0,i)),n}(t,e);if(ArrayBuffer.isView(t))return u(t);if(null==t)throw TypeError("The first argument must be one of type string, Buffer, ArrayBuffer, Array, or Array-like Object. Received type "+typeof t);if(N(t,ArrayBuffer)||t&&N(t.buffer,ArrayBuffer))return function(t,e,r){if(e<0||t.byteLength<e)throw new RangeError('"offset" is outside of buffer bounds');if(t.byteLength<e+(r||0))throw new RangeError('"length" is outside of buffer bounds');var n;return(n=void 0===e&&void 0===r?new Uint8Array(t):void 0===r?new Uint8Array(t,e):new Uint8Array(t,e,r)).__proto__=o.prototype,n}(t,e,r);if("number"==typeof t)throw new TypeError('The "value" argument must not be of type number. Received type number');var n=t.valueOf&&t.valueOf();if(null!=n&&n!==t)return o.from(n,e,r);var i=function(t){if(o.isBuffer(t)){var e=0|f(t.length),r=a(e);return 0===r.length||t.copy(r,0,0,e),r}return void 0!==t.length?"number"!=typeof t.length||j(t.length)?a(0):u(t):"Buffer"===t.type&&Array.isArray(t.data)?u(t.data):void 0}(t);if(i)return i;if("undefined"!=typeof Symbol&&null!=Symbol.toPrimitive&&"function"==typeof t[Symbol.toPrimitive])return

o.from(t[Symbol.toPrimitive]("string"),e,r);throw new TypeError("The first argument must be one of type string, Buffer, ArrayBuffer, Array, or Array-like Object. Received type "+typeof t)}function l(t){if("number"!=typeof t)throw new TypeError('"size" argument must be of type number');if(t<0)throw new RangeError('The value "'+t+'" is invalid for option "size"')}function c(t){return l(t),a(t<0?0:0|f(t))}function u(t){for(var e=t.length<0?0:0|f(t.length),r=a(e),n=0;n<e;n+=1)r[n]=255&t[n];return r}function f(t){if(t>=i)throw new RangeError("Attempt to allocate Buffer larger than maximum size: 0x"+i.toString(16)+" bytes");return 0|t}function h(t,e){if(o.isBuffer(t))return t.length;if(ArrayBuffer.isView(t)||N(t,ArrayBuffer))return t.byteLength;if("string"!=typeof t)throw new TypeError('The "string" argument must be one of type string, Buffer, or ArrayBuffer. Received type '+typeof t);var r=t.length,n=arguments.length>2&&!0===arguments[2];if(!n&&0===r)return 0;for(var i=!1;;)switch(e){case"ascii":case"latin1":case"binary":return r;case"utf8":case"utf-8":return R(t).length;case"ucs2":case"ucs-2":case"utf16le":case"utf-16le":return 2*r;case"hex":return r>>>1;case"base64":return F(t).length;default:if(i)return n?-1:R(t).length;e=(""+e).toLowerCase(),i=!0}}function p(t,e,r){var n=!1;if((void 0===e||e<0)&&(e=0),e>this.length)return"";if((void 0===r||r>this.length)&&(r=this.length),r<=0)return"";if((r>>>=0)<=(e>>>=0))return"";for(t||(t="utf8");;)switch(t){case"hex":return E(this,e,r);case"utf8":case"utf-8":return k(this,e,r);case"ascii":return M(this,e,r);case"latin1":case"binary":return S(this,e,r);case"base64":return T(this,e,r);case"ucs2":case"ucs-2":case"utf16le":case"utf-16le":return L(this,e,r);default:if(n)throw new TypeError("Unknown encoding: "+t);t=(t+"").toLowerCase(),n=!0}}function d(t,e,r){var n=t[e];t[e]=t[r],t[r]=n}function g(t,e,r,n,i){if(0===t.length)return-1;if("string"==typeof r?(n=r,r=0):r>2147483647?r=2147483647:r<-2147483648&&(r=-2147483648),j(r=+r)&&(r=i?0:t.length-1),r<0&&(r=t.length+r),r>=t.length){if(i)return-1;r=t.length-1}else if(r<0){if(!i)return-1;r=0}if("string"==typeof e&&(e=o.from(e,n)),o.isBuffer(e))return 0===e.length?-1:v(t,e,r,n,i);if("number"==typeof e)return e&=255,"function"==typeof Uint8Array.prototype.indexOf?i?Uint8Array.prototype.indexOf.call(t,e,r):Uint8Array.prototype.lastIndexOf.call(t,e,r):v(t,[e],r,n,i);throw new TypeError("val must be string, number or Buffer")}function v(t,e,r,n,i){var a,o=1,s=t.length,l=e.length;if(void 0!==n&&("ucs2"===(n=String(n).toLowerCase())||"ucs-2"===n||"utf16le"===n||"utf-16le"===n)){if(t.length<2||e.length<2)return-1;o=2,s/=2,l/=2,r/=2}function c(t,e){return 1===o?t[e]:t.readUInt16BE(e*o)}if(i){var u=-1;for(a=r;a<s;a++)if(c(t,a)===c(e,-1===u?0:a-u)){if(-1===u&&(u=a),a-u+1===l)return u*o}else-1!==u&&(a-=a-u),u=-1}else for(r+l>s&&(r=s-l),a=r;a>=0;a--){for(var f=!0,h=0;h<l;h++)if(c(t,a+h)!==c(e,h)){f=!1;break}if(f)return a}return-1}function m(t,e,r,n){r=Number(r)||0;var i=t.length-r;n?(n=Number(n))>i&&(n=i):n=i;var a=e.length;n>a/2&&(n=a/2);for(var o=0;o<n;++o){var s=parseInt(e.substr(2*o,2),16);if(j(s))return o;t[r+o]=s}return o}function y(t,e,r,n){return B(R(e,t.length-r),t,r,n)}function x(t,e,r,n){return B(function(t){for(var e=[],r=0;r<t.length;++r)e.push(255&t.charCodeAt(r));return e}(e),t,r,n)}function b(t,e,r,n){return x(t,e,r,n)}function _(t,e,r,n){return B(F(e),t,r,n)}function w(t,e,r,n){return B(function(t,e){for(var r,n,i,a=[],o=0;o<t.length&&!((e-=2)<0);++o)n=(r=t.charCodeAt(o))>>8,i=r%256,a.push(i),a.push(n);return a}(e,t.length-r),t,r,n)}function T(t,r,n){return 0===r&&n===t.length?e.fromByteArray(t):e.fromByteArray(t.slice(r,n))}function k(t,e,r){r=Math.min(t.length,r);for(var n=[],i=e;i<r;){var a,o,s,l,c=t[i],u=null,f=c>239?4:c>223?3:c>191?2:1;if(i+f<=r)switch(f){case 1:c<128&&(u=c);break;case 2:128==(192&(a=t[i+1]))&&(l=(31&c)<<6|63&a)>127&&(u=l);break;case 3:a=t[i+1],o=t[i+2],128==(192&a)&&128==(192&o)&&(l=(15&c)<<12|(63&a)<<6|63&o)>2047&&(l<55296||l>57343)&&(u=l);break;case 4:a=t[i+1],o=t[i+2],s=t[i+3],128==(192&a)&&128==(192&o)&&128==(192&s)&&(l=(15&c)<<18|(63&a)<<12|(63&o)<<6|63&s)>65535&&l<1114112&&(u=l)}null===u?(u=65533,f=1):u>65535&&(u-=65536,n.push(u>>>10&1023|55296),u=56320|1023&u),n.push(u),i+=f}return function(t){var e=t.length;if(e<=A)return String.fromCharCode.apply(String,t);for(var r="",n=0;n<e;)r+=String.fromCharCode.apply(String,t.slice(n,n+=A));return r}(n)}r.kMaxLength=i,o.TYPED_ARRAY_SUPPORT=function(){try{var t=new Uint8Array(1);return

t.__proto__={__proto__:Uint8Array.prototype,foo:function(){return 42}},42===t.foo()}catch(t){return!1}}(),o.TYPED_ARRAY_SUPPORT||"undefined"==typeof console||"function"!=typeof console.error||console.error("This browser lacks typed array (Uint8Array) support which is required by `buffer` v5.x. Use `buffer` v4.x if you require old browser support."),Object.defineProperty(o.prototype,"parent",{enumerable:!0,get:function(){if(o.isBuffer(this))return this.buffer}}),Object.defineProperty(o.prototype,"offset",{enumerable:!0,get:function(){if(o.isBuffer(this))return this.byteOffset}}),"undefined"!=typeof Symbol&&null!=Symbol.species&&o[Symbol.species]===o&&Object.defineProperty(o,Symbol.species,{value:null,configurable:!0,enumerable:!1,writable:!1}),o.poolSize=8192,o.from=function(t,e,r){return s(t,e,r)},o.prototype.__proto__=Uint8Array.prototype,o.__proto__=Uint8Array,o.alloc=function(t,e,r){return function(t,e,r){return l(t),t<=0?a(t):void 0!==e?"string"==typeof r?a(t).fill(e,r):a(t).fill(e):a(t)}(t,e,r)},o.allocUnsafe=function(t){return c(t)},o.allocUnsafeSlow=function(t){return c(t)},o.isBuffer=function(t){return null!=t&&!0===t._isBuffer&&t!==o.prototype},o.compare=function(t,e){if(N(t,Uint8Array)&&(t=o.from(t,t.offset,t.byteLength)),N(e,Uint8Array)&&(e=o.from(e,e.offset,e.byteLength)),!o.isBuffer(t)||!o.isBuffer(e))throw new TypeError('The "buf1", "buf2" arguments must be one of type Buffer or Uint8Array');if(t===e)return 0;for(var r=t.length,n=e.length,i=0,a=Math.min(r,n);i<a;++i)if(t[i]!==e[i]){r=t[i],n=e[i];break}return r<n?-1:n<r?1:0},o.isEncoding=function(t){switch(String(t).toLowerCase()){case"hex":case"utf8":case"utf-8":case"ascii":case"latin1":case"binary":case"base64":case"ucs2":case"ucs-2":case"utf16le":case"utf-16le":return!0;default:return!1}},o.concat=function(t,e){if(!Array.isArray(t))throw new TypeError('"list" argument must be an Array of Buffers');if(0===t.length)return o.alloc(0);var r;if(void 0===e)for(e=0,r=0;r<t.length;++r)e+=t[r].length;var n=o.allocUnsafe(e),i=0;for(r=0;r<t.length;++r){var a=t[r];if(N(a,Uint8Array)&&(a=o.from(a)),!o.isBuffer(a))throw new TypeError('"list" argument must be an Array of Buffers');a.copy(n,i),i+=a.length}return n},o.byteLength=h,o.prototype._isBuffer=!0,o.prototype.swap16=function(){var t=this.length;if(t%2!=0)throw new RangeError("Buffer size must be a multiple of 16-bits");for(var e=0;e<t;e+=2)d(this,e,e+1);return this},o.prototype.swap32=function(){var t=this.length;if(t%4!=0)throw new RangeError("Buffer size must be a multiple of 32-bits");for(var e=0;e<t;e+=4)d(this,e,e+3),d(this,e+1,e+2);return this},o.prototype.swap64=function(){var t=this.length;if(t%8!=0)throw new RangeError("Buffer size must be a multiple of 64-bits");for(var e=0;e<t;e+=8)d(this,e,e+7),d(this,e+1,e+6),d(this,e+2,e+5),d(this,e+3,e+4);return this},o.prototype.toString=function(){var t=this.length;return 0===t?"":0===arguments.length?k(this,0,t):p.apply(this,arguments)},o.prototype.toLocaleString=o.prototype.toString,o.prototype.equals=function(t){if(!o.isBuffer(t))throw new TypeError("Argument must be a Buffer");return this===t||0===o.compare(this,t)},o.prototype.inspect=function(){var t="",e=r.INSPECT_MAX_BYTES;return t=this.toString("hex",0,e).replace(/(.{2})/g,"$1 ").trim(),this.length>e&&(t+=" ... "),"<Buffer "+t+">"},o.prototype.compare=function(t,e,r,n,i){if(N(t,Uint8Array)&&(t=o.from(t,t.offset,t.byteLength)),!o.isBuffer(t))throw new TypeError('The "target" argument must be one of type Buffer or Uint8Array. Received type '+typeof t);if(void 0===e&&(e=0),void 0===r&&(r=t?t.length:0),void 0===n&&(n=0),void 0===i&&(i=this.length),e<0||r>t.length||n<0||i>this.length)throw new RangeError("out of range index");if(n>=i&&e>=r)return 0;if(n>=i)return-1;if(e>=r)return 1;if(this===t)return 0;for(var a=(i>>>=0)-(n>>>=0),s=(r>>>=0)-(e>>>=0),l=Math.min(a,s),c=this.slice(n,i),u=t.slice(e,r),f=0;f<l;++f)if(c[f]!==u[f]){a=c[f],s=u[f];break}return a<s?-1:s<a?1:0},o.prototype.includes=function(t,e,r){return-1!==this.indexOf(t,e,r)},o.prototype.indexOf=function(t,e,r){return g(this,t,e,r,!0)},o.prototype.lastIndexOf=function(t,e,r){return g(this,t,e,r,!1)},o.prototype.write=function(t,e,r,n){if(void 0===e)n="utf8",r=this.length,e=0;else if(void 0===r&&"string"==typeof e)n=e,r=this.length,e=0;else{if(!isFinite(e))throw new Error("Buffer.write(string, encoding, offset[, length]) is no longer supported");e>>>=0,isFinite(r)?(r>>>=0,void

0===n&&(n="utf8")):(n=r,r=void 0)}var i=this.length-e;if((void
0===r||r>i)&&(r=i),t.length>0&&(r<0||e<0)||e>this.length)throw new RangeError("Attempt to write outside buffer
bounds");n||(n="utf8");for(var a=!1;;)switch(n){case"hex":return m(this,t,e,r);case"utf8":case"utf-8":return
y(this,t,e,r);case"ascii":return x(this,t,e,r);case"latin1":case"binary":return b(this,t,e,r);case"base64":return
_(this,t,e,r);case"ucs2":case"ucs-2":case"utf16le":case"utf-16le":return w(this,t,e,r);default:if(a)throw new
TypeError("Unknown encoding:
"+n);n=(""+n).toLowerCase(),a=!0}},o.prototype.toJSON=function(){return{type:"Buffer",data:Array.prototype.sli
ce.call(this._arr||this,0)}};var A=4096;function M(t,e,r){var n="";r=Math.min(t.length,r);for(var
i=e;i<r;++i)n+=String.fromCharCode(127&t[i]);return n}function S(t,e,r){var n="";r=Math.min(t.length,r);for(var
i=e;i<r;++i)n+=String.fromCharCode(t[i]);return n}function E(t,e,r){var
n,i=t.length;(!e||e<0)&&(e=0),(!r||r<0||r>i)&&(r=i);for(var
a="",o=e;o<r;++o)a+=(n=t[o])<16?"0"+n.toString(16):n.toString(16);return a}function L(t,e,r){for(var
n=t.slice(e,r),i="",a=0;a<n.length;a+=2)i+=String.fromCharCode(n[a]+256*n[a+1]);return i}function
C(t,e,r){if(t%1!=0||t<0)throw new RangeError("offset is not uint");if(t+e>r)throw new RangeError("Trying to access
beyond buffer length")}function P(t,e,r,n,i,a){if(!o.isBuffer(t))throw new TypeError('"buffer" argument must be a
Buffer instance');if(e>i||e<a)throw new RangeError('"value" argument is out of bounds');if(r+n>t.length)throw new
RangeError("Index out of range")}function I(t,e,r,n,i,a){if(r+n>t.length)throw new RangeError("Index out of
range");if(r<0)throw new RangeError("Index out of range")}function O(t,e,r,i,a){return
e=+e,r>>>=0,a||I(t,0,r,4),n.write(t,e,r,i,23,4),r+4}function z(t,e,r,i,a){return
e=+e,r>>>=0,a||I(t,0,r,8),n.write(t,e,r,i,52,8),r+8}o.prototype.slice=function(t,e){var
r=this.length;(t=~~t)<0?(t+=r)<0&&(t=0):t>r&&(t=r),(e=void
0===e?r:~~e)<0?(e+=r)<0&&(e=0):e>r&&(e=r),e<t&&(e=t);var n=this.subarray(t,e);return
n.__proto__=o.prototype,n},o.prototype.readUIntLE=function(t,e,r){t>>>=0,e>>>=0,r||C(t,e,this.length);for(var
n=this[t],i=1,a=0;++a<e&&(i*=256);)n+=this[t+a]*i;return
n},o.prototype.readUIntBE=function(t,e,r){t>>>=0,e>>>=0,r||C(t,e,this.length);for(var n=this[t+--
e],i=1;e>0&&(i*=256);)n+=this[t+--e]*i;return n},o.prototype.readUInt8=function(t,e){return
t>>>=0,e||C(t,1,this.length),this[t]},o.prototype.readUInt16LE=function(t,e){return
t>>>=0,e||C(t,2,this.length),this[t]|this[t+1]<<8},o.prototype.readUInt16BE=function(t,e){return
t>>>=0,e||C(t,2,this.length),this[t]<<8|this[t+1]},o.prototype.readUInt32LE=function(t,e){return
t>>>=0,e||C(t,4,this.length),(this[t]|this[t+1]<<8|this[t+2]<<16)+16777216*this[t+3]},o.prototype.readUInt32BE=fu
nction(t,e){return
t>>>=0,e||C(t,4,this.length),16777216*this[t]+(this[t+1]<<16|this[t+2]<<8|this[t+3])},o.prototype.readIntLE=functi
on(t,e,r){t>>>=0,e>>>=0,r||C(t,e,this.length);for(var n=this[t],i=1,a=0;++a<e&&(i*=256);)n+=this[t+a]*i;return
n>=(i*=128)&&(n-
=Math.pow(2,8*e)),n},o.prototype.readIntBE=function(t,e,r){t>>>=0,e>>>=0,r||C(t,e,this.length);for(var
n=e,i=1,a=this[t+--n];n>0&&(i*=256);)a+=this[t+--n]*i;return a>=(i*=128)&&(a-
=Math.pow(2,8*e)),a},o.prototype.readInt8=function(t,e){return t>>>=0,e||C(t,1,this.length),128&this[t]?-1*(255-
this[t]+1):this[t]},o.prototype.readInt16LE=function(t,e){t>>>=0,e||C(t,2,this.length);var
r=this[t]|this[t+1]<<8;return
32768&r?4294901760|r:r},o.prototype.readInt16BE=function(t,e){t>>>=0,e||C(t,2,this.length);var
r=this[t+1]|this[t]<<8;return 32768&r?4294901760|r:r},o.prototype.readInt32LE=function(t,e){return
t>>>=0,e||C(t,4,this.length),this[t]|this[t+1]<<8|this[t+2]<<16|this[t+3]<<24},o.prototype.readInt32BE=function(t,e)
{return
t>>>=0,e||C(t,4,this.length),this[t]<<24|this[t+1]<<16|this[t+2]<<8|this[t+3]},o.prototype.readFloatLE=function(t,e)
{return t>>>=0,e||C(t,4,this.length),n.read(this,t,!0,23,4)},o.prototype.readFloatBE=function(t,e){return
t>>>=0,e||C(t,4,this.length),n.read(this,t,!1,23,4)},o.prototype.readDoubleLE=function(t,e){return
t>>>=0,e||C(t,8,this.length),n.read(this,t,!0,52,8)},o.prototype.readDoubleBE=function(t,e){return
t>>>=0,e||C(t,8,this.length),n.read(this,t,!1,52,8)},o.prototype.writeUIntLE=function(t,e,r,n){t=+t,e>>>=0,r>>>=0,n

||P(this,t,e,r,Math.pow(2,8*r)-1,0);var i=1,a=0;for(this[e]=255&t;++a<r&&(i*=256);)this[e+a]=t/i&255;return e+r},o.prototype.writeUIntBE=function(t,e,r,n){t=+t,e>>>=0,r>>>=0,n||P(this,t,e,r,Math.pow(2,8*r)-1,0);var i=r-1,a=1;for(this[e+i]=255&t;--i>=0&&(a*=256);)this[e+i]=t/a&255;return e+r},o.prototype.writeUInt8=function(t,e,r){return t=+t,e>>>=0,r||P(this,t,e,1,255,0),this[e]=255&t,e+1},o.prototype.writeUInt16LE=function(t,e,r){return t=+t,e>>>=0,r||P(this,t,e,2,65535,0),this[e]=255&t,this[e+1]=t>>>8,e+2},o.prototype.writeUInt16BE=function(t,e,r){return t=+t,e>>>=0,r||P(this,t,e,2,65535,0),this[e]=t>>>8,this[e+1]=255&t,e+2},o.prototype.writeUInt32LE=function(t,e,r){return t=+t,e>>>=0,r||P(this,t,e,4,4294967295,0),this[e+3]=t>>>24,this[e+2]=t>>>16,this[e+1]=t>>>8,this[e]=255&t,e+4},o.prototype.writeUInt32BE=function(t,e,r){return t=+t,e>>>=0,r||P(this,t,e,4,4294967295,0),this[e]=t>>>24,this[e+1]=t>>>16,this[e+2]=t>>>8,this[e+3]=255&t,e+4},o.prototype.writeIntLE=function(t,e,r,n){if(t=+t,e>>>=0,!n){var i=Math.pow(2,8*r-1);P(this,t,e,r,i-1,-i)}var a=0,o=1,s=0;for(this[e]=255&t;++a<r&&(o*=256);)t<0&&0===s&&0!==this[e+a-1]&&(s=1),this[e+a]=(t/o>>0)-s&255;return e+r},o.prototype.writeIntBE=function(t,e,r,n){if(t=+t,e>>>=0,!n){var i=Math.pow(2,8*r-1);P(this,t,e,r,i-1,-i)}var a=r-1,o=1,s=0;for(this[e+a]=255&t;--a>=0&&(o*=256);)t<0&&0===s&&0!==this[e+a+1]&&(s=1),this[e+a]=(t/o>>0)-s&255;return e+r},o.prototype.writeInt8=function(t,e,r){return t=+t,e>>>=0,r||P(this,t,e,1,127,-128),t<0&&(t=255+t+1),this[e]=255&t,e+1},o.prototype.writeInt16LE=function(t,e,r){return t=+t,e>>>=0,r||P(this,t,e,2,32767,-32768),this[e]=255&t,this[e+1]=t>>>8,e+2},o.prototype.writeInt16BE=function(t,e,r){return t=+t,e>>>=0,r||P(this,t,e,2,32767,-32768),this[e]=t>>>8,this[e+1]=255&t,e+2},o.prototype.writeInt32LE=function(t,e,r){return t=+t,e>>>=0,r||P(this,t,e,4,2147483647,-2147483648),this[e]=255&t,this[e+1]=t>>>8,this[e+2]=t>>>16,this[e+3]=t>>>24,e+4},o.prototype.writeInt32BE=function(t,e,r){return t=+t,e>>>=0,r||P(this,t,e,4,2147483647,-2147483648),t<0&&(t=4294967295+t+1),this[e]=t>>>24,this[e+1]=t>>>16,this[e+2]=t>>>8,this[e+3]=255&t,e+4},o.prototype.writeFloatLE=function(t,e,r){return O(this,t,e,!0,r)},o.prototype.writeFloatBE=function(t,e,r){return O(this,t,e,!1,r)},o.prototype.writeDoubleLE=function(t,e,r){return z(this,t,e,!0,r)},o.prototype.writeDoubleBE=function(t,e,r){return z(this,t,e,!1,r)},o.prototype.copy=function(t,e,r,n){if(!o.isBuffer(t))throw new TypeError("argument should be a Buffer");if(r||(r=0),n||0===n||(n=this.length),e>=t.length&&(e=t.length),e||(e=0),n>0&&n<r&&(n=r),n===r)return 0;if(0===t.length||0===this.length)return 0;if(e<0)throw new RangeError("targetStart out of bounds");if(r<0||r>=this.length)throw new RangeError("Index out of range");if(n<0)throw new RangeError("sourceEnd out of bounds");n>this.length&&(n=this.length),t.length-e<n-r&&(n=t.length-e+r);var i=n-r;if(this===t&&"function"==typeof Uint8Array.prototype.copyWithin)this.copyWithin(e,r,n);else if(this===t&&r<e&&e<n)for(var a=i-1;a>=0;--a)t[a+e]=this[a+r];else Uint8Array.prototype.set.call(t,this.subarray(r,n),e);return i},o.prototype.fill=function(t,e,r,n){if("string"==typeof t){if("string"==typeof e?(n=e,e=0,r=this.length):"string"==typeof r&&(n=r,r=this.length),void 0!==n&&"string"!=typeof n)throw new TypeError("encoding must be a string");if("string"==typeof n&&!o.isEncoding(n))throw new TypeError("Unknown encoding: "+n);if(1===t.length){var i=t.charCodeAt(0);("utf8"===n&&i<128||"latin1"===n)&&(t=i)}}else"number"==typeof t&&(t&=255);if(e<0||this.length<e||this.length<r)throw new RangeError("Out of range index");if(r<=e)return this;var a;if(e>>>=0,r=void 0===r?this.length:r>>>0,t||(t=0),"number"==typeof t)for(a=e;a<r;++a)this[a]=t;else{var s=o.isBuffer(t)?t:o.from(t,n),l=s.length;if(0===l)throw new TypeError('The value "'+t+'" is invalid for argument "value"');for(a=0;a<r-e;++a)this[a+e]=s[a%l]}return this};var D=/[^+/0-9A-Za-z-_]/g;function R(t,e){var r;e=e||1/0;for(var n=t.length,i=null,a=[],o=0;o<n;++o){if((r=t.charCodeAt(o))>55295&&r<57344){if(!i){if(r>56319){(e-=3)>-

1&&a.push(239,191,189);continue}if(o+1===n){(e-=3)>-
1&&a.push(239,191,189);continue}i=r;continue}if(r<56320){(e-=3)>-
1&&a.push(239,191,189),i=r;continue}r=65536+(i-55296<<10|r-56320)}else i&&(e-=3)>-
1&&a.push(239,191,189);if(i=null,r<128){if((e-=1)<0)break;a.push(r)}else if(r<2048){if((e-
=2)<0)break;a.push(r>>6|192,63&r|128)}else if(r<65536){if((e-
=3)<0)break;a.push(r>>12|224,r>>6&63|128,63&r|128)}else{if(!(r<1114112))throw new Error("Invalid code
point");if((e-=4)<0)break;a.push(r>>18|240,r>>12&63|128,r>>6&63|128,63&r|128)}}return a}function F(t){return
e.toByteArray(function(t){if((t=(t=t.split("=")[0]).trim().replace(D,"")).length<2)return"";for(;t.length%4!=0;)t+="=
";return t}(t))}function B(t,e,r,n){for(var i=0;i<n&&!(i+r>=e.length||i>=t.length);++i)e[i+r]=t[i];return i}function
N(t,e){return t instanceof
e||null!=t&&null!=t.constructor&&null!=t.constructor.name&&t.constructor.name===e.name}function j(t){return
t!=t}}).call(this)}).call(this,t("buffer").Buffer)},{"base64-
js":1,buffer:3,ieee754:4}],4:[function(t,e,r){r.read=function(t,e,r,n,i){var a,o,s=8*i-n-1,l=(1<<s)-1,c=l>>1,u=-
7,f=r?i-1:0,h=r?-1:1,p=t[e+f];for(f+=h,a=p&(1<<-u)-1,p>>=-u,u+=s;u>0;a=256*a+t[e+f],f+=h,u-
=8);for(o=a&(1<<-u)-1,a>>=-u,u+=n;u>0;o=256*o+t[e+f],f+=h,u-=8);if(0===a)a=1-c;else{if(a===l)return
o?NaN:1/0*(p?-1:1);o+=Math.pow(2,n),a-=c}return(p?-1:1)*o*Math.pow(2,a-n)},r.write=function(t,e,r,n,i,a){var
o,s,l,c=8*a-i-1,u=(1<<c)-1,f=u>>1,h=23===i?Math.pow(2,-24)-Math.pow(2,-77):0,p=n?0:a-1,d=n?1:-
1,g=e<0||0===e&&1/e<0?1:0;for(e=Math.abs(e),isNaN(e)||e===1/0?(s=isNaN(e)?1:0,o=u):(o=Math.floor(Math.log(
e)/Math.LN2),e*(l=Math.pow(2,-o))<1&&(o--,l*=2),(e+=o+f>=1?h/l:h*Math.pow(2,1-
f))*l>=2&&(o++,l/=2),o+f>=u?(s=0,o=u):o+f>=1?(s=(e*l-1)*Math.pow(2,i),o+=f):(s=e*Math.pow(2,f-
1)*Math.pow(2,i),o=0));i>=8;t[r+p]=255&s,p+=d,s/=256,i-
=8);for(o=o<<i|s,c+=i;c>0;t[r+p]=255&o,p+=d,o/=256,c-=8);t[r+p-d]|=128*g}},{}],5:[function(t,e,r){var
n,i,a=e.exports={};function o(){throw new Error("setTimeout has not been defined")}function s(){throw new
Error("clearTimeout has not been defined")}function l(t){if(n===setTimeout)return
setTimeout(t,0);if((n===o||!n)&&setTimeout)return n=setTimeout,setTimeout(t,0);try{return
n(t,0)}catch(e){try{return n.call(null,t,0)}catch(e){return n.call(this,t,0)}}}!function(){try{n="function"==typeof
setTimeout?setTimeout:o}catch(t){n=o}try{i="function"==typeof
clearTimeout?clearTimeout:s}catch(t){i=s}}();var c,u=[],f=!1,h=-1;function
p(){f&&c&&(f=!1,c.length?u=c.concat(u):h=-1,u.length&&d())}function d(){if(!f){var t=l(p);f=!0;for(var
e=u.length;e;){for(c=u,u=[];++h<e;)c&&c[h].run();h=-
1,e=u.length}c=null,f=!1,function(t){if(i===clearTimeout)return
clearTimeout(t);if((i===s||!i)&&clearTimeout)return i=clearTimeout,clearTimeout(t);try{i(t)}catch(e){try{return
i.call(null,t)}catch(e){return i.call(this,t)}}}(t)}}function g(t,e){this.fun=t,this.array=e}function
v(){}a.nextTick=function(t){var e=new Array(arguments.length-1);if(arguments.length>1)for(var
r=1;r<arguments.length;r++)e[r-1]=arguments[r];u.push(new
g(t,e)),1!==u.length||f||l(d)},g.prototype.run=function(){this.fun.apply(null,this.array)},a.title="browser",a.browser=
!0,a.env={},a.argv=[],a.version="",a.versions={},a.on=v,a.addListener=v,a.once=v,a.off=v,a.removeListener=v,a.re
moveAllListeners=v,a.emit=v,a.prependListener=v,a.prependOnceListener=v,a.listeners=function(t){return[]},a.bin
ding=function(t){throw new Error("process.binding is not
supported")},a.cwd=function(){return"/"},a.chdir=function(t){throw new Error("process.chdir is not
supported")},a.umask=function(){return 0}},{}],6:[function(t,e,r){e.exports={alpha_shape:t("alpha-
shape"),convex_hull:t("convex-hull"),delaunay_triangulate:t("delaunay-triangulate"),gl_cone3d:t("gl-
cone3d"),gl_error3d:t("gl-error3d"),gl_heatmap2d:t("gl-heatmap2d"),gl_line3d:t("gl-line3d"),gl_mesh3d:t("gl-
mesh3d"),gl_plot2d:t("gl-plot2d"),gl_plot3d:t("gl-plot3d"),gl_pointcloud2d:t("gl-pointcloud2d"),gl_scatter3d:t("gl-
scatter3d"),gl_select_box:t("gl-select-box"),gl_spikes2d:t("gl-spikes2d"),gl_streamtube3d:t("gl-
streamtube3d"),gl_surface3d:t("gl-surface3d"),ndarray:t("ndarray"),ndarray_linear_interpolate:t("ndarray-linear-
interpolate")}},{"alpha-shape":12,"convex-hull":58,"delaunay-triangulate":63,"gl-cone3d":79,"gl-error3d":84,"gl-
heatmap2d":88,"gl-line3d":91,"gl-mesh3d":112,"gl-plot2d":118,"gl-plot3d":121,"gl-pointcloud2d":123,"gl-

scatter3d":128,"gl-select-box":130,"gl-spikes2d":139,"gl-streamtube3d":143,"gl-surface3d":145,ndarray:259,"ndarray-linear-interpolate":253}],7:[function(t,e,r){"use strict";e.exports=function(t){var e=(t=t||{}).eye||[0,0,1],r=t.center||[0,0,0],s=t.up||[0,1,0],l=t.distanceLimits||[0,1/0],c=t.mode||"turntable",u=n(),f=i(),h=a();return u.setDistanceLimits(l[0],l[1]),u.lookAt(0,e,r,s),f.setDistanceLimits(l[0],l[1]),f.lookAt(0,e,r,s),h.setDistanceLimits(l[0],l[1]),h.lookAt(0,e,r,s),new o({turntable:u,orbit:f,matrix:h},c)};var n=t("turntable-camera-controller"),i=t("orbit-camera-controller"),a=t("matrix-camera-controller");function o(t,e){this._controllerNames=Object.keys(t),this._controllerList=this._controllerNames.map((function(e){return t[e]})),this._mode=e,this._active=t[e],this._active||(this._mode="turntable",this._active=t.turntable),this.modes=this._controllerNames,this.computedMatrix=this._active.computedMatrix,this.computedEye=this._active.computedEye,this.computedUp=this._active.computedUp,this.computedCenter=this._active.computedCenter,this.computedRadius=this._active.computedRadius}var s=o.prototype;s.flush=function(t){for(var e=this._controllerList,r=0;r<e.length;++r)e[r].flush(t)},s.idle=function(t){for(var e=this._controllerList,r=0;r<e.length;++r)e[r].idle(t)},s.lookAt=function(t,e,r,n){for(var i=this._controllerList,a=0;a<i.length;++a)i[a].lookAt(t,e,r,n)},s.rotate=function(t,e,r,n){for(var i=this._controllerList,a=0;a<i.length;++a)i[a].rotate(t,e,r,n)},s.pan=function(t,e,r,n){for(var i=this._controllerList,a=0;a<i.length;++a)i[a].pan(t,e,r,n)},s.translate=function(t,e,r,n){for(var i=this._controllerList,a=0;a<i.length;++a)i[a].translate(t,e,r,n)},s.setMatrix=function(t,e){for(var r=this._controllerList,n=0;n<r.length;++n)r[n].setMatrix(t,e)},s.setDistanceLimits=function(t,e){for(var r=this._controllerList,n=0;n<r.length;++n)r[n].setDistanceLimits(t,e)},s.setDistance=function(t,e){for(var r=this._controllerList,n=0;n<r.length;++n)r[n].setDistance(t,e)},s.recalcMatrix=function(t){this._active.recalcMatrix(t)},s.getDistance=function(t){return this._active.getDistance(t)},s.getDistanceLimits=function(t){return this._active.getDistanceLimits(t)},s.lastT=function(){return this._active.lastT()},s.setMode=function(t){if(t!==this._mode){var e=this._controllerNames.indexOf(t);if(!(e<0)){var r=this._active,n=this._controllerList[e],i=Math.max(r.lastT(),n.lastT());r.recalcMatrix(i),n.setMatrix(i,r.computedMatrix),this._active=n,this._mode=t,this.computedMatrix=this._active.computedMatrix,this.computedEye=this._active.computedEye,this.computedUp=this._active.computedUp,this.computedCenter=this._active.computedCenter,this.computedRadius=this._active.computedRadius}}},s.getMode=function(){return this._mode}},{"matrix-camera-controller":245,"orbit-camera-controller":263,"turntable-camera-controller":305}],8:[function(t,e,r){"use strict";var n="undefined"==typeof WeakMap?t("weak-map"):WeakMap,i=t("gl-buffer"),a=t("gl-vao"),o=new n;e.exports=function(t){var e=o.get(t),r=e&&(e._triangleBuffer.handle||e._triangleBuffer.buffer);if(!r||!t.isBuffer(r)){var n=i(t,new Float32Array([-1,-1,-1,4,4,-1]));(e=a(t,[{buffer:n,type:t.FLOAT,size:2}]))._triangleBuffer=n,o.set(t,e)}e.bind(),t.drawArrays(t.TRIANGLES,0,3),e.unbind()}},{"gl-buffer":78,"gl-vao":150,"weak-map":313}],9:[function(t,e,r){var n=t("pad-left");e.exports=function(t,e,r){e="number"==typeof e?e:1,r=r||": ";var i=t.split(/\r?\n/),a=String(i.length+e-1).length;return i.map((function(t,i){var o=i+e,s=String(o).length;return n(o,a-s)+r+t})).join("\n")}},{"pad-left":264}],10:[function(t,e,r){"use strict";e.exports=function(t){var e=t.length;if(0===e)return[];if(1===e)return[0];for(var r=t[0].length,n=[t[0]],a=[0],o=1;o<e;++o)if(n.push(t[o]),i(n,r)){if(a.push(o),a.length===r+1)return a}else n.pop();return a};var n=t("robust-orientation");function i(t,e){for(var r=new Array(e+1),i=0;i<t.length;++i)r[i]=t[i];for(i=0;i<=t.length;++i){for(var a=t.length;a<=e;++a){for(var o=new Array(e),s=0;s<e;++s)o[s]=Math.pow(a+1-i,s);r[a]=o}if(n.apply(void 0,r))return!0}return!1}},{"robust-orientation":284}],11:[function(t,e,r){"use strict";e.exports=function(t,e){return n(e).filter((function(r){for(var n=new Array(r.length),a=0;a<r.length;++a)n[a]=e[r[a]];return i(n)*t<1}))};var n=t("delaunay-triangulate"),i=t("circumradius")},{circumradius:49,"delaunay-

triangulate":63}],12:[function(t,e,r){e.exports=function(t,e){return i(n(t,e))};var n=t("alpha-complex"),i=t("simplicial-complex-boundary")},{"alpha-complex":11,"simplicial-complex-boundary":290}],13:[function(t,e,r){e.exports=function(t){return atob(t)}},{}],14:[function(t,e,r){"use strict";e.exports=function(t,e){for(var r=e.length,a=new Array(r+1),o=0;o<r;++o){for(var s=new Array(r+1),l=0;l<=r;++l)s[l]=t[l][o];a[o]=s}for(a[r]=new Array(r+1),o=0;o<=r;++o)a[r][o]=1;var c=new Array(r+1);for(o=0;o<r;++o)c[o]=e[o];c[r]=1;var u=n(a,c),f=i(u[r+1]);0===f&&(f=1);var h=new Array(r+1);for(o=0;o<=r;++o)h[o]=i(u[o])/f;return h};var n=t("robust-linear-solve");function i(t){for(var e=0,r=0;r<t.length;++r)e+=t[r];return e}},{"robust-linear-solve":283}],15:[function(t,e,r){"use strict";var n=t("./lib/rationalize");e.exports=function(t,e){return n(t[0].mul(e[1]).add(e[0].mul(t[1])),t[1].mul(e[1]))}},{"./lib/rationalize":25}],16:[function(t,e,r){"use strict";e.exports=function(t,e){return t[0].mul(e[1]).cmp(e[0].mul(t[1]))}},{}],17:[function(t,e,r){"use strict";var n=t("./lib/rationalize");e.exports=function(t,e){return n(t[0].mul(e[1]),t[1].mul(e[0]))}},{"./lib/rationalize":25}],18:[function(t,e,r){"use strict";var n=t("./is-rat"),i=t("./lib/is-bn"),a=t("./lib/num-to-bn"),o=t("./lib/str-to-bn"),s=t("./lib/rationalize"),l=t("./div");e.exports=function t(e,r){if(n(e))return r?l(e,t(r)):[e[0].clone(),e[1].clone()];var c,u,f=0;if(i(e))c=e.clone();else if("string"==typeof e)c=o(e);else{if(0===e)return[a(0),a(1)];if(e===Math.floor(e))c=a(e);else{for(;e!==Math.floor(e);)e*=Math.pow(2,256),f-=256;c=a(e)}if(n(r))c.mul(r[1]),u=r[0].clone();else if(i(r))u=r.clone();else if("string"==typeof r)u=o(r);else if(r)if(r===Math.floor(r))u=a(r);else{for(;r!==Math.floor(r);)r*=Math.pow(2,256),f+=256;u=a(r)}else u=a(1);return f>0?c=c.ushln(f):f<0&&(u=u.ushln(-f)),s(c,u)}},{"./div":17,"./is-rat":19,"./lib/is-bn":23,"./lib/num-to-bn":24,"./lib/rationalize":25,"./lib/str-to-bn":26}],19:[function(t,e,r){"use strict";var n=t("./lib/is-bn");e.exports=function(t){return Array.isArray(t)&&2===t.length&&n(t[0])&&n(t[1])}},{"./lib/is-bn":23}],20:[function(t,e,r){"use strict";var n=t("bn.js");e.exports=function(t){return t.cmp(new n(0))}},{"bn.js":33}],21:[function(t,e,r){"use strict";var n=t("./bn-sign");e.exports=function(t){var e=t.length,r=t.words,i=0;if(1===e)i=r[0];else if(2===e)i=r[0]+67108864*r[1];else for(var a=0;a<e;a++)i+=r[a]*Math.pow(67108864,a);return n(t)*i}},{"./bn-sign":20}],22:[function(t,e,r){"use strict";var n=t("double-bits"),i=t("bit-twiddle").countTrailingZeros;e.exports=function(t){var e=i(n.lo(t));if(e<32)return e;var r=i(n.hi(t));return r>20?52:r+32}},{"bit-twiddle":32,"double-bits":64}],23:[function(t,e,r){"use strict";t("bn.js"),e.exports=function(t){return t&&"object"==typeof t&&Boolean(t.words)}},{"bn.js":33}],24:[function(t,e,r){"use strict";var n=t("bn.js"),i=t("double-bits");e.exports=function(t){var e=i.exponent(t);return e<52?new n(t):new n(t*Math.pow(2,52-e)).ushln(e-52)}},{"bn.js":33,"double-bits":64}],25:[function(t,e,r){"use strict";var n=t("./num-to-bn"),i=t("./bn-sign");e.exports=function(t,e){var r=i(t),a=i(e);if(0===r)return[n(0),n(1)];if(0===a)return[n(0),n(0)];a<0&&(t=t.neg(),e=e.neg());var o=t.gcd(e);return o.cmpn(1)?[t.div(o),e.div(o)]:[t,e]}},{"./bn-sign":20,"./num-to-bn":24}],26:[function(t,e,r){"use strict";var n=t("bn.js");e.exports=function(t){return new n(t)}},{"bn.js":33}],27:[function(t,e,r){"use strict";var n=t("./lib/rationalize");e.exports=function(t,e){return n(t[0].mul(e[0]),t[1].mul(e[1]))}},{"./lib/rationalize":25}],28:[function(t,e,r){"use strict";var n=t("./lib/bn-sign");e.exports=function(t){return n(t[0])*n(t[1])}},{"./lib/bn-sign":20}],29:[function(t,e,r){"use strict";var n=t("./lib/rationalize");e.exports=function(t,e){return n(t[0].mul(e[1]).sub(t[1].mul(e[0])),t[1].mul(e[1]))}},{"./lib/rationalize":25}],30:[function(t,e,r){"use strict";var n=t("./lib/bn-to-num"),i=t("./lib/ctz");e.exports=function(t){var e=t[0],r=t[1];if(0===e.cmpn(0))return 0;var a=e.abs().divmod(r.abs()),o=a.div,s=n(o),l=a.mod,c=e.negative!==r.negative?-1:1;if(0===l.cmpn(0))return c*s;if(s){var u=i(s)+4;return c*(s+(h=n(l.ushln(u).divRound(r)))*Math.pow(2,-u))}var f=r.bitLength()-l.bitLength()+53,h=n(l.ushln(f).divRound(r));return f<1023?c*h*Math.pow(2,-f):c*(h*=Math.pow(2,-1023))*Math.pow(2,1023-f)}},{"./lib/bn-to-num":21,"./lib/ctz":22}],31:[function(t,e,r){"use strict";function n(t,e,r,n,i){for(var a=i+1;n<=i;){var o=n+i>>>1,s=t[o];(void 0!==r?r(s,e):s-e)>=0?(a=o,i=o-1):n=o+1}return a}function i(t,e,r,n,i){for(var a=i+1;n<=i;){var o=n+i>>>1,s=t[o];(void 0!==r?r(s,e):s-e)>0?(a=o,i=o-

1):n=o+1}return a}function a(t,e,r,n,i){for(var a=n-1;n<=i;){var o=n+i>>>1,s=t[o];(void 0!==r?r(s,e):s-e)<0?(a=o,n=o+1):i=o-1}return a}function o(t,e,r,n,i){for(var a=n-1;n<=i;){var o=n+i>>>1,s=t[o];(void 0!==r?r(s,e):s-e)<=0?(a=o,n=o+1):i=o-1}return a}function s(t,e,r,n,i){for(;n<=i;){var a=n+i>>>1,o=t[a],s=void 0!==r?r(o,e):o-e;if(0===s)return a;s<=0?n=a+1:i=a-1}return-1}function l(t,e,r,n,i,a){return"function"==typeof r?a(t,e,r,void 0===n?0:0|n,void 0===i?t.length-1:0|i):a(t,e,void 0,void 0===r?0:0|r,void 0===n?t.length-1:0|n)}e.exports={ge:function(t,e,r,i,a){return l(t,e,r,i,a,n)},gt:function(t,e,r,n,a){return l(t,e,r,n,a,i)},lt:function(t,e,r,n,i){return l(t,e,r,n,i,a)},le:function(t,e,r,n,i){return l(t,e,r,n,i,o)},eq:function(t,e,r,n,i){return l(t,e,r,n,i,s)}}},{}],32:[function(t,e,r){"use strict";function n(t){var e=32;return(t&=-t)&&e--,65535&t&&(e-=16),16711935&t&&(e-=8),252645135&t&&(e-=4),858993459&t&&(e-=2),1431655765&t&&(e-=1),e}r.INT_BITS=32,r.INT_MAX=2147483647,r.INT_MIN=-1<<31,r.sign=function(t){return(t>0)-(t<0)},r.abs=function(t){var e=t>>31;return(t^e)-e},r.min=function(t,e){return e^(t^e)&-(t<e)},r.max=function(t,e){return t^(t^e)&-(t<e)},r.isPow2=function(t){return!(t&t-1||!t)},r.log2=function(t){var e,r;return e=(t>65535)<<4,e|=r=((t>>>=e)>255)<<3,e|=r=((t>>>=r)>15)<<2,(e|=r=((t>>>=r)>3)<<1)|(t>>>=r)>>1},r.log10=function(t){return t>=1e9?9:t>=1e8?8:t>=1e7?7:t>=1e6?6:t>=1e5?5:t>=1e4?4:t>=1e3?3:t>=100?2:t>=10?1:0},r.popCount=function(t){return 16843009*((t=(858993459&(t-=t>>>1&1431655765))+(t>>>2&858993459))+(t>>>4)&252645135)>>>24},r.countTrailingZeros=n,r.nextPow2=function(t){return t+=0===t,--t,t|=t>>>1,t|=t>>>2,t|=t>>>4,1+((t|=t>>>8)|t>>>16)},r.prevPow2=function(t){return t|=t>>>1,t|=t>>>2,t|=t>>>4,t|=t>>>8,(t|=t>>>16)-(t>>>1)},r.parity=function(t){return t^=t>>>16,t^=t>>>8,t^=t>>>4,27030>>>(t&=15)&1};var i=new Array(256);!function(t){for(var e=0;e<256;++e){var r=e,n=e,i=7;for(r>>>=1;r;r>>>=1)n<<=1,n|=1&r,--i;t[e]=n<<i&255}}(i),r.reverse=function(t){return i[255&t]<<24|i[t>>>8&255]<<16|i[t>>>16&255]<<8|i[t>>>24&255]},r.interleave2=function(t,e){return(t=1431655765&((t=858993459&((t=252645135&((t=16711935&((t&=65535)|t<<8))|t<<4))|t<<2))|t<<1))|(e=1431655765&((e=858993459&((e=252645135&((e=16711935&((e&=65535)|e<<8))|e<<4))|e<<2))|e<<1))<<1},r.deinterleave2=function(t,e){return(t=65535&((t=16711935&((t=252645135&((t=858993459&((t=t>>>e&1431655765)|t>>>1))|t>>>2))|t>>>4))|t>>>16))<<16>>16},r.interleave3=function(t,e,r){return t=1227133513&((t=3272356035&((t=251719695&((t=4278190335&((t&=1023)|t<<16))|t<<8))|t<<4))|t<<2),(t|=(e=1227133513&((e=3272356035&((e=251719695&((e=4278190335&((e&=1023)|e<<16))|e<<8))|e<<4))|e<<2))<<1)|(r=1227133513&((r=3272356035&((r=251719695&((r=4278190335&((r&=1023)|r<<16))|r<<8))|r<<4))|r<<2))<<2},r.deinterleave3=function(t,e){return(t=1023&((t=4278190335&((t=251719695&((t=3272356035&((t=t>>>e&1227133513)|t>>>2))|t>>>4))|t>>>8))|t>>>16))<<22>>22},r.nextCombination=function(t){var e=t|t-1;return e+1|(~e&-~e)-1>>>n(t)+1}},{}],33:[function(t,e,r){!function(e,r){"use strict";function n(t,e){if(!t)throw new Error(e||"Assertion failed")}function i(t,e){t.super_=e;var r=function(){};r.prototype=e.prototype,t.prototype=new r,t.prototype.constructor=t}function a(t,e,r){if(a.isBN(t))return t;this.negative=0,this.words=null,this.length=0,this.red=null,null!==t&&("le"!==e&&"be"!==e||(r=e,e=10),this._init(t||0,e||10,r||"be"))}var o;"object"==typeof e?e.exports=a:r.BN=a,a.BN=a,a.wordSize=26;try{o="undefined"!=typeof window&&void 0!==window.Buffer?window.Buffer:t("buffer").Buffer}catch(t){}function s(t,e){var r=t.charCodeAt(e);return r>=65&&r<=70?r-55:r>=97&&r<=102?r-87:r-48&15}function l(t,e,r){var n=s(t,r);return r-1>=e&&(n|=s(t,r-1)<<4),n}function c(t,e,r,n){for(var i=0,a=Math.min(t.length,r),o=e;o<a;o++){var s=t.charCodeAt(o)-48;i*=n,i+=s>=49?s-49+10:s>=17?s-17+10:s}return i}a.isBN=function(t){return t instanceof a||null!==t&&"object"==typeof t&&t.constructor.wordSize===a.wordSize&&Array.isArray(t.words)},a.max=function(t,e){return t.cmp(e)>0?t:e},a.min=function(t,e){return t.cmp(e)<0?t:e},a.prototype._init=function(t,e,r){if("number"==typeof t)return this._initNumber(t,e,r);if("object"==typeof t)return this._initArray(t,e,r);"hex"===e&&(e=16),n(e===(0|e)&&e>=2&&e<=36);var i=0;"-"===(t=t.toString().replace(/\s+/g,""))[0]&&(i++,this.negative=1),i<t.length&&(16===e?this._parseHex(t,i,r):(this._

parseBase(t,e,i),"le"===r&&this._initArray(this.toArray(),e,r))},a.prototype._initNumber=function(t,e,r){t<0&&(this.negative=1,t=-t),t<67108864?(this.words=[67108863&t],this.length=1):t<4503599627370496?(this.words=[67108863&t,t/67108864&67108863],this.length=2):(n(t<9007199254740992),this.words=[67108863&t,t/67108864&67108863,1],this.length=3),"le"===r&&this._initArray(this.toArray(),e,r)},a.prototype._initArray=function(t,e,r){if(n("number"==typeof t.length),t.length<=0)return this.words=[0],this.length=1,this;this.length=Math.ceil(t.length/3),this.words=new Array(this.length);for(var i=0;i<this.length;i++)this.words[i]=0;var a,o,s=0;if("be"===r)for(i=t.length-1,a=0;i>=0;i-=3)o=t[i]|t[i-1]<<8|t[i-2]<<16,this.words[a]|=o<<s&67108863,this.words[a+1]=o>>>26-s&67108863,(s+=24)>=26&&(s-=26,a++);else if("le"===r)for(i=0,a=0;i<t.length;i+=3)o=t[i]|t[i+1]<<8|t[i+2]<<16,this.words[a]|=o<<s&67108863,this.words[a+1]=o>>>26-s&67108863,(s+=24)>=26&&(s-=26,a++);return this.strip()},a.prototype._parseHex=function(t,e,r){this.length=Math.ceil((t.length-e)/6),this.words=new Array(this.length);for(var n=0;n<this.length;n++)this.words[n]=0;var i,a=0,o=0;if("be"===r)for(n=t.length-1;n>=e;n-=2)i=l(t,e,n)<<a,this.words[o]|=67108863&i,a>=18?(a-=18,o+=1,this.words[o]|=i>>>26):a+=8;else for(n=(t.length-e)%2==0?e+1:e;n<t.length;n+=2)i=l(t,e,n)<<a,this.words[o]|=67108863&i,a>=18?(a-=18,o+=1,this.words[o]|=i>>>26):a+=8;this.strip()},a.prototype._parseBase=function(t,e,r){this.words=[0],this.length=1;for(var n=0,i=1;i<=67108863;i*=e)n++,n--,i=i/e|0;for(var a=t.length-r,o=a%n,s=Math.min(a,a-o)+r,l=0,u=r;u<s;u+=n)l=c(t,u,u+n,e),this.imuln(i),this.words[0]+l<67108864?this.words[0]+=l:this._iaddn(l);if(0!==o){var f=1;for(l=c(t,u,t.length,e),u=0;u<o;u++)f*=e;this.imuln(f),this.words[0]+l<67108864?this.words[0]+=l:this._iaddn(l)}this.strip()},a.prototype.copy=function(t){t.words=new Array(this.length);for(var e=0;e<this.length;e++)t.words[e]=this.words[e];t.length=this.length,t.negative=this.negative,t.red=this.red},a.prototype.clone=function(){var t=new a(null);return this.copy(t),t},a.prototype._expand=function(t){for(;this.length<t;)this.words[this.length++]=0;return this},a.prototype.strip=function(){for(;this.length>1&&0===this.words[this.length-1];)this.length--;return this._normSign()},a.prototype._normSign=function(){return 1===this.length&&0===this.words[0]&&(this.negative=0),this},a.prototype.inspect=function(){return(this.red?"<BN-R: ":"<BN: ")+this.toString(16)+">"};var u=["","0","00","000","0000","00000","000000","0000000","00000000","000000000","0000000000","00000000000","000000000000","0000000000000","00000000000000","000000000000000","0000000000000000","00000000000000000","000000000000000000","0000000000000000000","00000000000000000000","000000000000000000000","0000000000000000000000","00000000000000000000000","000000000000000000000000","0000000000000000000000000"],f=[0,0,25,16,12,11,10,9,8,8,7,7,7,7,6,6,6,6,6,6,6,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5],h=[0,0,33554432,43046721,16777216,48828125,60466176,40353607,16777216,43046721,1e7,19487171,35831808,62748517,7529536,11390625,16777216,24137569,34012224,47045881,64e6,4084101,5153632,6436343,7962624,9765625,11881376,14348907,17210368,20511149,243e5,28629151,33554432,39135393,45435424,52521875,60466176];function p(t,e,r){r.negative=e.negative^t.negative;var n=t.length+e.length|0;r.length=n,n=n-1|0;var i=0|t.words[0],a=0|e.words[0],o=i*a,s=67108863&o,l=o/67108864|0;r.words[0]=s;for(var c=1;c<n;c++){for(var u=l>>>26,f=67108863&l,h=Math.min(c,e.length-1),p=Math.max(0,c-t.length+1);p<=h;p++){var d=c-p|0;u+=(o=(i=0|t.words[d])*(a=0|e.words[p])+f)/67108864|0,f=67108863&o}r.words[c]=0|f,l=0|u}return 0!==l?r.words[c]=0|l:r.length--,r.strip()}a.prototype.toString=function(t,e){var r;if(e=0|e||1,16===(t=t||10)||"hex"===t){r="";for(var i=0,a=0,o=0;o<this.length;o++){var s=this.words[o],l=(16777215&(s<<i|a)).toString(16);r=0!=(a=s>>>24-i&16777215)||o!==this.length-1?u[6-l.length]+l+r:l+r,(i+=2)>=26&&(i-=26,o--)}for(0!==a&&(r=a.toString(16)+r);r.length%e!=0;)r="0"+r;return 0!==this.negative&&(r="-"+r),r}if(t===(0|t)&&t>=2&&t<=36){var c=f[t],p=h[t];r="";var d=this.clone();for(d.negative=0;!d.isZero();){var g=d.modn(p).toString(t);r=(d=d.idivn(p)).isZero()?g+r:u[c-g.length]+g+r}for(this.isZero()&&(r="0"+r);r.length%e!=0;)r="0"+r;return 0!==this.negative&&(r="-"+r),r}n(!1,"Base should be between 2 and 36")},a.prototype.toNumber=function(){var t=this.words[0];return

2===this.length?t+=67108864*this.words[1]:3===this.length&&1===this.words[2]?t+=4503599627370496+67108864*this.words[1]:this.length>2&&n(!1,"Number can only safely store up to 53 bits"),0!==this.negative?-t:t},a.prototype.toJSON=function(){return this.toString(16)},a.prototype.toBuffer=function(t,e){return n(void 0!==o),this.toArrayLike(o,t,e)},a.prototype.toArray=function(t,e){return this.toArrayLike(Array,t,e)},a.prototype.toArrayLike=function(t,e,r){var i=this.byteLength(),a=r||Math.max(1,i);n(i<=a,"byte array longer than desired length"),n(a>0,"Requested array length <= 0"),this.strip();var o,s,l="le"===e,c=new t(a),u=this.clone();if(l){for(s=0;!u.isZero();s++)o=u.andln(255),u.iushrn(8),c[s]=o;for(;s<a;s++)c[s]=0}else{for(s=0;s<a-i;s++)c[s]=0;for(s=0;!u.isZero();s++)o=u.andln(255),u.iushrn(8),c[a-s-1]=o}return c},Math.clz32?a.prototype._countBits=function(t){return 32-Math.clz32(t)}:a.prototype._countBits=function(t){var e=t,r=0;return e>=4096&&(r+=13,e>>>=13),e>=64&&(r+=7,e>>>=7),e>=8&&(r+=4,e>>>=4),e>=2&&(r+=2,e>>>=2),r+e},a.prototype._zeroBits=function(t){if(0===t)return 26;var e=t,r=0;return 0==(8191&e)&&(r+=13,e>>>=13),0==(127&e)&&(r+=7,e>>>=7),0==(15&e)&&(r+=4,e>>>=4),0==(3&e)&&(r+=2,e>>>=2),0==(1&e)&&r++,r},a.prototype.bitLength=function(){var t=this.words[this.length-1],e=this._countBits(t);return 26*(this.length-1)+e},a.prototype.zeroBits=function(){if(this.isZero())return 0;for(var t=0,e=0;e<this.length;e++){var r=this._zeroBits(this.words[e]);if(t+=r,26!==r)break}return t},a.prototype.byteLength=function(){return Math.ceil(this.bitLength()/8)},a.prototype.toTwos=function(t){return 0!==this.negative?this.abs().inotn(t).iaddn(1):this.clone()},a.prototype.fromTwos=function(t){return this.testn(t-1)?this.notn(t).iaddn(1).ineg():this.clone()},a.prototype.isNeg=function(){return 0!==this.negative},a.prototype.neg=function(){return this.clone().ineg()},a.prototype.ineg=function(){return this.isZero()||(this.negative^=1),this},a.prototype.iuor=function(t){for(;this.length<t.length;)this.words[this.length++]=0;for(var e=0;e<t.length;e++)this.words[e]=this.words[e]|t.words[e];return this.strip()},a.prototype.ior=function(t){return n(0==(this.negative|t.negative)),this.iuor(t)},a.prototype.or=function(t){return this.length>t.length?this.clone().ior(t):t.clone().ior(this)},a.prototype.uor=function(t){return this.length>t.length?this.clone().iuor(t):t.clone().iuor(this)},a.prototype.iuand=function(t){var e;e=this.length>t.length?t:this;for(var r=0;r<e.length;r++)this.words[r]=this.words[r]&t.words[r];return this.length=e.length,this.strip()},a.prototype.iand=function(t){return n(0==(this.negative|t.negative)),this.iuand(t)},a.prototype.and=function(t){return this.length>t.length?this.clone().iand(t):t.clone().iand(this)},a.prototype.uand=function(t){return this.length>t.length?this.clone().iuand(t):t.clone().iuand(this)},a.prototype.iuxor=function(t){var e,r;this.length>t.length?(e=this,r=t):(e=t,r=this);for(var n=0;n<r.length;n++)this.words[n]=e.words[n]^r.words[n];if(this!==e)for(;n<e.length;n++)this.words[n]=e.words[n];return this.length=e.length,this.strip()},a.prototype.ixor=function(t){return n(0==(this.negative|t.negative)),this.iuxor(t)},a.prototype.xor=function(t){return this.length>t.length?this.clone().ixor(t):t.clone().ixor(this)},a.prototype.uxor=function(t){return this.length>t.length?this.clone().iuxor(t):t.clone().iuxor(this)},a.prototype.inotn=function(t){n("number"==typeof t&&t>=0);var e=0|Math.ceil(t/26),r=t%26;this._expand(e),r>0&&e--;for(var i=0;i<e;i++)this.words[i]=67108863&~this.words[i];return r>0&&(this.words[i]=~this.words[i]&67108863>>26-r),this.strip()},a.prototype.notn=function(t){return this.clone().inotn(t)},a.prototype.setn=function(t,e){n("number"==typeof t&&t>=0);var r=t/26|0,i=t%26;return this._expand(r+1),this.words[r]=e?this.words[r]|1<<i:this.words[r]&~(1<<i),this.strip()},a.prototype.iadd=function(t){var e,r,n;if(0!==this.negative&&0===t.negative)return this.negative=0,e=this.isub(t),this.negative^=1,this._normSign();if(0===this.negative&&0!==t.negative)return t.negative=0,e=this.isub(t),t.negative=1,e._normSign();this.length>t.length?(r=this,n=t):(r=t,n=this);for(var i=0,a=0;a<n.length;a++)e=(0|r.words[a])+(0|n.words[a])+i,this.words[a]=67108863&e,i=e>>>26;for(;0!==i&&a<r.length;a++)e=(0|r.words[a])+i,this.words[a]=67108863&e,i=e>>>26;if(this.length=r.length,0!==i)this.words[this.len

gth]=i,this.length++;else if(r!==this)for(;a<r.length;a++)this.words[a]=r.words[a];return
this},a.prototype.add=function(t){var e;return
0!==t.negative&&0===this.negative?(t.negative=0,e=this.sub(t),t.negative^=1,e):0===t.negative&&0!==this.negative?(this.negative=0,e=t.sub(this),this.negative=1,e):this.length>t.length?this.clone().iadd(t):t.clone().iadd(this)},a.prototype.isub=function(t){if(0!==t.negative){t.negative=0;var e=this.iadd(t);return
t.negative=1,e._normSign()}if(0!==this.negative)return
this.negative=0,this.iadd(t),this.negative=1,this._normSign();var r,n,i=this.cmp(t);if(0===i)return
this.negative=0,this.length=1,this.words[0]=0,this;i>0?(r=this,n=t):(r=t,n=this);for(var
a=0,o=0;o<n.length;o++)a=(e=(0|r.words[o])-
(0|n.words[o])+a)>>26,this.words[o]=67108863&e;for(;0!==a&&o<r.length;o++)a=(e=(0|r.words[o])+a)>>26,this.words[o]=67108863&e;if(0===a&&o<r.length&&r!==this)for(;o<r.length;o++)this.words[o]=r.words[o];return
this.length=Math.max(this.length,o),r!==this&&(this.negative=1),this.strip()},a.prototype.sub=function(t){return
this.clone().isub(t)};var d=function(t,e,r){var
n,i,a,o=t.words,s=e.words,l=r.words,c=0,u=0|o[0],f=8191&u,h=u>>>13,p=0|o[1],d=8191&p,g=p>>>13,v=0|o[2],m=8191&v,y=v>>>13,x=0|o[3],b=8191&x,_=x>>>13,w=0|o[4],T=8191&w,k=w>>>13,A=0|o[5],M=8191&A,S=A>>>13,E=0|o[6],L=8191&E,C=E>>>13,P=0|o[7],I=8191&P,O=P>>>13,z=0|o[8],D=8191&z,R=z>>>13,F=0|o[9],B=8191&F,N=F>>>13,j=0|s[0],U=8191&j,V=j>>>13,q=0|s[1],H=8191&q,G=q>>>13,Y=0|s[2],W=8191&Y,X=Y>>>13,Z=0|s[3],J=8191&Z,K=Z>>>13,Q=0|s[4],$=8191&Q,tt=Q>>>13,et=0|s[5],rt=8191&et,nt=et>>>13,it=0|s[6],at=8191&it,ot=it>>>13,st=0|s[7],lt=8191&st,ct=st>>>13,ut=0|s[8],ft=8191&ut,ht=ut>>>13,pt=0|s[9],dt=8191&pt,gt=pt>>>13;r.negative=t.negative^e.negative,r.length=19;var
vt=(c+(n=Math.imul(f,U))|0)+((8191&(i=(i=Math.imul(f,V))+Math.imul(h,U)|0))<<13)|0;c=((a=Math.imul(h,V))+(i>>>13)|0)+(vt>>>26)|0,vt&=67108863,n=Math.imul(d,U),i=(i=Math.imul(d,V))+Math.imul(g,U)|0,a=Math.imul(g,V);var
mt=(c+(n=n+Math.imul(f,H)|0)|0)+((8191&(i=(i=i+Math.imul(f,G)|0)+Math.imul(h,H)|0))<<13)|0;c=((a=a+Math.imul(h,G)|0)+(i>>>13)|0)+(mt>>>26)|0,mt&=67108863,n=Math.imul(m,U),i=(i=Math.imul(m,V))+Math.imul(y,U)|0,a=Math.imul(y,V),n=n+Math.imul(d,H)|0,i=(i=i+Math.imul(d,G)|0)+Math.imul(g,H)|0,a=a+Math.imul(g,G)|0;var
yt=(c+(n=n+Math.imul(f,W)|0)|0)+((8191&(i=(i=i+Math.imul(f,X)|0)+Math.imul(h,W)|0))<<13)|0;c=((a=a+Math.imul(h,X)|0)+(i>>>13)|0)+(yt>>>26)|0,yt&=67108863,n=Math.imul(b,U),i=(i=Math.imul(b,V))+Math.imul(_,U)|0,a=Math.imul(_,V),n=n+Math.imul(m,H)|0,i=(i=i+Math.imul(m,G)|0)+Math.imul(y,H)|0,a=a+Math.imul(y,G)|0,n=n+Math.imul(d,W)|0,i=(i=i+Math.imul(d,X)|0)+Math.imul(g,W)|0,a=a+Math.imul(g,X)|0;var
xt=(c+(n=n+Math.imul(f,J)|0)|0)+((8191&(i=(i=i+Math.imul(f,K)|0)+Math.imul(h,J)|0))<<13)|0;c=((a=a+Math.imul(h,K)|0)+(i>>>13)|0)+(xt>>>26)|0,xt&=67108863,n=Math.imul(T,U),i=(i=Math.imul(T,V))+Math.imul(k,U)|0,a=Math.imul(k,V),n=n+Math.imul(b,H)|0,i=(i=i+Math.imul(b,G)|0)+Math.imul(_,H)|0,a=a+Math.imul(_,G)|0,n=n+Math.imul(m,W)|0,i=(i=i+Math.imul(m,X)|0)+Math.imul(y,W)|0,a=a+Math.imul(y,X)|0,n=n+Math.imul(d,J)|0,i=(i=i+Math.imul(d,K)|0)+Math.imul(g,J)|0,a=a+Math.imul(g,K)|0;var
bt=(c+(n=n+Math.imul(f,$)|0)|0)+((8191&(i=(i=i+Math.imul(f,tt)|0)+Math.imul(h,$)|0))<<13)|0;c=((a=a+Math.imul(h,tt)|0)+(i>>>13)|0)+(bt>>>26)|0,bt&=67108863,n=Math.imul(M,U),i=(i=Math.imul(M,V))+Math.imul(S,U)|0,a=Math.imul(S,V),n=n+Math.imul(T,H)|0,i=(i=i+Math.imul(T,G)|0)+Math.imul(k,H)|0,a=a+Math.imul(k,G)|0,n=n+Math.imul(b,W)|0,i=(i=i+Math.imul(b,X)|0)+Math.imul(_,W)|0,a=a+Math.imul(_,X)|0,n=n+Math.imul(m,J)|0,i=(i=i+Math.imul(m,K)|0)+Math.imul(y,J)|0,a=a+Math.imul(y,K)|0,n=n+Math.imul(d,$)|0,i=(i=i+Math.imul(d,tt)|0)+Math.imul(g,$)|0,a=a+Math.imul(g,tt)|0;var
_t=(c+(n=n+Math.imul(f,rt)|0)|0)+((8191&(i=(i=i+Math.imul(f,nt)|0)+Math.imul(h,rt)|0))<<13)|0;c=((a=a+Math.imul(h,nt)|0)+(i>>>13)|0)+(_t>>>26)|0,_t&=67108863,n=Math.imul(L,U),i=(i=Math.imul(L,V))+Math.imul(C,U)|0,a=Math.imul(C,V),n=n+Math.imul(M,H)|0,i=(i=i+Math.imul(M,G)|0)+Math.imul(S,H)|0,a=a+Math.imul(S,G)|0,n=n+Math.imul(T,W)|0,i=(i=i+Math.imul(T,X)|0)+Math.imul(k,W)|0,a=a+Math.imul(k,X)|0,n=n+Math.imul(b,J)|0,i=(i=i+Math.imul(b,K)|0)+Math.imul(_,J)|0,a=a+Math.imul(_,K)|0,n=n+Math.imul(m,$)|0,i=(i=i+Math.imul(m,tt)|0)+Math.imul(y,$)|0,a=a+Math.imul(y,tt)|0,n=n+Math.imul(d,rt)|0,i=(i=i+Math.imul(d,nt)|0)+Math.imul(g,rt)|0,a=a+Math.imul(g,nt)|0;var

wt=(c+(n=n+Math.imul(f,at)|0)|0)+((8191&(i=(i=i+Math.imul(f,ot)|0)+Math.imul(h,at)|0))<<13)|0;c=((a=a+Math.imul(h,ot)|0)+(i>>>13)|0)+(wt>>>26)|0,wt&=67108863,n=Math.imul(I,U),i=(i=Math.imul(I,V))+Math.imul(O,U)|0,a=Math.imul(O,V),n=n+Math.imul(L,H)|0,i=(i=i+Math.imul(L,G)|0)+Math.imul(C,H)|0,a=a+Math.imul(C,G)|0,n=n+Math.imul(M,W)|0,i=(i=i+Math.imul(M,X)|0)+Math.imul(S,W)|0,a=a+Math.imul(S,X)|0,n=n+Math.imul(T,J)|0,i=(i=i+Math.imul(T,K)|0)+Math.imul(k,J)|0,a=a+Math.imul(k,K)|0,n=n+Math.imul(b,$)|0,i=(i=i+Math.imul(b,tt)|0)+Math.imul(_,$)|0,a=a+Math.imul(_,tt)|0,n=n+Math.imul(m,rt)|0,i=(i=i+Math.imul(m,nt)|0)+Math.imul(y,rt)|0,a=a+Math.imul(y,nt)|0,n=n+Math.imul(d,at)|0,i=(i=i+Math.imul(d,ot)|0)+Math.imul(g,at)|0,a=a+Math.imul(g,ot)|0;var
Tt=(c+(n=n+Math.imul(f,lt)|0)|0)+((8191&(i=(i=i+Math.imul(f,ct)|0)+Math.imul(h,lt)|0))<<13)|0;c=((a=a+Math.imul(h,ct)|0)+(i>>>13)|0)+(Tt>>>26)|0,Tt&=67108863,n=Math.imul(D,U),i=(i=Math.imul(D,V))+Math.imul(R,U)|0,a=Math.imul(R,V),n=n+Math.imul(I,H)|0,i=(i=i+Math.imul(I,G)|0)+Math.imul(O,H)|0,a=a+Math.imul(O,G)|0,n=n+Math.imul(L,W)|0,i=(i=i+Math.imul(L,X)|0)+Math.imul(C,W)|0,a=a+Math.imul(C,X)|0,n=n+Math.imul(M,J)|0,i=(i=i+Math.imul(M,K)|0)+Math.imul(S,J)|0,a=a+Math.imul(S,K)|0,n=n+Math.imul(T,$)|0,i=(i=i+Math.imul(T,tt)|0)+Math.imul(k,$)|0,a=a+Math.imul(k,tt)|0,n=n+Math.imul(b,rt)|0,i=(i=i+Math.imul(b,nt)|0)+Math.imul(_,rt)|0,a=a+Math.imul(_,nt)|0,n=n+Math.imul(m,at)|0,i=(i=i+Math.imul(m,ot)|0)+Math.imul(y,at)|0,a=a+Math.imul(y,ot)|0,n=n+Math.imul(d,lt)|0,i=(i=i+Math.imul(d,ct)|0)+Math.imul(g,lt)|0,a=a+Math.imul(g,ct)|0;var
kt=(c+(n=n+Math.imul(f,ft)|0)|0)+((8191&(i=(i=i+Math.imul(f,ht)|0)+Math.imul(h,ft)|0))<<13)|0;c=((a=a+Math.imul(h,ht)|0)+(i>>>13)|0)+(kt>>>26)|0,kt&=67108863,n=Math.imul(B,U),i=(i=Math.imul(B,V))+Math.imul(N,U)|0,a=Math.imul(N,V),n=n+Math.imul(D,H)|0,i=(i=i+Math.imul(D,G)|0)+Math.imul(R,H)|0,a=a+Math.imul(R,G)|0,n=n+Math.imul(I,W)|0,i=(i=i+Math.imul(I,X)|0)+Math.imul(O,W)|0,a=a+Math.imul(O,X)|0,n=n+Math.imul(L,J)|0,i=(i=i+Math.imul(L,K)|0)+Math.imul(C,J)|0,a=a+Math.imul(C,K)|0,n=n+Math.imul(M,$)|0,i=(i=i+Math.imul(M,tt)|0)+Math.imul(S,$)|0,a=a+Math.imul(S,tt)|0,n=n+Math.imul(T,rt)|0,i=(i=i+Math.imul(T,nt)|0)+Math.imul(k,rt)|0,a=a+Math.imul(k,nt)|0,n=n+Math.imul(b,at)|0,i=(i=i+Math.imul(b,ot)|0)+Math.imul(_,at)|0,a=a+Math.imul(_,ot)|0,n=n+Math.imul(m,lt)|0,i=(i=i+Math.imul(m,ct)|0)+Math.imul(y,lt)|0,a=a+Math.imul(y,ct)|0,n=n+Math.imul(d,ft)|0,i=(i=i+Math.imul(d,ht)|0)+Math.imul(g,ft)|0,a=a+Math.imul(g,ht)|0;var
At=(c+(n=n+Math.imul(f,dt)|0)|0)+((8191&(i=(i=i+Math.imul(f,gt)|0)+Math.imul(h,dt)|0))<<13)|0;c=((a=a+Math.imul(h,gt)|0)+(i>>>13)|0)+(At>>>26)|0,At&=67108863,n=Math.imul(B,H),i=(i=Math.imul(B,G))+Math.imul(N,H)|0,a=Math.imul(N,G),n=n+Math.imul(D,W)|0,i=(i=i+Math.imul(D,X)|0)+Math.imul(R,W)|0,a=a+Math.imul(R,X)|0,n=n+Math.imul(I,J)|0,i=(i=i+Math.imul(I,K)|0)+Math.imul(O,J)|0,a=a+Math.imul(O,K)|0,n=n+Math.imul(L,$)|0,i=(i=i+Math.imul(L,tt)|0)+Math.imul(C,$)|0,a=a+Math.imul(C,tt)|0,n=n+Math.imul(M,rt)|0,i=(i=i+Math.imul(M,nt)|0)+Math.imul(S,rt)|0,a=a+Math.imul(S,nt)|0,n=n+Math.imul(T,at)|0,i=(i=i+Math.imul(T,ot)|0)+Math.imul(k,at)|0,a=a+Math.imul(k,ot)|0,n=n+Math.imul(b,lt)|0,i=(i=i+Math.imul(b,ct)|0)+Math.imul(_,lt)|0,a=a+Math.imul(_,ct)|0,n=n+Math.imul(m,ft)|0,i=(i=i+Math.imul(m,ht)|0)+Math.imul(y,ft)|0,a=a+Math.imul(y,ht)|0;var
Mt=(c+(n=n+Math.imul(d,dt)|0)|0)+((8191&(i=(i=i+Math.imul(d,gt)|0)+Math.imul(g,dt)|0))<<13)|0;c=((a=a+Math.imul(g,gt)|0)+(i>>>13)|0)+(Mt>>>26)|0,Mt&=67108863,n=Math.imul(B,W),i=(i=Math.imul(B,X))+Math.imul(N,W)|0,a=Math.imul(N,X),n=n+Math.imul(D,J)|0,i=(i=i+Math.imul(D,K)|0)+Math.imul(R,J)|0,a=a+Math.imul(R,K)|0,n=n+Math.imul(I,$)|0,i=(i=i+Math.imul(I,tt)|0)+Math.imul(O,$)|0,a=a+Math.imul(O,tt)|0,n=n+Math.imul(L,rt)|0,i=(i=i+Math.imul(L,nt)|0)+Math.imul(C,rt)|0,a=a+Math.imul(C,nt)|0,n=n+Math.imul(M,at)|0,i=(i=i+Math.imul(M,ot)|0)+Math.imul(S,at)|0,a=a+Math.imul(S,ot)|0,n=n+Math.imul(T,lt)|0,i=(i=i+Math.imul(T,ct)|0)+Math.imul(k,lt)|0,a=a+Math.imul(k,ct)|0,n=n+Math.imul(b,ft)|0,i=(i=i+Math.imul(b,ht)|0)+Math.imul(_,ft)|0,a=a+Math.imul(_,ht)|0;var
St=(c+(n=n+Math.imul(m,dt)|0)|0)+((8191&(i=(i=i+Math.imul(m,gt)|0)+Math.imul(y,dt)|0))<<13)|0;c=((a=a+Math.imul(y,gt)|0)+(i>>>13)|0)+(St>>>26)|0,St&=67108863,n=Math.imul(B,J),i=(i=Math.imul(B,K))+Math.imul(N,J)|0,a=Math.imul(N,K),n=n+Math.imul(D,$)|0,i=(i=i+Math.imul(D,tt)|0)+Math.imul(R,$)|0,a=a+Math.imul(R,tt)|0,n=n+Math.imul(I,rt)|0,i=(i=i+Math.imul(I,nt)|0)+Math.imul(O,rt)|0,a=a+Math.imul(O,nt)|0,n=n+Math.imul(L,at)|0,i=(i=i+Math.imul(L,ot)|0)+Math.imul(C,at)|0,a=a+Math.imul(C,ot)|0,n=n+Math.imul(M,lt)|0,i=(i=i+Math.imul(M,ct)|0)+Math.imul(S,lt)|0,a=a+Math.imul(S,ct)|0,n=n+Math.imul(T,ft)|0,i=(i=i+Math.imul(T,ht)|0)+Math.imul(k,ft)|0,a=a+Math.imul(k,ht)|0;var
Et=(c+(n=n+Math.imul(b,dt)|0)|0)+((8191&(i=(i=i+Math.imul(b,gt)|0)+Math.imul(_,dt)|0))<<13)|0;c=((a=a+Math.imul(_,gt)|0)+(i>>>13)|0)+(Et>>>26)|0,Et&=67108863,n=Math.imul(B,$),i=(i=Math.imul(B,tt))+Math.imul(N,$)|0,

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a=Math.imul(N,tt),n=n+Math.imul(D,rt)|0,i=(i=i+Math.imul(D,nt)|0)+Math.imul(R,rt)|0,a=a+Math.imul(R,nt)|0,n=n
+Math.imul(I,at)|0,i=(i=i+Math.imul(I,ot)|0)+Math.imul(O,at)|0,a=a+Math.imul(O,ot)|0,n=n+Math.imul(L,lt)|0,i=(i
=i+Math.imul(L,ct)|0)+Math.imul(C,lt)|0,a=a+Math.imul(C,ct)|0,n=n+Math.imul(M,ft)|0,i=(i=i+Math.imul(M,ht)|0)
+Math.imul(S,ft)|0,a=a+Math.imul(S,ht)|0;var
Lt=(c+(n=n+Math.imul(T,dt)|0)|0)+((8191&(i=(i=i+Math.imul(T,gt)|0)+Math.imul(k,dt)|0))<<13)|0;c=((a=a+Math.i
mul(k,gt)|0)+(i>>>13)|0)+(Lt>>>26)|0,Lt&=67108863,n=Math.imul(B,rt),i=(i=Math.imul(B,nt))+Math.imul(N,rt)|0
,a=Math.imul(N,nt),n=n+Math.imul(D,at)|0,i=(i=i+Math.imul(D,ot)|0)+Math.imul(R,at)|0,a=a+Math.imul(R,ot)|0,n
=n+Math.imul(I,lt)|0,i=(i=i+Math.imul(I,ct)|0)+Math.imul(O,lt)|0,a=a+Math.imul(O,ct)|0,n=n+Math.imul(L,ft)|0,i=(
i=i+Math.imul(L,ht)|0)+Math.imul(C,ft)|0,a=a+Math.imul(C,ht)|0;var
Ct=(c+(n=n+Math.imul(M,dt)|0)|0)+((8191&(i=(i=i+Math.imul(M,gt)|0)+Math.imul(S,dt)|0))<<13)|0;c=((a=a+Math
.imul(S,gt)|0)+(i>>>13)|0)+(Ct>>>26)|0,Ct&=67108863,n=Math.imul(B,at),i=(i=Math.imul(B,ot))+Math.imul(N,at)
|0,a=Math.imul(N,ot),n=n+Math.imul(D,lt)|0,i=(i=i+Math.imul(D,ct)|0)+Math.imul(R,lt)|0,a=a+Math.imul(R,ct)|0,n
=n+Math.imul(I,ft)|0,i=(i=i+Math.imul(I,ht)|0)+Math.imul(O,ft)|0,a=a+Math.imul(O,ht)|0;var
Pt=(c+(n=n+Math.imul(L,dt)|0)|0)+((8191&(i=(i=i+Math.imul(L,gt)|0)+Math.imul(C,dt)|0))<<13)|0;c=((a=a+Math.i
mul(C,gt)|0)+(i>>>13)|0)+(Pt>>>26)|0,Pt&=67108863,n=Math.imul(B,lt),i=(i=Math.imul(B,ct))+Math.imul(N,lt)|0,
a=Math.imul(N,ct),n=n+Math.imul(D,ft)|0,i=(i=i+Math.imul(D,ht)|0)+Math.imul(R,ft)|0,a=a+Math.imul(R,ht)|0;var
It=(c+(n=n+Math.imul(I,dt)|0)|0)+((8191&(i=(i=i+Math.imul(I,gt)|0)+Math.imul(O,dt)|0))<<13)|0;c=((a=a+Math.i
mul(O,gt)|0)+(i>>>13)|0)+(It>>>26)|0,It&=67108863,n=Math.imul(B,ft),i=(i=Math.imul(B,ht))+Math.imul(N,ft)|0,
a=Math.imul(N,ht);var
Ot=(c+(n=n+Math.imul(D,dt)|0)|0)+((8191&(i=(i=i+Math.imul(D,gt)|0)+Math.imul(R,dt)|0))<<13)|0;c=((a=a+Math
.imul(R,gt)|0)+(i>>>13)|0)+(Ot>>>26)|0,Ot&=67108863;var
zt=(c+(n=Math.imul(B,dt))|0)+((8191&(i=(i=Math.imul(B,gt))+Math.imul(N,dt)|0))<<13)|0;return
c=((a=Math.imul(N,gt))+(i>>>13)|0)+(zt>>>26)|0,zt&=67108863,l[0]=vt,l[1]=mt,l[2]=yt,l[3]=xt,l[4]=bt,l[5]=_t,l[6]
=wt,l[7]=Tt,l[8]=kt,l[9]=At,l[10]=Mt,l[11]=St,l[12]=Et,l[13]=Lt,l[14]=Ct,l[15]=Pt,l[16]=It,l[17]=Ot,l[18]=zt,0!==c
&&(l[19]=c,r.length++),r};function g(t,e,r){return(new v).mulp(t,e,r)}function
v(t,e){this.x=t,this.y=e}Math.imul||(d=p),a.prototype.mulTo=function(t,e){var r=this.length+t.length;return
10===this.length&&10===t.length?d(this,t,e):r<63?p(this,t,e):r<1024?function(t,e,r){r.negative=e.negative^t.negati
ve,r.length=t.length+e.length;for(var n=0,i=0,a=0;a<r.length-1;a++){var o=i;i=0;for(var
s=67108863&n,l=Math.min(a,e.length-1),c=Math.max(0,a-t.length+1);c<=l;c++){var u=a-
c,f=(0|t.words[u])*(0|e.words[c]),h=67108863&f;s=67108863&(h=h+s|0),i+=(o=(o=o+(f/67108864|0)|0)+(h>>>26)|
0)>>>26,o&=67108863}r.words[a]=s,n=o,o=i}return 0!==n?r.words[a]=n:r.length--
,r.strip()}(this,t,e):g(this,t,e)},v.prototype.makeRBT=function(t){for(var e=new
Array(t),r=a.prototype._countBits(t)-1,n=0;n<t;n++)e[n]=this.revBin(n,r,t);return
e},v.prototype.revBin=function(t,e,r){if(0===t||t===r-1)return t;for(var n=0,i=0;i<e;i++)n|=(1&t)<<e-i-
1,t>>=1;return n},v.prototype.permute=function(t,e,r,n,i,a){for(var
o=0;o<a;o++)n[o]=e[t[o]],i[o]=r[t[o]]},v.prototype.transform=function(t,e,r,n,i,a){this.permute(a,t,e,r,n,i);for(var
o=1;o<i;o<<=1)for(var s=o<<1,l=Math.cos(2*Math.PI/s),c=Math.sin(2*Math.PI/s),u=0;u<i;u+=s)for(var
f=l,h=c,p=0;p<o;p++){var d=r[u+p],g=n[u+p],v=r[u+p+o],m=n[u+p+o],y=f*v-
h*m;m=f*m+h*v,v=y,r[u+p]=d+v,n[u+p]=g+m,r[u+p+o]=d-v,n[u+p+o]=g-m,p!==s&&(y=l*f-
c*h,h=l*h+c*f,f=y)}},v.prototype.guessLen13b=function(t,e){var
r=1|Math.max(e,t),n=1&r,i=0;for(r=r/2|0;r;r>>>=1)i++;return
1<<i+1+n},v.prototype.conjugate=function(t,e,r){if(!(r<=1))for(var n=0;n<r/2;n++){var i=t[n];t[n]=t[r-n-1],t[r-n-
1]=i,i=e[n],e[n]=-e[r-n-1],e[r-n-1]=-i}},v.prototype.normalize13b=function(t,e){for(var r=0,n=0;n<e/2;n++){var
i=8192*Math.round(t[2*n+1]/e)+Math.round(t[2*n]/e)+r;t[n]=67108863&i,r=i<67108864?0:i/67108864|0}return
t},v.prototype.convert13b=function(t,e,r,i){for(var
a=0,o=0;o<e;o++)a+=0|t[o],r[2*o]=8191&a,a>>>=13,r[2*o+1]=8191&a,a>>>=13;for(o=2*e;o<i;++o)r[o]=0;n(0==
=a),n(0==(-8192&a))},v.prototype.stub=function(t){for(var e=new Array(t),r=0;r<t;r++)e[r]=0;return
e},v.prototype.mulp=function(t,e,r){var
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n=2*this.guessLen13b(t.length,e.length),i=this.makeRBT(n),a=this.stub(n),o=new Array(n),s=new Array(n),l=new Array(n),c=new Array(n),u=new Array(n),f=new Array(n),h=r.words;h.length=n,this.convert13b(t.words,t.length,o,n),this.convert13b(e.words,e.length,c,n),this.transform(o,a,s,l,n,i),this.transform(c,a,u,f,n,i);for(var p=0;p<n;p++){var d=s[p]*u[p]-l[p]*f[p];l[p]=s[p]*f[p]+l[p]*u[p],s[p]=d}return this.conjugate(s,l,n),this.transform(s,l,h,a,n,i),this.conjugate(h,a,n),this.normalize13b(h,n),r.negative=t.negative^e.negative,r.length=t.length+e.length,r.strip()},a.prototype.mul=function(t){var e=new a(null);return e.words=new Array(this.length+t.length),this.mulTo(t,e)},a.prototype.mulf=function(t){var e=new a(null);return e.words=new Array(this.length+t.length),g(this,t,e)},a.prototype.imul=function(t){return this.clone().mulTo(t,this)},a.prototype.imuln=function(t){n("number"==typeof t),n(t<67108864);for(var e=0,r=0;r<this.length;r++){var i=(0|this.words[r])*t,a=(67108863&i)+(67108863&e);e>>=26,e+=i/67108864|0,e+=a>>>26,this.words[r]=67108863&a}return 0!==e&&(this.words[r]=e,this.length++),this},a.prototype.muln=function(t){return this.clone().imuln(t)},a.prototype.sqr=function(){return this.mul(this)},a.prototype.isqr=function(){return this.imul(this.clone())},a.prototype.pow=function(t){var e=function(t){for(var e=new Array(t.bitLength()),r=0;r<e.length;r++){var n=r/26|0,i=r%26;e[r]=(t.words[n]&1<<i)>>>i}return e}(t);if(0===e.length)return new a(1);for(var r=this,n=0;n<e.length&&0===e[n];n++,r=r.sqr());if(++n<e.length)for(var i=r.sqr();n<e.length;n++,i=i.sqr())0!==e[n]&&(r=r.mul(i));return r},a.prototype.iushln=function(t){n("number"==typeof t&&t>=0);var e,r=t%26,i=(t-r)/26,a=67108863>>>26-r<<26-r;if(0!==r){var o=0;for(e=0;e<this.length;e++){var s=this.words[e]&a,l=(0|this.words[e])-s<<r;this.words[e]=l|o,o=s>>>26-r}o&&(this.words[e]=o,this.length++)}if(0!==i){for(e=this.length-1;e>=0;e--)this.words[e+i]=this.words[e];for(e=0;e<i;e++)this.words[e]=0;this.length+=i}return this.strip()},a.prototype.ishln=function(t){return n(0===this.negative),this.iushln(t)},a.prototype.iushrn=function(t,e,r){var i;n("number"==typeof t&&t>=0),i=e?(e-e%26)/26:0;var a=t%26,o=Math.min((t-a)/26,this.length),s=67108863^67108863>>>a<<a,l=r;if(i-=o,i=Math.max(0,i),l){for(var c=0;c<o;c++)l.words[c]=this.words[c];l.length=o}if(0===o);else if(this.length>o)for(this.length-=o,c=0;c<this.length;c++)this.words[c]=this.words[c+o];else this.words[0]=0,this.length=1;var u=0;for(c=this.length-1;c>=0&&(0!==u||c>=i);c--){var f=0|this.words[c];this.words[c]=u<<26-a|f>>>a,u=f&s}return l&&0!==u&&(l.words[l.length++]=u),0===this.length&&(this.words[0]=0,this.length=1),this.strip()},a.prototype.ishrn=function(t,e,r){return n(0===this.negative),this.iushrn(t,e,r)},a.prototype.shln=function(t){return this.clone().ishln(t)},a.prototype.ushln=function(t){return this.clone().iushln(t)},a.prototype.shrn=function(t){return this.clone().ishrn(t)},a.prototype.ushrn=function(t){return this.clone().iushrn(t)},a.prototype.testn=function(t){n("number"==typeof t&&t>=0);var e=t%26,r=(t-e)/26,i=1<<e;return!(this.length<=r||!(this.words[r]&i))},a.prototype.imaskn=function(t){n("number"==typeof t&&t>=0);var e=t%26,r=(t-e)/26;if(n(0===this.negative,"imaskn works only with positive numbers"),this.length<=r)return this;if(0!==e&&r++,this.length=Math.min(r,this.length),0!==e){var i=67108863^67108863>>>e<<e;this.words[this.length-1]&=i}return this.strip()},a.prototype.maskn=function(t){return this.clone().imaskn(t)},a.prototype.iaddn=function(t){return n("number"==typeof t),n(t<67108864),t<0?this.isubn(-t):0!==this.negative?1===this.length&&(0|this.words[0])<t?(this.words[0]=t-(0|this.words[0]),this.negative=0,this):(this.negative=0,this.isubn(t),this.negative=1,this):this._iaddn(t)},a.prototype._iaddn=function(t){this.words[0]+=t;for(var e=0;e<this.length&&this.words[e]>=67108864;e++)this.words[e]-=67108864,e===this.length-1?this.words[e+1]=1:this.words[e+1]++;return this.length=Math.max(this.length,e+1),this},a.prototype.isubn=function(t){if(n("number"==typeof t),n(t<67108864),t<0)return this.iaddn(-t);if(0!==this.negative)return this.negative=0,this.iaddn(t),this.negative=1,this;if(this.words[0]-

=t,1===this.length&&this.words[0]<0)this.words[0]=-this.words[0],this.negative=1;else for(var e=0;e<this.length&&this.words[e]<0;e++)this.words[e]+=67108864,this.words[e+1]-=1;return this.strip()},a.prototype.addn=function(t){return this.clone().iaddn(t)},a.prototype.subn=function(t){return this.clone().isubn(t)},a.prototype.iabs=function(){return this.negative=0,this},a.prototype.abs=function(){return this.clone().iabs()},a.prototype._ishlnsubmul=function(t,e,r){var i,a,o=t.length+r;this._expand(o);var s=0;for(i=0;i<t.length;i++){a=(0|this.words[i+r])+s;var l=(0|t.words[i])*e;s=((a-=67108863&l)>>26)-(l/67108864|0),this.words[i+r]=67108863&a}for(;i<this.length-r;i++)s=(a=(0|this.words[i+r])+s)>>26,this.words[i+r]=67108863&a;if(0===s)return this.strip();for(n(-1===s),s=0,i=0;i<this.length;i++)s=(a=-(0|this.words[i])+s)>>26,this.words[i]=67108863&a;return this.negative=1,this.strip()},a.prototype._wordDiv=function(t,e){var r=(this.length,t.length),n=this.clone(),i=t,o=0|i.words[i.length-1];0!=(r=26-this._countBits(o))&&(i=i.ushln(r),n.iushln(r),o=0|i.words[i.length-1]);var s,l=n.length-i.length;if("mod"!==e){(s=new a(null)).length=l+1,s.words=new Array(s.length);for(var c=0;c<s.length;c++)s.words[c]=0}var u=n.clone()._ishlnsubmul(i,1,l);0===u.negative&&(n=u,s&&(s.words[l]=1));for(var f=l-1;f>=0;f--){var h=67108864*(0|n.words[i.length+f])+(0|n.words[i.length+f-1]);for(h=Math.min(h/o|0,67108863),n._ishlnsubmul(i,h,f);0!==n.negative;)h--,n.negative=0,n._ishlnsubmul(i,1,f),n.isZero()||(n.negative^=1);s&&(s.words[f]=h)}return s&&s.strip(),n.strip(),"div"!==e&&0!==r&&n.iushrn(r),{div:s||null,mod:n}},a.prototype.divmod=function(t,e,r){return n(!t.isZero()),this.isZero()?{div:new a(0),mod:new a(0)}:0!==this.negative&&0===t.negative?(s=this.neg().divmod(t,e),"mod"!==e&&(i=s.div.neg()),"div"!==e&&(o=s.mod.neg(),r&&0!==o.negative&&o.iadd(t)),{div:i,mod:o}):0===this.negative&&0!==t.negative?(s=this.divmod(t.neg(),e),"mod"!==e&&(i=s.div.neg()),{div:i,mod:s.mod}):0!=(this.negative&t.negative)?(s=this.neg().divmod(t.neg(),e),"div"!==e&&(o=s.mod.neg(),r&&0!==o.negative&&o.isub(t)),{div:s.div,mod:o}):t.length>this.length||this.cmp(t)<0?{div:new a(0),mod:this}:1===t.length?"div"===e?{div:this.divn(t.words[0]),mod:null}:"mod"===e?{div:null,mod:new a(this.modn(t.words[0]))}:{div:this.divn(t.words[0]),mod:new a(this.modn(t.words[0]))}:this._wordDiv(t,e);var i,o,s},a.prototype.div=function(t){return this.divmod(t,"div",!1).div},a.prototype.mod=function(t){return this.divmod(t,"mod",!1).mod},a.prototype.umod=function(t){return this.divmod(t,"mod",!0).mod},a.prototype.divRound=function(t){var e=this.divmod(t);if(e.mod.isZero())return e.div;var r=0!==e.div.negative?e.mod.isub(t):e.mod,n=t.ushrn(1),i=t.andln(1),a=r.cmp(n);return a<0||1===i&&0===a?e.div:0!==e.div.negative?e.div.isubn(1):e.div.iaddn(1)},a.prototype.modn=function(t){n(t<=67108863);for(var e=(1<<26)%t,r=0,i=this.length-1;i>=0;i--)r=(e*r+(0|this.words[i]))%t;return r},a.prototype.idivn=function(t){n(t<=67108863);for(var e=0,r=this.length-1;r>=0;r--){var i=(0|this.words[r])+67108864*e;this.words[r]=i/t|0,e=i%t}return this.strip()},a.prototype.divn=function(t){return this.clone().idivn(t)},a.prototype.egcd=function(t){n(0===t.negative),n(!t.isZero());var e=this,r=t.clone();e=0!==e.negative?e.umod(t):e.clone();for(var i=new a(1),o=new a(0),s=new a(0),l=new a(1),c=0;e.isEven()&&r.isEven();)e.iushrn(1),r.iushrn(1),++c;for(var u=r.clone(),f=e.clone();!e.isZero();){for(var h=0,p=1;0==(e.words[0]&p)&&h<26;++h,p<<=1);if(h>0)for(e.iushrn(h);h-->0;)(i.isOdd()||o.isOdd())&&(i.iadd(u),o.isub(f)),i.iushrn(1),o.iushrn(1);for(var d=0,g=1;0==(r.words[0]&g)&&d<26;++d,g<<=1);if(d>0)for(r.iushrn(d);d-->0;)(s.isOdd()||l.isOdd())&&(s.iadd(u),l.isub(f)),s.iushrn(1),l.iushrn(1);e.cmp(r)>=0?(e.isub(r),i.isub(s),o.isub(l)):(r.isub(e),s.isub(i),l.isub(o))}return{a:s,b:l,gcd:r.iushln(c)}},a.prototype._invmp=function(t){n(0===t.negative),n(!t.isZero());var e=this,r=t.clone();e=0!==e.negative?e.umod(t):e.clone();for(var i,o=new a(1),s=new a(0),l=r.clone();e.cmpn(1)>0&&r.cmpn(1)>0;){for(var c=0,u=1;0==(e.words[0]&u)&&c<26;++c,u<<=1);if(c>0)for(e.iushrn(c);c-->0;)o.isOdd()&&o.iadd(l),o.iushrn(1);for(var f=0,h=1;0==(r.words[0]&h)&&f<26;++f,h<<=1);if(f>0)for(r.iushrn(f);f--

>0;)s.isOdd()&&s.iadd(l),s.iushrn(1);e.cmp(r)>=0?(e.isub(r),o.isub(s)):(r.isub(e),s.isub(o))}return(i=0===e.cmpn(1)?o:s).cmpn(0)<0&&i.iadd(t),i},a.prototype.gcd=function(t){if(this.isZero())return t.abs();if(t.isZero())return this.abs();var e=this.clone(),r=t.clone();e.negative=0,r.negative=0;for(var n=0;e.isEven()&&r.isEven();n++)e.iushrn(1),r.iushrn(1);for(;;){for(;e.isEven();)e.iushrn(1);for(;r.isEven();)r.iushrn(1);var i=e.cmp(r);if(i<0){var a=e;e=r,r=a}else if(0===i||0===r.cmpn(1))break;e.isub(r)}return r.iushln(n)},a.prototype.invm=function(t){return this.egcd(t).a.umod(t)},a.prototype.isEven=function(){return 0==(1&this.words[0])},a.prototype.isOdd=function(){return 1==(1&this.words[0])},a.prototype.andln=function(t){return this.words[0]&t},a.prototype.bincn=function(t){n("number"==typeof t);var e=t%26,r=(t-e)/26,i=1<<e;if(this.length<=r)return this._expand(r+1),this.words[r]|=i,this;for(var a=i,o=r;0!==a&&o<this.length;o++){var s=0|this.words[o];a=(s+=a)>>>26,s&=67108863,this.words[o]=s}return 0!==a&&(this.words[o]=a,this.length++),this},a.prototype.isZero=function(){return 1===this.length&&0===this.words[0]},a.prototype.cmpn=function(t){var e,r=t<0;if(0!==this.negative&&!r)return-1;if(0===this.negative&&r)return 1;if(this.strip(),this.length>1)e=1;else{r&&(t=-t),n(t<=67108863,"Number is too big");var i=0|this.words[0];e=i===t?0:i<t?-1:1}return 0!==this.negative?0|-e:e},a.prototype.cmp=function(t){if(0!==this.negative&&0===t.negative)return-1;if(0===this.negative&&0!==t.negative)return 1;var e=this.ucmp(t);return 0!==this.negative?0|-e:e},a.prototype.ucmp=function(t){if(this.length>t.length)return 1;if(this.length<t.length)return-1;for(var e=0,r=this.length-1;r>=0;r--){var n=0|this.words[r],i=0|t.words[r];if(n!==i){n<i?e=-1:n>i&&(e=1);break}}return e},a.prototype.gtn=function(t){return 1===this.cmpn(t)},a.prototype.gt=function(t){return 1===this.cmp(t)},a.prototype.gten=function(t){return this.cmpn(t)>=0},a.prototype.gte=function(t){return this.cmp(t)>=0},a.prototype.ltn=function(t){return-1===this.cmpn(t)},a.prototype.lt=function(t){return-1===this.cmp(t)},a.prototype.lten=function(t){return this.cmpn(t)<=0},a.prototype.lte=function(t){return this.cmp(t)<=0},a.prototype.eqn=function(t){return 0===this.cmpn(t)},a.prototype.eq=function(t){return 0===this.cmp(t)},a.red=function(t){return new T(t)},a.prototype.toRed=function(t){return n(!this.red,"Already a number in reduction context"),n(0===this.negative,"red works only with positives"),t.convertTo(this)._forceRed(t)},a.prototype.fromRed=function(){return n(this.red,"fromRed works only with numbers in reduction context"),this.red.convertFrom(this)},a.prototype._forceRed=function(t){return this.red=t,this},a.prototype.forceRed=function(t){return n(!this.red,"Already a number in reduction context"),this._forceRed(t)},a.prototype.redAdd=function(t){return n(this.red,"redAdd works only with red numbers"),this.red.add(this,t)},a.prototype.redIAdd=function(t){return n(this.red,"redIAdd works only with red numbers"),this.red.iadd(this,t)},a.prototype.redSub=function(t){return n(this.red,"redSub works only with red numbers"),this.red.sub(this,t)},a.prototype.redISub=function(t){return n(this.red,"redISub works only with red numbers"),this.red.isub(this,t)},a.prototype.redShl=function(t){return n(this.red,"redShl works only with red numbers"),this.red.shl(this,t)},a.prototype.redMul=function(t){return n(this.red,"redMul works only with red numbers"),this.red._verify2(this,t),this.red.mul(this,t)},a.prototype.redIMul=function(t){return n(this.red,"redMul works only with red numbers"),this.red._verify2(this,t),this.red.imul(this,t)},a.prototype.redSqr=function(){return n(this.red,"redSqr works only with red numbers"),this.red._verify1(this),this.red.sqr(this)},a.prototype.redISqr=function(){return n(this.red,"redISqr works only with red numbers"),this.red._verify1(this),this.red.isqr(this)},a.prototype.redSqrt=function(){return n(this.red,"redSqrt works only with red numbers"),this.red._verify1(this),this.red.sqrt(this)},a.prototype.redInvm=function(){return n(this.red,"redInvm works only with red numbers"),this.red._verify1(this),this.red.invm(this)},a.prototype.redNeg=function(){return n(this.red,"redNeg works only with red numbers"),this.red._verify1(this),this.red.neg(this)},a.prototype.redPow=function(t){return n(this.red&&!t.red,"redPow(normalNum)"),this.red._verify1(this),this.red.pow(this,t)};var m={k256:null,p224:null,p192:null,p25519:null};function y(t,e){this.name=t,this.p=new a(e,16),this.n=this.p.bitLength(),this.k=new a(1).iushln(this.n).isub(this.p),this.tmp=this._tmp()}function

x(){y.call(this,"k256","ffffffff ffffffff ffffffff ffffffff ffffffff ffffffff fffffffe fffffc2f")}function
b(){y.call(this,"p224","ffffffff ffffffff ffffffff ffffffff 00000000 00000000 00000001")}function
_(){y.call(this,"p192","ffffffff ffffffff ffffffff fffffffe ffffffff ffffffff")}function
w(){y.call(this,"25519","7fffffffffffffff ffffffffffffffff ffffffffffffffff ffffffffffffffed")}function
T(t){if("string"==typeof t){var e=a._prime(t);this.m=e.p,this.prime=e}else n(t.gtn(1),"modulus must be greater than
1"),this.m=t,this.prime=null}function
k(t){T.call(this,t),this.shift=this.m.bitLength(),this.shift%26!=0&&(this.shift+=26-this.shift%26),this.r=new
a(1).iushln(this.shift),this.r2=this.imod(this.r.sqr()),this.rinv=this.r._invmp(this.m),this.minv=this.rinv.mul(this.r).isu
bn(1).div(this.m),this.minv=this.minv.umod(this.r),this.minv=this.r.sub(this.minv)}y.prototype._tmp=function(){var
t=new a(null);return t.words=new Array(Math.ceil(this.n/13)),t},y.prototype.ireduce=function(t){var
e,r=t;do{this.split(r,this.tmp),e=(r=(r=this.imulK(r)).iadd(this.tmp)).bitLength()}while(e>this.n);var n=e<this.n?-
1:r.ucmp(this.p);return 0===n?(r.words[0]=0,r.length=1):n>0?r.isub(this.p):void
0!==r.strip?r.strip():r._strip(),r},y.prototype.split=function(t,e){t.iushrn(this.n,0,e)},y.prototype.imulK=function(t){r
eturn t.imul(this.k)},i(x,y),x.prototype.split=function(t,e){for(var
r=4194303,n=Math.min(t.length,9),i=0;i<n;i++)e.words[i]=t.words[i];if(e.length=n,t.length<=9)return
t.words[0]=0,void(t.length=1);var a=t.words[9];for(e.words[e.length++]=a&r,i=10;i<t.length;i++){var
o=0|t.words[i];t.words[i-10]=(o&r)<<4|a>>>22,a=o}a>>>=22,t.words[i-10]=a,0===a&&t.length>10?t.length-
=10:t.length-=9},x.prototype.imulK=function(t){t.words[t.length]=0,t.words[t.length+1]=0,t.length+=2;for(var
e=0,r=0;r<t.length;r++){var n=0|t.words[r];e+=977*n,t.words[r]=67108863&e,e=64*n+(e/67108864|0)}return
0===t.words[t.length-1]&&(t.length--,0===t.words[t.length-1]&&t.length--
),t},i(b,y),i(_,y),i(w,y),w.prototype.imulK=function(t){for(var e=0,r=0;r<t.length;r++){var
n=19*(0|t.words[r])+e,i=67108863&n;n>>>=26,t.words[r]=i,e=n}return
0!==e&&(t.words[t.length++]=e),t},a._prime=function(t){if(m[t])return m[t];var e;if("k256"===t)e=new x;else
if("p224"===t)e=new b;else if("p192"===t)e=new _;else{if("p25519"!==t)throw new Error("Unknown prime
"+t);e=new w}return m[t]=e,e},T.prototype._verify1=function(t){n(0===t.negative,"red works only with
positives"),n(t.red,"red works only with red
numbers")},T.prototype._verify2=function(t,e){n(0==(t.negative|e.negative),"red works only with
positives"),n(t.red&&t.red===e.red,"red works only with red numbers")},T.prototype.imod=function(t){return
this.prime?this.prime.ireduce(t)._forceRed(this):t.umod(this.m)._forceRed(this)},T.prototype.neg=function(t){return
t.isZero()?t.clone():this.m.sub(t)._forceRed(this)},T.prototype.add=function(t,e){this._verify2(t,e);var
r=t.add(e);return
r.cmp(this.m)>=0&&r.isub(this.m),r._forceRed(this)},T.prototype.iadd=function(t,e){this._verify2(t,e);var
r=t.iadd(e);return r.cmp(this.m)>=0&&r.isub(this.m),r},T.prototype.sub=function(t,e){this._verify2(t,e);var
r=t.sub(e);return
r.cmpn(0)<0&&r.iadd(this.m),r._forceRed(this)},T.prototype.isub=function(t,e){this._verify2(t,e);var
r=t.isub(e);return r.cmpn(0)<0&&r.iadd(this.m),r},T.prototype.shl=function(t,e){return
this._verify1(t),this.imod(t.ushln(e))},T.prototype.imul=function(t,e){return
this._verify2(t,e),this.imod(t.imul(e))},T.prototype.mul=function(t,e){return
this._verify2(t,e),this.imod(t.mul(e))},T.prototype.isqr=function(t){return
this.imul(t,t.clone())},T.prototype.sqr=function(t){return
this.mul(t,t)},T.prototype.sqrt=function(t){if(t.isZero())return t.clone();var
e=this.m.andln(3);if(n(e%2==1),3===e){var r=this.m.add(new a(1)).iushrn(2);return this.pow(t,r)}for(var
i=this.m.subn(1),o=0;!i.isZero()&&0===i.andln(1);)o++,i.iushrn(1);n(!i.isZero());var s=new
a(1).toRed(this),l=s.redNeg(),c=this.m.subn(1).iushrn(1),u=this.m.bitLength();for(u=new
a(2*u*u).toRed(this);0!==this.pow(u,c).cmp(l);)u.redIAdd(l);for(var
f=this.pow(u,i),h=this.pow(t,i.addn(1).iushrn(1)),p=this.pow(t,i),d=o;0!==p.cmp(s);){for(var
g=p,v=0;0!==g.cmp(s);v++)g=g.redSqr();n(v<d);var m=this.pow(f,new a(1).iushln(d-v-
1));h=h.redMul(m),f=m.redSqr(),p=p.redMul(f),d=v}return h},T.prototype.invm=function(t){var

e=t._invmp(this.m);return
0!==e.negative?(e.negative=0,this.imod(e).redNeg()):this.imod(e)},T.prototype.pow=function(t,e){if(e.isZero())retu
rn new a(1).toRed(this);if(0===e.cmpn(1))return t.clone();var r=new Array(16);r[0]=new
a(1).toRed(this),r[1]=t;for(var n=2;n<r.length;n++)r[n]=this.mul(r[n-1],t);var
i=r[0],o=0,s=0,l=e.bitLength()%26;for(0===l&&(l=26),n=e.length-1;n>=0;n--){for(var c=e.words[n],u=l-1;u>=0;u-
-){var
f=c>>u&1;i!==r[0]&&(i=this.sqr(i)),0!==f||0!==o?(o<<=1,o|=f,(4==++s||0===n&&0===u)&&(i=this.mul(i,r[o]),s=
0,o=0)):s=0}l=26}return i},T.prototype.convertTo=function(t){var e=t.umod(this.m);return
e===t?e.clone():e},T.prototype.convertFrom=function(t){var e=t.clone();return
e.red=null,e},a.mont=function(t){return new k(t)},i(k,T),k.prototype.convertTo=function(t){return
this.imod(t.ushln(this.shift))},k.prototype.convertFrom=function(t){var e=this.imod(t.mul(this.rinv));return
e.red=null,e},k.prototype.imul=function(t,e){if(t.isZero()||e.isZero())return t.words[0]=0,t.length=1,t;var
r=t.imul(e),n=r.maskn(this.shift).mul(this.minv).imaskn(this.shift).mul(this.m),i=r.isub(n).iushrn(this.shift),a=i;retur
n
i.cmp(this.m)>=0?a=i.isub(this.m):i.cmpn(0)<0&&(a=i.iadd(this.m)),a._forceRed(this)},k.prototype.mul=function(t,
e){if(t.isZero()||e.isZero())return new a(0)._forceRed(this);var
r=t.mul(e),n=r.maskn(this.shift).mul(this.minv).imaskn(this.shift).mul(this.m),i=r.isub(n).iushrn(this.shift),o=i;retur
n
i.cmp(this.m)>=0?o=i.isub(this.m):i.cmpn(0)<0&&(o=i.iadd(this.m)),o._forceRed(this)},k.prototype.invm=function
(t){return this.imod(t._invmp(this.m).mul(this.r2))._forceRed(this)}}(void
0===e||e,this)},{buffer:2}],34:[function(t,e,r){"use strict";e.exports=function(t){var
e,r,n,i=t.length,a=0;for(e=0;e<i;++e)a+=t[e].length;var o=new Array(a),s=0;for(e=0;e<i;++e){var
l=t[e],c=l.length;for(r=0;r<c;++r){var u=o[s++]=new Array(c-
1),f=0;for(n=0;n<c;++n)n!==r&&(u[f++]=l[n]);if(1&r){var h=u[1];u[1]=u[0],u[0]=h}}}return
o}},{}],35:[function(t,e,r){"use strict";e.exports=function(t,e,r){switch(arguments.length){case 1:return f(t);case
2:return"function"==typeof e?c(t,t,e,!0):h(t,e);case 3:return c(t,e,r,!1);default:throw new Error("box-intersect:
Invalid arguments")}};var n,i=t("typedarray-pool"),a=t("./lib/sweep"),o=t("./lib/intersect");function s(t,e){for(var
r=0;r<t;++r)if(!(e[r]<=e[r+t]))return!0;return!1}function l(t,e,r,n){for(var i=0,a=0,o=0,l=t.length;o<l;++o){var
c=t[o];if(!s(e,c)){for(var u=0;u<2*e;++u)r[i++]=c[u];n[a++]=o}}return a}function c(t,e,r,n){var
s=t.length,c=e.length;if(!(s<=0||c<=0)){var u=t[0].length>>>1;if(!(u<=0)){var
f,h=i.mallocDouble(2*u*s),p=i.mallocInt32(s);if((s=l(t,u,h,p))>0){if(1===u&&n)a.init(s),f=a.sweepComplete(u,r,0,
s,h,p,0,s,h,p);else{var
d=i.mallocDouble(2*u*c),g=i.mallocInt32(c);(c=l(e,u,d,g))>0&&(a.init(s+c),f=1===u?a.sweepBipartite(u,r,0,s,h,p,
0,c,d,g):o(u,r,n,s,h,p,c,d,g),i.free(d),i.free(g))}i.free(h),i.free(p)}return f}}}function u(t,e){n.push([t,e])}function
f(t){return n=[],c(t,t,u,!0),n}function h(t,e){return
n=[],c(t,e,u,!1),n}},{"./lib/intersect":37,"./lib/sweep":41,"typedarray-pool":308}],36:[function(t,e,r){"use
strict";function n(t){return t?function(t,e,r,n,i,a,o,s,l,c,u){return i-n>l-s?function(t,e,r,n,i,a,o,s,l,c,u){for(var
f=2*t,h=n,p=f*n;h<i;++h,p+=f){var d=a[e+p],g=a[e+p+t],v=o[h];t:for(var m=s,y=f*s;m<l;++m,y+=f){var
x=c[e+y],b=c[e+y+t],_=u[m];if(!(b<d||g<x)){for(var w=e+1;w<t;++w){var
T=a[w+p],k=a[w+t+p],A=c[w+y],M=c[w+t+y];if(k<A||M<T)continue t}var S=r(v,_);if(void 0!==S)return
S}}}}(t,e,r,n,i,a,o,s,l,c,u):function(t,e,r,n,i,a,o,s,l,c,u){for(var f=2*t,h=s,p=f*s;h<l;++h,p+=f){var
d=c[e+p],g=c[e+p+t],v=u[h];t:for(var m=n,y=f*n;m<i;++m,y+=f){var
x=a[e+y],b=a[e+y+t],_=o[m];if(!(g<x||b<d)){for(var w=e+1;w<t;++w){var
T=a[w+y],k=a[w+t+y],A=c[w+p],M=c[w+t+p];if(k<A||M<T)continue t}var S=r(_,v);if(void 0!==S)return
S}}}}(t,e,r,n,i,a,o,s,l,c,u)}:function(t,e,r,n,i,a,o,s,l,c,u,f){return a-i>c-l?n?function(t,e,r,n,i,a,o,s,l,c,u){for(var
f=2*t,h=n,p=f*n;h<i;++h,p+=f){var d=a[e+p],g=a[e+p+t],v=o[h];t:for(var m=s,y=f*s;m<l;++m,y+=f){var
x=c[e+y],b=u[m];if(!(x<=d||g<x)){for(var _=e+1;_<t;++_){var
w=a[_+p],T=a[_+t+p],k=c[_+y],A=c[_+t+y];if(T<k||A<w)continue t}var M=r(b,v);if(void 0!==M)return

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M}}}}(t,e,r,i,a,o,s,l,c,u,f):function(t,e,r,n,i,a,o,s,l,c,u){for(var f=2*t,h=n,p=f*n;h<i;++h,p+=f){var
d=a[e+p],g=a[e+p+t],v=o[h];t:for(var m=s,y=f*s;m<l;++m,y+=f){var x=c[e+y],b=u[m];if(!(x<d||g<x)){for(var
_=e+1;_<t;++_){var w=a[_+p],T=a[_+t+p],k=c[_+y],A=c[_+t+y];if(T<k||A<w)continue t}var M=r(v,b);if(void
0!==M)return M}}}}(t,e,r,i,a,o,s,l,c,u,f):n?function(t,e,r,n,i,a,o,s,l,c,u){for(var f=2*t,h=s,p=f*s;h<l;++h,p+=f){var
d=c[e+p],g=u[h];t:for(var v=n,m=f*n;v<i;++v,m+=f){var y=a[e+m],x=a[e+m+t],b=o[v];if(!(d<=y||x<d)){for(var
_=e+1;_<t;++_){var w=a[_+m],T=a[_+t+m],k=c[_+p],A=c[_+t+p];if(T<k||A<w)continue t}var M=r(g,b);if(void
0!==M)return M}}}}(t,e,r,i,a,o,s,l,c,u,f):function(t,e,r,n,i,a,o,s,l,c,u){for(var f=2*t,h=s,p=f*s;h<l;++h,p+=f){var
d=c[e+p],g=u[h];t:for(var v=n,m=f*n;v<i;++v,m+=f){var y=a[e+m],x=a[e+m+t],b=o[v];if(!(d<y||x<d)){for(var
_=e+1;_<t;++_){var w=a[_+m],T=a[_+t+m],k=c[_+p],A=c[_+t+p];if(T<k||A<w)continue t}var M=r(b,g);if(void
0!==M)return M}}}}(t,e,r,i,a,o,s,l,c,u,f)}}r.partial=n(!1),r.full=n(!0)},{}],37:[function(t,e,r){"use
strict";e.exports=function(t,e,r,a,u,w,T,k,A){!function(t,e){var
r=8*i.log2(e+1)*(t+1)|0,a=i.nextPow2(6*r);m.length<a&&(n.free(m),m=n.mallocInt32(a));var
o=i.nextPow2(2*r);y.length<o&&(n.free(y),y=n.mallocDouble(o))}(t,a+T);var
M,S=0,E=2*t;for(x(S++,0,0,a,0,T,r?16:0,-1/0,1/0),r||x(S++,0,0,T,0,a,1,-1/0,1/0);S>0;){var L=6*(S-
=1),C=m[L],P=m[L+1],I=m[L+2],O=m[L+3],z=m[L+4],D=m[L+5],R=2*S,F=y[R],B=y[R+1],N=1&D,j=!!(16&D),
U=u,V=w,q=k,H=A;if(N&&(U=k,V=A,q=u,H=w),!(2&D&&P>=(I=p(t,C,P,I,U,V,B))||4&D&&(P=d(t,C,P,I,U,V,F)
)>=I)){var G=I-P,Y=z-O;if(j){if(t*G*(G+Y)<4194304){if(void
0!==(M=l.scanComplete(t,C,e,P,I,U,V,O,z,q,H)))return M;continue}}else{if(t*Math.min(G,Y)<128){if(void
0!==(M=o(t,C,e,N,P,I,U,V,O,z,q,H)))return M;continue}if(t*G*Y<4194304){if(void
0!==(M=l.scanBipartite(t,C,e,N,P,I,U,V,O,z,q,H)))return M;continue}}var W=f(t,C,P,I,U,V,F,B);if(P<W)if(t*(W-
P)<128){if(void 0!==(M=s(t,C+1,e,P,W,U,V,O,z,q,H)))return M}else if(C===t-2){if(void
0!==(M=N?l.sweepBipartite(t,e,O,z,q,H,P,W,U,V):l.sweepBipartite(t,e,P,W,U,V,O,z,q,H)))return M}else
x(S++,C+1,P,W,O,z,N,-1/0,1/0),x(S++,C+1,O,z,P,W,1^N,-1/0,1/0);if(W<I){var
X=c(t,C,O,z,q,H),Z=q[E*X+C],J=h(t,C,X,z,q,H,Z);if(J<z&&x(S++,C,W,I,J,z,(4|N)+(j?16:0),Z,B),O<X&&x(S++,C
,W,I,O,X,(2|N)+(j?16:0),F,Z),X+1===J){if(void
0!==(M=j?_(t,C,e,W,I,U,V,X,q,H[X]):b(t,C,e,N,W,I,U,V,X,q,H[X])))return M}else if(X<J){var
K;if(j){if(W<(K=g(t,C,W,I,U,V,Z))){var Q=h(t,C,W,K,U,V,Z);if(C===t-2){if(W<Q&&void
0!==(M=l.sweepComplete(t,e,W,Q,U,V,X,J,q,H)))return M;if(Q<K&&void
0!==(M=l.sweepBipartite(t,e,Q,K,U,V,X,J,q,H)))return M}else W<Q&&x(S++,C+1,W,Q,X,J,16,-
1/0,1/0),Q<K&&(x(S++,C+1,Q,K,X,J,0,-1/0,1/0),x(S++,C+1,X,J,Q,K,1,-1/0,1/0))}}else
W<(K=N?v(t,C,W,I,U,V,Z):g(t,C,W,I,U,V,Z))&&(C===t-
2?M=N?l.sweepBipartite(t,e,X,J,q,H,W,K,U,V):l.sweepBipartite(t,e,W,K,U,V,X,J,q,H):(x(S++,C+1,W,K,X,J,N,-
1/0,1/0),x(S++,C+1,X,J,W,K,1^N,-1/0,1/0)))}}}};var n=t("typedarray-pool"),i=t("bit-
twiddle"),a=t("./brute"),o=a.partial,s=a.full,l=t("./sweep"),c=t("./median"),u=t("./partition"),f=u("!(lo>=p0)&&!(p1>
=hi)"),h=u("lo===p0"),p=u("lo<p0"),d=u("hi<=p0"),g=u("lo<=p0&&p0<=hi"),v=u("lo<p0&&p0<=hi"),m=n.mallo
cInt32(1024),y=n.mallocDouble(1024);function x(t,e,r,n,i,a,o,s,l){var
c=6*t;m[c]=e,m[c+1]=r,m[c+2]=n,m[c+3]=i,m[c+4]=a,m[c+5]=o;var u=2*t;y[u]=s,y[u+1]=l}function
b(t,e,r,n,i,a,o,s,l,c,u){var f=2*t,h=l*f,p=c[h+e];t:for(var d=i,g=i*f;d<a;++d,g+=f){var
v=o[g+e],m=o[g+e+t];if(!(p<v||m<p||n&&p===v)){for(var y,x=s[d],b=e+1;b<t;++b){v=o[g+b],m=o[g+b+t];var
_=c[h+b],w=c[h+b+t];if(m<_||w<v)continue t}if(void 0!==(y=n?r(u,x):r(x,u)))return y}}}function
_(t,e,r,n,i,a,o,s,l,c){var u=2*t,f=s*u,h=l[f+e];t:for(var p=n,d=n*u;p<i;++p,d+=u){var g=o[p];if(g!==c){var
v=a[d+e],m=a[d+e+t];if(!(h<v||m<h)){for(var y=e+1;y<t;++y){v=a[d+y],m=a[d+y+t];var
x=l[f+y],b=l[f+y+t];if(m<x||b<v)continue t}var _=r(g,c);if(void 0!==_)return
_}}}}},{"./brute":36,"./median":38,"./partition":39,"./sweep":41,"bit-twiddle":32,"typedarray-
pool":308}],38:[function(t,e,r){"use strict";e.exports=function(t,e,r,a,o,s){if(a<=r+1)return r;for(var
l=r,c=a,u=a+r>>>1,f=2*t,h=u,p=o[f*u+e];l<c;){if(c-l<8){i(t,e,l,c,o,s),p=o[f*u+e];break}var d=c-
l,g=Math.random()*d+l|0,v=o[f*g+e],m=Math.random()*d+l|0,y=o[f*m+e],x=Math.random()*d+l|0,b=o[f*x+e];v<
=y?b>=y?(h=m,p=y):v>=b?(h=g,p=v):(h=x,p=b):y>=b?(h=m,p=y):b>=v?(h=g,p=v):(h=x,p=b);for(var _=f*(c-
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1),w=f*h,T=0;T<f;++T,++_,++w){var k=o[_];o[_]=o[w],o[w]=k}var A=s[c-1];for(s[c-1]=s[h],s[h]=A,_=f*(c-
1),w=f*(h=n(t,e,l,c-1,o,s,p)),T=0;T<f;++T,++_,++w)k=o[_],o[_]=o[w],o[w]=k;if(A=s[c-1],s[c-
1]=s[h],s[h]=A,u<h){for(c=h-1;l<c&&o[f*(c-1)+e]===p;)c-
=1;c+=1}else{if(!(h<u))break;for(l=h+1;l<c&&o[f*l+e]===p;)l+=1}}return n(t,e,r,u,o,s,o[f*u+e])};var
n=t("./partition")("lo<p0");function i(t,e,r,n,i,a){for(var o=2*t,s=o*(r+1)+e,l=r+1;l<n;++l,s+=o)for(var
c=i[s],u=l,f=o*(l-1);u>r&&i[f+e]>c;--u,f-=o){for(var h=f,p=f+o,d=0;d<o;++d,++h,++p){var
g=i[h];i[h]=i[p],i[p]=g}var v=a[u];a[u]=a[u-1],a[u-1]=v}}},{"./partition":39}],39:[function(t,e,r){"use
strict";e.exports=function(t){return n[t]};var n={"lo===p0":function(t,e,r,n,i,a,o){for(var
s=2*t,l=s*r,c=l,u=r,f=e,h=r;n>h;++h,l+=s)if(i[l+f]===o)if(u===h)u+=1,c+=s;else{for(var p=0;s>p;++p){var
d=i[l+p];i[l+p]=i[c],i[c++]=d}var g=a[h];a[h]=a[u],a[u++]=g}return u},"lo<p0":function(t,e,r,n,i,a,o){for(var
s=2*t,l=s*r,c=l,u=r,f=e,h=r;n>h;++h,l+=s)if(i[l+f]<o)if(u===h)u+=1,c+=s;else{for(var p=0;s>p;++p){var
d=i[l+p];i[l+p]=i[c],i[c++]=d}var g=a[h];a[h]=a[u],a[u++]=g}return u},"lo<=p0":function(t,e,r,n,i,a,o){for(var
s=2*t,l=s*r,c=l,u=r,f=t+e,h=r;n>h;++h,l+=s)if(i[l+f]<=o)if(u===h)u+=1,c+=s;else{for(var p=0;s>p;++p){var
d=i[l+p];i[l+p]=i[c],i[c++]=d}var g=a[h];a[h]=a[u],a[u++]=g}return u},"hi<=p0":function(t,e,r,n,i,a,o){for(var
s=2*t,l=s*r,c=l,u=r,f=t+e,h=r;n>h;++h,l+=s)if(i[l+f]<=o)if(u===h)u+=1,c+=s;else{for(var p=0;s>p;++p){var
d=i[l+p];i[l+p]=i[c],i[c++]=d}var g=a[h];a[h]=a[u],a[u++]=g}return
u},"lo<p0&&p0<=hi":function(t,e,r,n,i,a,o){for(var s=2*t,l=s*r,c=l,u=r,f=e,h=t+e,p=r;n>p;++p,l+=s){var
d=i[l+f],g=i[l+h];if(d<o&&o<=g)if(u===p)u+=1,c+=s;else{for(var v=0;s>v;++v){var
m=i[l+v];i[l+v]=i[c],i[c++]=m}var y=a[p];a[p]=a[u],a[u++]=y}}return
u},"lo<=p0&&p0<=hi":function(t,e,r,n,i,a,o){for(var s=2*t,l=s*r,c=l,u=r,f=e,h=t+e,p=r;n>p;++p,l+=s){var
d=i[l+f],g=i[l+h];if(d<=o&&o<=g)if(u===p)u+=1,c+=s;else{for(var v=0;s>v;++v){var
m=i[l+v];i[l+v]=i[c],i[c++]=m}var y=a[p];a[p]=a[u],a[u++]=y}}return
u},"!(lo>=p0)&&!(p1>=hi)":function(t,e,r,n,i,a,o,s){for(var l=2*t,c=l*r,u=c,f=r,h=e,p=t+e,d=r;n>d;++d,c+=l){var
g=i[c+h],v=i[c+p];if(!(g>=o||s>=v))if(f===d)f+=1,u+=l;else{for(var m=0;l>m;++m){var
y=i[c+m];i[c+m]=i[u],i[u++]=y}var x=a[d];a[d]=a[f],a[f++]=x}}return f}},{}],40:[function(t,e,r){"use
strict";function n(t,e,r){for(var n=2*(t+1),i=t+1;i<=e;++i){for(var a=r[n++],o=r[n++],s=i,l=n-2;s-- >t;){var c=r[l-
2],u=r[l-1];if(c<a)break;if(c===a&&u<o)break;r[l]=c,r[l+1]=u,l-=2}r[l]=a,r[l+1]=o}}function i(t,e,r){e*=2;var
n=r[t*=2],i=r[t+1];r[t]=r[e],r[t+1]=r[e+1],r[e]=n,r[e+1]=i}function a(t,e,r){e*=2,r[t*=2]=r[e],r[t+1]=r[e+1]}function
o(t,e,r,n){e*=2,r*=2;var
i=n[t*=2],a=n[t+1];n[t]=n[e],n[t+1]=n[e+1],n[e]=n[r],n[e+1]=n[r+1],n[r]=i,n[r+1]=a}function
s(t,e,r,n,i){e*=2,i[t*=2]=i[e],i[e]=r,i[t+1]=i[e+1],i[e+1]=n}function l(t,e,r){e*=2;var
n=r[t*=2],i=r[e];return!(n<i)&&(n!==i||r[t+1]>r[e+1])}function c(t,e,r,n){var i=n[t*=2];return
i<e||i===e&&n[t+1]<r}function u(t,e,r){var f=(e-t+1)/6|0,h=t+f,p=e-f,d=t+e>>1,g=d-
f,v=d+f,m=h,y=g,x=d,b=v,_=p,w=t+1,T=e-
1,k=0;l(m,y,r)&&(k=m,m=y,y=k),l(b,_,r)&&(k=b,b=_,_=k),l(m,x,r)&&(k=m,m=x,x=k),l(y,x,r)&&(k=y,y=x,x=k),l(
m,b,r)&&(k=m,m=b,b=k),l(x,b,r)&&(k=x,x=b,b=k),l(y,_,r)&&(k=y,y=_,_=k),l(y,x,r)&&(k=y,y=x,x=k),l(b,_,r)&&(
k=b,b=_,_=k);for(var
A=r[2*y],M=r[2*y+1],S=r[2*b],E=r[2*b+1],L=2*m,C=2*x,P=2*_,I=2*h,O=2*d,z=2*p,D=0;D<2;++D){var
R=r[L+D],F=r[C+D],B=r[P+D];r[I+D]=R,r[O+D]=F,r[z+D]=B}a(g,t,r),a(v,e,r);for(var
N=w;N<=T;++N)if(c(N,A,M,r))N!==w&&i(N,w,r),++w;else
if(!c(N,S,E,r))for(;;){if(c(T,S,E,r)){c(T,A,M,r)?(o(N,w,T,r),++w,--T):(i(N,T,r),--T);break}if(--T<N)break}s(t,w-
1,A,M,r),s(e,T+1,S,E,r),w-2-t<=32?n(t,w-2,r):u(t,w-2,r),e-(T+2)<=32?n(T+2,e,r):u(T+2,e,r),T-
w<=32?n(w,T,r):u(w,T,r)}e.exports=function(t,e){e<=128?n(0,e-1,t):u(0,e-1,t)}},{}],41:[function(t,e,r){"use
strict";e.exports={init:function(t){var
e=i.nextPow2(t);l.length<e&&(n.free(l),l=n.mallocInt32(e)),c.length<e&&(n.free(c),c=n.mallocInt32(e)),u.length<e
&&(n.free(u),u=n.mallocInt32(e)),f.length<e&&(n.free(f),f=n.mallocInt32(e)),h.length<e&&(n.free(h),h=n.mallocI
nt32(e)),p.length<e&&(n.free(p),p=n.mallocInt32(e));var
r=8*e;d.length<r&&(n.free(d),d=n.mallocDouble(r))},sweepBipartite:function(t,e,r,n,i,s,h,p,m,y){for(var
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x=0,b=2*t,_=t-1,w=b-1,T=r;T<n;++T){var k=s[T],A=b*T;d[x++]=i[A+_],d[x++]=-(k+1),d[x++]=i[A+w],d[x++]=k}for(T=h;T<p;++T){k=y[T]+o;var M=b*T;d[x++]=m[M+_],d[x++]=-k,d[x++]=m[M+w],d[x++]=k}var S=x>>>1;a(d,S);var E=0,L=0;for(T=0;T<S;++T){var C=0|d[2*T+1];if(C>=o)g(u,f,L--,C=C-o|0);else if(C>=0)g(l,c,E--,C);else if(C<=-268435456){C=-C-o|0;for(var P=0;P<E;++P)if(void 0!==(I=e(l[P],C)))return I;v(u,f,L++,C)}else{for(C=-C-1|0,P=0;P<L;++P){var I;if(void 0!==(I=e(C,u[P])))return I}v(l,c,E++,C)}}},sweepComplete:function(t,e,r,n,i,o,s,m,y,x){for(var b=0,_=2*t,w=t-1,T=_-1,k=r;k<n;++k){var A=o[k]+1<<1,M=_*k;d[b++]=i[M+w],d[b++]=-A,d[b++]=i[M+T],d[b++]=A}for(k=s;k<m;++k){A=x[k]+1<<1;var S=_*k;d[b++]=y[S+w],d[b++]=1|-A,d[b++]=y[S+T],d[b++]=1|A}var E=b>>>1;a(d,E);var L=0,C=0,P=0;for(k=0;k<E;++k){var I=0|d[2*k+1],O=1&I;if(k<E-1&&I>>1==d[2*k+3]>>1&&(O=2,k+=1),I<0){for(var z=-(I>>1)-1,D=0;D<P;++D)if(void 0!==(R=e(h[D],z)))return R;if(0!==O)for(D=0;D<L;++D)if(void 0!==(R=e(l[D],z)))return R;if(1!==O)for(D=0;D<C;++D){var R;if(void 0!==(R=e(u[D],z)))return R}0===O?v(l,c,L++,z):1===O?v(u,f,C++,z):2===O&&v(h,p,P++,z)}else z=(I>>1)-1,0===O?g(l,c,L--,z):1===O?g(u,f,C--,z):2===O&&g(h,p,P--,z)}},scanBipartite:function(t,e,r,n,i,s,u,f,h,p,m,y){var x=0,b=2*t,_=e,w=e+t,T=1,k=1;n?k=o:T=o;for(var A=i;A<s;++A){var M=A+T,S=b*A;d[x++]=u[S+_],d[x++]=-M,d[x++]=u[S+w],d[x++]=M}for(A=h;A<p;++A){M=A+k;var E=b*A;d[x++]=m[E+_],d[x++]=-M}var L=x>>>1;a(d,L);var C=0;for(A=0;A<L;++A){var P=0|d[2*A+1];if(P<0){var I=!1;if((M=-P)>=o?(I=!n,M-=o):(I=!!n,M-=1),I)v(l,c,C++,M);else{var O=y[M],z=b*M,D=m[z+e+1],R=m[z+e+1+t];t:for(var F=0;F<C;++F){var B=l[F],N=b*B;if(!(R<u[N+e+1]||u[N+e+1+t]<D)){for(var j=e+2;j<t;++j)if(m[z+j+t]<u[N+j]||u[N+j+t]<m[z+j])continue t;var U,V=f[B];if(void 0!==(U=n?r(O,V):r(V,O)))return U}}}}else g(l,c,C--,P-T)}},scanComplete:function(t,e,r,n,i,s,c,u,f,h,p){for(var g=0,v=2*t,m=e,y=e+t,x=n;x<i;++x){var b=x+o,_=v*x;d[g++]=s[_+m],d[g++]=-b,d[g++]=s[_+y],d[g++]=b}for(x=u;x<f;++x){b=x+1;var w=v*x;d[g++]=h[w+m],d[g++]=-b}var T=g>>>1;a(d,T);var k=0;for(x=0;x<T;++x){var A=0|d[2*x+1];if(A<0)if((b=-A)>=o)l[k++]=b-o;else{var M=p[b=1],S=v*b,E=h[S+e+1],L=h[S+e+1+t];t:for(var C=0;C<k;++C){var P=l[C],I=c[P];if(I===M)break;var O=v*P;if(!(L<s[O+e+1]||s[O+e+1+t]<E)){for(var z=e+2;z<t;++z)if(h[S+z+t]<s[O+z]||s[O+z+t]<h[S+z])continue t;var D=r(I,M);if(void 0!==D)return D}}else{for(b=A-o,C=k-1;C>=0;--C)if(l[C]===b){for(z=C+1;z<k;++z)l[z-1]=l[z];break}--k}}}};var n=t("typedarray-pool"),i=t("bit-twiddle"),a=t("./sort"),o=1<<28,s=1024,l=n.mallocInt32(s),c=n.mallocInt32(s),u=n.mallocInt32(s),f=n.mallocInt32(s),h=n.mallocInt32(s),p=n.mallocInt32(s),d=n.mallocDouble(8192);function g(t,e,r,n){var i=e[n],a=t[r-1];t[i]=a,e[a]=i}function v(t,e,r,n){t[r]=n,e[n]=r}},{"./sort":40,"bit-twiddle":32,"typedarray-pool":308}],42:[function(t,e,r){"use strict";var n=t("./lib/monotone"),i=t("./lib/triangulation"),a=t("./lib/delaunay"),o=t("./lib/filter");function s(t){return[Math.min(t[0],t[1]),Math.max(t[0],t[1])]}function l(t,e){return t[0]-e[0]||t[1]-e[1]}function c(t,e,r){return e in t?t[e]:r}e.exports=function(t,e,r){Array.isArray(e)?(r=r||{},e=e||[]):(r=e||{},e=[]);var u=!!c(r,"delaunay",!0),f=!!c(r,"interior",!0),h=!!c(r,"exterior",!0),p=!!c(r,"infinity",!1);if(!f&&!h||0===t.length)return[];var d=n(t,e);if(u||f!==h||p){for(var g=i(t.length,function(t){return t.map(s).sort(l)}(e)),v=0;v<d.length;++v){var m=d[v];g.addTriangle(m[0],m[1],m[2])}return u&&a(t,g),h?f?p?o(g,0,p):g.cells():o(g,1,p):o(g,-1)}return d}},{"./lib/delaunay":43,"./lib/filter":44,"./lib/monotone":45,"./lib/triangulation":46}],43:[function(t,e,r){"use strict";var n=t("robust-in-sphere")[4];function i(t,e,r,i,a,o){var s=e.opposite(i,a);if(!(s<0)){if(a<i){var l=i;i=a,a=l,l=o,o=s,s=l}e.isConstraint(i,a)||n(t[i],t[a],t[o],t[s])<0&&r.push(i,a)}}t("binary-search-bounds"),e.exports=function(t,e){for(var r=[],a=t.length,o=e.stars,s=0;s<a;++s)for(var l=o[s],c=1;c<l.length;c+=2)if(!((p=l[c])<s||e.isConstraint(s,p))){for(var u=l[c-1],f=-1,h=1;h<l.length;h+=2)if(l[h-1]===p){f=l[h];break}f<0||n(t[s],t[p],t[u],t[f])<0&&r.push(s,p)}for(;r.length>0;){for(var p=r.pop(),d=(u=-1,f=-1,l=o[s=r.pop()],1);d<l.length;d+=2){var g=l[d-1],v=l[d];g===p?f=v:v===p&&(u=g)}u<0||f<0||n(t[s],t[p],t[u],t[f])>=0||(e.flip(s,p),i(t,e,r,u,s,f),i(t,e,r,s,f,u),i(t,e,r,f,p,u),i(t,e,r,p,u,f))}}},{"binary-search-bounds":31,"robust-in-sphere":282}],44:[function(t,e,r){"use strict";var n,i=t("binary-search-bounds");function

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a(t,e,r,n,i,a,o){this.cells=t,this.neighbor=e,this.flags=n,this.constraint=r,this.active=i,this.next=a,this.boundary=o}fu
nction o(t,e){return t[0]-e[0]||t[1]-e[1]||t[2]-e[2]}e.exports=function(t,e,r){var n=function(t,e){for(var
r=t.cells(),n=r.length,i=0;i<n;++i){var
s=(m=r[i])[0],l=m[1],c=m[2];l<c?l<s&&(m[0]=l,m[1]=c,m[2]=s):c<s&&(m[0]=c,m[1]=s,m[2]=l)}r.sort(o);var
u=new Array(n);for(i=0;i<u.length;++i)u[i]=0;var f=[],h=[],p=new Array(3*n),d=new
Array(3*n),g=null;e&&(g=[]);var v=new a(r,p,d,u,f,h,g);for(i=0;i<n;++i)for(var
m=r[i],y=0;y<3;++y){s=m[y],l=m[(y+1)%3];var
x=p[3*i+y]=v.locate(l,s,t.opposite(l,s)),b=d[3*i+y]=t.isConstraint(s,l);x<0&&(b?h.push(i):(f.push(i),u[i]=1),e&&g.
push([l,s,-1]))}return v}(t,r);if(0===e)return r?n.cells.concat(n.boundary):n.cells;for(var
i=1,s=n.active,l=n.next,c=n.flags,u=n.cells,f=n.constraint,h=n.neighbor;s.length>0||l.length>0;){for(;s.length>0;){va
r p=s.pop();if(c[p]!==-i){c[p]=i,u[p];for(var d=0;d<3;++d){var
g=h[3*p+d];g>=0&&0===c[g]&&(f[3*p+d]?l.push(g):(s.push(g),c[g]=i))}}}var v=l;l=s,s=v,l.length=0,i=-i}var
m=function(t,e,r){for(var n=0,i=0;i<t.length;++i)e[i]===r&&(t[n++]=t[i]);return t.length=n,t}(u,c,e);return
r?m.concat(n.boundary):m},a.prototype.locate=(n=[0,0,0],function(t,e,r){var a=t,s=e,l=r;return
e<r?e<t&&(a=e,s=r,l=t):r<t&&(a=r,s=t,l=e),a<0?-1:(n[0]=a,n[1]=s,n[2]=l,i.eq(this.cells,n,o))})},{"binary-search-
bounds":31}],45:[function(t,e,r){"use strict";var n=t("binary-search-bounds"),i=t("robust-orientation")[3];function
a(t,e,r,n,i){this.a=t,this.b=e,this.idx=r,this.lowerIds=n,this.upperIds=i}function
o(t,e,r,n){this.a=t,this.b=e,this.type=r,this.idx=n}function s(t,e){var r=t.a[0]-e.a[0]||t.a[1]-e.a[1]||t.type-e.type;return
r||(0!==t.type&&(r=i(t.a,t.b,e.b))?r:t.idx-e.idx)}function l(t,e){return i(t.a,t.b,e)}function c(t,e,r,a,o){for(var
s=n.lt(e,a,l),c=n.gt(e,a,l),u=s;u<c;++u){for(var f=e[u],h=f.lowerIds,p=h.length;p>1&&i(r[h[p-2]],r[h[p-
1]],a)>0;)t.push([h[p-1],h[p-2],o]),p-=1;h.length=p,h.push(o);var d=f.upperIds;for(p=d.length;p>1&&i(r[d[p-
2]],r[d[p-1]],a)<0;)t.push([d[p-2],d[p-1],o]),p-=1;d.length=p,d.push(o)}}function u(t,e){var
r;return(r=t.a[0]<e.a[0]?i(t.a,t.b,e.a):i(e.b,e.a,t.a))?r:(r=e.b[0]<t.b[0]?i(t.a,t.b,e.b):i(e.b,e.a,t.b))||t.idx-e.idx}function
f(t,e,r){var i=n.le(t,r,u),o=t[i],s=o.upperIds,l=s[s.length-1];o.upperIds=[l],t.splice(i+1,0,new
a(r.a,r.b,r.idx,[l],s))}function h(t,e,r){var i=r.a;r.a=r.b,r.b=i;var a=n.eq(t,r,u),o=t[a];t[a-
1].upperIds=o.upperIds,t.splice(a,1)}e.exports=function(t,e){for(var
r=t.length,n=e.length,i=[],l=0;l<r;++l)i.push(new o(t[l],null,0,l));for(l=0;l<n;++l){var
u=e[l],p=t[u[0]],d=t[u[1]];p[0]<d[0]?i.push(new o(p,d,2,l),new o(d,p,1,l)):p[0]>d[0]&&i.push(new o(d,p,2,l),new
o(p,d,1,l))}i.sort(s);for(var g=i[0].a[0]-(1+Math.abs(i[0].a[0]))*Math.pow(2,-52),v=[new a([g,1],[g,0],-
1,[],[],[],[])],m=[],y=(l=0,i.length);l<y;++l){var
x=i[l],b=x.type;0===b?c(m,v,t,x.a,x.idx):2===b?f(v,0,x):h(v,0,x)}return m}},{"binary-search-bounds":31,"robust-
orientation":284}],46:[function(t,e,r){"use strict";var n=t("binary-search-bounds");function
i(t,e){this.stars=t,this.edges=e}e.exports=function(t,e){for(var r=new Array(t),n=0;n<t;++n)r[n]=[];return new
i(r,e)};var a=i.prototype;function o(t,e,r){for(var n=1,i=t.length;n<i;n+=2)if(t[n-1]===e&&t[n]===r)return t[n-
1]=t[i-2],t[n]=t[i-1],void(t.length=i-2)}a.isConstraint=function(){var t=[0,0];function e(t,e){return t[0]-e[0]||t[1]-
e[1]}return function(r,i){return
t[0]=Math.min(r,i),t[1]=Math.max(r,i),n.eq(this.edges,t,e)>=0}}(),a.removeTriangle=function(t,e,r){var
n=this.stars;o(n[t],e,r),o(n[e],r,t),o(n[r],t,e)},a.addTriangle=function(t,e,r){var
n=this.stars;n[t].push(e,r),n[e].push(r,t),n[r].push(t,e)},a.opposite=function(t,e){for(var
r=this.stars[e],n=1,i=r.length;n<i;n+=2)if(r[n]===t)return r[n-1];return-1},a.flip=function(t,e){var
r=this.opposite(t,e),n=this.opposite(e,t);this.removeTriangle(t,e,r),this.removeTriangle(e,t,n),this.addTriangle(t,n,r),t
his.addTriangle(e,r,n)},a.edges=function(){for(var t=this.stars,e=[],r=0,n=t.length;r<n;++r)for(var
i=t[r],a=0,o=i.length;a<o;a+=2)e.push([i[a],i[a+1]]);return e},a.cells=function(){for(var
t=this.stars,e=[],r=0,n=t.length;r<n;++r)for(var i=t[r],a=0,o=i.length;a<o;a+=2){var
s=i[a],l=i[a+1];r<Math.min(s,l)&&e.push([r,s,l])}return e}},{"binary-search-bounds":31}],47:[function(t,e,r){"use
strict";e.exports=function(t){for(var e=1,r=1;r<t.length;++r)for(var n=0;n<r;++n)if(t[r]<t[n])e=-e;else
if(t[n]===t[r])return 0;return e}},{}],48:[function(t,e,r){"use strict";var n=t("dup"),i=t("robust-linear-
solve");function a(t,e){for(var r=0,n=t.length,i=0;i<n;++i)r+=t[i]*e[i];return r}function o(t){var
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e=t.length;if(0===e)return[];t[0].length;var r=n([t.length+1,t.length+1],1),o=n([t.length+1],1);r[e][e]=0;for(var s=0;s<e;++s){for(var l=0;l<=s;++l)r[l][s]=r[s][l]=2*a(t[s],t[l]);o[s]=a(t[s],t[s])}var c=i(r,o),u=0,f=c[e+1];for(s=0;s<f.length;++s)u+=f[s];var h=new Array(e);for(s=0;s<e;++s){f=c[s];var p=0;for(l=0;l<f.length;++l)p+=f[l];h[s]=p/u}return h}function s(t){if(0===t.length)return[];for(var e=t[0].length,r=n([e]),i=o(t),a=0;a<t.length;++a)for(var s=0;s<e;++s)r[s]+=t[a][s]*i[a];return r}s.barycenetric=o,e.exports=s},{dup:65,"robust-linear-solve":283}],49:[function(t,e,r){e.exports=function(t){for(var e=n(t),r=0,i=0;i<t.length;++i)for(var a=t[i],o=0;o<e.length;++o)r+=Math.pow(a[o]-e[o],2);return Math.sqrt(r/t.length)};var n=t("circumcenter")},{circumcenter:48}],50:[function(t,e,r){"use strict";e.exports=function(t,e,r){var n;if(r){n=e;for(var i=new Array(e.length),a=0;a<e.length;++a){var o=e[a];i[a]=[o[0],o[1],r[a]]}e=i}for(var s=function(t,e,r){var n=d(t,[],p(t));return m(e,n,r),!!n}(t,e,!!r);y(t,e,!!r);)s=!0;if(r&&s)for(n.length=0,r.length=0,a=0;a<e.length;++a)o=e[a],n.push([o[0],o[1]]),r.push(o[2]);return s};var n=t("union-find"),i=t("box-intersect"),a=t("robust-segment-intersect"),o=t("big-rat"),s=t("big-rat/cmp"),l=t("big-rat/to-float"),c=t("rat-vec"),u=t("nextafter"),f=t("./lib/rat-seg-intersect");function h(t){var e=l(t);return[u(e,-1/0),u(e,1/0)]}function p(t){for(var e=new Array(t.length),r=0;r<t.length;++r){var n=t[r];e[r]=[u(n[0],-1/0),u(n[1],-1/0),u(n[0],1/0),u(n[1],1/0)]}return e}function d(t,e,r){for(var a=e.length,o=new n(a),s=[],l=0;l<e.length;++l){var c=e[l],f=h(c[0]),p=h(c[1]);s.push([u(f[0],-1/0),u(p[0],-1/0),u(f[1],1/0),u(p[1],1/0)])}i(s,(function(t,e){o.link(t,e)}));var d=!0,g=new Array(a);for(l=0;l<a;++l)(m=o.find(l))!==l&&(d=!1,t[m]=[Math.min(t[l][0],t[m][0]),Math.min(t[l][1],t[m][1])]);if(d)return null;var v=0;for(l=0;l<a;++l){var m;(m=o.find(l))===l?(g[l]=v,t[v++]=t[l]):g[l]=-1}for(t.length=v,l=0;l<a;++l)g[l]<0&&(g[l]=g[o.find(l)]);return g}function g(t,e){return t[0]-e[0]||t[1]-e[1]}function v(t,e){return t[0]-e[0]||t[1]-e[1]||(t[2]<e[2]?-1:t[2]>e[2]?1:0)}function m(t,e,r){if(0!==t.length){if(e)for(var n=0;n<t.length;++n){var i=e[(o=t[n])[0]],a=e[o[1]];o[0]=Math.min(i,a),o[1]=Math.max(i,a)}else for(n=0;n<t.length;++n){var o;i=(o=t[n])[0],a=o[1],o[0]=Math.min(i,a),o[1]=Math.max(i,a)}r?t.sort(v):t.sort(g);var s=1;for(n=1;n<t.length;++n){var l=t[n-1],c=t[n];(c[0]!==l[0]||c[1]!==l[1]||r&&c[2]!==l[2])&&(t[s++]=c)}t.length=s}}function y(t,e,r){var n=function(t,e){for(var r=new Array(e.length),n=0;n<e.length;++n){var i=e[n],a=t[i[0]],o=t[i[1]];r[n]=[u(Math.min(a[0],o[0]),-1/0),u(Math.min(a[1],o[1]),-1/0),u(Math.max(a[0],o[0]),1/0),u(Math.max(a[1],o[1]),1/0)]}return r}(t,e),h=function(t,e,r){var n=[];return i(r,(function(r,i){var o=e[r],s=e[i];if(o[0]!==s[0]&&o[0]!==s[1]&&o[1]!==s[0]&&o[1]!==s[1]){var l=t[o[0]],c=t[o[1]],u=t[s[0]],f=t[s[1]];a(l,c,u,f)&&n.push([r,i])}})),n}(t,e,n),g=p(t),v=function(t,e,r,n){var o=[];return i(r,n,(function(r,n){var i=e[r];if(i[0]!==n&&i[1]!==n){var s=t[n],l=t[i[0]],c=t[i[1]];a(l,c,s,s)&&o.push([r,n])}})),o}(t,e,n,g),y=d(t,function(t,e,r,n,i){var a,u,h=t.map((function(t){return[o(t[0]),o(t[1])]}));for(a=0;a<r.length;++a){var p=r[a];u=p[0];var d=p[1],g=e[u],v=e[d],m=f(c(t[g[0]]),c(t[g[1]]),c(t[v[0]]),c(t[v[1]]));if(m){var y=t.length;t.push([l(m[0]),l(m[1])]),h.push(m),n.push([u,y],[d,y])}}for(n.sort((function(t,e){if(t[0]!==e[0])return t[0]-e[0];var r=h[t[1]],n=h[e[1]];return s(r[0],n[0])||s(r[1],n[1])}))),a=n.length-1;a>=0;--a){var x=e[u=(S=n[a])[0]],b=x[0],_=x[1],w=t[b],T=t[_];if((w[0]-T[0]||w[1]-T[1])<0){var k=b;b=_,_=k}x[0]=b;var A,M=x[1]=S[1];for(i&&(A=x[2]);a>0&&n[a-1][0]===u;){var S,E=(S=n[--a])[1];i?e.push([M,E,A]):e.push([M,E]),M=E}i?e.push([M,_,A]):e.push([M,_])}return h}(t,e,h,v,r));return m(e,y,r),!!y||h.length>0||v.length>0}},{"./lib/rat-seg-intersect":51,"big-rat":18,"big-rat/cmp":16,"big-rat/to-float":30,"box-intersect":35,nextafter:260,"rat-vec":273,"robust-segment-intersect":287,"union-find":309}],51:[function(t,e,r){"use strict";e.exports=function(t,e,r,n){var a=s(e,t),f=s(n,r),h=u(a,f);if(0===o(h))return null;var p=u(f,s(t,r)),d=i(p,h),g=c(a,d);return l(t,g)};var n=t("big-rat/mul"),i=t("big-rat/div"),a=t("big-rat/sub"),o=t("big-rat/sign"),s=t("rat-vec/sub"),l=t("rat-vec/add"),c=t("rat-vec/muls");function u(t,e){return a(n(t[0],e[1]),n(t[1],e[0]))}},{"big-rat/div":17,"big-rat/mul":27,"big-rat/sign":28,"big-rat/sub":29,"rat-vec/add":272,"rat-vec/muls":274,"rat-vec/sub":275}],52:[function(t,e,r){e.exports={jet:[{index:0,rgb:[0,0,131]},{index:.125,rgb:[0,60,170]},{index:.375,r

gb:[5,255,255]},{index:.625,rgb:[255,255,0]},{index:.875,rgb:[250,0,0]},{index:1,rgb:[128,0,0]}],hsv:[{index:0,rgb:[255,0,0]},{index:.169,rgb:[253,255,2]},{index:.173,rgb:[247,255,2]},{index:.337,rgb:[0,252,4]},{index:.341,rgb:[0,252,10]},{index:.506,rgb:[1,249,255]},{index:.671,rgb:[2,0,253]},{index:.675,rgb:[8,0,253]},{index:.839,rgb:[255,0,251]},{index:.843,rgb:[255,0,245]},{index:1,rgb:[255,0,6]}],hot:[{index:0,rgb:[0,0,0]},{index:.3,rgb:[230,0,0]},{index:.6,rgb:[255,210,0]},{index:1,rgb:[255,255,255]}],spring:[{index:0,rgb:[255,0,255]},{index:1,rgb:[255,255,0]}],summer:[{index:0,rgb:[0,128,102]},{index:1,rgb:[255,255,102]}],autumn:[{index:0,rgb:[255,0,0]},{index:1,rgb:[255,255,0]}],winter:[{index:0,rgb:[0,0,255]},{index:1,rgb:[0,255,128]}],bone:[{index:0,rgb:[0,0,0]},{index:.376,rgb:[84,84,116]},{index:.753,rgb:[169,200,200]},{index:1,rgb:[255,255,255]}],copper:[{index:0,rgb:[0,0,0]},{index:.804,rgb:[255,160,102]},{index:1,rgb:[255,199,127]}],greys:[{index:0,rgb:[0,0,0]},{index:1,rgb:[255,255,255]}],yignbu:[{index:0,rgb:[8,29,88]},{index:.125,rgb:[37,52,148]},{index:.25,rgb:[34,94,168]},{index:.375,rgb:[29,145,192]},{index:.5,rgb:[65,182,196]},{index:.625,rgb:[127,205,187]},{index:.75,rgb:[199,233,180]},{index:.875,rgb:[237,248,217]},{index:1,rgb:[255,255,217]}],greens:[{index:0,rgb:[0,68,27]},{index:.125,rgb:[0,109,44]},{index:.25,rgb:[35,139,69]},{index:.375,rgb:[65,171,93]},{index:.5,rgb:[116,196,118]},{index:.625,rgb:[161,217,155]},{index:.75,rgb:[199,233,192]},{index:.875,rgb:[229,245,224]},{index:1,rgb:[247,252,245]}],yiorrd:[{index:0,rgb:[128,0,38]},{index:.125,rgb:[189,0,38]},{index:.25,rgb:[227,26,28]},{index:.375,rgb:[252,78,42]},{index:.5,rgb:[253,141,60]},{index:.625,rgb:[254,178,76]},{index:.75,rgb:[254,217,118]},{index:.875,rgb:[255,237,160]},{index:1,rgb:[255,255,204]}],bluered:[{index:0,rgb:[0,0,255]},{index:1,rgb:[255,0,0]}],rdbu:[{index:0,rgb:[5,10,172]},{index:.35,rgb:[106,137,247]},{index:.5,rgb:[190,190,190]},{index:.6,rgb:[220,170,132]},{index:.7,rgb:[230,145,90]},{index:1,rgb:[178,10,28]}],picnic:[{index:0,rgb:[0,0,255]},{index:.1,rgb:[51,153,255]},{index:.2,rgb:[102,204,255]},{index:.3,rgb:[153,204,255]},{index:.4,rgb:[204,204,255]},{index:.5,rgb:[255,255,255]},{index:.6,rgb:[255,204,255]},{index:.7,rgb:[255,153,255]},{index:.8,rgb:[255,102,204]},{index:.9,rgb:[255,102,102]},{index:1,rgb:[255,0,0]}],rainbow:[{index:0,rgb:[150,0,90]},{index:.125,rgb:[0,0,200]},{index:.25,rgb:[0,25,255]},{index:.375,rgb:[0,152,255]},{index:.5,rgb:[44,255,150]},{index:.625,rgb:[151,255,0]},{index:.75,rgb:[255,234,0]},{index:.875,rgb:[255,111,0]},{index:1,rgb:[255,0,0]}],portland:[{index:0,rgb:[12,51,131]},{index:.25,rgb:[10,136,186]},{index:.5,rgb:[242,211,56]},{index:.75,rgb:[242,143,56]},{index:1,rgb:[217,30,30]}],blackbody:[{index:0,rgb:[0,0,0]},{index:.2,rgb:[230,0,0]},{index:.4,rgb:[230,210,0]},{index:.7,rgb:[255,255,255]},{index:1,rgb:[160,200,255]}],earth:[{index:0,rgb:[0,0,130]},{index:.1,rgb:[0,180,180]},{index:.2,rgb:[40,210,40]},{index:.4,rgb:[230,230,50]},{index:.6,rgb:[120,70,20]},{index:1,rgb:[255,255,255]}],electric:[{index:0,rgb:[0,0,0]},{index:.15,rgb:[30,0,100]},{index:.4,rgb:[120,0,100]},{index:.6,rgb:[160,90,0]},{index:.8,rgb:[230,200,0]},{index:1,rgb:[255,250,220]}],alpha:[{index:0,rgb:[255,255,255,0]},{index:1,rgb:[255,255,255,1]}],viridis:[{index:0,rgb:[68,1,84]},{index:.13,rgb:[71,44,122]},{index:.25,rgb:[59,81,139]},{index:.38,rgb:[44,113,142]},{index:.5,rgb:[33,144,141]},{index:.63,rgb:[39,173,129]},{index:.75,rgb:[92,200,99]},{index:.88,rgb:[170,220,50]},{index:1,rgb:[253,231,37]}],inferno:[{index:0,rgb:[0,0,4]},{index:.13,rgb:[31,12,72]},{index:.25,rgb:[85,15,109]},{index:.38,rgb:[136,34,106]},{index:.5,rgb:[186,54,85]},{index:.63,rgb:[227,89,51]},{index:.75,rgb:[249,140,10]},{index:.88,rgb:[249,201,50]},{index:1,rgb:[252,255,164]}],magma:[{index:0,rgb:[0,0,4]},{index:.13,rgb:[28,16,68]},{index:.25,rgb:[79,18,123]},{index:.38,rgb:[129,37,129]},{index:.5,rgb:[181,54,122]},{index:.63,rgb:[229,80,100]},{index:.75,rgb:[251,135,97]},{index:.88,rgb:[254,194,135]},{index:1,rgb:[252,253,191]}],plasma:[{index:0,rgb:[13,8,135]},{index:.13,rgb:[75,3,161]},{index:.25,rgb:[125,3,168]},{index:.38,rgb:[168,34,150]},{index:.5,rgb:[203,70,121]},{index:.63,rgb:[229,107,93]},{index:.75,rgb:[248,148,65]},{index:.88,rgb:[253,195,40]},{index:1,rgb:[240,249,33]}],warm:[{index:0,rgb:[125,0,179]},{index:.13,rgb:[172,0,187]},{index:.25,rgb:[219,0,170]},{index:.38,rgb:[255,0,130]},{index:.5,rgb:[255,63,74]},{index:.63,rgb:[255,123,0]},{index:.75,rgb:[234,176,0]},{index:.88,rgb:[190,228,0]},{index:1,rgb:[147,255,0]}],cool:[{index:0,rgb:[125,0,179]},{index:.13,rgb:[116,0,218]},{index:.25,rgb:[98,74,237]},{index:.38,rgb:[68,146,231]},{index:.5,rgb:[0,204,197]},{index:.63,rgb:[0,247,146]},{index:.75,rgb:[0,255,88]},{index:.88,rgb:[40,255,8]},{index:1,rgb:[147,255,0]}],"rainbow-soft":[{index:0,rgb:[125,0,179]},{index:.1,rgb:[199,0,180]},{index:.2,rgb:[255,0,121]},{index:.3,rgb:[255,108,0]},{index:.4,rgb:[222,194,0]},{index:.5,rgb:[150,255,0]},{index:.6,rgb:[0,255,55]},{index:.7,rgb:[0,246,150]},{index:.8,rgb:[50,167,222]},{index:.9,rgb:[103,51,235]},{index:1,rgb:[124,0,186]}],bathymetry:[{index:0,rgb:[40,26,44]},{index:.13,rgb:[59,49,90]},{index:.25,rgb:[64,76,139]},{index:.38,rgb:[63,110,151]},{index:.5,rgb:[72,142,158]},{index:.63,rgb:[85,174,163]},{index:.75,rgb:[120,206,163]},{index:.88,rgb:[187,230,172]},{index:1,rgb:[253,254,204]

}],cdom:[{index:0,rgb:[47,15,62]},{index:.13,rgb:[87,23,86]},{index:.25,rgb:[130,28,99]},{index:.38,rgb:[171,41,96]},{index:.5,rgb:[206,67,86]},{index:.63,rgb:[230,106,84]},{index:.75,rgb:[242,149,103]},{index:.88,rgb:[249,193,135]},{index:1,rgb:[254,237,176]}],chlorophyll:[{index:0,rgb:[18,36,20]},{index:.13,rgb:[25,63,41]},{index:.25,rgb:[24,91,59]},{index:.38,rgb:[13,119,72]},{index:.5,rgb:[18,148,80]},{index:.63,rgb:[80,173,89]},{index:.75,rgb:[132,196,122]},{index:.88,rgb:[175,221,162]},{index:1,rgb:[215,249,208]}],density:[{index:0,rgb:[54,14,36]},{index:.13,rgb:[89,23,80]},{index:.25,rgb:[110,45,132]},{index:.38,rgb:[120,77,178]},{index:.5,rgb:[120,113,213]},{index:.63,rgb:[115,151,228]},{index:.75,rgb:[134,185,227]},{index:.88,rgb:[177,214,227]},{index:1,rgb:[230,241,241]}],"freesurface-
blue":[{index:0,rgb:[30,4,110]},{index:.13,rgb:[47,14,176]},{index:.25,rgb:[41,45,236]},{index:.38,rgb:[25,99,212]},{index:.5,rgb:[68,131,200]},{index:.63,rgb:[114,156,197]},{index:.75,rgb:[157,181,203]},{index:.88,rgb:[200,208,216]},{index:1,rgb:[241,237,236]}],"freesurface-
red":[{index:0,rgb:[60,9,18]},{index:.13,rgb:[100,17,27]},{index:.25,rgb:[142,20,29]},{index:.38,rgb:[177,43,27]},{index:.5,rgb:[192,87,63]},{index:.63,rgb:[205,125,105]},{index:.75,rgb:[216,162,148]},{index:.88,rgb:[227,199,193]},{index:1,rgb:[241,237,236]}],oxygen:[{index:0,rgb:[64,5,5]},{index:.13,rgb:[106,6,15]},{index:.25,rgb:[144,26,7]},{index:.38,rgb:[168,64,3]},{index:.5,rgb:[188,100,4]},{index:.63,rgb:[206,136,11]},{index:.75,rgb:[220,174,25]},{index:.88,rgb:[231,215,44]},{index:1,rgb:[248,254,105]}],par:[{index:0,rgb:[51,20,24]},{index:.13,rgb:[90,32,35]},{index:.25,rgb:[129,44,34]},{index:.38,rgb:[159,68,25]},{index:.5,rgb:[182,99,19]},{index:.63,rgb:[199,134,22]},{index:.75,rgb:[212,171,35]},{index:.88,rgb:[221,210,54]},{index:1,rgb:[225,253,75]}],phase:[{index:0,rgb:[145,105,18]},{index:.13,rgb:[184,71,38]},{index:.25,rgb:[186,58,115]},{index:.38,rgb:[160,71,185]},{index:.5,rgb:[110,97,218]},{index:.63,rgb:[50,123,164]},{index:.75,rgb:[31,131,110]},{index:.88,rgb:[77,129,34]},{index:1,rgb:[145,105,18]}],salinity:[{index:0,rgb:[42,24,108]},{index:.13,rgb:[33,50,162]},{index:.25,rgb:[15,90,145]},{index:.38,rgb:[40,118,137]},{index:.5,rgb:[59,146,135]},{index:.63,rgb:[79,175,126]},{index:.75,rgb:[120,203,104]},{index:.88,rgb:[193,221,100]},{index:1,rgb:[253,239,154]}],temperature:[{index:0,rgb:[4,35,51]},{index:.13,rgb:[23,51,122]},{index:.25,rgb:[85,59,157]},{index:.38,rgb:[129,79,143]},{index:.5,rgb:[175,95,130]},{index:.63,rgb:[222,112,101]},{index:.75,rgb:[249,146,66]},{index:.88,rgb:[249,196,65]},{index:1,rgb:[232,250,91]}],turbidity:[{index:0,rgb:[34,31,27]},{index:.13,rgb:[65,50,41]},{index:.25,rgb:[98,69,52]},{index:.38,rgb:[131,89,57]},{index:.5,rgb:[161,112,59]},{index:.63,rgb:[185,140,66]},{index:.75,rgb:[202,174,88]},{index:.88,rgb:[216,209,126]},{index:1,rgb:[233,246,171]}],"velocity-
blue":[{index:0,rgb:[17,32,64]},{index:.13,rgb:[35,52,116]},{index:.25,rgb:[29,81,156]},{index:.38,rgb:[31,113,162]},{index:.5,rgb:[50,144,169]},{index:.63,rgb:[87,173,176]},{index:.75,rgb:[149,196,189]},{index:.88,rgb:[203,221,211]},{index:1,rgb:[254,251,230]}],"velocity-
green":[{index:0,rgb:[23,35,19]},{index:.13,rgb:[24,64,38]},{index:.25,rgb:[11,95,45]},{index:.38,rgb:[39,123,35]},{index:.5,rgb:[95,146,12]},{index:.63,rgb:[152,165,18]},{index:.75,rgb:[201,186,69]},{index:.88,rgb:[233,216,137]},{index:1,rgb:[255,253,205]}],cubehelix:[{index:0,rgb:[0,0,0]},{index:.07,rgb:[22,5,59]},{index:.13,rgb:[60,4,105]},{index:.2,rgb:[109,1,135]},{index:.27,rgb:[161,0,147]},{index:.33,rgb:[210,2,142]},{index:.4,rgb:[251,11,123]},{index:.47,rgb:[255,29,97]},{index:.53,rgb:[255,54,69]},{index:.6,rgb:[255,85,46]},{index:.67,rgb:[255,120,34]},{index:.73,rgb:[255,157,37]},{index:.8,rgb:[241,191,57]},{index:.87,rgb:[224,220,93]},{index:.93,rgb:[218,241,142]},{index:1,rgb:[227,253,198]}]}},{}],53:[function(t,e,r){"use strict";var n=t("./colorScale"),i=t("lerp");function a(t){return[t[0]/255,t[1]/255,t[2]/255,t[3]]}function o(t){for(var
e,r="#",n=0;n<3;++n)r+=("00"+(e=(e=t[n]).toString(16))).substr(e.length);return r}function
s(t){return"rgba("+t.join(",")+")"}e.exports=function(t){var e,r,l,c,u,f,h,p,d,g;if(t||(t={}),p=(t.nshades||72)-1,h=t.format||"hex",(f=t.colormap)||(f="jet"),"string"==typeof f){if(f=f.toLowerCase(),!n[f])throw Error(f+" not a supported colorscale");u=n[f]}else{if(!Array.isArray(f))throw Error("unsupported colormap option",f);u=f.slice()}if(u.length>p+1)throw new Error(f+" map requires nshades to be at least size "+u.length);d=Array.isArray(t.alpha)?2!==t.alpha.length?[1,1]:t.alpha.slice():"number"==typeof t.alpha?[t.alpha,t.alpha]:[1,1],e=u.map((function(t){return
Math.round(t.index*p)})),d[0]=Math.min(Math.max(d[0],0),1),d[1]=Math.min(Math.max(d[1],0),1);var
v=u.map((function(t,e){var r=u[e].index,n=u[e].rgb.slice();return

4===n.length&&n[3]>=0&&n[3]<=1||(n[3]=d[0]+(d[1]-d[0])*r),n})),m=[];for(g=0;g<e.length-1;++g){c=e[g+1]-e[g],r=v[g],l=v[g+1];for(var y=0;y<c;y++){var x=y/c;m.push([Math.round(i(r[0],l[0],x)),Math.round(i(r[1],l[1],x)),Math.round(i(r[2],l[2],x)),i(r[3],l[3],x)])}}return m.push(u[u.length-1].rgb.concat(d[1])),"hex"===h?m=m.map(o):"rgbaString"===h?m=m.map(s):"float"===h&&(m=m.map(a)),m}},{"./colorScale":52,lerp:240}],54:[function(t,e,r){"use strict";e.exports=function(t,e,r,a){var o=n(e,r,a);if(0===o){var s=i(n(t,e,r)),c=i(n(t,e,a));if(s===c){if(0===s){var u=l(t,e,r);return u===l(t,e,a)?0:u?1:-1}return 0}return 0===c?s>0||l(t,e,a)?-1:1:0===s?c>0||l(t,e,r)?1:-1:i(c-s)}var f=n(t,e,r);return f>0?o>0&&n(t,e,a)>0?1:-1:f<0?o>0||n(t,e,a)>0?1:-1:n(t,e,a)>0||l(t,e,r)?1:-1};var n=t("robust-orientation"),i=t("signum"),a=t("two-sum"),o=t("robust-product"),s=t("robust-sum");function l(t,e,r){var n=a(t[0],-e[0]),i=a(t[1],-e[1]),l=a(r[0],-e[0]),c=a(r[1],-e[1]),u=s(o(n,l),o(i,c));return u[u.length-1]>=0}},{"robust-orientation":284,"robust-product":285,"robust-sum":289,signum:55,"two-sum":307}],55:[function(t,e,r){"use strict";e.exports=function(t){return t<0?-1:t>0?1:0}},{}],56:[function(t,e,r){e.exports=function(t,e){var r=t.length,a=t.length-e.length;if(a)return a;switch(r){case 0:return 0;case 1:return t[0]-e[0];case 2:return t[0]+t[1]-e[0]-e[1]||n(t[0],t[1])-n(e[0],e[1]);case 3:var o=t[0]+t[1],s=e[0]+e[1];if(a=o+t[2]-(s+e[2]))return a;var l=n(t[0],t[1]),c=n(e[0],e[1]);return n(l,t[2])-n(c,e[2])||n(l+t[2],o)-n(c+e[2],s);case 4:var u=t[0],f=t[1],h=t[2],p=t[3],d=e[0],g=e[1],v=e[2],m=e[3];return u+f+h+p-(d+g+v+m)||n(u,f,h,p)-n(d,g,v,m,d)||n(u+f,u+h,u+p,f+h,f+p,h+p)-n(d+g,d+v,d+m,g+v,g+m,v+m)||n(u+f+h,u+f+p,u+h+p,f+h+p)-n(d+g+v,d+g+m,d+v+m,g+v+m);default:for(var y=t.slice().sort(i),x=e.slice().sort(i),b=0;b<r;++b)if(a=y[b]-x[b])return a;return 0}};var n=Math.min;function i(t,e){return t-e}},{}],57:[function(t,e,r){"use strict";var n=t("compare-cell"),i=t("cell-orientation");e.exports=function(t,e){return n(t,e)||i(t)-i(e)}},{"cell-orientation":47,"compare-cell":56}],58:[function(t,e,r){"use strict";var n=t("./lib/ch1d"),i=t("./lib/ch2d"),a=t("./lib/chnd");e.exports=function(t){var e=t.length;if(0===e)return[];if(1===e)return[[0]];var r=t[0].length;return 0===r?[]:1===r?n(t):2===r?i(t):a(t,r)}},{"./lib/ch1d":59,"./lib/ch2d":60,"./lib/chnd":61}],59:[function(t,e,r){"use strict";e.exports=function(t){for(var e=0,r=0,n=1;n<t.length;++n)t[n][0]<t[e][0]&&(e=n),t[n][0]>t[r][0]&&(r=n);return e<r?[[e],[r]]:e>r?[[r],[e]]:[[e]]}},{}],60:[function(t,e,r){"use strict";e.exports=function(t){var e=n(t),r=e.length;if(r<=2)return[];for(var i=new Array(r),a=e[r-1],o=0;o<r;++o){var s=e[o];i[o]=[a,s],a=s}return i};var n=t("monotone-convex-hull-2d")},{"monotone-convex-hull-2d":246}],61:[function(t,e,r){"use strict";e.exports=function(t,e){try{return n(t,!0)}catch(o){var r=i(t);if(r.length<=e)return[];var a=function(t,e){for(var r=t.length,n=new Array(r),i=0;i<e.length;++i)n[i]=t[e[i]];var a=e.length;for(i=0;i<r;++i)e.indexOf(i)<0&&(n[a++]=t[i]);return n}(t,r);return function(t,e){for(var r=t.length,n=e.length,i=0;i<r;++i)for(var a=t[i],o=0;o<a.length;++o){var s=a[o];if(s<n)a[o]=e[s];else{s-=n;for(var l=0;l<n;++l)s>=e[l]&&(s+=1);a[o]=s}}return t}(n(a,!0),r)}};var n=t("incremental-convex-hull"),i=t("affine-hull")},{"affine-hull":10,"incremental-convex-hull":233}],62:[function(t,e,r){"use strict";e.exports=function(t,e,r,n,i,a){var o=i-1,s=i*i,l=o*o,c=(1+2*i)*l,u=i*l,f=s*(3-2*i),h=s*o;if(t.length){a||(a=new Array(t.length));for(var p=t.length-1;p>=0;--p)a[p]=c*t[p]+u*e[p]+f*r[p]+h*n[p];return a}return c*t+u*e+f*r+h*n},e.exports.derivative=function(t,e,r,n,i,a){var o=6*i*i-6*i,s=3*i*i-4*i+1,l=-6*i*i+6*i,c=3*i*i-2*i;if(t.length){a||(a=new Array(t.length));for(var u=t.length-1;u>=0;--u)a[u]=o*t[u]+s*e[u]+l*r[u]+c*n[u];return a}return o*t+s*e+l*r[u]+c*n}},{}],63:[function(t,e,r){"use strict";var n=t("incremental-convex-hull"),i=t("uniq");function a(t,e){this.point=t,this.index=e}function o(t,e){for(var r=t.point,n=e.point,i=r.length,a=0;a<i;++a){var o=n[a]-r[a];if(o)return o}return 0}e.exports=function(t,e){var r=t.length;if(0===r)return[];var s=t[0].length;if(s<1)return[];if(1===s)return function(t,e,r){if(1===t)return r?[[-1,0]]:[];var n=e.map((function(t,e){return[t[0],e]}));n.sort((function(t,e){return t[0]-e[0]}));for(var i=new Array(t-1),a=1;a<t;++a){var o=n[a-1],s=n[a];i[a-1]=[o[1],s[1]]}return r&&i.push([-1,i[0][1]],[i[t-1][1],-1]),i}(r,t,e);for(var l=new Array(r),c=1,u=0;u<r;++u){for(var f=t[u],h=new Array(s+1),p=0,d=0;d<s;++d){var g=f[d];h[d]=g,p+=g*g}h[s]=p,l[u]=new

a(h,u),c=Math.max(p,c)}i(l,o),r=l.length;var v=new Array(r+s+1),m=new Array(r+s+1),y=(s+1)*(s+1)*c,x=new Array(s+1);for(u=0;u<=s;++u)x[u]=0;for(x[s]=y,v[0]=x.slice(),m[0]=-1,u=0;u<=s;++u)(h=x.slice())[u]=1,v[u+1]=h,m[u+1]=-1;for(u=0;u<r;++u){var b=l[u];v[u+s+1]=b.point,m[u+s+1]=b.index}var _=n(v,!1);if(_=e?_.filter((function(t){for(var e=0,r=0;r<=s;++r){var n=m[t[r]];if(n<0&&++e>=2)return!1;t[r]=n}return!0})):_.filter((function(t){for(var e=0;e<=s;++e){var r=m[t[e]];if(r<0)return!1;t[e]=r}return!0})),1&s)for(u=0;u<_.length;++u)h=(b=_[u])[0],b[0]=b[1],b[1]=h;return _}},{"incremental-convex-hull":233,uniq:310}],64:[function(t,e,r){(function(t){(function(){var r=!1;if("undefined"!=typeof Float64Array){var n=new Float64Array(1),i=new Uint32Array(n.buffer);n[0]=1,r=!0,1072693248===i[1]?(e.exports=function(t){return n[0]=t,[i[0],i[1]]},e.exports.pack=function(t,e){return i[0]=t,i[1]=e,n[0]},e.exports.lo=function(t){return n[0]=t,i[0]},e.exports.hi=function(t){return n[0]=t,i[1]}):1072693248===i[0]?(e.exports=function(t){return n[0]=t,[i[1],i[0]]},e.exports.pack=function(t,e){return i[1]=t,i[0]=e,n[0]},e.exports.lo=function(t){return n[0]=t,i[1]},e.exports.hi=function(t){return n[0]=t,i[0]}):r=!1}if(!r){var a=new t(8);e.exports=function(t){return a.writeDoubleLE(t,0,!0),[a.readUInt32LE(0,!0),a.readUInt32LE(4,!0)]},e.exports.pack=function(t,e){return a.writeUInt32LE(t,0,!0),a.writeUInt32LE(e,4,!0),a.readDoubleLE(0,!0)},e.exports.lo=function(t){return a.writeDoubleLE(t,0,!0),a.readUInt32LE(0,!0)},e.exports.hi=function(t){return a.writeDoubleLE(t,0,!0),a.readUInt32LE(4,!0)}}e.exports.sign=function(t){return e.exports.hi(t)>>>31},e.exports.exponent=function(t){return(e.exports.hi(t)<<1>>>21)-1023},e.exports.fraction=function(t){var r=e.exports.lo(t),n=e.exports.hi(t),i=1048575&n;return 2146435072&n&&(i+=1<<20),[r,i]},e.exports.denormalized=function(t){return!(2146435072&e.exports.hi(t))}}).call(this)}).call(this,t("buffer").Buffer)},{buffer:3}],65:[function(t,e,r){"use strict";function n(t,e,r){var i=0|t[r];if(i<=0)return[];var a,o=new Array(i);if(r===t.length-1)for(a=0;a<i;++a)o[a]=e;else for(a=0;a<i;++a)o[a]=n(t,e,r+1);return o}e.exports=function(t,e){switch(void 0===e&&(e=0),typeof t){case"number":if(t>0)return function(t,e){var r,n;for(r=new Array(t),n=0;n<t;++n)r[n]=e;return r}(0|t,e);break;case"object":if("number"==typeof t.length)return n(t,e,0)}return[]}},{}],66:[function(t,e,r){"use strict";e.exports=function(t,e){var r=t.length;if("number"!=typeof e){e=0;for(var i=0;i<r;++i){var a=t[i];e=Math.max(e,a[0],a[1])}e=1+(0|e)}e|=0;var o=new Array(e);for(i=0;i<e;++i)o[i]=[];for(i=0;i<r;++i)o[(a=t[i])[0]].push(a[1]),o[a[1]].push(a[0]);for(var s=0;s<e;++s)n(o[s],(function(t,e){return t-e}));return o};var n=t("uniq")},{uniq:310}],67:[function(t,e,r){"use strict";e.exports=function(t,e,r){var n=e||0,i=r||1;return[[t[12]+t[0],t[13]+t[1],t[14]+t[2],t[15]+t[3]],[t[12]-t[0],t[13]-t[1],t[14]-t[2],t[15]-t[3]],[t[12]+t[4],t[13]+t[5],t[14]+t[6],t[15]+t[7]],[t[12]-t[4],t[13]-t[5],t[14]-t[6],t[15]-t[7]],[n*t[12]+t[8],n*t[13]+t[9],n*t[14]+t[10],n*t[15]+t[11]],[i*t[12]-t[8],i*t[13]-t[9],i*t[14]-t[10],i*t[15]-t[11]]]}},{}],68:[function(t,e,r){"use strict";e.exports=function(t,e,r){switch(arguments.length){case 0:return new o([0],[0],0);case 1:return"number"==typeof t?new o(n=l(t),n,0):new o(t,l(t.length),0);case 2:var n;if("number"==typeof e)return new o(t,n=l(t.length),+e);r=0;case 3:if(t.length!==e.length)throw new Error("state and velocity lengths must match");return new o(t,e,r)}};var n=t("cubic-hermite"),i=t("binary-search-bounds");function a(t,e,r){return Math.min(e,Math.max(t,r))}function o(t,e,r){this.dimension=t.length,this.bounds=[new Array(this.dimension),new Array(this.dimension)];for(var n=0;n<this.dimension;++n)this.bounds[0][n]=-1/0,this.bounds[1][n]=1/0;this._state=t.slice().reverse(),this._velocity=e.slice().reverse(),this._time=[r],this._scratch=[t.slice(),t.slice(),t.slice(),t.slice(),t.slice()]}var s=o.prototype;function l(t){for(var e=new Array(t),r=0;r<t;++r)e[r]=0;return e}s.flush=function(t){var e=i.gt(this._time,t)-1;e<=0||(this._time.splice(0,e),this._state.splice(0,e*this.dimension),this._velocity.splice(0,e*this.dimension))},s.curve=function(t){var e=this._time,r=e.length,o=i.le(e,t),s=this._scratch[0],l=this._state,c=this._velocity,u=this.dimension,f=this.bounds;if(o<0)for(var h=u-1,p=0;p<u;++p,--h)s[p]=l[h];else if(o>=r-1){h=l.length-1;var d=t-e[r-1];for(p=0;p<u;++p,--h)s[p]=l[h]+d*c[h]}else{h=u*(o+1)-1;var g=e[o],v=e[o+1]-

g||1,m=this._scratch[1],y=this._scratch[2],x=this._scratch[3],b=this._scratch[4],_=!0;for(p=0;p<u;++p,--h)m[p]=l[h],x[p]=c[h]*v,y[p]=l[h+u],b[p]=c[h+u]*v,_=_&&m[p]===y[p]&&x[p]===b[p]&&0===x[p];if(_)for(p=0;p<u;++p)s[p]=m[p];else n(m,x,y,b,(t-g)/v,s)}var w=f[0],T=f[1];for(p=0;p<u;++p)s[p]=a(w[p],T[p],s[p]);return s},s.dcurve=function(t){var e=this._time,r=e.length,a=i.le(e,t),o=this._scratch[0],s=this._state,l=this._velocity,c=this.dimension;if(a>=r-1)for(var u=s.length-1,f=(e[r-1],0);f<c;++f,--u)o[f]=l[u];else{u=c*(a+1)-1;var h=e[a],p=e[a+1]-h||1,d=this._scratch[1],g=this._scratch[2],v=this._scratch[3],m=this._scratch[4],y=!0;for(f=0;f<c;++f,--u)d[f]=s[u],v[f]=l[u]*p,g[f]=s[u+c],m[f]=l[u+c]*p,y=y&&d[f]===g[f]&&v[f]===m[f]&&0===v[f];if(y)for(f=0;f<c;++f)o[f]=0;else for(n.derivative(d,v,g,m,(t-h)/p,o),f=0;f<c;++f)o[f]/=p}return o},s.lastT=function(){var t=this._time;return t[t.length-1]},s.stable=function(){for(var t=this._velocity,e=t.length,r=this.dimension-1;r>=0;--r)if(t[--e])return!1;return!0},s.jump=function(t){var e=this.lastT(),r=this.dimension;if(!(t<e||arguments.length!==r+1)){var n=this._state,i=this._velocity,o=n.length-this.dimension,s=this.bounds,l=s[0],c=s[1];this._time.push(e,t);for(var u=0;u<2;++u)for(var f=0;f<r;++f)n.push(n[o++]),i.push(0);for(this._time.push(t),f=r;f>0;--f)n.push(a(l[f-1],c[f-1],arguments[f])),i.push(0)}},s.push=function(t){var e=this.lastT(),r=this.dimension;if(!(t<e||arguments.length!==r+1)){var n=this._state,i=this._velocity,o=n.length-this.dimension,s=t-e,l=this.bounds,c=l[0],u=l[1],f=s>1e-6?1/s:0;this._time.push(t);for(var h=r;h>0;--h){var p=a(c[h-1],u[h-1],arguments[h]);n.push(p),i.push((p-n[o++])*f)}}},s.set=function(t){var e=this.dimension;if(!(t<this.lastT()||arguments.length!==e+1)){var r=this._state,n=this._velocity,i=this.bounds,o=i[0],s=i[1];this._time.push(t);for(var l=e;l>0;--l)r.push(a(o[l-1],s[l-1],arguments[l])),n.push(0)}},s.move=function(t){var e=this.lastT(),r=this.dimension;if(!(t<=e||arguments.length!==r+1)){var n=this._state,i=this._velocity,o=n.length-this.dimension,s=this.bounds,l=s[0],c=s[1],u=t-e,f=u>1e-6?1/u:0;this._time.push(t);for(var h=r;h>0;--h){var p=arguments[h];n.push(a(l[h-1],c[h-1],n[o++]+p)),i.push(p*f)}}},s.idle=function(t){var e=this.lastT();if(!(t<e)){var r=this.dimension,n=this._state,i=this._velocity,o=n.length-r,s=this.bounds,l=s[0],c=s[1],u=t-e;this._time.push(t);for(var f=r-1;f>=0;--f)n.push(a(l[f],c[f],n[o]+u*i[o])),i.push(0),o+=1}}},{"binary-search-bounds":31,"cubic-hermite":62}],69:[function(t,e,r){"use strict";function n(t,e,r,n,i,a){this._color=t,this.key=e,this.value=r,this.left=n,this.right=i,this._count=a}function i(t){return new n(t._color,t.key,t.value,t.left,t.right,t._count)}function a(t,e){return new n(t,e.key,e.value,e.left,e.right,e._count)}function o(t){t._count=1+(t.left?t.left._count:0)+(t.right?t.right._count:0)}function s(t,e){this._compare=t,this.root=e}e.exports=function(t){return new s(t||g,null)};var l=s.prototype;function c(t,e){var r;return e.left&&(r=c(t,e.left))?r:(r=t(e.key,e.value))||(e.right?c(t,e.right):void 0)}function u(t,e,r,n){if(e(t,n.key)<=0){var i;if(n.left&&(i=u(t,e,r,n.left)))return i;if(i=r(n.key,n.value))return i}if(n.right)return u(t,e,r,n.right)}function f(t,e,r,n,i){var a,o=r(t,i.key),s=r(e,i.key);if(o<=0){if(i.left&&(a=f(t,e,r,n,i.left)))return a;if(s>0&&(a=n(i.key,i.value)))return a}if(s>0&&i.right)return f(t,e,r,n,i.right)}function h(t,e){this.tree=t,this._stack=e}Object.defineProperty(l,"keys",{get:function(){var t=[];return this.forEach((function(e,r){t.push(e)})),t}}),Object.defineProperty(l,"values",{get:function(){var t=[];return this.forEach((function(e,r){t.push(r)})),t}}),Object.defineProperty(l,"length",{get:function(){return this.root?this.root._count:0}}),l.insert=function(t,e){for(var r=this._compare,i=this.root,l=[],c=[];i;){var u=r(t,i.key);l.push(i),c.push(u),i=u<=0?i.left:i.right}l.push(new n(0,t,e,null,null,1));for(var f=l.length-2;f>=0;--f)i=l[f],c[f]<=0?l[f]=new n(i._color,i.key,i.value,l[f+1],i.right,i._count+1):l[f]=new n(i._color,i.key,i.value,i.left,l[f+1],i._count+1);for(f=l.length-1;f>1;--f){var h=l[f-1];if(i=l[f],1===h._color||1===i._color)break;var p=l[f-2];if(p.left===h)if(h.left===i){if(!(d=p.right)||0!==d._color){p._color=0,p.left=h.right,h._color=1,h.right=p,l[f-2]=h,l[f-1]=i,o(p),o(h),f>=3&&((g=l[f-3]).left===p?g.left=h:g.right=h);break}h._color=1,p.right=a(1,d),p._color=0,f-=1}else{if(!(d=p.right)||0!==d._color){h.right=i.left,p._color=0,p.left=i.right,i._color=1,i.left=h,i.right=p,l[f-2]=i,l[f-

1]=h,o(p),o(h),o(i),f>=3&&((g=l[f-3]).left===p?g.left=i:g.right=i);break}h._color=1,p.right=a(1,d),p._color=0,f-=1}else if(h.right===i){if(!(d=p.left)||0!==d._color){p._color=0,p.right=h.left,h._color=1,h.left=p,l[f-2]=h,l[f-1]=i,o(p),o(h),f>=3&&((g=l[f-3]).right===p?g.right=h:g.left=h);break}h._color=1,p.left=a(1,d),p._color=0,f-=1}else{var d;if(!(d=p.left)||0!==d._color){var g;h.left=i.right,p._color=0,p.right=i.left,i._color=1,i.right=h,i.left=p,l[f-2]=i,l[f-1]=h,o(p),o(h),o(i),f>=3&&((g=l[f-3]).right===p?g.right=i:g.left=i);break}h._color=1,p.left=a(1,d),p._color=0,f-=1}}return l[0]._color=1,new s(r,l[0])},l.forEach=function(t,e,r){if(this.root)switch(arguments.length){case 1:return c(t,this.root);case 2:return u(e,this._compare,t,this.root);case 3:if(this._compare(e,r)>=0)return;return f(e,r,this._compare,t,this.root)}},Object.defineProperty(l,"begin",{get:function(){for(var t=[],e=this.root;e;)t.push(e),e=e.left;return new h(this,t)}}),Object.defineProperty(l,"end",{get:function(){for(var t=[],e=this.root;e;)t.push(e),e=e.right;return new h(this,t)}}),l.at=function(t){if(t<0)return new h(this,[]);for(var e=this.root,r=[];;){if(r.push(e),e.left){if(t<e.left._count){e=e.left;continue}t-=e.left._count}if(!t)return new h(this,r);if(t-=1,!e.right)break;if(t>=e.right._count)break;e=e.right}return new h(this,[])},l.ge=function(t){for(var e=this._compare,r=this.root,n=[],i=0;r;){var a=e(t,r.key);n.push(r),a<=0&&(i=n.length),r=a<=0?r.left:r.right}return n.length=i,new h(this,n)},l.gt=function(t){for(var e=this._compare,r=this.root,n=[],i=0;r;){var a=e(t,r.key);n.push(r),a<0&&(i=n.length),r=a<0?r.left:r.right}return n.length=i,new h(this,n)},l.lt=function(t){for(var e=this._compare,r=this.root,n=[],i=0;r;){var a=e(t,r.key);n.push(r),a>0&&(i=n.length),r=a<=0?r.left:r.right}return n.length=i,new h(this,n)},l.le=function(t){for(var e=this._compare,r=this.root,n=[],i=0;r;){var a=e(t,r.key);n.push(r),a>=0&&(i=n.length),r=a<0?r.left:r.right}return n.length=i,new h(this,n)},l.find=function(t){for(var e=this._compare,r=this.root,n=[];r;){var i=e(t,r.key);if(n.push(r),0===i)return new h(this,n);r=i<=0?r.left:r.right}return new h(this,[])},l.remove=function(t){var e=this.find(t);return e?e.remove():this},l.get=function(t){for(var e=this._compare,r=this.root;r;){var n=e(t,r.key);if(0===n)return r.value;r=n<=0?r.left:r.right}};var p=h.prototype;function d(t,e){t.key=e.key,t.value=e.value,t.left=e.left,t.right=e.right,t._color=e._color,t._count=e._count}function g(t,e){return t<e?-1:t>e?1:0}Object.defineProperty(p,"valid",{get:function(){return this._stack.length>0}}),Object.defineProperty(p,"node",{get:function(){return this._stack.length>0?this._stack[this._stack.length-1]:null},enumerable:!0}),p.clone=function(){return new h(this.tree,this._stack.slice())},p.remove=function(){var t=this._stack;if(0===t.length)return this.tree;var e=new Array(t.length),r=t[t.length-1];e[e.length-1]=new n(r._color,r.key,r.value,r.left,r.right,r._count);for(var l=t.length-2;l>=0;--l)(r=t[l]).left===t[l+1]?e[l]=new n(r._color,r.key,r.value,e[l+1],r.right,r._count):e[l]=new n(r._color,r.key,r.value,r.left,e[l+1],r._count);if((r=e[e.length-1]).left&&r.right){var c=e.length;for(r=r.left;r.right;)e.push(r),r=r.right;var u=e[c-1];for(e.push(new n(r._color,u.key,u.value,r.left,r.right,r._count)),e[c-1].key=r.key,e[c-1].value=r.value,l=e.length-2;l>=c;--l)r=e[l],e[l]=new n(r._color,r.key,r.value,r.left,e[l+1],r._count);e[c-1].left=e[c]}if(0===(r=e[e.length-1])._color){var f=e[e.length-2];for(f.left===r?f.left=null:f.right===r&&(f.right=null),e.pop(),l=0;l<e.length;++l)e[l]._count--;return new s(this.tree._compare,e[0])}if(r.left||r.right){for(r.left?d(r,r.left):r.right&&d(r,r.right),r._color=1,l=0;l<e.length-1;++l)e[l]._count--;return new s(this.tree._compare,e[0])}if(1===e.length)return new s(this.tree._compare,null);for(l=0;l<e.length;++l)e[l]._count--;var h=e[e.length-2];return function(t){for(var e,r,n,s,l=t.length-1;l>=0;--l){if(e=t[l],0===l)return void(e._color=1);if((r=t[l-1]).left===e){if((n=r.right).right&&0===n.right._color)return s=(n=r.right=i(n)).right=i(n.right),r.right=n.left,n.left=r,n.right=s,n._color=r._color,e._color=1,r._color=1,s._color=1,o(r),o(n),l>1&&((c=t[l-2]).left===r?c.left=n:c.right=n),void(t[l-1]=n);if(n.left&&0===n.left._color)return s=(n=r.right=i(n)).left=i(n.left),r.right=s.left,n.left=s.right,s.left=r,s.right=n,s._color=r._color,r._color=1,n._color=1,e._color=1,o(r),o(n),o(s),l>1&&((c=t[l-2]).left===r?c.left=s:c.right=s),void(t[l-1]=s);if(1===n._color){if(0===r._color)return r._color=1,void(r.right=a(0,n));r.right=a(0,n);continue}n=i(n),r.right=n.left,n.left=r,n._color=r._color,r._color=0,o(r),o(n),l>1&&((c=t[l-2]).left===r?c.left=n:c.right=n),t[l-

1]=n,t[l]=r,l+1<t.length?t[l+1]=e:t.push(e),l+=2}else{if((n=r.left).left&&0===n.left._color)return s=(n=r.left=i(n)).left=i(n.left),r.left=n.right,n.right=r,n.left=s,n._color=r._color,e._color=1,r._color=1,s._color=1,o(r),o(n),l>1&&((c=t[l-2]).right===r?c.right=n:c.left=n),void(t[l-1]=n);if(n.right&&0===n.right._color)return s=(n=r.left=i(n)).right=i(n.right),r.left=s.right,n.right=s.left,s.right=r,s.left=n,s._color=r._color,r._color=1,n._color=1,e._color=1,o(r),o(n),o(s),l>1&&((c=t[l-2]).right===r?c.right=s:c.left=s),void(t[l-1]=s);if(1===n._color){if(0===r._color)return r._color=1,void(r.left=a(0,n));r.left=a(0,n);continue}var c;n=i(n),r.left=n.right,n.right=r,n._color=r._color,r._color=0,o(r),o(n),l>1&&((c=t[l-2]).right===r?c.right=n:c.left=n),t[l-1]=n,t[l]=r,l+1<t.length?t[l+1]=e:t.push(e),l+=2}}(e),h.left===r?h.left=null:h.right=null,new s(this.tree._compare,e[0])},Object.defineProperty(p,"key",{get:function(){if(this._stack.length>0)return this._stack[this._stack.length-1].key},enumerable:!0}),Object.defineProperty(p,"value",{get:function(){if(this._stack.length>0)return this._stack[this._stack.length-1].value},enumerable:!0}),Object.defineProperty(p,"index",{get:function(){var t=0,e=this._stack;if(0===e.length){var r=this.tree.root;return r?r._count:0}e[e.length-1].left&&(t=e[e.length-1].left._count);for(var n=e.length-2;n>=0;--n)e[n+1]===e[n].right&&(++t,e[n].left&&(t+=e[n].left._count));return t},enumerable:!0}),p.next=function(){var t=this._stack;if(0!==t.length){var e=t[t.length-1];if(e.right)for(e=e.right;e;)t.push(e),e=e.left;else for(t.pop();t.length>0&&t[t.length-1].right===e;)e=t[t.length-1],t.pop()}},Object.defineProperty(p,"hasNext",{get:function(){var t=this._stack;if(0===t.length)return!1;if(t[t.length-1].right)return!0;for(var e=t.length-1;e>0;--e)if(t[e-1].left===t[e])return!0;return!1}}),p.update=function(t){var e=this._stack;if(0===e.length)throw new Error("Can't update empty node!");var r=new Array(e.length),i=e[e.length-1];r[r.length-1]=new n(i._color,i.key,t,i.left,i.right,i._count);for(var a=e.length-2;a>=0;--a)(i=e[a]).left===e[a+1]?r[a]=new n(i._color,i.key,i.value,r[a+1],i.right,i._count):r[a]=new n(i._color,i.key,i.value,i.left,r[a+1],i._count);return new s(this.tree._compare,r[0])},p.prev=function(){var t=this._stack;if(0!==t.length){var e=t[t.length-1];if(e.left)for(e=e.left;e;)t.push(e),e=e.right;else for(t.pop();t.length>0&&t[t.length-1].left===e;)e=t[t.length-1],t.pop()}},Object.defineProperty(p,"hasPrev",{get:function(){var t=this._stack;if(0===t.length)return!1;if(t[t.length-1].left)return!0;for(var e=t.length-1;e>0;--e)if(t[e-1].right===t[e])return!0;return!1}})},{}],70:[function(t,e,r){"use strict";e.exports=function(t,e){var r=new u(t);return r.update(e),r};var n=t("./lib/text.js"),i=t("./lib/lines.js"),a=t("./lib/background.js"),o=t("./lib/cube.js"),s=t("./lib/ticks.js"),l=new Float32Array([1,0,0,0,0,1,0,0,0,0,1,0,0,0,0,1]);function c(t,e){return t[0]=e[0],t[1]=e[1],t[2]=e[2],t}function u(t){this.gl=t,this.pixelRatio=1,this.bounds=[[-10,-10,-10],[10,10,10]],this.ticks=[[],[],[]],this.autoTicks=!0,this.tickSpacing=[1,1,1],this.tickEnable=[!0,!0,!0],this.tickFont=["sans-serif","sans-serif","sans-serif"],this.tickSize=[12,12,12],this.tickAngle=[0,0,0],this.tickAlign=["auto","auto","auto"],this.tickColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.tickPad=[10,10,10],this.lastCubeProps={cubeEdges:[0,0,0],axis:[0,0,0]},this.labels=["x","y","z"],this.labelEnable=[!0,!0,!0],this.labelFont="sans-serif",this.labelSize=[20,20,20],this.labelAngle=[0,0,0],this.labelAlign=["auto","auto","auto"],this.labelColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.labelPad=[10,10,10],this.lineEnable=[!0,!0,!0],this.lineMirror=[!1,!1,!1],this.lineWidth=[1,1,1],this.lineColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.lineTickEnable=[!0,!0,!0],this.lineTickMirror=[!1,!1,!1],this.lineTickLength=[0,0,0],this.lineTickWidth=[1,1,1],this.lineTickColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.gridEnable=[!0,!0,!0],this.gridWidth=[1,1,1],this.gridColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.zeroEnable=[!0,!0,!0],this.zeroLineColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.zeroLineWidth=[2,2,2],this.backgroundEnable=[!1,!1,!1],this.backgroundColor=[[.8,.8,.8,.5],[.8,.8,.8,.5],[.8,.8,.8,.5]],this._firstInit=!0,this._text=null,this._lines=null,this._background=a(t)}var f=u.prototype;function h(){this.primalOffset=[0,0,0],this.primalMinor=[0,0,0],this.mirrorOffset=[0,0,0],this.mirrorMinor=[0,0,0]}f.update=function(t){function e(e,r,n){if(n in t){var i,a=t[n],o=this[n];(e?Array.isArray(a)&&Array.isArray(a[0]):Array.isArray(a))?this[n]=i=[r(a[0]),r(a[1]),r(a[2])]:thi

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s[n]=i=[r(a),r(a),r(a)];for(var s=0;s<3;++s)if(i[s]!==o[s])return!0}return!1}t=t||{};var
r,a=e.bind(this,!1,Number),o=e.bind(this,!1,Boolean),l=e.bind(this,!1,String),c=e.bind(this,!0,(function(t){if(Array.i
sArray(t)){if(3===t.length)return[+t[0],+t[1],+t[2],1];if(4===t.length)return[+t[0],+t[1],+t[2],+t[3]]}return[0,0,0,1]}
)),u=!1,f=!1;if("bounds"in t)for(var h=t.bounds,p=0;p<2;++p)for(var
d=0;d<3;++d)h[p][d]!==this.bounds[p][d]&&(f=!0),this.bounds[p][d]=h[p][d];if("ticks"in
t)for(r=t.ticks,u=!0,this.autoTicks=!1,p=0;p<3;++p)this.tickSpacing[p]=0;else
a("tickSpacing")&&(this.autoTicks=!0,f=!0);if(this._firstInit&&("ticks"in t||"tickSpacing"in
t||(this.autoTicks=!0),f=!0,u=!0,this._firstInit=!1),f&&this.autoTicks&&(r=s.create(this.bounds,this.tickSpacing),u=
!0),u){for(p=0;p<3;++p)r[p].sort((function(t,e){return t.x-
e.x}));s.equal(r,this.ticks)?u=!1:this.ticks=r}o("tickEnable"),l("tickFont")&&(u=!0),a("tickSize"),a("tickAngle"),a("t
ickPad"),c("tickColor");var
g=l("labels");l("labelFont")&&(g=!0),o("labelEnable"),a("labelSize"),a("labelPad"),c("labelColor"),o("lineEnable"),
o("lineMirror"),a("lineWidth"),c("lineColor"),o("lineTickEnable"),o("lineTickMirror"),a("lineTickLength"),a("lineT
ickWidth"),c("lineTickColor"),o("gridEnable"),a("gridWidth"),c("gridColor"),o("zeroEnable"),c("zeroLineColor"),a
("zeroLineWidth"),o("backgroundEnable"),c("backgroundColor"),this._text?this._text&&(g||u)&&this._text.update(
this.bounds,this.labels,this.labelFont,this.ticks,this.tickFont):this._text=n(this.gl,this.bounds,this.labels,this.labelFont
,this.ticks,this.tickFont),this._lines&&u&&(this._lines.dispose(),this._lines=null),this._lines||(this._lines=i(this.gl,thi
s.bounds,this.ticks))};var p=[new h,new h,new h];function d(t,e,r,n,i){for(var
a=t.primalOffset,o=t.primalMinor,s=t.mirrorOffset,l=t.mirrorMinor,c=n[e],u=0;u<3;++u)if(e!==u){var
f=a,h=s,p=o,d=l;c&1<<u&&(f=s,h=a,p=l,d=o),f[u]=r[0][u],h[u]=r[1][u],i[u]>0?(p[u]=-
1,d[u]=0):(p[u]=0,d[u]=1)}}var
g=[0,0,0],v={model:l,view:l,projection:l,_ortho:!1};f.isOpaque=function(){return!0},f.isTransparent=function(){ret
urn!1},f.drawTransparent=function(t){};var m=[0,0,0],y=[0,0,0],x=[0,0,0];f.draw=function(t){t=t||v;for(var
e=this.gl,r=t.model||l,n=t.view||l,i=t.projection||l,a=this.bounds,s=t._ortho||!1,u=o(r,n,i,a,s),f=u.cubeEdges,h=u.axis,b
=n[12],_=n[13],w=n[14],T=n[15],k=(s?2:1)*this.pixelRatio*(i[3]*b+i[7]*_+i[11]*w+i[15]*T)/e.drawingBufferHeig
ht,A=0;A<3;++A)this.lastCubeProps.cubeEdges[A]=f[A],this.lastCubeProps.axis[A]=h[A];var
M=p;for(A=0;A<3;++A)d(p[A],A,this.bounds,f,h);e=this.gl;var
S,E,L,C=g;for(A=0;A<3;++A)this.backgroundEnable[A]?C[A]=h[A]:C[A]=0;for(this._background.draw(r,n,i,a,C,t
his.backgroundColor),this._lines.bind(r,n,i,this),A=0;A<3;++A){var
P=[0,0,0];h[A]>0?P[A]=a[1][A]:P[A]=a[0][A];for(var I=0;I<2;++I){var
O=(A+1+I)%3,z=(A+1+(1^I))%3;this.gridEnable[O]&&this._lines.drawGrid(O,z,this.bounds,P,this.gridColor[O],th
is.gridWidth[O]*this.pixelRatio)}for(I=0;I<2;++I)O=(A+1+I)%3,z=(A+1+(1^I))%3,this.zeroEnable[z]&&Math.mi
n(a[0][z],a[1][z])<=0&&Math.max(a[0][z],a[1][z])>=0&&this._lines.drawZero(O,z,this.bounds,P,this.zeroLineColo
r[z],this.zeroLineWidth[z]*this.pixelRatio)}for(A=0;A<3;++A){this.lineEnable[A]&&this._lines.drawAxisLine(A,t
his.bounds,M[A].primalOffset,this.lineColor[A],this.lineWidth[A]*this.pixelRatio),this.lineMirror[A]&&this._lines.
drawAxisLine(A,this.bounds,M[A].mirrorOffset,this.lineColor[A],this.lineWidth[A]*this.pixelRatio);var
D=c(m,M[A].primalMinor),R=c(y,M[A].mirrorMinor),F=this.lineTickLength;for(I=0;I<3;++I){var
B=k/r[5*I];D[I]*=F[I]*B,R[I]*=F[I]*B}this.lineTickEnable[A]&&this._lines.drawAxisTicks(A,M[A].primalOffset,
D,this.lineTickColor[A],this.lineTickWidth[A]*this.pixelRatio),this.lineTickMirror[A]&&this._lines.drawAxisTick
s(A,M[A].mirrorOffset,R,this.lineTickColor[A],this.lineTickWidth[A]*this.pixelRatio)}function
N(t){(L=[0,0,0])[t]=1}function j(t,e,r){var
n=(t+1)%3,i=(t+2)%3,a=e[n],o=e[i],s=r[n],l=r[i];a>0&&l>0||a>0&&l<0||a<0&&l>0||a<0&&l<0?N(n):(o>0&&s>0||
o>0&&s<0||o<0&&s>0||o<0&&s<0)&&N(i)}for(this._lines.unbind(),this._text.bind(r,n,i,this.pixelRatio),A=0;A<3;
++A){var
U=M[A].primalMinor,V=M[A].mirrorMinor,q=c(x,M[A].primalOffset);for(I=0;I<3;++I)this.lineTickEnable[A]&&
(q[I]+=k*U[I]*Math.max(this.lineTickLength[I],0)/r[5*I]);var H=[0,0,0];if(H[A]=1,this.tickEnable[A]){for(-
3600===this.tickAngle[A]?(this.tickAngle[A]=0,this.tickAlign[A]="auto"):this.tickAlign[A]=-
1,E=1,"auto"===(S=[this.tickAlign[A],.5,E])[0]?S[0]=0:S[0]=parseInt(""+S[0]),L=[0,0,0],j(A,U,V),I=0;I<3;++I)q[I
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]+=k*U[I]*this.tickPad[I]/r[5*I];this._text.drawTicks(A,this.tickSize[A],this.tickAngle[A],q,this.tickColor[A],H,L,S)}if(this.labelEnable[A]){for(E=0,L=[0,0,0],this.labels[A].length>4&&(N(A),E=1),"auto"===(S=[this.labelAlign[A],.5,E])[0]?S[0]=0:S[0]=parseInt(""+S[0]),I=0;I<3;++I)q[I]+=k*U[I]*this.labelPad[I]/r[5*I];q[A]+=.5*(a[0][A]+a[1][A]),this._text.drawLabel(A,this.labelSize[A],this.labelAngle[A],q,this.labelColor[A],[0,0,0],L,S)}}this._text.unbind()},f.dispose=function(){this._text.dispose(),this._lines.dispose(),this._background.dispose(),this._lines=null,this._text=null,this._background=null,this.gl=null}},{"./lib/background.js":71,"./lib/cube.js":72,"./lib/lines.js":73,"./lib/text.js":75,"./lib/ticks.js":76}],71:[function(t,e,r){"use strict";e.exports=function(t){for(var e=[],r=[],s=0,l=0;l<3;++l)for(var c=(l+1)%3,u=(l+2)%3,f=[0,0,0],h=[0,0,0],p=-1;p<=1;p+=2){r.push(s,s+2,s+1,s+1,s+2,s+3),f[l]=p,h[l]=p;for(var d=-1;d<=1;d+=2){f[c]=d;for(var g=-1;g<=1;g+=2)f[u]=g,e.push(f[0],f[1],f[2],h[0],h[1],h[2]),s+=1}var v=c;c=u,u=v}var m=n(t,new Float32Array(e)),y=n(t,new Uint16Array(r),t.ELEMENT_ARRAY_BUFFER),x=i(t,[{buffer:m,type:t.FLOAT,size:3,offset:0,stride:24},{buffer:m,type:t.FLOAT,size:3,offset:12,stride:24}],y),b=a(t);return b.attributes.position.location=0,b.attributes.normal.location=1,new o(t,m,x,b)};var n=t("gl-buffer"),i=t("gl-vao"),a=t("./shaders").bg;function o(t,e,r,n){this.gl=t,this.buffer=e,this.vao=r,this.shader=n}var s=o.prototype;s.draw=function(t,e,r,n,i,a){for(var o=!1,s=0;s<3;++s)o=o||i[s];if(o){var l=this.gl;l.enable(l.POLYGON_OFFSET_FILL),l.polygonOffset(1,2),this.shader.bind(),this.shader.uniforms={model:t,view:e,projection:r,bounds:n,enable:i,colors:a},this.vao.bind(),this.vao.draw(this.gl.TRIANGLES,36),this.vao.unbind(),l.disable(l.POLYGON_OFFSET_FILL)}},s.dispose=function(){this.vao.dispose(),this.buffer.dispose(),this.shader.dispose()}},{"./shaders":74,"gl-buffer":78,"gl-vao":150}],72:[function(t,e,r){"use strict";e.exports=function(t,e,r,a,p){i(s,e,t),i(s,r,s);for(var y=0,x=0;x<2;++x){u[2]=a[x][2];for(var b=0;b<2;++b){u[1]=a[b][1];for(var _=0;_<2;++_)u[0]=a[_][0],h(l[y],u,s),y+=1}}var w=-1;for(x=0;x<8;++x){for(var T=l[x][3],k=0;k<3;++k)c[x][k]=l[x][k]/T;p&&(c[x][2]*=-1),T<0&&(w<0||c[x][2]<c[w][2])&&(w=x)}if(w<0){w=0;for(var A=0;A<3;++A){for(var M=(A+2)%3,S=(A+1)%3,E=-1,L=-1,C=0;C<2;++C){var P=(O=C<<A)+(C<<M)+(1-C<<S),I=O+(1-C<<M)+(C<<S);o(c[O],c[P],c[I],f)<0||(C?E=1:L=1)}if(E<0||L<0)L>E&&(w|=1<<A);else{for(C=0;C<2;++C){P=(O=C<<A)+(C<<M)+(1-C<<S),I=O+(1-C<<M)+(C<<S);var O,z=d([l[O],l[P],l[I],l[O+(1<<M)+(1<<S)]]);C?E=z:L=z}L>E&&(w|=1<<A)}}}var D=7^w,R=-1;for(x=0;x<8;++x)x!==w&&x!==D&&(R<0||c[R][1]>c[x][1])&&(R=x);var F=-1;for(x=0;x<3;++x)(N=R^1<<x)!==w&&N!==D&&(F<0&&(F=N),(S=c[N])[0]<c[F][0]&&(F=N));var B=-1;for(x=0;x<3;++x){var N;(N=R^1<<x)!==w&&N!==D&&N!==F&&(B<0&&(B=N),(S=c[N])[0]>c[B][0]&&(B=N))}var j=g;j[0]=j[1]=j[2]=0,j[n.log2(F^R)]=R&F,j[n.log2(R^B)]=R&B;var U=7^B;U===w||U===D?(U=7^F,j[n.log2(B^U)]=U&B):j[n.log2(F^U)]=U&F;var V=v,q=w;for(A=0;A<3;++A)V[A]=q&1<<A?-1:1;return m};var n=t("bit-twiddle"),i=t("gl-mat4/multiply"),a=t("split-polygon"),o=t("robust-orientation"),s=new Array(16),l=new Array(8),c=new Array(8),u=new Array(3),f=[0,0,0];function h(t,e,r){for(var n=0;n<4;++n){t[n]=r[12+n];for(var i=0;i<3;++i)t[n]+=e[i]*r[4*i+n]}}!function(){for(var t=0;t<8;++t)l[t]=[1,1,1,1],c[t]=[1,1,1]}();var p=[[0,0,1,0,0],[0,0,-1,1,0],[0,-1,0,1,0],[0,1,0,1,0],[-1,0,0,1,0],[1,0,0,1,0]];function d(t){for(var e=0;e<p.length;++e)if((t=a.positive(t,p[e])).length<3)return 0;var r=t[0],n=r[0]/r[3],i=r[1]/r[3],o=0;for(e=1;e+1<t.length;++e){var s=t[e],l=t[e+1],c=s[0]/s[3]-n,u=s[1]/s[3]-i,f=l[0]/l[3]-n,h=l[1]/l[3]-i;o+=Math.abs(c*h-u*f)}return o}var g=[1,1,1],v=[0,0,0],m={cubeEdges:g,axis:v}},{"bit-twiddle":32,"gl-mat4/multiply":100,"robust-orientation":284,"split-polygon":300}],73:[function(t,e,r){"use strict";e.exports=function(t,e,r){var o=[],s=[0,0,0],l=[0,0,0],c=[0,0,0],u=[0,0,0];o.push(0,0,1,0,1,1,0,0,-1,0,0,-1,0,1,1,0,1,-1);for(var f=0;f<3;++f){for(var h=o.length/3|0,d=0;d<r[f].length;++d){var g=+r[f][d].x;o.push(g,0,1,g,1,1,g,0,-1,g,0,-1,g,1,1,g,1,-1)}var v=o.length/3|0;s[f]=h,l[f]=v-h,h=o.length/3|0;for(var m=0;m<r[f].length;++m)g=+r[f][m].x,o.push(g,0,1,g,1,1,g,0,-1,g,0,-1,g,1,1,g,1,-1);v=o.length/3|0,c[f]=h,u[f]=v-h}var y=n(t,new Float32Array(o)),x=i(t,[{buffer:y,type:t.FLOAT,size:3,stride:0,offset:0}]),b=a(t);return

b.attributes.position.location=0,new p(t,y,x,b,l,s,u,c)};var n=t("gl-buffer"),i=t("gl-vao"),a=t("./shaders").line,o=[0,0,0],s=[0,0,0],l=[0,0,0],c=[0,0,0],u=[1,1];function f(t){return t[0]=t[1]=t[2]=0,t}function h(t,e){return t[0]=e[0],t[1]=e[1],t[2]=e[2],t}function p(t,e,r,n,i,a,o,s){this.gl=t,this.vertBuffer=e,this.vao=r,this.shader=n,this.tickCount=i,this.tickOffset=a,this.gridCount=o,this.gridOffset=s}var d=p.prototype;d.bind=function(t,e,r){this.shader.bind(),this.shader.uniforms.model=t,this.shader.uniforms.view=e,this.shader.uniforms.projection=r,u[0]=this.gl.drawingBufferWidth,u[1]=this.gl.drawingBufferHeight,this.shader.uniforms.screenShape=u,this.vao.bind()},d.unbind=function(){this.vao.unbind()},d.drawAxisLine=function(t,e,r,n,i){var a=f(s);this.shader.uniforms.majorAxis=s,a[t]=e[1][t]-e[0][t],this.shader.uniforms.minorAxis=a;var o,u=h(c,r);u[t]+=e[0][t],this.shader.uniforms.offset=u,this.shader.uniforms.lineWidth=i,this.shader.uniforms.color=n,(o=f(l))[(t+2)%3]=1,this.shader.uniforms.screenAxis=o,this.vao.draw(this.gl.TRIANGLES,6),(o=f(l))[(t+1)%3]=1,this.shader.uniforms.screenAxis=o,this.vao.draw(this.gl.TRIANGLES,6)},d.drawAxisTicks=function(t,e,r,n,i){if(this.tickCount[t]){var a=f(o);a[t]=1,this.shader.uniforms.majorAxis=a,this.shader.uniforms.offset=e,this.shader.uniforms.minorAxis=r,this.shader.uniforms.color=n,this.shader.uniforms.lineWidth=i;var s=f(l);s[t]=1,this.shader.uniforms.screenAxis=s,this.vao.draw(this.gl.TRIANGLES,this.tickCount[t],this.tickOffset[t])}},d.drawGrid=function(t,e,r,n,i,a){if(this.gridCount[t]){var u=f(s);u[e]=r[1][e]-r[0][e],this.shader.uniforms.minorAxis=u;var p=h(c,n);p[e]+=r[0][e],this.shader.uniforms.offset=p;var d=f(o);d[t]=1,this.shader.uniforms.majorAxis=d;var g=f(l);g[t]=1,this.shader.uniforms.screenAxis=g,this.shader.uniforms.lineWidth=a,this.shader.uniforms.color=i,this.vao.draw(this.gl.TRIANGLES,this.gridCount[t],this.gridOffset[t])}},d.drawZero=function(t,e,r,n,i,a){var o=f(s);this.shader.uniforms.majorAxis=o,o[t]=r[1][t]-r[0][t],this.shader.uniforms.minorAxis=o;var u=h(c,n);u[t]+=r[0][t],this.shader.uniforms.offset=u;var p=f(l);p[e]=1,this.shader.uniforms.screenAxis=p,this.shader.uniforms.lineWidth=a,this.shader.uniforms.color=i,this.vao.draw(this.gl.TRIANGLES,6)},d.dispose=function(){this.vao.dispose(),this.vertBuffer.dispose(),this.shader.dispose()}},{"./shaders":74,"gl-buffer":78,"gl-vao":150}],74:[function(t,e,r){"use strict";var n=t("glslify"),i=t("gl-shader"),a=n(["precision highp float;\n#define GLSLIFY 1\n\nattribute vec3 position;\n\nuniform mat4 model, view, projection;\nuniform vec3 offset, majorAxis, minorAxis, screenAxis;\nuniform float lineWidth;\nuniform vec2 screenShape;\n\nvec3 project(vec3 p) {\n vec4 pp = projection * view * model * vec4(p, 1.0);\n return pp.xyz / max(pp.w, 0.0001);\n}\n\nvoid main() {\n vec3 major = position.x * majorAxis;\n vec3 minor = position.y * minorAxis;\n\n vec3 vPosition = major + minor + offset;\n vec3 pPosition = project(vPosition);\n vec3 offset = project(vPosition + screenAxis * position.z);\n\n vec2 screen = normalize((offset - pPosition).xy * screenShape) / screenShape;\n\n gl_Position = vec4(pPosition + vec3(0.5 * screen * lineWidth, 0), 1.0);\n}\n"]),o=n(["precision highp float;\n#define GLSLIFY 1\n\nuniform vec4 color;\nvoid main() {\n gl_FragColor = color;\n}"]);r.line=function(t){return i(t,a,o,null,[{name:"position",type:"vec3"}])};var s=n(["precision highp float;\n#define GLSLIFY 1\n\nattribute vec3 position;\n\nuniform mat4 model, view, projection;\nuniform vec3 offset, axis, alignDir, alignOpt;\nuniform float scale, angle, pixelScale;\nuniform vec2 resolution;\n\nvec3 project(vec3 p) {\n vec4 pp = projection * view * model * vec4(p, 1.0);\n return pp.xyz / max(pp.w, 0.0001);\n}\n\nfloat computeViewAngle(vec3 a, vec3 b) {\n vec3 A = project(a);\n vec3 B = project(b);\n\n return atan(\n   (B.y - A.y) * resolution.y,\n   (B.x - A.x) * resolution.x\n);\n}\n\nconst float PI = 3.141592;\nconst float TWO_PI = 2.0 * PI;\nconst float HALF_PI = 0.5 * PI;\nconst float ONE_AND_HALF_PI = 1.5 * PI;\n\nint option = int(floor(alignOpt.x + 0.001));\nfloat hv_ratio =   alignOpt.y;\nbool enableAlign =   (alignOpt.z != 0.0);\n\nfloat mod_angle(float a) {\n return mod(a, PI);\n}\n\nfloat positive_angle(float a) {\n return mod_angle((a < 0.0) ?\n   a + TWO_PI :\n   a\n);\n}\n\nfloat look_upwards(float a) {\n float b = positive_angle(a);\n return ((b > HALF_PI) && (b <= ONE_AND_HALF_PI)) ?\n   b - PI :\n   b;\n}\n\nfloat look_horizontal_or_vertical(float a, float ratio) {\n // ratio controls the ratio between being horizontal to (vertical + horizontal)\n // if ratio is set to 0.5 then it is 50%, 50%.\n // when using a higher ratio e.g. 0.75 the result would\n // likely be more horizontal than vertical.\n\n float b = positive_angle(a);\n\n return\n   (b < (ratio) * HALF_PI) ? 0.0 :\n   (b < (2.0 - ratio) *

HALF_PI) ? -HALF_PI :\n (b < (2.0 + ratio) * HALF_PI) ? 0.0 :\n (b < (4.0 - ratio) * HALF_PI) ? HALF_PI :\n 0.0;\n}\n\nfloat roundTo(float a, float b) {\n return float(b * floor((a + 0.5 * b) / b));\n}\n\nfloat look_round_n_directions(float a, int n) {\n float b = positive_angle(a);\n float div = TWO_PI / float(n);\n float c = roundTo(b, div);\n return look_upwards(c);\n}\n\nfloat applyAlignOption(float rawAngle, float delta) {\n return\n (option > 2) ? look_round_n_directions(rawAngle + delta, option) : // option 3-n: round to n directions\n (option == 2) ? look_horizontal_or_vertical(rawAngle + delta, hv_ratio) : // horizontal or vertical\n (option == 1) ? rawAngle + delta : // use free angle, and flip to align with one direction of the axis\n (option == 0) ? look_upwards(rawAngle) : // use free angle, and stay upwards\n (option ==-1) ? 0.0 : // useful for backward compatibility, all texts remains horizontal\n rawAngle; // otherwise return back raw input angle\n}\n\nbool isAxisTitle = (axis.x == 0.0) &&\n (axis.y == 0.0) &&\n (axis.z == 0.0);\n\nvoid main() {\n //Compute world offset\n float axisDistance = position.z;\n vec3 dataPosition = axisDistance * axis + offset;\n\n float beta = angle; // i.e. user defined attributes for each tick\n\n float axisAngle;\n float clipAngle;\n float flip;\n\n if (enableAlign) {\n axisAngle = (isAxisTitle) ? HALF_PI :\n computeViewAngle(dataPosition, dataPosition + axis);\n clipAngle = computeViewAngle(dataPosition, dataPosition + alignDir);\n\n axisAngle += (sin(axisAngle) < 0.0) ? PI : 0.0;\n clipAngle += (sin(clipAngle) < 0.0) ? PI : 0.0;\n\n flip = (dot(vec2(cos(axisAngle), sin(axisAngle)),\n vec2(sin(clipAngle),-cos(clipAngle))) > 0.0) ? 1.0 : 0.0;\n\n beta += applyAlignOption(clipAngle, flip * PI);\n }\n\n //Compute plane offset\n vec2 planeCoord = position.xy * pixelScale;\n\n mat2 planeXform = scale * mat2(\n cos(beta), sin(beta),\n -sin(beta), cos(beta)\n);\n\n vec2 viewOffset = 2.0 * planeXform * planeCoord / resolution;\n\n //Compute clip position\n vec3 clipPosition = project(dataPosition);\n\n //Apply text offset in clip coordinates\n clipPosition += vec3(viewOffset, 0.0);\n\n //Done\n gl_Position = vec4(clipPosition, 1.0);\n}"]),l=n(["precision highp float;\n#define GLSLIFY 1\n\nuniform vec4 color;\nvoid main() {\n gl_FragColor = color;\n}"]);r.text=function(t){return i(t,s,l,null,[{name:"position",type:"vec3"}])};var c=n(["precision highp float;\n#define GLSLIFY 1\n\nattribute vec3 position;\nattribute vec3 normal;\n\nuniform mat4 model, view, projection;\nuniform vec3 enable;\nuniform vec3 bounds[2];\n\nvarying vec3 colorChannel;\n\nvoid main() {\n\n vec3 signAxis = sign(bounds[1] - bounds[0]);\n\n vec3 realNormal = signAxis * normal;\n\n if(dot(realNormal, enable) > 0.0) {\n vec3 minRange = min(bounds[0], bounds[1]);\n vec3 maxRange = max(bounds[0], bounds[1]);\n vec3 nPosition = mix(minRange, maxRange, 0.5 * (position + 1.0));\n gl_Position = projection * view * model * vec4(nPosition, 1.0);\n } else {\n gl_Position = vec4(0,0,0,0);\n }\n\n colorChannel = abs(realNormal);\n}"]),u=n(["precision highp float;\n#define GLSLIFY 1\n\nuniform vec4 colors[3];\n\nvarying vec3 colorChannel;\n\nvoid main() {\n gl_FragColor = colorChannel.x * colors[0] +\n colorChannel.y * colors[1] +\n colorChannel.z * colors[2];\n}"]);r.bg=function(t){return i(t,c,u,null,[{name:"position",type:"vec3"},{name:"normal",type:"vec3"}])}},{"gl-shader":132,glslify:231}],75:[function(t,e,r){(function(r){(function(){"use strict";e.exports=function(t,e,r,a,s,l){var u=n(t),f=i(t,[{buffer:u,size:3}]),h=o(t);h.attributes.position.location=0;var p=new c(t,h,u,f);return p.update(e,r,a,s,l),p};var n=t("gl-buffer"),i=t("gl-vao"),a=t("vectorize-text"),o=t("./shaders").text,s=window||r.global||{},l=s.__TEXT_CACHE||{};function c(t,e,r,n){this.gl=t,this.shader=e,this.buffer=r,this.vao=n,this.tickOffset=this.tickCount=this.labelOffset=this.labelCount=null}s.__TEXT_CACHE={};var u=c.prototype,f=[0,0];u.bind=function(t,e,r,n){this.vao.bind(),this.shader.bind();var i=this.shader.uniforms;i.model=t,i.view=e,i.projection=r,i.pixelScale=n,f[0]=this.gl.drawingBufferWidth,f[1]=this.gl.drawingBufferHeight,this.shader.uniforms.resolution=f},u.unbind=function(){this.vao.unbind()},u.update=function(t,e,r,n,i){var o=[];function s(t,e,r,n,i,s){var c=l[r];c||(c=l[r]={});var u=c[e];u||(u=c[e]=function(t,e){try{return a(t,e)}catch(e){return console.warn('error vectorizing text:"'+t+'" error:',e),{cells:[],positions:[]}}}(e,{triangles:!0,font:r,textAlign:"center",textBaseline:"middle",lineSpacing:i,styletags:s}));for(var f=(n||12)/12,h=u.positions,p=u.cells,d=0,g=p.length;d<g;++d)for(var v=p[d],m=2;m>=0;--m){var y=h[v[m]];o.push(f*y[0],-f*y[1],t)}}for(var c=[0,0,0],u=[0,0,0],f=[0,0,0],h=[0,0,0],p={breaklines:!0,bolds:!0,italics:!0,subscripts:!0,superscripts:!0},d=0;d<3;++

d){f[d]=o.length/3|0,s(.5*(t[0][d]+t[1][d]),e[d],r[d],12,1.25,p),h[d]=(o.length/3|0)-f[d],c[d]=o.length/3|0;for(var g=0;g<n[d].length;++g)n[d][g].text&&s(n[d][g].x,n[d][g].text,n[d][g].font||i,n[d][g].fontSize||12,1.25,p);u[d]=(o.length/3|0)-
c[d]}this.buffer.update(o),this.tickOffset=c,this.tickCount=u,this.labelOffset=f,this.labelCount=h},u.drawTicks=function(t,e,r,n,i,a,o,s){this.tickCount[t]&&(this.shader.uniforms.axis=a,this.shader.uniforms.color=i,this.shader.uniforms.angle=r,this.shader.uniforms.scale=e,this.shader.uniforms.offset=n,this.shader.uniforms.alignDir=o,this.shader.uniforms.alignOpt=s,this.vao.draw(this.gl.TRIANGLES,this.tickCount[t],this.tickOffset[t]))},u.drawLabel=function(t,e,r,n,i,a,o,s){this.labelCount[t]&&(this.shader.uniforms.axis=a,this.shader.uniforms.color=i,this.shader.uniforms.angle=r,this.shader.uniforms.scale=e,this.shader.uniforms.offset=n,this.shader.uniforms.alignDir=o,this.shader.uniforms.alignOpt=s,this.vao.draw(this.gl.TRIANGLES,this.labelCount[t],this.labelOffset[t]))},u.dispose=function(){this.shader.dispose(),this.vao.dispose(),this.buffer.dispose()}}).call(this)}).call(this,t("_process"))},{"./shaders":74,_process:5,"gl-buffer":78,"gl-vao":150,"vectorize-text":311}],76:[function(t,e,r){"use strict";function n(t,e){var r=t+"",n=r.indexOf("."),i=0;n>=0&&(i=r.length-n-1);var
a=Math.pow(10,i),o=Math.round(t*e*a),s=o+"";if(s.indexOf("e")>=0)return s;var l=o/a,c=o%a;o<0?(l=0|-Math.ceil(l),c=0|-c):(l=0|Math.floor(l),c|=0);var u=""+l;if(o<0&&(u="-"+u),i){for(var f=""+c;f.length<i;)f="0"+f;return u+"."+f}return u}r.create=function(t,e){for(var r=[],i=0;i<3;++i){for(var a=[],o=(t[0][i],t[1][i],0);o*e[i]<=t[1][i];++o)a.push({x:o*e[i],text:n(e[i],o)});for(o=-1;o*e[i]>=t[0][i];--o)a.push({x:o*e[i],text:n(e[i],o)});r.push(a)}return r},r.equal=function(t,e){for(var r=0;r<3;++r){if(t[r].length!==e[r].length)return!1;for(var n=0;n<t[r].length;++n){var i=t[r][n],a=e[r][n];if(i.x!==a.x||i.text!==a.text||i.font!==a.font||i.fontColor!==a.fontColor||i.fontSize!==a.fontSize||i.dx!==a.dx||i.dy!==a.dy)return!1}}return!0}},{}],77:[function(t,e,r){"use strict";e.exports=function(t,e,r,l,f){var h=e.model||c,p=e.view||c,m=e.projection||c,y=e._ortho||!1,x=t.bounds,b=(f=f||a(h,p,m,x,y)).axis;o(u,p,h),o(u,m,u);for(var _=g,w=0;w<3;++w)_[w].lo=1/0,_[w].hi=-1/0,_[w].pixelsPerDataUnit=1/0;var T=n(s(u,u));s(u,u);for(var k=0;k<3;++k){var A=(k+1)%3,M=(k+2)%3,S=v;t:for(w=0;w<2;++w){var
E=[];if(b[k]<0!=!!w){S[k]=x[w][k];for(var L=0;L<2;++L){S[A]=x[L^w][A];for(var C=0;C<2;++C)S[M]=x[C^L^w][M],E.push(S.slice())}var P=y?5:4;for(L=P;L===P;++L){if(0===E.length)continue t;E=i.positive(E,T[L])}for(L=0;L<E.length;++L){M=E[L];var
I=d(v,u,M,r,l);for(C=0;C<3;++C)_[C].lo=Math.min(_[C].lo,M[C]),_[C].hi=Math.max(_[C].hi,M[C]),C!==k&&(_[C].pixelsPerDataUnit=Math.min(_[C].pixelsPerDataUnit,Math.abs(I[C])))}}}return _};var n=t("extract-frustum-planes"),i=t("split-polygon"),a=t("./lib/cube.js"),o=t("gl-mat4/multiply"),s=t("gl-mat4/transpose"),l=t("gl-vec4/transformMat4"),c=new Float32Array([1,0,0,0,0,1,0,0,0,0,1,0,0,0,0,1]),u=new Float32Array(16);function f(t,e,r){this.lo=t,this.hi=e,this.pixelsPerDataUnit=r}var h=[0,0,0,1],p=[0,0,0,1];function d(t,e,r,n,i){for(var a=0;a<3;++a){for(var o=h,s=p,c=0;c<3;++c)s[c]=o[c]=r[c];s[3]=o[3]=1,s[a]+=1,l(s,s,e),s[3]<0&&(t[a]=1/0),o[a]-=1,l(o,o,e),o[3]<0&&(t[a]=1/0);var u=(o[0]/o[3]-s[0]/s[3])*n,f=(o[1]/o[3]-s[1]/s[3])*i;t[a]=.25*Math.sqrt(u*u+f*f)}return t}var g=[new f(1/0,-1/0,1/0),new f(1/0,-1/0,1/0),new f(1/0,-1/0,1/0)],v=[0,0,0]},{"./lib/cube.js":72,"extract-frustum-planes":67,"gl-mat4/multiply":100,"gl-mat4/transpose":109,"gl-vec4/transformMat4":221,"split-polygon":300}],78:[function(t,e,r){"use strict";var n=t("typedarray-pool"),i=t("ndarray-ops"),a=t("ndarray"),o=["uint8","uint8_clamped","uint16","uint32","int8","int16","int32","float32"];function s(t,e,r,n,i){this.gl=t,this.type=e,this.handle=r,this.length=n,this.usage=i}var l=s.prototype;function c(t,e,r,n,i,a){var o=i.length*i.BYTES_PER_ELEMENT;if(a<0)return t.bufferData(e,i,n),o;if(o+a>r)throw new Error("gl-buffer: If resizing buffer, must not specify offset");return t.bufferSubData(e,a,i),r}function u(t,e){for(var r=n.malloc(t.length,e),i=t.length,a=0;a<i;++a)r[a]=t[a];return r}l.bind=function(){this.gl.bindBuffer(this.type,this.handle)},l.unbind=function(){this.gl.bindBuffer(this.type,null)},l.dispose=function(){this.gl.deleteBuffer(this.handle)},l.update=function(t,e){if("number"!=typeof e&&(e=-1),this.bind(),"object"==typeof t&&void 0!==t.shape){var
r=t.dtype;if(o.indexOf(r)<0&&(r="float32"),this.type===this.gl.ELEMENT_ARRAY_BUFFER&&(r=gl.getExtension("OES_element_index_uint")&&"uint16"!==r?"uint32":"uint16"),r===t.dtype&&function(t,e){for(var

r=1,n=e.length-1;n>=0;--
n){if(e[n]!==r)return!1;r*=t[n]}return!0}(t.shape,t.stride))0===t.offset&&t.data.length===t.shape[0]?this.length=c(this.gl,this.type,this.length,this.usage,t.data,e):this.length=c(this.gl,this.type,this.length,this.usage,t.data.subarray(t.offset,t.shape[0]),e);else{var
s=n.malloc(t.size,r),l=a(s,t.shape);i.assign(l,t),this.length=c(this.gl,this.type,this.length,this.usage,e<0?s:s.subarray(0,t.size),e),n.free(s)}}else if(Array.isArray(t)){var
f;f=this.type===this.gl.ELEMENT_ARRAY_BUFFER?u(t,"uint16"):u(t,"float32"),this.length=c(this.gl,this.type,this.length,this.usage,e<0?f:f.subarray(0,t.length),e),n.free(f)}else if("object"==typeof t&&"number"==typeof t.length)this.length=c(this.gl,this.type,this.length,this.usage,t,e);else{if("number"!=typeof t&&void 0!==t)throw new Error("gl-buffer: Invalid data type");if(e>=0)throw new Error("gl-buffer: Cannot specify offset when resizing buffer");(t|=0)<=0&&(t=1),this.gl.bufferData(this.type,0|t,this.usage),this.length=t}},e.exports=function(t,e,r,n){if(r=r||t.ARRAY_BUFFER,n=n||t.DYNAMIC_DRAW,r!==t.ARRAY_BUFFER&&r!==t.ELEMENT_ARRAY_BUFFER)throw new Error("gl-buffer: Invalid type for webgl buffer, must be either gl.ARRAY_BUFFER or gl.ELEMENT_ARRAY_BUFFER");if(n!==t.DYNAMIC_DRAW&&n!==t.STATIC_DRAW&&n!==t.STREAM_DRAW)throw new Error("gl-buffer: Invalid usage for buffer, must be either gl.DYNAMIC_DRAW, gl.STATIC_DRAW or gl.STREAM_DRAW");var i=t.createBuffer(),a=new s(t,r,i,0,n);return a.update(e),a}},{ndarray:259,"ndarray-ops":254,"typedarray-pool":308}],79:[function(t,e,r){"use strict";var n=t("gl-vec3");e.exports=function(t,e){var
r=t.positions,i=t.vectors,a={positions:[],vertexIntensity:[],vertexIntensityBounds:t.vertexIntensityBounds,vectors:[],cells:[],coneOffset:t.coneOffset,colormap:t.colormap};if(0===t.positions.length)return
e&&(e[0]=[0,0,0],e[1]=[0,0,0]),a;for(var o=0,s=1/0,l=-1/0,c=1/0,u=-1/0,f=1/0,h=-1/0,p=null,d=null,g=[],v=1/0,m=!1,y=0;y<r.length;y++){var
x=r[y];s=Math.min(x[0],s),l=Math.max(x[0],l),c=Math.min(x[1],c),u=Math.max(x[1],u),f=Math.min(x[2],f),h=Math.max(x[2],h);var b=i[y];if(n.length(b)>o&&(o=n.length(b)),y){var
=2*n.distance(p,x)/(n.length(d)+n.length(b));?(v=Math.min(v,_),m=!1):m=!0}m||(p=x,d=b),g.push(b)}var
w=[s,c,f],T=[l,u,h];e&&(e[0]=w,e[1]=T),0===o&&(o=1);var k=1/o;isFinite(v)||(v=1),a.vectorScale=v;var
A=t.coneSize||.5;t.absoluteConeSize&&(A=t.absoluteConeSize*k),a.coneScale=A,y=0;for(var
M=0;y<r.length;y++)for(var
S=(x=r[y])[0],E=x[1],L=x[2],C=g[y],P=n.length(C)*k,I=0;I<8;I++){a.positions.push([S,E,L,M++]),a.positions.push([S,E,L,M++]),a.positions.push([S,E,L,M++]),a.positions.push([S,E,L,M++]),a.positions.push([S,E,L,M++]),a.positions.push([S,E,L,M++]),a.vectors.push(C),a.vectors.push(C),a.vectors.push(C),a.vectors.push(C),a.vectors.push(C),a.vectors.push(C),a.vertexIntensity.push(P,P,P),a.vertexIntensity.push(P,P,P);var
O=a.positions.length;a.cells.push([O-6,O-5,O-4],[O-3,O-2,O-1])}return a};var
i=t("./lib/shaders");e.exports.createMesh=t("./create_mesh"),e.exports.createConeMesh=function(t,r){return
e.exports.createMesh(t,r,{shaders:i,traceType:"cone"})}},{"./create_mesh":80,"./lib/shaders":81,"gl-vec3":169}],80:[function(t,e,r){"use strict";var n=t("gl-shader"),i=t("gl-buffer"),a=t("gl-vao"),o=t("gl-texture2d"),s=t("gl-mat4/multiply"),l=t("gl-mat4/invert"),c=t("ndarray"),u=t("colormap"),f=[1,0,0,0,0,1,0,0,0,0,1,0,0,0,0,1];function
h(t,e,r,n,i,a,o,s,l,c,u){this.gl=t,this.pixelRatio=1,this.cells=[],this.positions=[],this.intensity=[],this.texture=e,this.dirty=!0,this.triShader=r,this.pickShader=n,this.trianglePositions=i,this.triangleVectors=a,this.triangleColors=s,this.triangleUVs=l,this.triangleIds=o,this.triangleVAO=c,this.triangleCount=0,this.pickId=1,this.bounds=[[1/0,1/0,1/0],[-1/0,-1/0,-1/0]],this.clipBounds=[[-1/0,-1/0,-1/0],[1/0,1/0,1/0]],this.lightPosition=[1e5,1e5,0],this.ambientLight=.8,this.diffuseLight=.8,this.specularLight=2,this.roughness=.5,this.fresnel=1.5,this.opacity=1,this.traceType=u,this.tubeScale=1,this.coneScale=2,this.vectorScale=1,this.coneOffset=.25,this._model=f,this._view=f,this._projection=f,this._resolution=[1,1]}var p=h.prototype;function
d(t,e){var r=n(t,e.meshShader.vertex,e.meshShader.fragment,null,e.meshShader.attributes);return
r.attributes.position.location=0,r.attributes.color.location=2,r.attributes.uv.location=3,r.attributes.vector.location=4,r}function g(t,e){var r=n(t,e.pickShader.vertex,e.pickShader.fragment,null,e.pickShader.attributes);return

r.attributes.position.location=0,r.attributes.id.location=1,r.attributes.vector.location=4,r}p.isOpaque=function(){retur
n this.opacity>=1},p.isTransparent=function(){return
this.opacity<1},p.pickSlots=1,p.setPickBase=function(t){this.pickId=t},p.update=function(t){t=t||{};var
e=this.gl;this.dirty=!0,"lightPosition"in t&&(this.lightPosition=t.lightPosition),"opacity"in
t&&(this.opacity=t.opacity),"ambient"in t&&(this.ambientLight=t.ambient),"diffuse"in
t&&(this.diffuseLight=t.diffuse),"specular"in t&&(this.specularLight=t.specular),"roughness"in
t&&(this.roughness=t.roughness),"fresnel"in t&&(this.fresnel=t.fresnel),void
0!==t.tubeScale&&(this.tubeScale=t.tubeScale),void 0!==t.vectorScale&&(this.vectorScale=t.vectorScale),void
0!==t.coneScale&&(this.coneScale=t.coneScale),void
0!==t.coneOffset&&(this.coneOffset=t.coneOffset),t.colormap&&(this.texture.shape=[256,256],this.texture.minFilt
er=e.LINEAR_MIPMAP_LINEAR,this.texture.magFilter=e.LINEAR,this.texture.setPixels(function(t){for(var
e=u({colormap:t,nshades:256,format:"rgba"}),r=new Uint8Array(1024),n=0;n<256;++n){for(var
i=e[n],a=0;a<3;++a)r[4*n+a]=i[a];r[4*n+3]=255*i[3]}return
c(r,[256,256,4],[4,0,1])}(t.colormap)),this.texture.generateMipmap());var
r=t.cells,n=t.positions,i=t.vectors;if(n&&r&&i){var
a=[],o=[],s=[],l=[],f=[];this.cells=r,this.positions=n,this.vectors=i;var
h=t.meshColor||[1,1,1,1],p=t.vertexIntensity,d=1/0,g=-
1/0;if(p)if(t.vertexIntensityBounds)d=+t.vertexIntensityBounds[0],g=+t.vertexIntensityBounds[1];else for(var
v=0;v<p.length;++v){var m=p[v];d=Math.min(d,m),g=Math.max(g,m)}else
for(v=0;v<n.length;++v)m=n[v][2],d=Math.min(d,m),g=Math.max(g,m);for(this.intensity=p||function(t){for(var
e=t.length,r=new Array(e),n=0;n<e;++n)r[n]=t[n][2];return r}(n),this.bounds=[[1/0,1/0,1/0],[-1/0,-1/0,-
1/0]],v=0;v<n.length;++v)for(var
y=n[v],x=0;x<3;++x)!isNaN(y[x])&&isFinite(y[x])&&(this.bounds[0][x]=Math.min(this.bounds[0][x],y[x]),this.bo
unds[1][x]=Math.max(this.bounds[1][x],y[x]));var b=0;t:for(v=0;v<r.length;++v){var _=r[v];switch(_.length){case
3:for(x=0;x<3;++x){y=n[T=_[x]];for(var w=0;w<3;++w)if(isNaN(y[w])||!isFinite(y[w]))continue
t}for(x=0;x<3;++x){var T;y=n[T=_[2-x]],a.push(y[0],y[1],y[2],y[3]);var k=i[T];o.push(k[0],k[1],k[2],k[3]||0);var
A,M=h;3===M.length?s.push(M[0],M[1],M[2],1):s.push(M[0],M[1],M[2],M[3]),A=p?[(p[T]-d)/(g-d),0]:[(y[2]-
d)/(g-
d),0],l.push(A[0],A[1]),f.push(v)}b+=1}}this.triangleCount=b,this.trianglePositions.update(a),this.triangleVectors.u
pdate(o),this.triangleColors.update(s),this.triangleUVs.update(l),this.triangleIds.update(new
Uint32Array(f))}},p.drawTransparent=p.draw=function(t){t=t||{};for(var
e=this.gl,r=t.model||f,n=t.view||f,i=t.projection||f,a=[[-1e6,-1e6,-
1e6],[1e6,1e6,1e6]],o=0;o<3;++o)a[0][o]=Math.max(a[0][o],this.clipBounds[0][o]),a[1][o]=Math.min(a[1][o],this.cl
ipBounds[1][o]);var
c={model:r,view:n,projection:i,inverseModel:f.slice(),clipBounds:a,kambient:this.ambientLight,kdiffuse:this.diffuse
Light,kspecular:this.specularLight,roughness:this.roughness,fresnel:this.fresnel,eyePosition:[0,0,0],lightPosition:[0,
0,0],opacity:this.opacity,tubeScale:this.tubeScale,vectorScale:this.vectorScale,coneScale:this.coneScale,coneOffset:t
his.coneOffset,texture:0};c.inverseModel=l(c.inverseModel,c.model),e.disable(e.CULL_FACE),this.texture.bind(0);
var u=new
Array(16);for(s(u,c.view,c.model),s(u,c.projection,u),l(u,u),o=0;o<3;++o)c.eyePosition[o]=u[12+o]/u[15];var
h=u[15];for(o=0;o<3;++o)h+=this.lightPosition[o]*u[4*o+3];for(o=0;o<3;++o){for(var
p=u[12+o],d=0;d<3;++d)p+=u[4*d+o]*this.lightPosition[d];c.lightPosition[o]=p/h}if(this.triangleCount>0){var
g=this.triShader;g.bind(),g.uniforms=c,this.triangleVAO.bind(),e.drawArrays(e.TRIANGLES,0,3*this.triangleCoun
t),this.triangleVAO.unbind()}},p.drawPick=function(t){t=t||{};for(var
e=this.gl,r=t.model||f,n=t.view||f,i=t.projection||f,a=[[-1e6,-1e6,-
1e6],[1e6,1e6,1e6]],o=0;o<3;++o)a[0][o]=Math.max(a[0][o],this.clipBounds[0][o]),a[1][o]=Math.min(a[1][o],this.cl
ipBounds[1][o]);this._model=[].slice.call(r),this._view=[].slice.call(n),this._projection=[].slice.call(i),this._resolutio
n=[e.drawingBufferWidth,e.drawingBufferHeight];var

s={model:r,view:n,projection:i,clipBounds:a,tubeScale:this.tubeScale,vectorScale:this.vectorScale,coneScale:this.coneScale,coneOffset:this.coneOffset,pickId:this.pickId/255},l=this.pickShader;l.bind(),l.uniforms=s,this.triangleCount>0&&(this.triangleVAO.bind(),e.drawArrays(e.TRIANGLES,0,3*this.triangleCount),this.triangleVAO.unbind())},p.pick=function(t){if(!t)return null;if(t.id!==this.pickId)return null;var e=t.value[0]+256*t.value[1]+65536*t.value[2],r=this.cells[e],n=this.positions[r[1]].slice(0,3),i={position:n,dataCoordinate:n,index:Math.floor(r[1]/48)};return"cone"===this.traceType?i.index=Math.floor(r[1]/48):"streamtube"===this.traceType&&(i.intensity=this.intensity[r[1]],i.velocity=this.vectors[r[1]].slice(0,3),i.divergence=this.vectors[r[1]][3],i.index=e),i},p.dispose=function(){this.texture.dispose(),this.triShader.dispose(),this.pickShader.dispose(),this.triangleVAO.dispose(),this.trianglePositions.dispose(),this.triangleVectors.dispose(),this.triangleColors.dispose(),this.triangleUVs.dispose(),this.triangleIds.dispose()},e.exports=function(t,e,r){var n=r.shaders;1===arguments.length&&(t=(e=t).gl);var s=d(t,n),l=g(t,n),u=o(t,c(new Uint8Array([255,255,255,255]),[1,1,4]));u.generateMipmap(),u.minFilter=t.LINEAR_MIPMAP_LINEAR,u.magFilter=t.LINEAR;var f=i(t),p=i(t),v=i(t),m=i(t),y=i(t),x=new h(t,u,s,l,f,p,y,v,m,a(t,[{buffer:f,type:t.FLOAT,size:4},{buffer:y,type:t.UNSIGNED_BYTE,size:4,normalized:!0},{buffer:v,type:t.FLOAT,size:4},{buffer:m,type:t.FLOAT,size:2},{buffer:p,type:t.FLOAT,size:4}]),r.traceType||"cone");return x.update(e),x}},{colormap:53,"gl-buffer":78,"gl-mat4/invert":98,"gl-mat4/multiply":100,"gl-shader":132,"gl-texture2d":146,"gl-vao":150,ndarray:259}],81:[function(t,e,r){var n=t("glslify"),i=n(["precision highp float;\n\nprecision highp float;\n#define GLSLIFY 1\n\nvec3 getOrthogonalVector(vec3 v) {\n // Return up-vector for only-z vector.\n // Return ax + by + cz = 0, a point that lies on the plane that has v as a normal and that isn't (0,0,0).\n // From the above if-statement we have ||a|| > 0 U ||b|| > 0.\n // Assign z = 0, x = -b, y = a:\n // a*-b + b*a + c*0 = -ba + ba + 0 = 0\n if (v.x*v.x > v.z*v.z || v.y*v.y > v.z*v.z) {\n   return normalize(vec3(-v.y, v.x, 0.0));\n } else {\n   return normalize(vec3(0.0, v.z, -v.y));\n }\n}\n\n// Calculate the cone vertex and normal at the given index.\n//\n// The returned vertex is for a cone with its top at origin and height of 1.0,\n// pointing in the direction of the vector attribute.\n//\n// Each cone is made up of a top vertex, a center base vertex and base perimeter vertices.\n// These vertices are used to make up the triangles of the cone by the following:\n//   segment + 0 top vertex\n//   segment + 1 perimeter vertex a+1\n//   segment + 2 perimeter vertex a\n//   segment + 3 center base vertex\n//   segment + 4 perimeter vertex a\n//   segment + 5 perimeter vertex a+1\n// Where segment is the number of the radial segment * 6 and a is the angle at that radial segment.\n// To go from index to segment, floor(index / 6)\n// To go from segment to angle, 2*pi * (segment/segmentCount)\n// To go from index to segment index, index - (segment*6)\n//\nvec3 getConePosition(vec3 d, float rawIndex, float coneOffset, out vec3 normal) {\n\n const float segmentCount = 8.0;\n\n float index = rawIndex - floor(rawIndex /\n   (segmentCount * 6.0)) *\n   (segmentCount * 6.0);\n\n float segment = floor(0.001 + index/6.0);\n float segmentIndex = index - (segment*6.0);\n\n normal = -normalize(d);\n\n if (segmentIndex > 2.99 && segmentIndex < 3.01) {\n   return mix(vec3(0.0), -d, coneOffset);\n }\n\n float nextAngle = (\n   (segmentIndex > 0.99 && segmentIndex < 1.01) ||\n   (segmentIndex > 4.99 && segmentIndex < 5.01)\n) ? 1.0 : 0.0;\n float angle = 2.0 * 3.14159 * ((segment + nextAngle) / segmentCount);\n\n vec3 v1 = mix(d, vec3(0.0), coneOffset);\n vec3 v2 = v1 - d;\n\n vec3 u = getOrthogonalVector(d);\n vec3 v = normalize(cross(u, d));\n\n vec3 x = u * cos(angle) * length(d)*0.25;\n vec3 y = v * sin(angle) * length(d)*0.25;\n vec3 v3 = v2 + x + y;\n if (segmentIndex < 3.0) {\n   vec3 tx = u * sin(angle);\n   vec3 ty = v * -cos(angle);\n   vec3 tangent = tx + ty;\n   normal = normalize(cross(v3 - v1, tangent));\n }\n\n if (segmentIndex == 0.0) {\n   return mix(d, vec3(0.0), coneOffset);\n }\n return v3;\n}\n\nattribute vec3 vector;\nattribute vec4 color, position;\nattribute vec2 uv;\n\nuniform float vectorScale, coneScale, coneOffset;\nuniform mat4 model, view, projection, inverseModel;\nuniform vec3 eyePosition, lightPosition;\n\nvarying vec3 f_normal, f_lightDirection, f_eyeDirection, f_data, f_position;\nvarying vec4 f_color;\nvarying vec2 f_uv;\n\nvoid main() {\n // Scale the vector magnitude to stay constant with\n // model & view changes.\n vec3 normal;\n vec3 XYZ = getConePosition(mat3(model) * ((vectorScale * coneScale) * vector), position.w, coneOffset, normal);\n vec4 conePosition = model * vec4(position.xyz, 1.0) + vec4(XYZ, 0.0);\n\n //Lighting geometry parameters\n vec4 cameraCoordinate = view * conePosition;\n cameraCoordinate.xyz /= cameraCoordinate.w;\n f_lightDirection = lightPosition - cameraCoordinate.xyz;\n f_eyeDirection   = eyePosition - cameraCoordinate.xyz;\n f_normal =

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normalize((vec4(normal, 0.0) * inverseModel).xyz);\n\n  // vec4 m_position  = model * vec4(conePosition, 1.0);\n  vec4 t_position  = view * conePosition;\n  gl_Position      = projection * t_position;\n\n  f_color          = color;\n  f_data           = conePosition.xyz;\n  f_position       = position.xyz;\n  f_uv             = uv;\n}\n"]),a=n(["#extension GL_OES_standard_derivatives : enable\n\nprecision highp float;\n#define GLSLIFY 1\n\nfloat beckmannDistribution(float x, float roughness) {\n  float NdotH = max(x, 0.0001);\n  float cos2Alpha = NdotH * NdotH;\n  float tan2Alpha = (cos2Alpha - 1.0) / cos2Alpha;\n  float roughness2 = roughness * roughness;\n  float denom = 3.141592653589793 * roughness2 * cos2Alpha * cos2Alpha;\n  return exp(tan2Alpha / roughness2) / denom;\n}\n\nfloat cookTorranceSpecular(\n  vec3 lightDirection,\n  vec3 viewDirection,\n  vec3 surfaceNormal,\n  float roughness,\n  float fresnel) {\n\n  float VdotN = max(dot(viewDirection, surfaceNormal), 0.0);\n  float LdotN = max(dot(lightDirection, surfaceNormal), 0.0);\n\n  //Half angle vector\n  vec3 H = normalize(lightDirection + viewDirection);\n\n  //Geometric term\n  float NdotH = max(dot(surfaceNormal, H), 0.0);\n  float VdotH = max(dot(viewDirection, H), 0.000001);\n  float LdotH = max(dot(lightDirection, H), 0.000001);\n  float G1 = (2.0 * NdotH * VdotN) / VdotH;\n  float G2 = (2.0 * NdotH * LdotN) / LdotH;\n  float G = min(1.0, min(G1, G2));\n  \n  //Distribution term\n  float D = beckmannDistribution(NdotH, roughness);\n\n  //Fresnel term\n  float F = pow(1.0 - VdotN, fresnel);\n\n  //Multiply terms and done\n  return  G * F * D / max(3.14159265 * VdotN, 0.000001);\n}\n\nbool outOfRange(float a, float b, float p) {\n  return ((p > max(a, b)) || \n          (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n  return (outOfRange(a.x, b.x, p.x) ||\n  outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n  return (outOfRange(a.x, b.x, p.x) ||\n          outOfRange(a.y, b.y, p.y) ||\n          outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n  return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nuniform vec3 clipBounds[2];\nuniform float roughness, fresnel, kambient, kdiffuse, kspecular, opacity;\nuniform sampler2D texture;\n\nvarying vec3 f_normal, f_lightDirection, f_eyeDirection, f_data, f_position;\nvarying vec4 f_color;\nvarying vec2 f_uv;\n\nvoid main() {\n  if(outOfRange(clipBounds[0], clipBounds[1], f_position)) discard;\n  vec3 N = normalize(f_normal);\n  vec3 L = normalize(f_lightDirection);\n  vec3 V = normalize(f_eyeDirection);\n\n  if(gl_FrontFacing) {\n    N = -N;\n  }\n\n  float specular = min(1.0, max(0.0, cookTorranceSpecular(L, V, N, roughness, fresnel)));\n  float diffuse  = min(kambient + kdiffuse * max(dot(N, L), 0.0), 1.0);\n\n  vec4 surfaceColor = f_color * texture2D(texture, f_uv);\n  vec4 litColor = surfaceColor.a * vec4(diffuse * surfaceColor.rgb + kspecular * vec3(1,1,1) * specular,  1.0);\n\n  gl_FragColor = litColor * opacity;\n}\n"]),o=n(["precision highp float;\n\nprecision highp float;\n#define GLSLIFY 1\n\nvec3 getOrthogonalVector(vec3 v) {\n  // Return up-vector for only-z vector.\n  // Return ax + by + cz = 0, a point that lies on the plane that has v as a normal and that isn't (0,0,0).\n  // From the above if-statement we have ||a|| > 0  U  ||b|| > 0.\n  // Assign z = 0, x = -b, y = a:\n  // a*-b + b*a + c*0 = -ba + ba + 0 = 0\n  if (v.x*v.x > v.z*v.z || v.y*v.y > v.z*v.z) {\n    return normalize(vec3(-v.y, v.x, 0.0));\n  } else {\n    return normalize(vec3(0.0, v.z, -v.y));\n  }\n}\n\n// Calculate the cone vertex and normal at the given index.\n//\n// The returned vertex is for a cone with its top at origin and height of 1.0,\n// pointing in the direction of the vector attribute.\n//\n// Each cone is made up of a top vertex, a center base vertex and base perimeter vertices.\n// These vertices are used to make up the triangles of the cone by the following:\n//   segment + 0 top vertex\n//   segment + 1 perimeter vertex a+1\n//   segment + 2 perimeter vertex a\n//   segment + 3 center base vertex\n//   segment + 4 perimeter vertex a\n//   segment + 5 perimeter vertex a+1\n// Where segment is the number of the radial segment * 6 and a is the angle at that radial segment.\n// To go from index to segment, floor(index / 6)\n// To go from segment to angle, 2*pi * (segment/segmentCount)\n// To go from index to segment index, index - (segment*6)\n//\nvec3 getConePosition(vec3 d, float rawIndex, float coneOffset, out vec3 normal) {\n\n  const float segmentCount = 8.0;\n\n  float index = rawIndex - floor(rawIndex /\n    (segmentCount * 6.0)) *\n    (segmentCount * 6.0);\n\n  float segment = floor(0.001 + index/6.0);\n  float segmentIndex = index - (segment*6.0);\n\n  normal = -normalize(d);\n\n  if (segmentIndex > 2.99 && segmentIndex < 3.01) {\n    return mix(vec3(0.0), -d, coneOffset);\n  }\n\n  float nextAngle = (\n    (segmentIndex > 0.99 &&  segmentIndex < 1.01) ||\n    (segmentIndex > 4.99 &&  segmentIndex < 5.01)\n  ) ? 1.0 : 0.0;\n  float angle = 2.0 * 3.14159 * ((segment + nextAngle) / segmentCount);\n\n  vec3 v1 = mix(d, vec3(0.0), coneOffset);\n  vec3 v2 = v1 - d;\n\n  vec3 u = getOrthogonalVector(d);\n  vec3 v = normalize(cross(u, d));\n\n  vec3 x = u * cos(angle) * length(d)*0.25;\n  vec3 y = v * sin(angle) * length(d)*0.25;\n
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vec3 v3 = v2 + x + y;\n if (segmentIndex < 3.0) {\n   vec3 tx = u * sin(angle);\n   vec3 ty = v * -cos(angle);\n vec3 tangent = tx + ty;\n   normal = normalize(cross(v3 - v1, tangent));\n }\n\n if (segmentIndex == 0.0) {\n return mix(d, vec3(0.0), coneOffset);\n }\n return v3;\n}\n\nattribute vec4 vector;\nattribute vec4 position;\nattribute vec4 id;\n\nuniform mat4 model, view, projection;\nuniform float vectorScale, coneScale, coneOffset;\n\nvarying vec3 f_position;\nvarying vec4 f_id;\n\nvoid main() {\n vec3 normal;\n vec3 XYZ = getConePosition(mat3(model) * ((vectorScale * coneScale) * vector.xyz), position.w, coneOffset, normal);\n vec4 conePosition = model * vec4(position.xyz, 1.0) + vec4(XYZ, 0.0);\n gl_Position = projection * view * conePosition;\n f_id   = id;\n f_position = position.xyz;\n}\n"]),s=n(["precision highp float;\n#define GLSLIFY 1\n\nbool outOfRange(float a, float b, float p) {\n return ((p > max(a, b)) || \n   (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n outOfRange(a.y, b.y, p.y) ||\n   outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nuniform vec3 clipBounds[2];\nuniform float pickId;\n\nvarying vec3 f_position;\nvarying vec4 f_id;\n\nvoid main() {\n if (outOfRange(clipBounds[0], clipBounds[1], f_position)) discard;\n\n gl_FragColor = vec4(pickId, f_id.xyz);\n}"]);r.meshShader={vertex:i,fragment:a,attributes:[{name:"position",type:"vec4"},{name:"color",type:"vec4"},{name:"uv",type:"vec2"},{name:"vector",type:"vec3"}]},r.pickShader={vertex:o,fragment:s,attributes:[{name:"position",type:"vec4"},{name:"id",type:"vec4"},{name:"vector",type:"vec3"}]}},{glslify:231}],82:[function(t,e,r){e.exports={0:"NONE",1:"ONE",2:"LINE_LOOP",3:"LINE_STRIP",4:"TRIANGLES",5:"TRIANGLE_STRIP",6:"TRIANGLE_FAN",256:"DEPTH_BUFFER_BIT",512:"NEVER",513:"LESS",514:"EQUAL",515:"LEQUAL",516:"GREATER",517:"NOTEQUAL",518:"GEQUAL",519:"ALWAYS",768:"SRC_COLOR",769:"ONE_MINUS_SRC_COLOR",770:"SRC_ALPHA",771:"ONE_MINUS_SRC_ALPHA",772:"DST_ALPHA",773:"ONE_MINUS_DST_ALPHA",774:"DST_COLOR",775:"ONE_MINUS_DST_COLOR",776:"SRC_ALPHA_SATURATE",1024:"STENCIL_BUFFER_BIT",1028:"FRONT",1029:"BACK",1032:"FRONT_AND_BACK",1280:"INVALID_ENUM",1281:"INVALID_VALUE",1282:"INVALID_OPERATION",1285:"OUT_OF_MEMORY",1286:"INVALID_FRAMEBUFFER_OPERATION",2304:"CW",2305:"CCW",2849:"LINE_WIDTH",2884:"CULL_FACE",2885:"CULL_FACE_MODE",2886:"FRONT_FACE",2928:"DEPTH_RANGE",2929:"DEPTH_TEST",2930:"DEPTH_WRITEMASK",2931:"DEPTH_CLEAR_VALUE",2932:"DEPTH_FUNC",2960:"STENCIL_TEST",2961:"STENCIL_CLEAR_VALUE",2962:"STENCIL_FUNC",2963:"STENCIL_VALUE_MASK",2964:"STENCIL_FAIL",2965:"STENCIL_PASS_DEPTH_FAIL",2966:"STENCIL_PASS_DEPTH_PASS",2967:"STENCIL_REF",2968:"STENCIL_WRITEMASK",2978:"VIEWPORT",3024:"DITHER",3042:"BLEND",3088:"SCISSOR_BOX",3089:"SCISSOR_TEST",3106:"COLOR_CLEAR_VALUE",3107:"COLOR_WRITEMASK",3317:"UNPACK_ALIGNMENT",3333:"PACK_ALIGNMENT",3379:"MAX_TEXTURE_SIZE",3386:"MAX_VIEWPORT_DIMS",3408:"SUBPIXEL_BITS",3410:"RED_BITS",3411:"GREEN_BITS",3412:"BLUE_BITS",3413:"ALPHA_BITS",3414:"DEPTH_BITS",3415:"STENCIL_BITS",3553:"TEXTURE_2D",4352:"DONT_CARE",4353:"FASTEST",4354:"NICEST",5120:"BYTE",5121:"UNSIGNED_BYTE",5122:"SHORT",5123:"UNSIGNED_SHORT",5124:"INT",5125:"UNSIGNED_INT",5126:"FLOAT",5386:"INVERT",5890:"TEXTURE",6401:"STENCIL_INDEX",6402:"DEPTH_COMPONENT",6406:"ALPHA",6407:"RGB",6408:"RGBA",6409:"LUMINANCE",6410:"LUMINANCE_ALPHA",7680:"KEEP",7681:"REPLACE",7682:"INCR",7683:"DECR",7936:"VENDOR",7937:"RENDERER",7938:"VERSION",9728:"NEAREST",9729:"LINEAR",9984:"NEAREST_MIPMAP_NEAREST",9985:"LINEAR_MIPMAP_NEAREST",9986:"NEAREST_MIPMAP_LINEAR",9987:"LINEAR_MIPMAP_LINEAR",10240:"TEXTURE_MAG_FILTER",10241:"TEXTURE_MIN_FILTER",10242:"TEXTURE_WRAP_S",10243:"TEXTURE_WRAP_T",10497:"REPEAT",10752:"POLYGON_OFFSET_UNITS",16384:"COLOR_BUFFER_BIT",32769:"CONSTANT_COLOR",32770:"ONE_MINUS_CONSTANT_COLOR",32771:"CONSTANT_ALPHA",32772:"ONE_MINUS_CONSTANT_ALPHA",32773:"BLEND_COLOR",32774:"FUNC_ADD",32777:"BLEND_EQUATION_RGB",32778:"FUNC_SUBTRACT",32779:"FUNC_REVERSE_SUBTRACT",32819:"UNSIGNED_SHORT_4_4_4_4",32820:"UNSIGNED_SHORT_5_5_5_1",32823:"POLYGON_OFFSET_FILL",32824:"POLYGON_OFFSET_FACTOR",32854:"RGBA4",32855:"RGB5_A1",32873:"TEXTURE_BINDING_2D",32926:"SAMPLE_ALPHA_TO_COVERAGE",32

928:"SAMPLE_COVERAGE",32936:"SAMPLE_BUFFERS",32937:"SAMPLES",32938:"SAMPLE_COVERAGE_VALUE",32939:"SAMPLE_COVERAGE_INVERT",32968:"BLEND_DST_RGB",32969:"BLEND_SRC_RGB",32970:"BLEND_DST_ALPHA",32971:"BLEND_SRC_ALPHA",33071:"CLAMP_TO_EDGE",33170:"GENERATE_MIPMAP_HINT",33189:"DEPTH_COMPONENT16",33306:"DEPTH_STENCIL_ATTACHMENT",33635:"UNSIGNED_SHORT_5_6_5",33648:"MIRRORED_REPEAT",33901:"ALIASED_POINT_SIZE_RANGE",33902:"ALIASED_LINE_WIDTH_RANGE",33984:"TEXTURE0",33985:"TEXTURE1",33986:"TEXTURE2",33987:"TEXTURE3",33988:"TEXTURE4",33989:"TEXTURE5",33990:"TEXTURE6",33991:"TEXTURE7",33992:"TEXTURE8",33993:"TEXTURE9",33994:"TEXTURE10",33995:"TEXTURE11",33996:"TEXTURE12",33997:"TEXTURE13",33998:"TEXTURE14",33999:"TEXTURE15",34e3:"TEXTURE16",34001:"TEXTURE17",34002:"TEXTURE18",34003:"TEXTURE19",34004:"TEXTURE20",34005:"TEXTURE21",34006:"TEXTURE22",34007:"TEXTURE23",34008:"TEXTURE24",34009:"TEXTURE25",34010:"TEXTURE26",34011:"TEXTURE27",34012:"TEXTURE28",34013:"TEXTURE29",34014:"TEXTURE30",34015:"TEXTURE31",34016:"ACTIVE_TEXTURE",34024:"MAX_RENDERBUFFER_SIZE",34041:"DEPTH_STENCIL",34055:"INCR_WRAP",34056:"DECR_WRAP",34067:"TEXTURE_CUBE_MAP",34068:"TEXTURE_BINDING_CUBE_MAP",34069:"TEXTURE_CUBE_MAP_POSITIVE_X",34070:"TEXTURE_CUBE_MAP_NEGATIVE_X",34071:"TEXTURE_CUBE_MAP_POSITIVE_Y",34072:"TEXTURE_CUBE_MAP_NEGATIVE_Y",34073:"TEXTURE_CUBE_MAP_POSITIVE_Z",34074:"TEXTURE_CUBE_MAP_NEGATIVE_Z",34076:"MAX_CUBE_MAP_TEXTURE_SIZE",34338:"VERTEX_ATTRIB_ARRAY_ENABLED",34339:"VERTEX_ATTRIB_ARRAY_SIZE",34340:"VERTEX_ATTRIB_ARRAY_STRIDE",34341:"VERTEX_ATTRIB_ARRAY_TYPE",34342:"CURRENT_VERTEX_ATTRIB",34373:"VERTEX_ATTRIB_ARRAY_POINTER",34466:"NUM_COMPRESSED_TEXTURE_FORMATS",34467:"COMPRESSED_TEXTURE_FORMATS",34660:"BUFFER_SIZE",34661:"BUFFER_USAGE",34816:"STENCIL_BACK_FUNC",34817:"STENCIL_BACK_FAIL",34818:"STENCIL_BACK_PASS_DEPTH_FAIL",34819:"STENCIL_BACK_PASS_DEPTH_PASS",34877:"BLEND_EQUATION_ALPHA",34921:"MAX_VERTEX_ATTRIBS",34922:"VERTEX_ATTRIB_ARRAY_NORMALIZED",34930:"MAX_TEXTURE_IMAGE_UNITS",34962:"ARRAY_BUFFER",34963:"ELEMENT_ARRAY_BUFFER",34964:"ARRAY_BUFFER_BINDING",34965:"ELEMENT_ARRAY_BUFFER_BINDING",34975:"VERTEX_ATTRIB_ARRAY_BUFFER_BINDING",35040:"STREAM_DRAW",35044:"STATIC_DRAW",35048:"DYNAMIC_DRAW",35632:"FRAGMENT_SHADER",35633:"VERTEX_SHADER",35660:"MAX_VERTEX_TEXTURE_IMAGE_UNITS",35661:"MAX_COMBINED_TEXTURE_IMAGE_UNITS",35663:"SHADER_TYPE",35664:"FLOAT_VEC2",35665:"FLOAT_VEC3",35666:"FLOAT_VEC4",35667:"INT_VEC2",35668:"INT_VEC3",35669:"INT_VEC4",35670:"BOOL",35671:"BOOL_VEC2",35672:"BOOL_VEC3",35673:"BOOL_VEC4",35674:"FLOAT_MAT2",35675:"FLOAT_MAT3",35676:"FLOAT_MAT4",35678:"SAMPLER_2D",35680:"SAMPLER_CUBE",35712:"DELETE_STATUS",35713:"COMPILE_STATUS",35714:"LINK_STATUS",35715:"VALIDATE_STATUS",35716:"INFO_LOG_LENGTH",35717:"ATTACHED_SHADERS",35718:"ACTIVE_UNIFORMS",35719:"ACTIVE_UNIFORM_MAX_LENGTH",35720:"SHADER_SOURCE_LENGTH",35721:"ACTIVE_ATTRIBUTES",35722:"ACTIVE_ATTRIBUTE_MAX_LENGTH",35724:"SHADING_LANGUAGE_VERSION",35725:"CURRENT_PROGRAM",36003:"STENCIL_BACK_REF",36004:"STENCIL_BACK_VALUE_MASK",36005:"STENCIL_BACK_WRITEMASK",36006:"FRAMEBUFFER_BINDING",36007:"RENDERBUFFER_BINDING",36048:"FRAMEBUFFER_ATTACHMENT_OBJECT_TYPE",36049:"FRAMEBUFFER_ATTACHMENT_OBJECT_NAME",36050:"FRAMEBUFFER_ATTACHMENT_TEXTURE_LEVEL",36051:"FRAMEBUFFER_ATTACHMENT_TEXTURE_CUBE_MAP_FACE",36053:"FRAMEBUFFER_COMPLETE",36054:"FRAMEBUFFER_INCOMPLETE_ATTACHMENT",36055:"FRAMEBUFFER_INCOMPLETE_MISSING_ATTACHMENT",36057:"FRAMEBUFFER_INCOMPLETE_DIMENSIONS",36061:"FRAMEBUFFER_UNSUPPORTED",36064:"COLOR_ATTACHMENT0",36096:"DEPTH_ATTACHMENT",36128:"STENCIL_ATTACHMENT",36160:"FRAMEBUFFER",36161:"RENDERBUFFER",36162:"RENDERBUFFER_WIDTH",36163:"RENDERBUFFER_HEIGHT",36164:"RENDERBUFFER_INTERNAL_FORMAT",36168:"STENCIL_INDEX8",36176:"RENDERBUFFER_RED_SIZE",36177:"RENDERBUFFER_GREEN_SIZE",36178:"RENDERBUFFER_BLUE_SIZE",36179:"RENDERBUFFER_ALPHA_SIZE",36180:"RENDERBUFFER_DEPTH_SIZE",36181:"RENDERBUFFER_STENCIL_SIZE",36194:"RGB565",36336:"LOW_FLOAT",36337:"MEDIUM_FLOAT",3633

8:"HIGH_FLOAT",36339:"LOW_INT",36340:"MEDIUM_INT",36341:"HIGH_INT",36346:"SHADER_COMPILER",36347:"MAX_VERTEX_UNIFORM_VECTORS",36348:"MAX_VARYING_VECTORS",36349:"MAX_FRAGMENT_UNIFORM_VECTORS",37440:"UNPACK_FLIP_Y_WEBGL",37441:"UNPACK_PREMULTIPLY_ALPHA_WEBGL",37442:"CONTEXT_LOST_WEBGL",37443:"UNPACK_COLORSPACE_CONVERSION_WEBGL",37444:"BROWSER_DEFAULT_WEBGL"}},{}],83:[function(t,e,r){var n=t("./1.0/numbers");e.exports=function(t){return n[t]}},{"./1.0/numbers":82}],84:[function(t,e,r){"use strict";e.exports=function(t){var e=t.gl,r=n(e),o=i(e,[{buffer:r,type:e.FLOAT,size:3,offset:0,stride:40},{buffer:r,type:e.FLOAT,size:4,offset:12,stride:40},{buffer:r,type:e.FLOAT,size:3,offset:28,stride:40}]),l=a(e);l.attributes.position.location=0,l.attributes.color.location=1,l.attributes.offset.location=2;var c=new s(e,r,o,l);return c.update(t),c};var n=t("gl-buffer"),i=t("gl-vao"),a=t("./shaders/index"),o=[1,0,0,0,0,1,0,0,0,0,1,0,0,0,0,1];function s(t,e,r,n){this.gl=t,this.shader=n,this.buffer=e,this.vao=r,this.pixelRatio=1,this.bounds=[[1/0,1/0,1/0],[-1/0,-1/0,-1/0]],this.clipBounds=[[-1/0,-1/0,-1/0],[1/0,1/0,1/0]],this.lineWidth=[1,1,1],this.capSize=[10,10,10],this.lineCount=[0,0,0],this.lineOffset=[0,0,0],this.opacity=1,this.hasAlpha=!1}var l=s.prototype;function c(t,e){for(var r=0;r<3;++r)t[0][r]=Math.min(t[0][r],e[r]),t[1][r]=Math.max(t[1][r],e[r])}l.isOpaque=function(){return!this.hasAlpha},l.isTransparent=function(){return this.hasAlpha},l.drawTransparent=l.draw=function(t){var e=this.gl,r=this.shader.uniforms;this.shader.bind();var n=r.view=t.view||o,i=r.projection=t.projection||o;r.model=t.model||o,r.clipBounds=this.clipBounds,r.opacity=this.opacity;var a=n[12],s=n[13],l=n[14],c=n[15],u=(t._ortho?2:1)*this.pixelRatio*(i[3]*a+i[7]*s+i[11]*l+i[15]*c)/e.drawingBufferHeight;this.vao.bind();for(var f=0;f<3;++f)e.lineWidth(this.lineWidth[f]*this.pixelRatio),r.capSize=this.capSize[f]*u,this.lineCount[f]&&e.drawArrays(e.LINES,this.lineOffset[f],this.lineCount[f]);this.vao.unbind()};var u=function(){for(var t=new Array(3),e=0;e<3;++e){for(var r=[],n=1;n<=2;++n)for(var i=-1;i<=1;i+=2){var a=[0,0,0];a[(n+e)%3]=i,r.push(a)}t[e]=r}return t}();function f(t,e,r,n){for(var i=u[n],a=0;a<i.length;++a){var o=i[a];t.push(e[0],e[1],e[2],r[0],r[1],r[2],r[3],o[0],o[1],o[2])}return i.length}l.update=function(t){"lineWidth"in(t=t||{})&&(this.lineWidth=t.lineWidth,Array.isArray(this.lineWidth)||(this.lineWidth=[this.lineWidth,this.lineWidth,this.lineWidth])),"capSize"in t&&(this.capSize=t.capSize,Array.isArray(this.capSize)||(this.capSize=[this.capSize,this.capSize,this.capSize])),this.hasAlpha=!1,"opacity"in t&&(this.opacity=+t.opacity,this.opacity<1&&(this.hasAlpha=!0));var e=t.color||[[0,0,0],[0,0,0],[0,0,0]],r=t.position,n=t.error;if(Array.isArray(e[0])||(e=[e,e,e]),r&&n){var i=[],a=r.length,o=0;this.bounds=[[1/0,1/0,1/0],[-1/0,-1/0,-1/0]],this.lineCount=[0,0,0];for(var s=0;s<3;++s){this.lineOffset[s]=o;t:for(var l=0;l<a;++l){for(var u=r[l],h=0;h<3;++h)if(isNaN(u[h])||!isFinite(u[h]))continue t;var p,d=n[l],g=e[s];Array.isArray(g[0])&&(g=e[l]),3===g.length?g=[g[0],g[1],g[2],1]:4===g.length&&(g=[g[0],g[1],g[2],g[3]],!this.hasAlpha&&g[3]<1&&(this.hasAlpha=!0)),isNaN(d[0][s])||isNaN(d[1][s])||(d[0][s]<0&&((p=u.slice())[s]+=d[0][s],i.push(u[0],u[1],u[2],g[0],g[1],g[2],g[3],0,0,0,p[0],p[1],p[2],g[0],g[1],g[2],g[3],0,0,0),c(this.bounds,p),o+=2+f(i,p,g,s)),d[1][s]>0&&((p=u.slice())[s]+=d[1][s],i.push(u[0],u[1],u[2],g[0],g[1],g[2],g[3],0,0,0,p[0],p[1],p[2],g[0],g[1],g[2],g[3],0,0,0),c(this.bounds,p),o+=2+f(i,p,g,s)))}this.lineCount[s]=o-this.lineOffset[s]}this.buffer.update(i)}},l.dispose=function(){this.shader.dispose(),this.buffer.dispose(),this.vao.dispose()}},{"./shaders/index":85,"gl-buffer":78,"gl-vao":150}],85:[function(t,e,r){"use strict";var n=t("glslify"),i=t("gl-shader"),a=n(["precision highp float;\n#define GLSLIFY 1\n\nattribute vec3 position, offset;\nattribute vec4 color;\nuniform mat4 model, view, projection;\nuniform float capSize;\nvarying vec4 fragColor;\nvarying vec3 fragPosition;\n\nvoid main() {\n vec4 worldPosition = model * vec4(position, 1.0);\n worldPosition   = (worldPosition / worldPosition.w) + vec4(capSize * offset, 0.0);\n gl_Position   = projection * view * worldPosition;\n fragColor   = color;\n fragPosition   = position;\n}"]),o=n(["precision highp float;\n#define GLSLIFY 1\n\nbool outOfRange(float a, float b, float p) {\n return ((p > max(a, b)) || \n

(p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y) ||\n   outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nuniform vec3 clipBounds[2];\nuniform float opacity;\nvarying vec3 fragPosition;\nvarying vec4 fragColor;\n\nvoid main() {\n if (\n   outOfRange(clipBounds[0], clipBounds[1], fragPosition) ||\n   fragColor.a * opacity == 0.\n) discard;\n\n gl_FragColor = opacity * fragColor;\n}"]);e.exports=function(t){return i(t,a,o,null,[{name:"position",type:"vec3"},{name:"color",type:"vec4"},{name:"offset",type:"vec3"}])}},{"gl-shader":132,glslify:231}],86:[function(t,e,r){"use strict";var n=t("gl-texture2d");e.exports=function(t,e,r,n){i||(i=t.FRAMEBUFFER_UNSUPPORTED,a=t.FRAMEBUFFER_INCOMPLETE_ATTACHMENT,o=t.FRAMEBUFFER_INCOMPLETE_DIMENSIONS,s=t.FRAMEBUFFER_INCOMPLETE_MISSING_ATTACHMENT);var c=t.getExtension("WEBGL_draw_buffers");if(!l&&c&&function(t,e){var r=t.getParameter(e.MAX_COLOR_ATTACHMENTS_WEBGL);l=new Array(r+1);for(var n=0;n<=r;++n){for(var i=new Array(r),a=0;a<n;++a)i[a]=t.COLOR_ATTACHMENT0+a;for(a=n;a<r;++a)i[a]=t.NONE;l[n]=i}}(t,c),Array.isArray(e)&&(n=r,r=0|e[1],e=0|e[0]),"number"!=typeof e)throw new Error("gl-fbo: Missing shape parameter");var u=t.getParameter(t.MAX_RENDERBUFFER_SIZE);if(e<0||e>u||r<0||r>u)throw new Error("gl-fbo: Parameters are too large for FBO");var f=1;if("color"in(n=n||{})){if((f=Math.max(0|n.color,0))<0)throw new Error("gl-fbo: Must specify a nonnegative number of colors");if(f>1){if(!c)throw new Error("gl-fbo: Multiple draw buffer extension not supported");if(f>t.getParameter(c.MAX_COLOR_ATTACHMENTS_WEBGL))throw new Error("gl-fbo: Context does not support "+f+" draw buffers")}}var h=t.UNSIGNED_BYTE,p=t.getExtension("OES_texture_float");if(n.float&&f>0){if(!p)throw new Error("gl-fbo: Context does not support floating point textures");h=t.FLOAT}else n.preferFloat&&f>0&&p&&(h=t.FLOAT);var g=!0;"depth"in n&&(g=!!n.depth);var v=!1;return"stencil"in n&&(v=!!n.stencil),new d(t,e,r,h,f,g,v,c)};var i,a,o,s,l=null;function c(t){return[t.getParameter(t.FRAMEBUFFER_BINDING),t.getParameter(t.RENDERBUFFER_BINDING),t.getParameter(t.TEXTURE_BINDING_2D)]}function u(t,e){t.bindFramebuffer(t.FRAMEBUFFER,e[0]),t.bindRenderbuffer(t.RENDERBUFFER,e[1]),t.bindTexture(t.TEXTURE_2D,e[2])}function f(t){switch(t){case i:throw new Error("gl-fbo: Framebuffer unsupported");case a:throw new Error("gl-fbo: Framebuffer incomplete attachment");case o:throw new Error("gl-fbo: Framebuffer incomplete dimensions");case s:throw new Error("gl-fbo: Framebuffer incomplete missing attachment");default:throw new Error("gl-fbo: Framebuffer failed for unspecified reason")}}function h(t,e,r,i,a,o){if(!i)return null;var s=n(t,e,r,a,i);return s.magFilter=t.NEAREST,s.minFilter=t.NEAREST,s.mipSamples=1,s.bind(),t.framebufferTexture2D(t.FRAMEBUFFER,o,t.TEXTURE_2D,s.handle,0),s}function p(t,e,r,n,i){var a=t.createRenderbuffer();return t.bindRenderbuffer(t.RENDERBUFFER,a),t.renderbufferStorage(t.RENDERBUFFER,n,e,r),t.framebufferRenderbuffer(t.FRAMEBUFFER,i,t.RENDERBUFFER,a),a}function d(t,e,r,n,i,a,o,s){this.gl=t,this._shape=[0|e,0|r],this._destroyed=!1,this._ext=s,this.color=new Array(i);for(var d=0;d<i;++d)this.color[d]=null;this._color_rb=null,this.depth=null,this._depth_rb=null,this._colorType=n,this._useDepth=a,this._useStencil=o;var g=this,v=[0|e,0|r];Object.defineProperties(v,{0:{get:function(){return g._shape[0]},set:function(t){return g.width=t}},1:{get:function(){return g._shape[1]},set:function(t){return g.height=t}}}),this._shapeVector=v,function(t){var e=c(t.gl),r=t.gl,n=t.handle=r.createFramebuffer(),i=t._shape[0],a=t._shape[1],o=t.color.length,s=t._ext,d=t._useStencil,g=t._useDepth,v=t._colorType;r.bindFramebuffer(r.FRAMEBUFFER,n);for(var m=0;m<o;++m)t.color[m]=h(r,i,a,v,r.RGBA,r.COLOR_ATTACHMENT0+m);0===o?(t._color_rb=p(r,i,a,r.RGBA4,r.COLOR_ATTACHMENT0),s&&s.drawBuffersWEBGL(l[0])):o>1&&s.drawBuffersWEBGL(l[o]);var y=r.getExtension("WEBGL_depth_texture");y?d?t.depth=h(r,i,a,y.UNSIGNED_INT_24_8_WEBGL,r.DEPTH_STENCIL,r.DEPTH_STENCIL_ATTACHMENT):g&&(t.depth=h(r,i,a,r.UNSIGNED_SHORT,r.DEPTH_COMPON

ENT,r.DEPTH_ATTACHMENT)):g&&d?t._depth_rb=p(r,i,a,r.DEPTH_STENCIL,r.DEPTH_STENCIL_ATTACHMENT):g?t._depth_rb=p(r,i,a,r.DEPTH_COMPONENT16,r.DEPTH_ATTACHMENT):d&&(t._depth_rb=p(r,i,a,r.STENCIL_INDEX,r.STENCIL_ATTACHMENT));var x=r.checkFramebufferStatus(r.FRAMEBUFFER);if(x!==r.FRAMEBUFFER_COMPLETE){for(t._destroyed=!0,r.bindFramebuffer(r.FRAMEBUFFER,null),r.deleteFramebuffer(t.handle),t.handle=null,t.depth&&(t.depth.dispose(),t.depth=null),t._depth_rb&&(r.deleteRenderbuffer(t._depth_rb),t._depth_rb=null),m=0;m<t.color.length;++m)t.color[m].dispose(),t.color[m]=null;t._color_rb&&(r.deleteRenderbuffer(t._color_rb),t._color_rb=null),u(r,e),f(x)}u(r,e)}(this)}var g=d.prototype;function v(t,e,r){if(t._destroyed)throw new Error("gl-fbo: Can't resize destroyed FBO");if(t._shape[0]!==e||t._shape[1]!==r){var n=t.gl,i=n.getParameter(n.MAX_RENDERBUFFER_SIZE);if(e<0||e>i||r<0||r>i)throw new Error("gl-fbo: Can't resize FBO, invalid dimensions");t._shape[0]=e,t._shape[1]=r;for(var a=c(n),o=0;o<t.color.length;++o)t.color[o].shape=t._shape;t._color_rb&&(n.bindRenderbuffer(n.RENDERBUFFER,t._color_rb),n.renderbufferStorage(n.RENDERBUFFER,n.RGBA4,t._shape[0],t._shape[1])),t.depth&&(t.depth.shape=t._shape),t._depth_rb&&(n.bindRenderbuffer(n.RENDERBUFFER,t._depth_rb),t._useDepth&&t._useStencil?n.renderbufferStorage(n.RENDERBUFFER,n.DEPTH_STENCIL,t._shape[0],t._shape[1]):t._useDepth?n.renderbufferStorage(n.RENDERBUFFER,n.DEPTH_COMPONENT16,t._shape[0],t._shape[1]):t._useStencil&&n.renderbufferStorage(n.RENDERBUFFER,n.STENCIL_INDEX,t._shape[0],t._shape[1])),n.bindFramebuffer(n.FRAMEBUFFER,t.handle);var s=n.checkFramebufferStatus(n.FRAMEBUFFER);s!==n.FRAMEBUFFER_COMPLETE&&(t.dispose(),u(n,a),f(s)),u(n,a)}}Object.defineProperties(g,{shape:{get:function(){return this._destroyed?[0,0]:this._shapeVector},set:function(t){if(Array.isArray(t)||(t=[0|t,0|t]),2!==t.length)throw new Error("gl-fbo: Shape vector must be length 2");var e=0|t[0],r=0|t[1];return v(this,e,r),[e,r]},enumerable:!1},width:{get:function(){return this._destroyed?0:this._shape[0]},set:function(t){return v(this,t|=0,this._shape[1]),t},enumerable:!1},height:{get:function(){return this._destroyed?0:this._shape[1]},set:function(t){return t|=0,v(this,this._shape[0],t),t},enumerable:!1}}),g.bind=function(){if(!this._destroyed){var t=this.gl;t.bindFramebuffer(t.FRAMEBUFFER,this.handle),t.viewport(0,0,this._shape[0],this._shape[1])}},g.dispose=function(){if(!this._destroyed){this._destroyed=!0;var t=this.gl;t.deleteFramebuffer(this.handle),this.handle=null,this.depth&&(this.depth.dispose(),this.depth=null),this._depth_rb&&(t.deleteRenderbuffer(this._depth_rb),this._depth_rb=null);for(var e=0;e<this.color.length;++e)this.color[e].dispose(),this.color[e]=null;this._color_rb&&(t.deleteRenderbuffer(this._color_rb),this._color_rb=null)}}},{"gl-texture2d":146}],87:[function(t,e,r){var n=t("sprintf-js").sprintf,i=t("gl-constants/lookup"),a=t("glsl-shader-name"),o=t("add-line-numbers");e.exports=function(t,e,r){"use strict";var s=a(e)||"of unknown name (see npm glsl-shader-name)",l="unknown type";void 0!==r&&(l=r===i.FRAGMENT_SHADER?"fragment":"vertex");for(var c=n("Error compiling %s shader %s:\n",l,s),u=n("%s%s",c,t),f=t.split("\n"),h={},p=0;p<f.length;p++){var d=f[p];if(""!==d&&"\0"!==d){var g=parseInt(d.split(":")[2]);if(isNaN(g))throw new Error(n("Could not parse error: %s",d));h[g]=d}}var v=o(e).split("\n");for(p=0;p<v.length;p++)if((h[p+3]||h[p+2]||h[p+1])&&(c+=v[p]+"\n",h[p+1])){var m=h[p+1];m=m.substr(m.split(":",3).join(":").length+1).trim(),c+=n("^^^ %s\n\n",m)}return{long:c.trim(),short:u.trim()}}},{"add-line-numbers":9,"gl-constants/lookup":83,"glsl-shader-name":223,"sprintf-js":301}],88:[function(t,e,r){"use strict";e.exports=function(t,e){var r=t.gl,n=new c(t,o(r,l.vertex,l.fragment),o(r,l.pickVertex,l.pickFragment),s(r),s(r),s(r),s(r));return n.update(e),t.addObject(n),n};var n=t("binary-search-bounds"),i=t("iota-array"),a=t("typedarray-pool"),o=t("gl-shader"),s=t("gl-buffer"),l=t("./lib/shaders");function c(t,e,r,n,i,a,o){this.plot=t,this.shader=e,this.pickShader=r,this.positionBuffer=n,this.weightBuffer=i,this.colorBuffer=a,this.idBuffer=o,this.xData=[],this.yData=[],this.shape=[0,0],this.bounds=[1/0,1/0,-1/0,-1/0],this.pickOffset=0}var u,f=c.prototype,h=[0,0,1,0,0,1,1,0,1,1,0,1];f.draw=(u=[1,0,0,0,1,0,0,0,1],function(){var

t=this.plot,e=this.shader,r=this.bounds,n=this.numVertices;if(!(n<=0)){var i=t.gl,a=t.dataBox,o=r[2]-r[0],s=r[3]-r[1],l=a[2]-a[0],c=a[3]-a[1];u[0]=2*o/l,u[4]=2*s/c,u[6]=2*(r[0]-a[0])/l-1,u[7]=2*(r[1]-a[1])/c-1,e.bind();var f=e.uniforms;f.viewTransform=u,f.shape=this.shape;var h=e.attributes;this.positionBuffer.bind(),h.position.pointer(),this.weightBuffer.bind(),h.weight.pointer(i.UNSIGNED_BYTE,!1),this.colorBuffer.bind(),h.color.pointer(i.UNSIGNED_BYTE,!0),i.drawArrays(i.TRIANGLES,0,n)}}),f.drawPick=function(){var t=[1,0,0,0,1,0,0,0,1],e=[0,0,0,0];return function(r){var n=this.plot,i=this.pickShader,a=this.bounds,o=this.numVertices;if(!(o<=0)){var s=n.gl,l=n.dataBox,c=a[2]-a[0],u=a[3]-a[1],f=l[2]-l[0],h=l[3]-l[1];t[0]=2*c/f,t[4]=2*u/h,t[6]=2*(a[0]-l[0])/f-1,t[7]=2*(a[1]-l[1])/h-1;for(var p=0;p<4;++p)e[p]=r>>8*p&255;this.pickOffset=r,i.bind();var d=i.uniforms;d.viewTransform=t,d.pickOffset=e,d.shape=this.shape;var g=i.attributes;return this.positionBuffer.bind(),g.position.pointer(),this.weightBuffer.bind(),g.weight.pointer(s.UNSIGNED_BYTE,!1),this.idBuffer.bind(),g.pickId.pointer(s.UNSIGNED_BYTE,!1),s.drawArrays(s.TRIANGLES,0,o),r+this.shape[0]*this.shape[1]}}}(),f.pick=function(t,e,r){var n=this.pickOffset,i=this.shape[0]*this.shape[1];if(r<n||r>=n+i)return null;var a=r-n,o=this.xData,s=this.yData;return{object:this,pointId:a,dataCoord:[o[a%this.shape[0]],s[a/this.shape[0]|0]]}},f.update=function(t){var e=(t=t||{}).shape||[0,0],r=t.x||i(e[0]),o=t.y||i(e[1]),s=t.z||new Float32Array(e[0]*e[1]),l=!1!==t.zsmooth;this.xData=r,this.yData=o;var c,u,f,p,d=t.colorLevels||[0],g=t.colorValues||[0,0,0,1],v=d.length,m=this.bounds;l?(c=m[0]=r[0],u=m[1]=o[0],f=m[2]=r[r.length-1],p=m[3]=o[o.length-1]):(c=m[0]=r[0]+(r[1]-r[0])/2,u=m[1]=o[0]+(o[1]-o[0])/2,f=m[2]=r[r.length-1]+(r[r.length-1]-r[r.length-2])/2,p=m[3]=o[o.length-1]+(o[o.length-1]-o[o.length-2])/2);var y=1/(f-c),x=1/(p-u),b=e[0],_=e[1];this.shape=[b,_];var w=(l?(b-1)*(_-1):b*_)*(h.length>>>1);this.numVertices=w;for(var T=a.mallocUint8(4*w),k=a.mallocFloat32(2*w),A=a.mallocUint8(2*w),M=a.mallocUint32(w),S=0,E=l?b-1:b,L=l?_-1:_,C=0;C<L;++C){var P,I;l?(P=x*(o[C]-u),I=x*(o[C+1]-u)):(P=C<_-1?x*(o[C]-(o[C+1]-o[C])/2-u):x*(o[C]-(o[C]-o[C-1])/2-u),I=C<_-1?x*(o[C]+(o[C+1]-o[C])/2-u):x*(o[C]+(o[C]-o[C-1])/2-u));for(var O=0;O<E;++O){var z,D;l?(z=y*(r[O]-c),D=y*(r[O+1]-c)):(z=O<b-1?y*(r[O]-(r[O+1]-r[O])/2-c):y*(r[O]-(r[O]-r[O-1])/2-c),D=O<b-1?y*(r[O]+(r[O+1]-r[O])/2-c):y*(r[O]+(r[O]-r[O-1])/2-c));for(var R=0;R<h.length;R+=2){var F,B,N,j,U=h[R],V=h[R+1],q=s[l?(C+V)*b+(O+U):C*b+O],H=n.le(d,q);if(H<0)F=g[0],B=g[1],N=g[2],j=g[3];else if(H===v-1)F=g[4*v-4],B=g[4*v-3],N=g[4*v-2],j=g[4*v-1];else{var G=(q-d[H])/(d[H+1]-d[H]),Y=1-G,W=4*H,X=4*(H+1);F=Y*g[W]+G*g[X],B=Y*g[W+1]+G*g[X+1],N=Y*g[W+2]+G*g[X+2],j=Y*g[W+3]+G*g[X+3]}T[4*S]=255*F,T[4*S+1]=255*B,T[4*S+2]=255*N,T[4*S+3]=255*j,k[2*S]=.5*z+.5*D,k[2*S+1]=.5*P+.5*I,A[2*S]=U,A[2*S+1]=V,M[S]=C*b+O,S+=1}}this.positionBuffer.update(k),this.weightBuffer.update(A),this.colorBuffer.update(T),this.idBuffer.update(M),a.free(k),a.free(T),a.free(A),a.free(M)},f.dispose=function(){this.shader.dispose(),this.pickShader.dispose(),this.positionBuffer.dispose(),this.weightBuffer.dispose(),this.colorBuffer.dispose(),this.idBuffer.dispose(),this.plot.removeObject(this)}},{"./lib/shaders":89,"binary-search-bounds":31,"gl-buffer":78,"gl-shader":132,"iota-array":235,"typedarray-pool":308}],89:[function(t,e,r){"use strict";var n=t("glslify");e.exports={fragment:n(["precision lowp float;\n#define GLSLIFY 1\nvarying vec4 fragColor;\nvoid main() {\n gl_FragColor = vec4(fragColor.rgb * fragColor.a, fragColor.a);\n}\n"]),vertex:n(["precision mediump float;\n#define GLSLIFY 1\n\nattribute vec2 position;\nattribute vec4 color;\nattribute vec2 weight;\n\nuniform vec2 shape;\nuniform mat3 viewTransform;\n\nvarying vec4 fragColor;\n\nvoid main() {\n vec3 vPosition = viewTransform * vec3(position + (weight-.5)/(shape-1.) , 1.0);\n fragColor = color;\n gl_Position = vec4(vPosition.xy, 0, vPosition.z);\n}\n"]),pickFragment:n(["precision mediump float;\n#define GLSLIFY 1\n\nvarying vec4 fragId;\nvarying vec2 vWeight;\n\nuniform vec2 shape;\nuniform vec4 pickOffset;\n\nvoid main() {\n vec2 d = step(.5, vWeight);\n vec4 id = fragId + pickOffset;\n id.x += d.x + d.y*shape.x;\n\n id.y += floor(id.x / 256.0);\n id.x -= floor(id.x / 256.0) * 256.0;\n\n id.z += floor(id.y / 256.0);\n id.y -= floor(id.y / 256.0) * 256.0;\n\n id.w += floor(id.z / 256.0);\n id.z -= floor(id.z / 256.0) * 256.0;\n\n gl_FragColor = id/255.;\n}\n"]),pickVertex:n(["precision mediump float;\n#define GLSLIFY 1\n\nattribute vec2 position;\nattribute vec4 pickId;\nattribute vec2 weight;\n\nuniform vec2 shape;\nuniform mat3 viewTransform;\n\nvarying vec4 fragId;\nvarying vec2 vWeight;\n\nvoid main() {\n vWeight = weight;\n\n fragId = pickId;\n\n vec3 vPosition =

viewTransform * vec3(position + (weight-.5)/(shape-1.) , 1.0);\n gl_Position = vec4(vPosition.xy, 0, vPosition.z);\n}\n"])}},{glslify:231}],90:[function(t,e,r){var n=t("glslify"),i=t("gl-shader"),a=n(["precision highp float;\n#define GLSLIFY 1\n\nattribute vec3 position, nextPosition;\nattribute float arcLength, lineWidth;\nattribute vec4 color;\n\nuniform vec2 screenShape;\nuniform float pixelRatio;\nuniform mat4 model, view, projection;\n\nvarying vec4 fragColor;\nvarying vec3 worldPosition;\nvarying float pixelArcLength;\n\nvec4 project(vec3 p) {\n return projection * view * model * vec4(p, 1.0);\n}\n\nvoid main() {\n vec4 startPoint = project(position);\n vec4 endPoint   = project(nextPosition);\n\n vec2 A = startPoint.xy / startPoint.w;\n vec2 B = endPoint.xy /   endPoint.w;\n\n float clipAngle = atan(\n   (B.y - A.y) * screenShape.y,\n   (B.x - A.x) * screenShape.x\n);\n\n vec2 offset = 0.5 * pixelRatio * lineWidth * vec2(\n   sin(clipAngle),\n   -cos(clipAngle)\n) / screenShape;\n\n gl_Position = vec4(startPoint.xy + startPoint.w * offset, startPoint.zw);\n\n worldPosition = position;\n pixelArcLength = arcLength;\n fragColor = color;\n}\n"]),o=n(["precision highp float;\n#define GLSLIFY 1\n\nbool outOfRange(float a, float b, float p) {\n return ((p > max(a, b)) || \n   (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y) ||\n   outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nuniform vec3   clipBounds[2];\nuniform sampler2D dashTexture;\nuniform float   dashScale;\nuniform float   opacity;\n\nvarying vec3   worldPosition;\nvarying float   pixelArcLength;\nvarying vec4   fragColor;\n\nvoid main() {\n if (\n   outOfRange(clipBounds[0], clipBounds[1], worldPosition) ||\n   fragColor.a * opacity == 0.\n) discard;\n\n float dashWeight = texture2D(dashTexture, vec2(dashScale * pixelArcLength, 0)).r;\n if(dashWeight < 0.5) {\n   discard;\n }\n gl_FragColor = fragColor * opacity;\n}\n"]),s=n(["precision highp float;\n#define GLSLIFY 1\n\n#define FLOAT_MAX 1.70141184e38\n#define FLOAT_MIN 1.17549435e-38\n\n// https://github.com/mikolalysenko/glsl-read-float/blob/master/index.glsl\nvec4 packFloat(float v) {\n float av = abs(v);\n\n //Handle special cases\n if(av < FLOAT_MIN) {\n   return vec4(0.0, 0.0, 0.0, 0.0);\n } else if(v > FLOAT_MAX) {\n   return vec4(127.0, 128.0, 0.0, 0.0) / 255.0;\n } else if(v < -FLOAT_MAX) {\n   return vec4(255.0, 128.0, 0.0, 0.0) / 255.0;\n }\n\n vec4 c = vec4(0,0,0,0);\n\n //Compute exponent and mantissa\n float e = floor(log2(av));\n float m = av * pow(2.0, -e) - 1.0;\n\n //Unpack mantissa\n c[1] = floor(128.0 * m);\n m -= c[1] / 128.0;\n c[2] = floor(32768.0 * m);\n m -= c[2] / 32768.0;\n c[3] = floor(8388608.0 * m);\n\n //Unpack exponent\n float ebias = e + 127.0;\n c[0] = floor(ebias / 2.0);\n ebias -= c[0] * 2.0;\n c[1] += floor(ebias) * 128.0;\n\n //Unpack sign bit\n c[0] += 128.0 * step(0.0, -v);\n\n //Scale back to range\n return c / 255.0;\n}\n\nbool outOfRange(float a, float b, float p) {\n return ((p > max(a, b)) || \n   (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y) ||\n   outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nuniform float pickId;\nuniform vec3 clipBounds[2];\n\nvarying vec3 worldPosition;\nvarying float pixelArcLength;\nvarying vec4 fragColor;\n\nvoid main() {\n if (outOfRange(clipBounds[0], clipBounds[1], worldPosition)) discard;\n\n gl_FragColor = vec4(pickId/255.0, packFloat(pixelArcLength).xyz);\n}"]),l=[{name:"position",type:"vec3"},{name:"nextPosition",type:"vec3"},{name:"arcLength",type:"float"},{name:"lineWidth",type:"float"},{name:"color",type:"vec4"}];r.createShader=function(t){return i(t,a,o,null,l)},r.createPickShader=function(t){return i(t,a,s,null,l)}},{"gl-shader":132,glslify:231}],91:[function(t,e,r){"use strict";e.exports=function(t){var e=t.gl||t.scene&&t.scene.gl,r=f(e);r.attributes.position.location=0,r.attributes.nextPosition.location=1,r.attributes.arcLength.location=2,r.attributes.lineWidth.location=3,r.attributes.color.location=4;var o=h(e);o.attributes.position.location=0,o.attributes.nextPosition.location=1,o.attributes.arcLength.location=2,o.attributes.lineWidth.location=3,o.attributes.color.location=4;for(var s=n(e),l=i(e,[{buffer:s,size:3,offset:0,stride:48},{buffer:s,size:3,offset:12,stride:48},{buffer:s,size:1,offset:24,stride:48},{buffer:s,size:1,offset:28,stride:48},{buffer:s,size:4,offset:32,stride:48}]),u=c(new Array(1024),[256,1,4]),p=0;p<1024;++p)u.data[p]=255;var d=a(e,u);d.wrap=e.REPEAT;var g=new

m(e,r,o,s,l,d);return g.update(t),g};var n=t("gl-buffer"),i=t("gl-vao"),a=t("gl-texture2d"),o=new Uint8Array(4),s=new Float32Array(o.buffer),l=t("binary-search-bounds"),c=t("ndarray"),u=t("./lib/shaders"),f=u.createShader,h=u.createPickShader,p=[1,0,0,0,0,1,0,0,0,0,1,0,0,0,0,1];function d(t,e){for(var r=0,n=0;n<3;++n){var i=t[n]-e[n];r+=i*i}return Math.sqrt(r)}function g(t){for(var e=[[-1e6,-1e6,-1e6],[1e6,1e6,1e6]],r=0;r<3;++r)e[0][r]=Math.max(t[0][r],e[0][r]),e[1][r]=Math.min(t[1][r],e[1][r]);return e}function v(t,e,r,n){this.arcLength=t,this.position=e,this.index=r,this.dataCoordinate=n}function m(t,e,r,n,i,a){this.gl=t,this.shader=e,this.pickShader=r,this.buffer=n,this.vao=i,this.clipBounds=[[-1/0,-1/0,-1/0],[1/0,1/0,1/0]],this.points=[],this.arcLength=[],this.vertexCount=0,this.bounds=[[0,0,0],[0,0,0]],this.pickId=0,this.lineWidth=1,this.texture=a,this.dashScale=1,this.opacity=1,this.hasAlpha=!1,this.dirty=!0,this.pixelRatio=1}var y=m.prototype;y.isTransparent=function(){return this.hasAlpha},y.isOpaque=function(){return!this.hasAlpha},y.pickSlots=1,y.setPickBase=function(t){this.pickId=t},y.drawTransparent=y.draw=function(t){if(this.vertexCount){var e=this.gl,r=this.shader,n=this.vao;r.bind(),r.uniforms={model:t.model||p,view:t.view||p,projection:t.projection||p,clipBounds:g(this.clipBounds),dashTexture:this.texture.bind(),dashScale:this.dashScale/this.arcLength[this.arcLength.length-1],opacity:this.opacity,screenShape:[e.drawingBufferWidth,e.drawingBufferHeight],pixelRatio:this.pixelRatio},n.bind(),n.draw(e.TRIANGLE_STRIP,this.vertexCount),n.unbind()}},y.drawPick=function(t){if(this.vertexCount){var e=this.gl,r=this.pickShader,n=this.vao;r.bind(),r.uniforms={model:t.model||p,view:t.view||p,projection:t.projection||p,pickId:this.pickId,clipBounds:g(this.clipBounds),screenShape:[e.drawingBufferWidth,e.drawingBufferHeight],pixelRatio:this.pixelRatio},n.bind(),n.draw(e.TRIANGLE_STRIP,this.vertexCount),n.unbind()}},y.update=function(t){var e,r;this.dirty=!0;var n=!!t.connectGaps;"dashScale"in t&&(this.dashScale=t.dashScale),this.hasAlpha=!1,"opacity"in t&&(this.opacity=+t.opacity,this.opacity<1&&(this.hasAlpha=!0));var i=[],a=[],o=[],s=0,u=0,f=[[1/0,1/0,1/0],[-1/0,-1/0,-1/0]],h=t.position||t.positions;if(h){var p=t.color||t.colors||[0,0,0,1],g=t.lineWidth||1,v=!1;t:for(e=1;e<h.length;++e){var m,y,x,b=h[e-1],_=h[e];for(a.push(s),o.push(b.slice()),r=0;r<3;++r){if(isNaN(b[r])||isNaN(_[r])||!isFinite(b[r])||!isFinite(_[r])){if(!n&&i.length>0){for(var w=0;w<24;++w)i.push(i[i.length-12]);u+=2,v=!0}continue t}f[0][r]=Math.min(f[0][r],b[r],_[r]),f[1][r]=Math.max(f[1][r],b[r],_[r])}Array.isArray(p[0])?(m=p.length>e-1?p[e-1]:p.length>0?p[p.length-1]:[0,0,0,1],y=p.length>e?p[e]:p.length>0?p[p.length-1]:[0,0,0,1]):m=y=p,3===m.length&&(m=[m[0],m[1],m[2],1]),3===y.length&&(y=[y[0],y[1],y[2],1]),!this.hasAlpha&&m[3]<1&&(this.hasAlpha=!0),x=Array.isArray(g)?g.length>e-1?g[e-1]:g.length>0?g[g.length-1]:[0,0,0,1]:g;var T=s;if(s+=d(b,_),v){for(r=0;r<2;++r)i.push(b[0],b[1],b[2],_[0],_[1],_[2],T,x,m[0],m[1],m[2],m[3]);u+=2,v=!1}i.push(b[0],b[1],b[2],_[0],_[1],_[2],T,x,m[0],m[1],m[2],m[3],b[0],b[1],b[2],_[0],_[1],_[2],T,-x,m[0],m[1],m[2],m[3],_[0],_[1],_[2],b[0],b[1],b[2],s,-x,y[0],y[1],y[2],y[3],_[0],_[1],_[2],b[0],b[1],b[2],s,x,y[0],y[1],y[2],y[3]),u+=4}if(this.buffer.update(i),a.push(s),o.push(h[h.length-1].slice()),this.bounds=f,this.vertexCount=u,this.points=o,this.arcLength=a,"dashes"in t){var k=t.dashes.slice();for(k.unshift(0),e=1;e<k.length;++e)k[e]=k[e-1]+k[e];var A=c(new Array(1024),[256,1,4]);for(e=0;e<256;++e){for(r=0;r<4;++r)A.set(e,0,r,0);1&l.le(k,k[k.length-1]*e/255)?A.set(e,0,0,0):A.set(e,0,0,255)}this.texture.setPixels(A)}},y.dispose=function(){this.shader.dispose(),this.vao.dispose(),this.buffer.dispose()},y.pick=function(t){if(!t)return null;if(t.id!==this.pickId)return null;var e=function(t,e,r,n){return o[0]=n,o[1]=r,o[2]=e,o[3]=t,s[0]}(t.value[0],t.value[1],t.value[2],0),r=l.le(this.arcLength,e);if(r<0)return null;if(r===this.arcLength.length-1)return new v(this.arcLength[this.arcLength.length-1],this.points[this.points.length-1].slice(),r);for(var n=this.points[r],i=this.points[Math.min(r+1,this.points.length-1)],a=(e-this.arcLength[r])/(this.arcLength[r+1]-this.arcLength[r]),c=1-a,u=[0,0,0],f=0;f<3;++f)u[f]=c*n[f]+a*i[f];var h=Math.min(a<.5?r:r+1,this.points.length-1);return new v(e,u,h,this.points[h])}},{"./lib/shaders":90,"binary-search-bounds":31,"gl-buffer":78,"gl-texture2d":146,"gl-

vao":150,ndarray:259}],92:[function(t,e,r){e.exports=function(t){var e=new Float32Array(16);return e[0]=t[0],e[1]=t[1],e[2]=t[2],e[3]=t[3],e[4]=t[4],e[5]=t[5],e[6]=t[6],e[7]=t[7],e[8]=t[8],e[9]=t[9],e[10]=t[10],e[11]=t[11],e[12]=t[12],e[13]=t[13],e[14]=t[14],e[15]=t[15],e}},{}],93:[function(t,e,r){e.exports=function(){var t=new Float32Array(16);return t[0]=1,t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=1,t[6]=0,t[7]=0,t[8]=0,t[9]=0,t[10]=1,t[11]=0,t[12]=0,t[13]=0,t[14]=0,t[15]=1,t}},{}],94:[function(t,e,r){e.exports=function(t){var e=t[0],r=t[1],n=t[2],i=t[3],a=t[4],o=t[5],s=t[6],l=t[7],c=t[8],u=t[9],f=t[10],h=t[11],p=t[12],d=t[13],g=t[14],v=t[15];return(e*o-r*a)*(f*v-h*g)-(e*s-n*a)*(u*v-h*d)+(e*l-i*a)*(u*g-f*d)+(r*s-n*o)*(c*v-h*p)-(r*l-i*o)*(c*g-f*p)+(n*l-i*s)*(c*d-u*p)}},{}],95:[function(t,e,r){e.exports=function(t,e){var r=e[0],n=e[1],i=e[2],a=e[3],o=r+r,s=n+n,l=i+i,c=r*o,u=n*o,f=n*s,h=i*o,p=i*s,d=i*l,g=a*o,v=a*s,m=a*l;return t[0]=1-f-d,t[1]=u+m,t[2]=h-v,t[3]=0,t[4]=u-m,t[5]=1-c-d,t[6]=p+g,t[7]=0,t[8]=h+v,t[9]=p-g,t[10]=1-c-f,t[11]=0,t[12]=0,t[13]=0,t[14]=0,t[15]=1,t}},{}],96:[function(t,e,r){e.exports=function(t,e,r){var n=e[0],i=e[1],a=e[2],o=e[3],s=n+n,l=i+i,c=a+a,u=n*s,f=n*l,h=n*c,p=i*l,d=i*c,g=a*c,v=o*s,m=o*l,y=o*c;return t[0]=1-(p+g),t[1]=f+y,t[2]=h-m,t[3]=0,t[4]=f-y,t[5]=1-(u+g),t[6]=d+v,t[7]=0,t[8]=h+m,t[9]=d-v,t[10]=1-(u+p),t[11]=0,t[12]=r[0],t[13]=r[1],t[14]=r[2],t[15]=1,t}},{}],97:[function(t,e,r){e.exports=function(t){return t[0]=1,t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=1,t[6]=0,t[7]=0,t[8]=0,t[9]=0,t[10]=1,t[11]=0,t[12]=0,t[13]=0,t[14]=0,t[15]=1,t}},{}],98:[function(t,e,r){e.exports=function(t,e){var r=e[0],n=e[1],i=e[2],a=e[3],o=e[4],s=e[5],l=e[6],c=e[7],u=e[8],f=e[9],h=e[10],p=e[11],d=e[12],g=e[13],v=e[14],m=e[15],y=r*s-n*o,x=r*l-i*o,b=r*c-a*o,_=n*l-i*s,w=n*c-a*s,T=i*c-a*l,k=u*g-f*d,A=u*v-h*d,M=u*m-p*d,S=f*v-h*g,E=f*m-p*g,L=h*m-p*v,C=y*L-x*E+b*S+_*M-w*A+T*k;return C?(C=1/C,t[0]=(s*L-l*E+c*S)*C,t[1]=(i*E-n*L-a*S)*C,t[2]=(g*T-v*w+m*_)*C,t[3]=(h*w-f*T-p*_)*C,t[4]=(l*M-o*L-c*A)*C,t[5]=(r*L-i*M+a*A)*C,t[6]=(v*b-d*T-m*x)*C,t[7]=(u*T-h*b+p*x)*C,t[8]=(o*E-s*M+c*k)*C,t[9]=(n*M-r*E-a*k)*C,t[10]=(d*w-g*b+m*y)*C,t[11]=(f*b-u*w-p*y)*C,t[12]=(s*A-o*S-l*k)*C,t[13]=(r*S-n*A+i*k)*C,t[14]=(g*x-d*_-v*y)*C,t[15]=(u*_-f*x+h*y)*C,t):null}},{}],99:[function(t,e,r){var n=t("./identity");e.exports=function(t,e,r,i){var a,o,s,l,c,u,f,h,p,d,g=e[0],v=e[1],m=e[2],y=i[0],x=i[1],b=i[2],_=r[0],w=r[1],T=r[2];return Math.abs(g-_)<1e-6&&Math.abs(v-w)<1e-6&&Math.abs(m-T)<1e-6?n(t):(f=g-_,h=v-w,p=m-T,a=x*(p*=d=1/Math.sqrt(f*f+h*h+p*p))-b*(h*=d),o=b*(f*=d)-y*p,s=y*h-x*f,(d=Math.sqrt(a*a+o*o+s*s))?(a*=d=1/d,o*=d,s*=d):(a=0,o=0,s=0),l=h*s-p*o,c=p*a-f*s,u=f*o-h*a,(d=Math.sqrt(l*l+c*c+u*u))?(l*=d=1/d,c*=d,u*=d):(l=0,c=0,u=0),t[0]=a,t[1]=l,t[2]=f,t[3]=0,t[4]=o,t[5]=c,t[6]=h,t[7]=0,t[8]=s,t[9]=u,t[10]=p,t[11]=0,t[12]=-(a*g+o*v+s*m),t[13]=-(l*g+c*v+u*m),t[14]=-(f*g+h*v+p*m),t[15]=1,t)}},{"./identity":97}],100:[function(t,e,r){e.exports=function(t,e,r){var n=e[0],i=e[1],a=e[2],o=e[3],s=e[4],l=e[5],c=e[6],u=e[7],f=e[8],h=e[9],p=e[10],d=e[11],g=e[12],v=e[13],m=e[14],y=e[15],x=r[0],b=r[1],_=r[2],w=r[3];return t[0]=x*n+b*s+_*f+w*g,t[1]=x*i+b*l+_*h+w*v,t[2]=x*a+b*c+_*p+w*m,t[3]=x*o+b*u+_*d+w*y,x=r[4],b=r[5],_=r[6],w=r[7],t[4]=x*n+b*s+_*f+w*g,t[5]=x*i+b*l+_*h+w*v,t[6]=x*a+b*c+_*p+w*m,t[7]=x*o+b*u+_*d+w*y,x=r[8],b=r[9],_=r[10],w=r[11],t[8]=x*n+b*s+_*f+w*g,t[9]=x*i+b*l+_*h+w*v,t[10]=x*a+b*c+_*p+w*m,t[11]=x*o+b*u+_*d+w*y,x=r[12],b=r[13],_=r[14],w=r[15],t[12]=x*n+b*s+_*f+w*g,t[13]=x*i+b*l+_*h+w*v,t[14]=x*a+b*c+_*p+w*m,t[15]=x*o+b*u+_*d+w*y,t}},{}],101:[function(t,e,r){e.exports=function(t,e,r,n,i,a,o){var s=1/(e-r),l=1/(n-i),c=1/(a-o);return t[0]=-2*s,t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=-2*l,t[6]=0,t[7]=0,t[8]=0,t[9]=0,t[10]=2*c,t[11]=0,t[12]=(e+r)*s,t[13]=(i+n)*l,t[14]=(o+a)*c,t[15]=1,t}},{}],102:[function(t,e,r){e.exports=function(t,e,r,n,i){var a=1/Math.tan(e/2),o=1/(n-i);return t[0]=a/r,t[1]=0,t[2]=0,t[3]=0,t[4]=0,t[5]=a,t[6]=0,t[7]=0,t[8]=0,t[9]=0,t[10]=(i+n)*o,t[11]=-1,t[12]=0,t[13]=0,t[14]=2*i*n*o,t[15]=0,t}},{}],103:[function(t,e,r){e.exports=function(t,e,r,n){var i,a,o,s,l,c,u,f,h,p,d,g,v,m,y,x,b,_,w,T,k,A,M,S,E=n[0],L=n[1],C=n[2],P=Math.sqrt(E*E+L*L+C*C);return Math.abs(P)<1e-6?null:(E*=P=1/P,L*=P,C*=P,i=Math.sin(r),o=1-(a=Math.cos(r)),s=e[0],l=e[1],c=e[2],u=e[3],f=e[4],h=e[5],p=e[6],d=e[7],g=e[8],v=e[9],m=e[10],y=e[11],x=E*E*o+a,b=L*E*o+C*i,_=C*E*o-L*i,w=E*L*o-C*i,T=L*L*o+a,k=C*L*o+E*i,A=E*C*o+L*i,M=L*C*o-

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E*i,S=C*C*o+a,t[0]=s*x+f*b+g*_,t[1]=l*x+h*b+v*_,t[2]=c*x+p*b+m*_,t[3]=u*x+d*b+y*_,t[4]=s*w+f*T+g*k,t[5]=l*w+h*T+v*k,t[6]=c*w+p*T+m*k,t[7]=u*w+d*T+y*k,t[8]=s*A+f*M+g*S,t[9]=l*A+h*M+v*S,t[10]=c*A+p*M+m*S,t[11]=u*A+d*M+y*S,e!==t&&(t[12]=e[12],t[13]=e[13],t[14]=e[14],t[15]=e[15]),t)}},{}],104:[function(t,e,r){e.exports=function(t,e,r){var n=Math.sin(r),i=Math.cos(r),a=e[4],o=e[5],s=e[6],l=e[7],c=e[8],u=e[9],f=e[10],h=e[11];return e!==t&&(t[0]=e[0],t[1]=e[1],t[2]=e[2],t[3]=e[3],t[12]=e[12],t[13]=e[13],t[14]=e[14],t[15]=e[15]),t[4]=a*i+c*n,t[5]=o*i+u*n,t[6]=s*i+f*n,t[7]=l*i+h*n,t[8]=c*i-a*n,t[9]=u*i-o*n,t[10]=f*i-s*n,t[11]=h*i-l*n,t}},{}],105:[function(t,e,r){e.exports=function(t,e,r){var n=Math.sin(r),i=Math.cos(r),a=e[0],o=e[1],s=e[2],l=e[3],c=e[8],u=e[9],f=e[10],h=e[11];return e!==t&&(t[4]=e[4],t[5]=e[5],t[6]=e[6],t[7]=e[7],t[12]=e[12],t[13]=e[13],t[14]=e[14],t[15]=e[15]),t[0]=a*i-c*n,t[1]=o*i-u*n,t[2]=s*i-f*n,t[3]=l*i-h*n,t[8]=a*n+c*i,t[9]=o*n+u*i,t[10]=s*n+f*i,t[11]=l*n+h*i,t}},{}],106:[function(t,e,r){e.exports=function(t,e,r){var n=Math.sin(r),i=Math.cos(r),a=e[0],o=e[1],s=e[2],l=e[3],c=e[4],u=e[5],f=e[6],h=e[7];return e!==t&&(t[8]=e[8],t[9]=e[9],t[10]=e[10],t[11]=e[11],t[12]=e[12],t[13]=e[13],t[14]=e[14],t[15]=e[15]),t[0]=a*i+c*n,t[1]=o*i+u*n,t[2]=s*i+f*n,t[3]=l*i+h*n,t[4]=c*i-a*n,t[5]=u*i-o*n,t[6]=f*i-s*n,t[7]=h*i-l*n,t}},{}],107:[function(t,e,r){e.exports=function(t,e,r){var n=r[0],i=r[1],a=r[2];return t[0]=e[0]*n,t[1]=e[1]*n,t[2]=e[2]*n,t[3]=e[3]*n,t[4]=e[4]*i,t[5]=e[5]*i,t[6]=e[6]*i,t[7]=e[7]*i,t[8]=e[8]*a,t[9]=e[9]*a,t[10]=e[10]*a,t[11]=e[11]*a,t[12]=e[12],t[13]=e[13],t[14]=e[14],t[15]=e[15],t}},{}],108:[function(t,e,r){e.exports=function(t,e,r){var n,i,a,o,s,l,c,u,f,h,p,d,g=r[0],v=r[1],m=r[2];return e===t?(t[12]=e[0]*g+e[4]*v+e[8]*m+e[12],t[13]=e[1]*g+e[5]*v+e[9]*m+e[13],t[14]=e[2]*g+e[6]*v+e[10]*m+e[14],t[15]=e[3]*g+e[7]*v+e[11]*m+e[15]):(n=e[0],i=e[1],a=e[2],o=e[3],s=e[4],l=e[5],c=e[6],u=e[7],f=e[8],h=e[9],p=e[10],d=e[11],t[0]=n,t[1]=i,t[2]=a,t[3]=o,t[4]=s,t[5]=l,t[6]=c,t[7]=u,t[8]=f,t[9]=h,t[10]=p,t[11]=d,t[12]=n*g+s*v+f*m+e[12],t[13]=i*g+l*v+h*m+e[13],t[14]=a*g+c*v+p*m+e[14],t[15]=o*g+u*v+d*m+e[15]),t}},{}],109:[function(t,e,r){e.exports=function(t,e){if(t===e){var r=e[1],n=e[2],i=e[3],a=e[6],o=e[7],s=e[11];t[1]=e[4],t[2]=e[8],t[3]=e[12],t[4]=r,t[6]=e[9],t[7]=e[13],t[8]=n,t[9]=a,t[11]=e[14],t[12]=i,t[13]=o,t[14]=s}else t[0]=e[0],t[1]=e[4],t[2]=e[8],t[3]=e[12],t[4]=e[1],t[5]=e[5],t[6]=e[9],t[7]=e[13],t[8]=e[2],t[9]=e[6],t[10]=e[10],t[11]=e[14],t[12]=e[3],t[13]=e[7],t[14]=e[11],t[15]=e[15];return t}},{}],110:[function(t,e,r){"use strict";var n=t("barycentric"),i=t("polytope-closest-point/lib/closest_point_2d.js");function a(t,e){for(var r=[0,0,0,0],n=0;n<4;++n)for(var i=0;i<4;++i)r[i]+=t[4*n+i]*e[n];return r}function o(t,e,r,n,i){for(var o=a(n,a(r,a(e,[t[0],t[1],t[2],1]))),s=0;s<3;++s)o[s]/=o[3];return[.5*i[0]*(1+o[0]),.5*i[1]*(1-o[1])]}function s(t,e){for(var r=[0,0,0],n=0;n<t.length;++n)for(var i=t[n],a=e[n],o=0;o<3;++o)r[o]+=a*i[o];return r}e.exports=function(t,e,r,a,l,c){if(1===t.length)return[0,t[0].slice()];for(var u=new Array(t.length),f=0;f<t.length;++f)u[f]=o(t[f],r,a,l,c);var h=0,p=1/0;for(f=0;f<u.length;++f){for(var d=0,g=0;g<2;++g)d+=Math.pow(u[f][g]-e[g],2);d<p&&(p=d,h=f)}var v=function(t,e){if(2===t.length){for(var r=0,a=0,o=0;o<2;++o)r+=Math.pow(e[o]-t[0][o],2),a+=Math.pow(e[o]-t[1][o],2);return(r=Math.sqrt(r))+(a=Math.sqrt(a))<1e-6?[1,0]:[a/(r+a),r/(a+r)]}if(3===t.length){var s=[0,0];return i(t[0],t[1],t[2],e,s),n(t,s)}return[]}(u,e),m=0;for(f=0;f<3;++f){if(v[f]<-.001||v[f]>1.0001)return null;m+=v[f]}return Math.abs(m-1)>.001?null:[h,s(t,v),v]}},{barycentric:14,"polytope-closest-point/lib/closest_point_2d.js":270}],111:[function(t,e,r){var n=t("glslify"),i=n(["precision highp float;\n#define GLSLIFY 1\n\nattribute vec3 position, normal;\nattribute vec4 color;\nattribute vec2 uv;\n\nuniform mat4 model\n , view\n , projection\n , inverseModel;\nuniform vec3 eyePosition\n , lightPosition;\n\nvarying vec3 f_normal\n , f_lightDirection\n , f_eyeDirection\n , f_data;\nvarying vec4 f_color;\nvarying vec2 f_uv;\n\nvec4 project(vec3 p) {\n return projection * view * model * vec4(p, 1.0);\n}\n\nvoid main() {\n gl_Position = project(position);\n\n //Lighting geometry parameters\n vec4 cameraCoordinate = view * vec4(position , 1.0);\n cameraCoordinate.xyz /= cameraCoordinate.w;\n f_lightDirection = lightPosition - cameraCoordinate.xyz;\n f_eyeDirection = eyePosition - cameraCoordinate.xyz;\n f_normal = normalize((vec4(normal, 0.0) * inverseModel).xyz);\n\n f_color =
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color;\n  f_data     = position;\n  f_uv       = uv;\n}\n"]),a=n(["#extension GL_OES_standard_derivatives : enable\n\nprecision highp float;\n#define GLSLIFY 1\n\nfloat beckmannDistribution(float x, float roughness) {\n  float NdotH = max(x, 0.0001);\n  float cos2Alpha = NdotH * NdotH;\n  float tan2Alpha = (cos2Alpha - 1.0) / cos2Alpha;\n  float roughness2 = roughness * roughness;\n  float denom = 3.141592653589793 * roughness2 * cos2Alpha * cos2Alpha;\n  return exp(tan2Alpha / roughness2) / denom;\n}\n\nfloat cookTorranceSpecular(\n  vec3 lightDirection,\n  vec3 viewDirection,\n  vec3 surfaceNormal,\n  float roughness,\n  float fresnel) {\n\n  float VdotN = max(dot(viewDirection, surfaceNormal), 0.0);\n  float LdotN = max(dot(lightDirection, surfaceNormal), 0.0);\n\n  //Half angle vector\n  vec3 H = normalize(lightDirection + viewDirection);\n\n  //Geometric term\n  float NdotH = max(dot(surfaceNormal, H), 0.0);\n  float VdotH = max(dot(viewDirection, H), 0.000001);\n  float LdotH = max(dot(lightDirection, H), 0.000001);\n  float G1 = (2.0 * NdotH * VdotN) / VdotH;\n  float G2 = (2.0 * NdotH * LdotN) / LdotH;\n  float G = min(1.0, min(G1, G2));\n  \n  //Distribution term\n  float D = beckmannDistribution(NdotH, roughness);\n\n  //Fresnel term\n  float F = pow(1.0 - VdotN, fresnel);\n\n  //Multiply terms and done\n  return  G * F * D / max(3.14159265 * VdotN, 0.000001);\n}\n\n//#pragma glslify: beckmann = require(glsl-specular-beckmann) // used in gl-surface3d\n\nbool outOfRange(float a, float b, float p) {\n  return ((p > max(a, b)) || \n          (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n  return (outOfRange(a.x, b.x, p.x) ||\n          outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n  return (outOfRange(a.x, b.x, p.x) ||\n          outOfRange(a.y, b.y, p.y) ||\n          outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n  return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nuniform vec3 clipBounds[2];\nuniform float roughness\n          , fresnel\n          , kambient\n          , kdiffuse\n          , kspecular;\nuniform sampler2D texture;\n\nvarying vec3 f_normal\n          , f_lightDirection\n          , f_eyeDirection\n          , f_data;\nvarying vec4 f_color;\nvarying vec2 f_uv;\n\nvoid main() {\n  if (f_color.a == 0.0 ||\n    outOfRange(clipBounds[0], clipBounds[1], f_data)\n  ) discard;\n\n  vec3 N = normalize(f_normal);\n  vec3 L = normalize(f_lightDirection);\n  vec3 V = normalize(f_eyeDirection);\n\n  if(gl_FrontFacing) {\n    N = -N;\n  }\n\n  float specular = min(1.0, max(0.0, cookTorranceSpecular(L, V, N, roughness, fresnel)));\n  //float specular = max(0.0, beckmann(L, V, N, roughness)); // used in gl-surface3d\n\n  float diffuse  = min(kambient + kdiffuse * max(dot(N, L), 0.0), 1.0);\n\n  vec4 surfaceColor = vec4(f_color.rgb, 1.0) * texture2D(texture, f_uv);\n  vec4 litColor = surfaceColor.a * vec4(diffuse * surfaceColor.rgb + kspecular * vec3(1,1,1) * specular,  1.0);\n\n  gl_FragColor = litColor * f_color.a;\n}\n"]),o=n(["precision highp float;\n#define GLSLIFY 1\n\nattribute vec3 position;\nattribute vec4 color;\nattribute vec2 uv;\n\nuniform mat4 model, view, projection;\n\nvarying vec4 f_color;\nvarying vec3 f_data;\nvarying vec2 f_uv;\n\nvoid main() {\n  gl_Position = projection * view * model * vec4(position, 1.0);\n  f_color = color;\n  f_data  = position;\n  f_uv    = uv;\n}"]),s=n(["precision highp float;\n#define GLSLIFY 1\n\nbool outOfRange(float a, float b, float p) {\n  return ((p > max(a, b)) || \n          (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n  return (outOfRange(a.x, b.x, p.x) ||\n          outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n  return (outOfRange(a.x, b.x, p.x) ||\n          outOfRange(a.y, b.y, p.y) ||\n          outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n  return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nuniform vec3 clipBounds[2];\nuniform sampler2D texture;\nuniform float opacity;\n\nvarying vec4 f_color;\nvarying vec3 f_data;\nvarying vec2 f_uv;\n\nvoid main() {\n  if (outOfRange(clipBounds[0], clipBounds[1], f_data)) discard;\n\n  gl_FragColor = f_color * texture2D(texture, f_uv) * opacity;\n}"]),l=n(["precision highp float;\n#define GLSLIFY 1\n\nbool outOfRange(float a, float b, float p) {\n  return ((p > max(a, b)) || \n          (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n  return (outOfRange(a.x, b.x, p.x) ||\n          outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n  return (outOfRange(a.x, b.x, p.x) ||\n          outOfRange(a.y, b.y, p.y) ||\n          outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n  return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nattribute vec3 position;\nattribute vec4 color;\nattribute vec2 uv;\nattribute float pointSize;\n\nuniform mat4 model, view, projection;\nuniform vec3 clipBounds[2];\n\nvarying vec4 f_color;\nvarying vec2 f_uv;\n\nvoid main() {\n  if (outOfRange(clipBounds[0], clipBounds[1], position)) {\n\n    gl_Position = vec4(0.0, 0.0 ,0.0 ,0.0);\n  } else {\n    gl_Position = projection * view * model * vec4(position, 1.0);\n  }\n  gl_PointSize = pointSize;\n  f_color = color;\n  f_uv = uv;\n}"]),c=n(["precision highp
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float;\n#define GLSLIFY 1\n\nuniform sampler2D texture;\nuniform float opacity;\n\nvarying vec4 f_color;\nvarying vec2 f_uv;\n\nvoid main() {\n vec2 pointR = gl_PointCoord.xy - vec2(0.5, 0.5);\n if(dot(pointR, pointR) > 0.25) {\n   discard;\n }\n gl_FragColor = f_color * texture2D(texture, f_uv) * opacity;\n}"]),u=n(["precision highp float;\n#define GLSLIFY 1\n\nattribute vec3 position;\nattribute vec4 id;\n\nuniform mat4 model, view, projection;\n\nvarying vec3 f_position;\nvarying vec4 f_id;\n\nvoid main() {\n gl_Position = projection * view * model * vec4(position, 1.0);\n f_id   = id;\n f_position = position;\n}"]),f=n(["precision highp float;\n#define GLSLIFY 1\n\nbool outOfRange(float a, float b, float p) {\n return ((p > max(a, b)) || \n   (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y) ||\n   outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nuniform vec3 clipBounds[2];\nuniform float pickId;\n\nvarying vec3 f_position;\nvarying vec4 f_id;\n\nvoid main() {\n if (outOfRange(clipBounds[0], clipBounds[1], f_position)) discard;\n\n gl_FragColor = vec4(pickId, f_id.xyz);\n}"]),h=n(["precision highp float;\n#define GLSLIFY 1\n\nbool outOfRange(float a, float b, float p) {\n return ((p > max(a, b)) || \n   (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y) ||\n   outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nattribute vec3 position;\nattribute float pointSize;\nattribute vec4 id;\n\nuniform mat4 model, view, projection;\nuniform vec3 clipBounds[2];\n\nvarying vec3 f_position;\nvarying vec4 f_id;\n\nvoid main() {\n if (outOfRange(clipBounds[0], clipBounds[1], position)) {\n\n   gl_Position = vec4(0.0, 0.0, 0.0, 0.0);\n } else {\n   gl_Position = projection * view * model * vec4(position, 1.0);\n   gl_PointSize = pointSize;\n }\n f_id   = id;\n f_position   = position;\n}"]),p=n(["precision highp float;\n#define GLSLIFY 1\n\nattribute vec3 position;\n\nuniform mat4 model, view, projection;\n\nvoid main() {\n gl_Position = projection * view * model * vec4(position, 1.0);\n}"]),d=n(["precision highp float;\n#define GLSLIFY 1\n\nuniform vec3 contourColor;\n\nvoid main() {\n gl_FragColor = vec4(contourColor, 1.0);\n}\n"]);r.meshShader={vertex:i,fragment:a,attributes:[{name:"position",type:"vec3"},{name:"normal",type:"vec3"},{name:"color",type:"vec4"},{name:"uv",type:"vec2"}]},r.wireShader={vertex:o,fragment:s,attributes:[{name:"position",type:"vec3"},{name:"color",type:"vec4"},{name:"uv",type:"vec2"}]},r.pointShader={vertex:l,fragment:c,attributes:[{name:"position",type:"vec3"},{name:"color",type:"vec4"},{name:"uv",type:"vec2"},{name:"pointSize",type:"float"}]},r.pickShader={vertex:u,fragment:f,attributes:[{name:"position",type:"vec3"},{name:"id",type:"vec4"}]},r.pointPickShader={vertex:h,fragment:f,attributes:[{name:"position",type:"vec3"},{name:"pointSize",type:"float"},{name:"id",type:"vec4"}]},r.contourShader={vertex:p,fragment:d,attributes:[{name:"position",type:"vec3"}]}},{glslify:231}],112:[function(t,e,r){"use strict";var n=t("gl-shader"),i=t("gl-buffer"),a=t("gl-vao"),o=t("gl-texture2d"),s=t("normals"),l=t("gl-mat4/multiply"),c=t("gl-mat4/invert"),u=t("ndarray"),f=t("colormap"),h=t("simplicial-complex-contour"),p=t("typedarray-pool"),d=t("./lib/shaders"),g=t("./lib/closest-point"),v=d.meshShader,m=d.wireShader,y=d.pointShader,x=d.pickShader,b=d.pointPickShader,_=d.contourShader,w=[1,0,0,0,0,1,0,0,0,0,1,0,0,0,0,1];function T(t,e,r,n,i,a,o,s,l,c,u,f,h,p,d,g,v,m,y,x,b,_,T,k,A,M,S){this.gl=t,this.pixelRatio=1,this.cells=[],this.positions=[],this.intensity=[],this.texture=e,this.dirty=!0,this.triShader=r,this.lineShader=n,this.pointShader=i,this.pickShader=a,this.pointPickShader=o,this.contourShader=s,this.trianglePositions=l,this.triangleColors=u,this.triangleNormals=h,this.triangleUVs=f,this.triangleIds=c,this.triangleVAO=p,this.triangleCount=0,this.lineWidth=1,this.edgePositions=d,this.edgeColors=v,this.edgeUVs=m,this.edgeIds=g,this.edgeVAO=y,this.edgeCount=0,this.pointPositions=x,this.pointColors=_,this.pointUVs=T,this.pointSizes=k,this.pointIds=b,this.pointVAO=A,this.pointCount=0,this.contourLineWidth=1,this.contourPositions=M,this.contourVAO=S,this.contourCount=0,this.contourColor=[0,0,0],this.contourEnable=!0,this.pickVertex=!0,this.pickId=1,this.bounds=[[1/0,1/0,1/0],[-1/0,-1/0,-1/0]],this.clipBounds=[[-1/0,-1/0,-1/0],[1/0,1/0,1/0]],this.lightPosition=[1e5,1e5,0],this.ambientLight=.8,this.diffuseLight=.8,this.specularLight=2,this.

roughness=.5,this.fresnel=1.5,this.opacity=1,this.hasAlpha=!1,this.opacityscale=!1,this._model=w,this._view=w,this._projection=w,this._resolution=[1,1]}var k=T.prototype;function A(t,e){if(!e)return 1;if(!e.length)return 1;for(var r=0;r<e.length;++r){if(e.length<2)return 1;if(e[r][0]===t)return e[r][1];if(e[r][0]>t&&r>0){var n=(e[r][0]-t)/(e[r][0]-e[r-1][0]);return e[r][1]*(1-n)+n*e[r-1][1]}}return 1}function M(t){var e=n(t,v.vertex,v.fragment);return e.attributes.position.location=0,e.attributes.color.location=2,e.attributes.uv.location=3,e.attributes.normal.location=4,e}function S(t){var e=n(t,m.vertex,m.fragment);return e.attributes.position.location=0,e.attributes.color.location=2,e.attributes.uv.location=3,e}function E(t){var e=n(t,y.vertex,y.fragment);return e.attributes.position.location=0,e.attributes.color.location=2,e.attributes.uv.location=3,e.attributes.pointSize.location=4,e}function L(t){var e=n(t,x.vertex,x.fragment);return e.attributes.position.location=0,e.attributes.id.location=1,e}function C(t){var e=n(t,b.vertex,b.fragment);return e.attributes.position.location=0,e.attributes.id.location=1,e.attributes.pointSize.location=4,e}function P(t){var e=n(t,_.vertex,_.fragment);return e.attributes.position.location=0,e}k.isOpaque=function(){return!this.hasAlpha},k.isTransparent=function(){return this.hasAlpha},k.pickSlots=1,k.setPickBase=function(t){this.pickId=t},k.highlight=function(t){if(t&&this.contourEnable){for(var e=h(this.cells,this.intensity,t.intensity),r=e.cells,n=e.vertexIds,i=e.vertexWeights,a=r.length,o=p.mallocFloat32(6*a),s=0,l=0;l<a;++l)for(var c=r[l],u=0;u<2;++u){var f=c[0];2===c.length&&(f=c[u]);for(var d=n[f][0],g=n[f][1],v=i[f],m=1-v,y=this.positions[d],x=this.positions[g],b=0;b<3;++b)o[s++]=v*y[b]+m*x[b]}this.contourCount=s/3|0,this.contourPositions.update(o.subarray(0,s)),p.free(o)}else this.contourCount=0},k.update=function(t){t=t||{};var e=this.gl;this.dirty=!0,"contourEnable"in t&&(this.contourEnable=t.contourEnable),"contourColor"in t&&(this.contourColor=t.contourColor),"lineWidth"in t&&(this.lineWidth=t.lineWidth),"lightPosition"in t&&(this.lightPosition=t.lightPosition),this.hasAlpha=!1,"opacity"in t&&(this.opacity=t.opacity,this.opacity<1&&(this.hasAlpha=!0)),"opacityscale"in t&&(this.opacityscale=t.opacityscale,this.hasAlpha=!0),"ambient"in t&&(this.ambientLight=t.ambient),"diffuse"in t&&(this.diffuseLight=t.diffuse),"specular"in t&&(this.specularLight=t.specular),"roughness"in t&&(this.roughness=t.roughness),"fresnel"in t&&(this.fresnel=t.fresnel),t.texture?(this.texture.dispose(),this.texture=o(e,t.texture)):t.colormap&&(this.texture.shape=[256,256],this.texture.minFilter=e.LINEAR_MIPMAP_LINEAR,this.texture.magFilter=e.LINEAR,this.texture.setPixels(function(t,e){for(var r=f({colormap:t,nshades:256,format:"rgba"}),n=new Uint8Array(1024),i=0;i<256;++i){for(var a=r[i],o=0;o<3;++o)n[4*i+o]=a[o];n[4*i+3]=e?255*A(i/255,e):255*a[3]}return u(n,[256,256,4],[4,0,1])}(t.colormap,this.opacityscale)),this.texture.generateMipmap());var r=t.cells,n=t.positions;if(n&&r){var i=[],a=[],l=[],c=[],h=[],p=[],d=[],g=[],v=[],m=[],y=[],x=[],b=[],_=[];this.cells=r,this.positions=n;var w=t.vertexNormals,T=t.cellNormals,k=void 0===t.vertexNormalsEpsilon?1e-6:t.vertexNormalsEpsilon,M=void 0===t.faceNormalsEpsilon?1e-6:t.faceNormalsEpsilon;t.useFacetNormals&&!T&&(T=s.faceNormals(r,n,M)),T||w||(w=s.vertexNormals(r,n,k));var S=t.vertexColors,E=t.cellColors,L=t.meshColor||[1,1,1,1],C=t.vertexUVs,P=t.vertexIntensity,I=t.cellUVs,O=t.cellIntensity,z=1/0,D=-1/0;if(!C&&!I)if(P)if(t.vertexIntensityBounds)z=+t.vertexIntensityBounds[0],D=+t.vertexIntensityBounds[1];else for(var R=0;R<P.length;++R){var F=P[R];z=Math.min(z,F),D=Math.max(D,F)}else if(O)if(t.cellIntensityBounds)z=+t.cellIntensityBounds[0],D=+t.cellIntensityBounds[1];else for(R=0;R<O.length;++R)F=O[R],z=Math.min(z,F),D=Math.max(D,F);else for(R=0;R<n.length;++R)F=n[R][2],z=Math.min(z,F),D=Math.max(D,F);this.intensity=P||O||function(t){for(var e=t.length,r=new Array(e),n=0;n<e;++n)r[n]=t[n][2];return r}(n),this.pickVertex=!(O||E);var B=t.pointSizes,N=t.pointSize||1;for(this.bounds=[[1/0,1/0,1/0],[-1/0,-1/0,-1/0]],R=0;R<n.length;++R)for(var

j=n[R],U=0;U<3;++U)!isNaN(j[U])&&isFinite(j[U])&&(this.bounds[0][U]=Math.min(this.bounds[0][U],j[U]),this.bounds[1][U]=Math.max(this.bounds[1][U],j[U]));var V=0,q=0,H=0;t:for(R=0;R<r.length;++R){var G=r[R];switch(G.length){case 1:for(j=n[W=G[0]],U=0;U<3;++U)if(isNaN(j[U])||!isFinite(j[U]))continue t;m.push(j[0],j[1],j[2]),X=S?S[W]:E?E[R]:L,this.opacityscale&&P?a.push(X[0],X[1],X[2],this.opacity*A((P[W]-z)/(D-z),this.opacityscale)):3===X.length?y.push(X[0],X[1],X[2],this.opacity):(y.push(X[0],X[1],X[2],X[3]*this.opacity),X[3]<1&&(this.hasAlpha=!0)),Z=C?C[W]:P?[(P[W]-z)/(D-z),0]:I?I[R]:O?[(O[R]-z)/(D-z),0]:[(j[2]-z)/(D-z),0],x.push(Z[0],Z[1]),B?b.push(B[W]):b.push(N),_.push(R),H+=1;break;case 2:for(U=0;U<2;++U){j=n[W=G[U]];for(var Y=0;Y<3;++Y)if(isNaN(j[Y])||!isFinite(j[Y]))continue t}for(U=0;U<2;++U)j=n[W=G[U]],p.push(j[0],j[1],j[2]),X=S?S[W]:E?E[R]:L,this.opacityscale&&P?a.push(X[0],X[1],X[2],this.opacity*A((P[W]-z)/(D-z),this.opacityscale)):3===X.length?d.push(X[0],X[1],X[2],this.opacity):(d.push(X[0],X[1],X[2],X[3]*this.opacity),X[3]<1&&(this.hasAlpha=!0)),Z=C?C[W]:P?[(P[W]-z)/(D-z),0]:I?I[R]:O?[(O[R]-z)/(D-z),0]:[(j[2]-z)/(D-z),0],g.push(Z[0],Z[1]),v.push(R);q+=1;break;case 3:for(U=0;U<3;++U)for(j=n[W=G[U]],Y=0;Y<3;++Y)if(isNaN(j[Y])||!isFinite(j[Y]))continue t;for(U=0;U<3;++U){var W,X,Z,J;j=n[W=G[2-U]],i.push(j[0],j[1],j[2]),(X=S?S[W]:E?E[R]:L)?this.opacityscale&&P?a.push(X[0],X[1],X[2],this.opacity*A((P[W]-z)/(D-z),this.opacityscale)):3===X.length?a.push(X[0],X[1],X[2],this.opacity):(a.push(X[0],X[1],X[2],X[3]*this.opacity),X[3]<1&&(this.hasAlpha=!0)):a.push(.5,.5,.5,1),Z=C?C[W]:P?[(P[W]-z)/(D-z),0]:I?I[R]:O?[(O[R]-z)/(D-z),0]:[(j[2]-z)/(D-z),0],c.push(Z[0],Z[1]),J=w?w[W]:T[R],l.push(J[0],J[1],J[2]),h.push(R)}V+=1}}this.pointCount=H,this.edgeCount=q,this.triangleCount=V,this.pointPositions.update(m),this.pointColors.update(y),this.pointUVs.update(x),this.pointSizes.update(b),this.pointIds.update(new Uint32Array(_)),this.edgePositions.update(p),this.edgeColors.update(d),this.edgeUVs.update(g),this.edgeIds.update(new Uint32Array(v)),this.trianglePositions.update(i),this.triangleColors.update(a),this.triangleUVs.update(c),this.triangleNormals.update(l),this.triangleIds.update(new Uint32Array(h))}},k.drawTransparent=k.draw=function(t){t=t||{};for(var e=this.gl,r=t.model||w,n=t.view||w,i=t.projection||w,a=[[-1e6,-1e6,-1e6],[1e6,1e6,1e6]],o=0;o<3;++o)a[0][o]=Math.max(a[0][o],this.clipBounds[0][o]),a[1][o]=Math.min(a[1][o],this.clipBounds[1][o]);var s={model:r,view:n,projection:i,inverseModel:w.slice(),clipBounds:a,kambient:this.ambientLight,kdiffuse:this.diffuseLight,kspecular:this.specularLight,roughness:this.roughness,fresnel:this.fresnel,eyePosition:[0,0,0],lightPosition:[0,0,0],contourColor:this.contourColor,texture:0};s.inverseModel=c(s.inverseModel,s.model),e.disable(e.CULL_FACE),this.texture.bind(0);var u=new Array(16);for(l(u,s.view,s.model),l(u,s.projection,u),c(u,u),o=0;o<3;++o)s.eyePosition[o]=u[12+o]/u[15];var f,h=u[15];for(o=0;o<3;++o)h+=this.lightPosition[o]*u[4*o+3];for(o=0;o<3;++o){for(var p=u[12+o],d=0;d<3;++d)p+=u[4*d+o]*this.lightPosition[d];s.lightPosition[o]=p/h}this.triangleCount>0&&((f=this.triShader).bind(),f.uniforms=s,this.triangleVAO.bind(),e.drawArrays(e.TRIANGLES,0,3*this.triangleCount),this.triangleVAO.unbind()),this.edgeCount>0&&this.lineWidth>0&&((f=this.lineShader).bind(),f.uniforms=s,this.edgeVAO.bind(),e.lineWidth(this.lineWidth*this.pixelRatio),e.drawArrays(e.LINES,0,2*this.edgeCount),this.edgeVAO.unbind()),this.pointCount>0&&((f=this.pointShader).bind(),f.uniforms=s,this.pointVAO.bind(),e.drawArrays(e.POINTS,0,this.pointCount),this.pointVAO.unbind()),this.contourEnable&&this.contourCount>0&&this.contourLineWidth>0&&((f=this.contourShader).bind(),f.uniforms=s,this.contourVAO.bind(),e.drawArrays(e.LINES,0,this.contourCount),this.contourVAO.unbind())},k.drawPick=function(t){t=t||{};for(var e=this.gl,r=t.model||w,n=t.view||w,i=t.projection||w,a=[[-1e6,-1e6,-1e6],[1e6,1e6,1e6]],o=0;o<3;++o)a[0][o]=Math.max(a[0][o],this.clipBounds[0][o]),a[1][o]=Math.min(a[1][o],this.cl

ipBounds[1][o]);this._model=[].slice.call(r),this._view=[].slice.call(n),this._projection=[].slice.call(i),this._resolution=[e.drawingBufferWidth,e.drawingBufferHeight];var s,l={model:r,view:n,projection:i,clipBounds:a,pickId:this.pickId/255};(s=this.pickShader).bind(),s.uniforms=l,this.triangleCount>0&&(this.triangleVAO.bind(),e.drawArrays(e.TRIANGLES,0,3*this.triangleCount),this.triangleVAO.unbind()),this.edgeCount>0&&(this.edgeVAO.bind(),e.lineWidth(this.lineWidth*this.pixelRatio),e.drawArrays(e.LINES,0,2*this.edgeCount),this.edgeVAO.unbind()),this.pointCount>0&&((s=this.pointPickShader).bind(),s.uniforms=l,this.pointVAO.bind(),e.drawArrays(e.POINTS,0,this.pointCount),this.pointVAO.unbind())},k.pick=function(t){if(!t)return null;if(t.id!==this.pickId)return null;for(var e=t.value[0]+256*t.value[1]+65536*t.value[2],r=this.cells[e],n=this.positions,i=new Array(r.length),a=0;a<r.length;++a)i[a]=n[r[a]];var o=t.coord[0],s=t.coord[1];if(!this.pickVertex){var l=this.positions[r[0]],c=this.positions[r[1]],u=this.positions[r[2]],f=[(l[0]+c[0]+u[0])/3,(l[1]+c[1]+u[1])/3,(l[2]+c[2]+u[2])/3];return{_cellCenter:!0,position:[o,s],index:e,cell:r,cellId:e,intensity:this.intensity[e],dataCoordinate:f}}var h=g(i,[o*this.pixelRatio,this._resolution[1]-s*this.pixelRatio],this._model,this._view,this._projection,this._resolution);if(!h)return null;var p=h[2],d=0;for(a=0;a<r.length;++a)d+=p[a]*this.intensity[r[a]];return{position:h[1],index:r[h[0]],cell:r,cellId:e,intensity:d,dataCoordinate:this.positions[r[h[0]]]}},k.dispose=function(){this.texture.dispose(),this.triShader.dispose(),this.lineShader.dispose(),this.pointShader.dispose(),this.pickShader.dispose(),this.pointPickShader.dispose(),this.triangleVAO.dispose(),this.trianglePositions.dispose(),this.triangleColors.dispose(),this.triangleUVs.dispose(),this.triangleNormals.dispose(),this.triangleIds.dispose(),this.edgeVAO.dispose(),this.edgePositions.dispose(),this.edgeColors.dispose(),this.edgeUVs.dispose(),this.edgeIds.dispose(),this.pointVAO.dispose(),this.pointPositions.dispose(),this.pointColors.dispose(),this.pointUVs.dispose(),this.pointSizes.dispose(),this.pointIds.dispose(),this.contourVAO.dispose(),this.contourPositions.dispose(),this.contourShader.dispose()},e.exports=function(t,e){if(1===arguments.length&&(t=(e=t).gl),!(t.getExtension("OES_standard_derivatives")||t.getExtension("MOZ_OES_standard_derivatives")||t.getExtension("WEBKIT_OES_standard_derivatives")))throw new Error("derivatives not supported");var r=M(t),n=S(t),s=E(t),l=L(t),c=C(t),f=P(t),h=o(t,u(new Uint8Array([255,255,255,255]),[1,1,4]));h.generateMipmap(),h.minFilter=t.LINEAR_MIPMAP_LINEAR,h.magFilter=t.LINEAR;var p=i(t),d=i(t),g=i(t),v=i(t),m=i(t),y=a(t,[{buffer:p,type:t.FLOAT,size:3},{buffer:m,type:t.UNSIGNED_BYTE,size:4,normalized:!0},{buffer:d,type:t.FLOAT,size:4},{buffer:g,type:t.FLOAT,size:2},{buffer:v,type:t.FLOAT,size:3}]),x=i(t),b=i(t),_=i(t),w=i(t),k=a(t,[{buffer:x,type:t.FLOAT,size:3},{buffer:w,type:t.UNSIGNED_BYTE,size:4,normalized:!0},{buffer:b,type:t.FLOAT,size:4},{buffer:_,type:t.FLOAT,size:2}]),A=i(t),I=i(t),O=i(t),z=i(t),D=i(t),R=a(t,[{buffer:A,type:t.FLOAT,size:3},{buffer:D,type:t.UNSIGNED_BYTE,size:4,normalized:!0},{buffer:I,type:t.FLOAT,size:4},{buffer:O,type:t.FLOAT,size:2},{buffer:z,type:t.FLOAT,size:1}]),F=i(t),B=new T(t,h,r,n,s,l,c,f,p,m,d,g,v,y,x,w,b,_,k,A,D,I,O,z,R,F,a(t,[{buffer:F,type:t.FLOAT,size:3}]));return B.update(e),B}},{"./lib/closest-point":110,"./lib/shaders":111,colormap:53,"gl-buffer":78,"gl-mat4/invert":98,"gl-mat4/multiply":100,"gl-shader":132,"gl-texture2d":146,"gl-vao":150,ndarray:259,normals:261,"simplicial-complex-contour":291,"typedarray-pool":308}],113:[function(t,e,r){"use strict";e.exports=function(t){var e=t.gl;return new o(t,n(e,[0,0,0,1,1,0,1,1]),i(e,a.boxVert,a.lineFrag))};var n=t("gl-buffer"),i=t("gl-shader"),a=t("./shaders");function o(t,e,r){this.plot=t,this.vbo=e,this.shader=r}var s,l,c=o.prototype;c.bind=function(){var t=this.shader;this.vbo.bind(),this.shader.bind(),t.attributes.coord.pointer(),t.uniforms.screenBox=this.plot.screenBox},c.drawBox=(s=[0,0],l=[0,0],function(t,e,r,n,i){var a=this.plot,o=this.shader,c=a.gl;s[0]=t,s[1]=e,l[0]=r,l[1]=n,o.uniforms.lo=s,o.uniforms.hi=l,o.uniforms.color=i,c.drawArrays(c.TRIANGLE_STRIP,0,4)}),c.dispose=function(){this.vbo.dispose(),this.shader.dispose()}},{"./shaders":116,"gl-buffer":78,"gl-shader":132}],114:[function(t,e,r){"use strict";e.exports=function(t){var e=t.gl;return new s(t,n(e),i(e,o.gridVert,o.gridFrag),i(e,o.tickVert,o.gridFrag))};var n=t("gl-buffer"),i=t("gl-shader"),a=t("binary-search-bounds"),o=t("./shaders");function s(t,e,r,n){this.plot=t,this.vbo=e,this.shader=r,this.tickShader=n,this.ticks=[[],[]]}function l(t,e){return t-e}var c,u,f,h,p,d=s.prototype;d.draw=(c=[0,0],u=[0,0],f=[0,0],function(){for(var

t=this.plot,e=this.vbo,r=this.shader,n=this.ticks,i=t.gl,a=t._tickBounds,o=t.dataBox,s=t.viewBox,l=t.gridLineWidth,h=t.gridLineColor,p=t.gridLineEnable,d=t.pixelRatio,g=0;g<2;++g){var v=a[g],m=a[g+2]-v,y=.5*(o[g+2]+o[g]),x=o[g+2]-o[g];u[g]=2*m/x,c[g]=2*(v-y)/x}r.bind(),e.bind(),r.attributes.dataCoord.pointer(),r.uniforms.dataShift=c,r.uniforms.dataScale=u;var b=0;for(g=0;g<2;++g){f[0]=f[1]=0,f[g]=1,r.uniforms.dataAxis=f,r.uniforms.lineWidth=l[g]/(s[g+2]-s[g])*d,r.uniforms.color=h[g];var _=6*n[g].length;p[g]&&_&&i.drawArrays(i.TRIANGLES,b,_),b+=_}}),d.drawTickMarks=function(){var t=[0,0],e=[0,0],r=[1,0],n=[0,1],i=[0,0],o=[0,0];return function(){for(var s=this.plot,c=this.vbo,u=this.tickShader,f=this.ticks,h=s.gl,p=s._tickBounds,d=s.dataBox,g=s.viewBox,v=s.pixelRatio,m=s.screenBox,y=m[2]-m[0],x=m[3]-m[1],b=g[2]-g[0],_=g[3]-g[1],w=0;w<2;++w){var T=p[w],k=p[w+2]-T,A=.5*(d[w+2]+d[w]),M=d[w+2]-d[w];e[w]=2*k/M,t[w]=2*(T-A)/M}e[0]*=b/y,t[0]*=b/y,e[1]*=_/x,t[1]*=_/x,u.bind(),c.bind(),u.attributes.dataCoord.pointer();var S=u.uniforms;S.dataShift=t,S.dataScale=e;var E=s.tickMarkLength,L=s.tickMarkWidth,C=s.tickMarkColor,P=6*f[0].length,I=Math.min(a.ge(f[0],(d[0]-p[0])/(p[2]-p[0]),l),f[0].length),O=Math.min(a.gt(f[0],(d[2]-p[0])/(p[2]-p[0]),l),f[0].length),z=0+6*I,D=6*Math.max(0,O-I),R=Math.min(a.ge(f[1],(d[1]-p[1])/(p[3]-p[1]),l),f[1].length),F=Math.min(a.gt(f[1],(d[3]-p[1])/(p[3]-p[1]),l),f[1].length),B=P+6*R,N=6*Math.max(0,F-R);i[0]=2*(g[0]-E[1])/y-1,i[1]=(g[3]+g[1])/x-1,o[0]=E[1]*v/y,o[1]=L[1]*v/x,N&&(S.color=C[1],S.tickScale=o,S.dataAxis=n,S.screenOffset=i,h.drawArrays(h.TRIANGLES,B,N)),i[0]=(g[2]+g[0])/y-1,i[1]=2*(g[1]-E[0])/x-1,o[0]=L[0]*v/y,o[1]=E[0]*v/x,D&&(S.color=C[0],S.tickScale=o,S.dataAxis=r,S.screenOffset=i,h.drawArrays(h.TRIANGLES,z,D)),i[0]=2*(g[2]+E[3])/y-1,i[1]=(g[3]+g[1])/x-1,o[0]=E[3]*v/y,o[1]=L[3]*v/x,N&&(S.color=C[3],S.tickScale=o,S.dataAxis=n,S.screenOffset=i,h.drawArrays(h.TRIANGLES,B,N)),i[0]=(g[2]+g[0])/y-1,i[1]=2*(g[3]+E[2])/x-1,o[0]=L[2]*v/y,o[1]=E[2]*v/x,D&&(S.color=C[2],S.tickScale=o,S.dataAxis=r,S.screenOffset=i,h.drawArrays(h.TRIANGLES,z,D))}}(),d.update=(h=[1,1,-1,-1,1,-1],p=[1,-1,1,1,-1,-1],function(t){for(var e=t.ticks,r=t.bounds,n=new Float32Array(18*(e[0].length+e[1].length)),i=(this.plot.zeroLineEnable,0),a=[[],[]],o=0;o<2;++o)for(var s=a[o],l=e[o],c=r[o],u=r[o+2],f=0;f<l.length;++f){var d=(l[f].x-c)/(u-c);s.push(d);for(var g=0;g<6;++g)n[i++]=d,n[i++]=h[g],n[i++]=p[g]}this.ticks=a,this.vbo.update(n)}),d.dispose=function(){this.vbo.dispose(),this.shader.dispose(),this.tickShader.dispose()}},{"./shaders":116,"binary-search-bounds":31,"gl-buffer":78,"gl-shader":132}],115:[function(t,e,r){"use strict";e.exports=function(t){var e=t.gl;return new o(t,n(e,[-1,-1,-1,1,1,-1,1,1]),i(e,a.lineVert,a.lineFrag))};var n=t("gl-buffer"),i=t("gl-shader"),a=t("./shaders");function o(t,e,r){this.plot=t,this.vbo=e,this.shader=r}var s,l,c=o.prototype;c.bind=function(){var t=this.shader;this.vbo.bind(),this.shader.bind(),t.attributes.coord.pointer(),t.uniforms.screenBox=this.plot.screenBox},c.drawLine=(s=[0,0],l=[0,0],function(t,e,r,n,i,a){var o=this.plot,c=this.shader,u=o.gl;s[0]=t,s[1]=e,l[0]=r,l[1]=n,c.uniforms.start=s,c.uniforms.end=l,c.uniforms.width=i*o.pixelRatio,c.uniforms.color=a,u.drawArrays(u.TRIANGLE_STRIP,0,4)}),c.dispose=function(){this.vbo.dispose(),this.shader.dispose()}},{"./shaders":116,"gl-buffer":78,"gl-shader":132}],116:[function(t,e,r){"use strict";var n=t("glslify"),i=n(["precision lowp float;\n#define GLSLIFY 1\nuniform vec4 color;\nvoid main() {\n gl_FragColor = vec4(color.xyz * color.w, color.w);\n}\n"]);e.exports={lineVert:n(["precision mediump float;\n#define GLSLIFY 1\n\nattribute vec2 coord;\n\nuniform vec4 screenBox;\nuniform vec2 start, end;\nuniform float width;\n\nvec2 perp(vec2 v) {\n return vec2(v.y, -v.x);\n}\n\nvec2 screen(vec2 v) {\n return 2.0 * (v - screenBox.xy) / (screenBox.zw - screenBox.xy) - 1.0;\n}\n\nvoid main() {\n vec2 delta = normalize(perp(start - end));\n vec2 offset = mix(start, end, 0.5 * (coord.y+1.0));\n gl_Position = vec4(screen(offset + 0.5 * width * delta * coord.x), 0, 1);\n}\n"]),lineFrag:i,textVert:n(["#define GLSLIFY 1\nattribute vec3 textCoordinate;\n\nuniform vec2 dataScale, dataShift, dataAxis, screenOffset, textScale;\nuniform float angle;\n\nvoid main() {\n float dataOffset = textCoordinate.z;\n vec2 glyphOffset = textCoordinate.xy;\n mat2 glyphMatrix = mat2(cos(angle), sin(angle), -sin(angle), cos(angle));\n vec2 screenCoordinate = dataAxis *

(dataScale * dataOffset + dataShift) +\n glyphMatrix * glyphOffset * textScale + screenOffset;\n gl_Position = vec4(screenCoordinate, 0, 1);\n}\n"]),textFrag:i,gridVert:n(["precision mediump float;\n#define GLSLIFY 1\n\nattribute vec3 dataCoord;\n\nuniform vec2 dataAxis, dataShift, dataScale;\nuniform float lineWidth;\n\nvoid main() {\n vec2 pos = dataAxis * (dataScale * dataCoord.x + dataShift);\n pos += 10.0 * dataCoord.y * vec2(dataAxis.y, -dataAxis.x) + dataCoord.z * lineWidth;\n gl_Position = vec4(pos, 0, 1);\n}\n"]),gridFrag:i,boxVert:n(["precision mediump float;\n#define GLSLIFY 1\n\nattribute vec2 coord;\n\nuniform vec4 screenBox;\nuniform vec2 lo, hi;\n\nvec2 screen(vec2 v) {\n return 2.0 * (v - screenBox.xy) / (screenBox.zw - screenBox.xy) - 1.0;\n}\n\nvoid main() {\n gl_Position = vec4(screen(mix(lo, hi, coord)), 0, 1);\n}\n"]),tickVert:n(["precision mediump float;\n#define GLSLIFY 1\n\nattribute vec3 dataCoord;\n\nuniform vec2 dataAxis, dataShift, dataScale, screenOffset, tickScale;\n\nvoid main() {\n vec2 pos = dataAxis * (dataScale * dataCoord.x + dataShift);\n gl_Position = vec4(pos + tickScale*dataCoord.yz + screenOffset, 0, 1);\n}\n"])}},{glslify:231}],117:[function(t,e,r){"use strict";e.exports=function(t){var e=t.gl;return new l(t,n(e),i(e,s.textVert,s.textFrag))};var n=t("gl-buffer"),i=t("gl-shader"),a=t("text-cache"),o=t("binary-search-bounds"),s=t("./shaders");function l(t,e,r){this.plot=t,this.vbo=e,this.shader=r,this.tickOffset=[[],[]],this.tickX=[[],[]],this.labelOffset=[0,0],this.labelCount=[0,0]}var c,u,f,h,p,d,g=l.prototype;g.drawTicks=(c=[0,0],u=[0,0],f=[0,0],function(t){var e=this.plot,r=this.shader,n=this.tickX[t],i=this.tickOffset[t],a=e.gl,s=e.viewBox,l=e.dataBox,h=e.screenBox,p=e.pixelRatio,d=e.tickEnable,g=e.tickPad,v=e.tickColor,m=e.tickAngle,y=e.labelEnable,x=e.labelPad,b=e.labelColor,_=e.labelAngle,w=this.labelOffset[t],T=this.labelCount[t],k=o.lt(n,l[t]),A=o.le(n,l[t+2]);c[0]=c[1]=0,c[t]=1,u[t]=(s[2+t]+s[t])/(h[2+t]-h[t])-1;var M=2/h[2+(1^t)]-h[1^t];u[1^t]=M*s[1^t]-1,d[t]&&(u[1^t]-=M*p*g[t],k<A&&i[A]>i[k]&&(r.uniforms.dataAxis=c,r.uniforms.screenOffset=u,r.uniforms.color=v[t],r.uniforms.angle=m[t],a.drawArrays(a.TRIANGLES,i[k],i[A]-i[k]))),y[t]&&T&&(u[1^t]-=M*p*x[t],r.uniforms.dataAxis=f,r.uniforms.screenOffset=u,r.uniforms.color=b[t],r.uniforms.angle=_[t],a.drawArrays(a.TRIANGLES,w,T)),u[1^t]=M*s[2+(1^t)]-1,d[t+2]&&(u[1^t]+=M*p*g[t+2],k<A&&i[A]>i[k]&&(r.uniforms.dataAxis=c,r.uniforms.screenOffset=u,r.uniforms.color=v[t+2],r.uniforms.angle=m[t+2],a.drawArrays(a.TRIANGLES,i[k],i[A]-i[k]))),y[t+2]&&T&&(u[1^t]+=M*p*x[t+2],r.uniforms.dataAxis=f,r.uniforms.screenOffset=u,r.uniforms.color=b[t+2],r.uniforms.angle=_[t+2],a.drawArrays(a.TRIANGLES,w,T))}),g.drawTitle=function(){var t=[0,0],e=[0,0];return function(){var r=this.plot,n=this.shader,i=r.gl,a=r.screenBox,o=r.titleCenter,s=r.titleAngle,l=r.titleColor,c=r.pixelRatio;if(this.titleCount){for(var u=0;u<2;++u)e[u]=2*(o[u]*c-a[u])/(a[2+u]-a[u])-1;n.bind(),n.uniforms.dataAxis=t,n.uniforms.screenOffset=e,n.uniforms.angle=s,n.uniforms.color=l,i.drawArrays(i.TRIANGLES,this.titleOffset,this.titleCount)}}}(),g.bind=(h=[0,0],p=[0,0],d=[0,0],function(){var t=this.plot,e=this.shader,r=t._tickBounds,n=t.dataBox,i=t.screenBox,a=t.viewBox;e.bind();for(var o=0;o<2;++o){var s=r[o],l=r[o+2]-s,c=.5*(n[o+2]+n[o]),u=n[o+2]-n[o],f=a[o],g=a[o+2]-f,v=i[o],m=i[o+2]-v;p[o]=2*l/u*g/m,h[o]=2*(s-c)/u*g/m}d[1]=2*t.pixelRatio/(i[3]-i[1]),d[0]=d[1]*(i[3]-i[1])/(i[2]-i[0]),e.uniforms.dataScale=p,e.uniforms.dataShift=h,e.uniforms.textScale=d,this.vbo.bind(),e.attributes.textCoordinate.pointer()}),g.update=function(t){var e,r,n,i,o,s=[],l=t.ticks,c=t.bounds;for(o=0;o<2;++o){var u=[Math.floor(s.length/3)],f=[-1/0],h=l[o];for(e=0;e<h.length;++e){var p=h[e],d=p.x,g=p.text,v=p.font||"sans-serif";i=p.fontSize||12;for(var m=1/(c[o+2]-c[o]),y=c[o],x=g.split("\n"),b=0;b<x.length;b++)for(n=a(v,x[b]).data,r=0;r<n.length;r+=2)s.push(n[r]*i,-n[r+1]*i-b*i*1.2,(d-y)*m);u.push(Math.floor(s.length/3)),f.push(d)}this.tickOffset[o]=u,this.tickX[o]=f}for(o=0;o<2;++o){for(this.labelOffset[o]=Math.floor(s.length/3),n=a(t.labelFont[o],t.labels[o],{textAlign:"center"}).data,i=t.labelSize[o],e=0;e<n.length;e+=2)s.push(n[e]*i,-n[e+1]*i,0);this.labelCount[o]=Math.floor(s.length/3)-this.labelOffset[o]}for(this.titleOffset=Math.floor(s.length/3),n=a(t.titleFont,t.title).data,i=t.titleSize,e=0;e<n.length;e+=2)s.push(n[e]*i,-n[e+1]*i,0);this.titleCount=Math.floor(s.length/3)-this.titleOffset,this.vbo.update(s)},g.dispose=function(){this.vbo.dispose(),this.shader.dispose()}},{"./shaders":116,"

binary-search-bounds":31,"gl-buffer":78,"gl-shader":132,"text-cache":303}],118:[function(t,e,r){"use strict";e.exports=function(t){var e=t.gl,r=new l(e,n(e,[e.drawingBufferWidth,e.drawingBufferHeight]));return r.grid=i(r),r.text=a(r),r.line=o(r),r.box=s(r),r.update(t),r};var n=t("gl-select-static"),i=t("./lib/grid"),a=t("./lib/text"),o=t("./lib/line"),s=t("./lib/box");function l(t,e){this.gl=t,this.pickBuffer=e,this.screenBox=[0,0,t.drawingBufferWidth,t.drawingBufferHeight],this.viewBox=[0,0,0,0],this.dataBox=[-10,-10,10,10],this.gridLineEnable=[!0,!0],this.gridLineWidth=[1,1],this.gridLineColor=[[0,0,0,1],[0,0,0,1]],this.pixelRatio=1,this.tickMarkLength=[0,0,0,0],this.tickMarkWidth=[0,0,0,0],this.tickMarkColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.tickPad=[15,15,15,15],this.tickAngle=[0,0,0,0],this.tickEnable=[!0,!0,!0,!0],this.tickColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.labelPad=[15,15,15,15],this.labelAngle=[0,Math.PI/2,0,3*Math.PI/2],this.labelEnable=[!0,!0,!0,!0],this.labelColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.titleCenter=[0,0],this.titleEnable=!0,this.titleAngle=0,this.titleColor=[0,0,0,1],this.borderColor=[0,0,0,0],this.backgroundColor=[0,0,0,0],this.zeroLineEnable=[!0,!0],this.zeroLineWidth=[4,4],this.zeroLineColor=[[0,0,0,1],[0,0,0,1]],this.borderLineEnable=[!0,!0,!0,!0],this.borderLineWidth=[2,2,2,2],this.borderLineColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.grid=null,this.text=null,this.line=null,this.box=null,this.objects=[],this.overlays=[],this._tickBounds=[1/0,1/0,-1/0,-1/0],this.static=!1,this.dirty=!1,this.pickDirty=!1,this.pickDelay=120,this.pickRadius=10,this._pickTimeout=null,this._drawPick=this.drawPick.bind(this),this._depthCounter=0}var c=l.prototype;function u(t){for(var e=t.slice(),r=0;r<e.length;++r)e[r]=e[r].slice();return e}function f(t,e){return t.x-e.x}c.setDirty=function(){this.dirty=this.pickDirty=!0},c.setOverlayDirty=function(){this.dirty=!0},c.nextDepthValue=function(){return this._depthCounter++/65536},c.draw=function(){var t=this.gl,e=this.screenBox,r=this.viewBox,n=this.dataBox,i=this.pixelRatio,a=this.grid,o=this.line,s=this.text,l=this.objects;if(this._depthCounter=0,this.pickDirty&&(this._pickTimeout&&clearTimeout(this._pickTimeout),this.pickDirty=!1,this._pickTimeout=setTimeout(this._drawPick,this.pickDelay)),this.dirty){if(this.dirty=!1,t.bindFramebuffer(t.FRAMEBUFFER,null),t.enable(t.SCISSOR_TEST),t.disable(t.DEPTH_TEST),t.depthFunc(t.LESS),t.depthMask(!1),t.enable(t.BLEND),t.blendEquation(t.FUNC_ADD,t.FUNC_ADD),t.blendFunc(t.ONE,t.ONE_MINUS_SRC_ALPHA),this.borderColor){t.scissor(e[0],e[1],e[2]-e[0],e[3]-e[1]);var c=this.borderColor;t.clearColor(c[0]*c[3],c[1]*c[3],c[2]*c[3],c[3]),t.clear(t.COLOR_BUFFER_BIT|t.DEPTH_BUFFER_BIT)}t.scissor(r[0],r[1],r[2]-r[0],r[3]-r[1]),t.viewport(r[0],r[1],r[2]-r[0],r[3]-r[1]);var u=this.backgroundColor;t.clearColor(u[0]*u[3],u[1]*u[3],u[2]*u[3],u[3]),t.clear(t.COLOR_BUFFER_BIT),a.draw();var f=this.zeroLineEnable,h=this.zeroLineColor,p=this.zeroLineWidth;if(f[0]||f[1]){o.bind();for(var d=0;d<2;++d)if(f[d]&&n[d]<=0&&n[d+2]>=0){var g=e[d]-n[d]*(e[d+2]-e[d])/(n[d+2]-n[d]);0===d?o.drawLine(g,e[1],g,e[3],p[d],h[d]):o.drawLine(e[0],g,e[2],g,p[d],h[d])}}for(d=0;d<l.length;++d)l[d].draw();t.viewport(e[0],e[1],e[2]-e[0],e[3]-e[1]),t.scissor(e[0],e[1],e[2]-e[0],e[3]-e[1]),this.grid.drawTickMarks(),o.bind();var v=this.borderLineEnable,m=this.borderLineWidth,y=this.borderLineColor;for(v[1]&&o.drawLine(r[0],r[1]-.5*m[1]*i,r[0],r[3]+.5*m[3]*i,m[1],y[1]),v[0]&&o.drawLine(r[0]-.5*m[0]*i,r[1],r[2]+.5*m[2]*i,r[1],m[0],y[0]),v[3]&&o.drawLine(r[2],r[1]-.5*m[1]*i,r[2],r[3]+.5*m[3]*i,m[3],y[3]),v[2]&&o.drawLine(r[0]-.5*m[0]*i,r[3],r[2]+.5*m[2]*i,r[3],m[2],y[2]),s.bind(),d=0;d<2;++d)s.drawTicks(d);this.titleEnable&&s.drawTitle();var x=this.overlays;for(d=0;d<x.length;++d)x[d].draw();t.disable(t.SCISSOR_TEST),t.disable(t.BLEND),t.depthMask(!0)}},c.drawPick=function(){if(!this.static){var t=this.pickBuffer;this.gl,this._pickTimeout=null,t.begin();for(var e=1,r=this.objects,n=0;n<r.length;++n)e=r[n].drawPick(e);t.end()}},c.pick=function(t,e){if(!this.static){var r=this.pixelRatio,n=this.pickPixelRatio,i=this.viewBox,a=0|Math.round((t-i[0]/r)*n),o=0|Math.round((e-i[1]/r)*n),s=this.pickBuffer.query(a,o,this.pickRadius);if(!s)return null;for(var l=s.id+(s.value[0]<<8)+(s.value[1]<<16)+(s.value[2]<<24),c=this.objects,u=0;u<c.length;++u){var f=c[u].pick(a,o,l);if(f)return f}return null}},c.setScreenBox=function(t){var e=this.screenBox,r=this.pixelRatio;e[0]=0|Math.round(t[0]*r),e[1]=0|Math.round(t[1]*r),e[2]=0|Math.round(t[2]*r),

e[3]=0|Math.round(t[3]*r),this.setDirty()},c.setDataBox=function(t){var
e=this.dataBox;(e[0]!==t[0]||e[1]!==t[1]||e[2]!==t[2]||e[3]!==t[3])&&(e[0]=t[0],e[1]=t[1],e[2]=t[2],e[3]=t[3],this.set
Dirty())},c.setViewBox=function(t){var
e=this.pixelRatio,r=this.viewBox;r[0]=0|Math.round(t[0]*e),r[1]=0|Math.round(t[1]*e),r[2]=0|Math.round(t[2]*e),r[
3]=0|Math.round(t[3]*e);var n=this.pickPixelRatio;this.pickBuffer.shape=[0|Math.round((t[2]-
t[0])*n),0|Math.round((t[3]-t[1])*n)],this.setDirty()},c.update=function(t){t=t||{};var
e=this.gl;this.pixelRatio=t.pixelRatio||1;var
r=this.pixelRatio;this.pickPixelRatio=Math.max(r,1),this.setScreenBox(t.screenBox||[0,0,e.drawingBufferWidth/r,e.
drawingBufferHeight/r]),this.screenBox,this.setViewBox(t.viewBox||[.125*(this.screenBox[2]-
this.screenBox[0])/r,.125*(this.screenBox[3]-this.screenBox[1])/r,.875*(this.screenBox[2]-
this.screenBox[0])/r,.875*(this.screenBox[3]-this.screenBox[1])/r]);var n=this.viewBox,i=(n[2]-n[0])/(n[3]-
n[1]);this.setDataBox(t.dataBox||[-10,-
10/i,10,10/i]),this.borderColor=!1!==t.borderColor&&(t.borderColor||[0,0,0,0]).slice(),this.backgroundColor=(t.bac
kgroundColor||[0,0,0,0]).slice(),this.gridLineEnable=(t.gridLineEnable||[!0,!0]).slice(),this.gridLineWidth=(t.gridLin
eWidth||[1,1]).slice(),this.gridLineColor=u(t.gridLineColor||[[.5,.5,.5,1],[.5,.5,.5,1]]),this.zeroLineEnable=(t.zeroLin
eEnable||[!0,!0]).slice(),this.zeroLineWidth=(t.zeroLineWidth||[4,4]).slice(),this.zeroLineColor=u(t.zeroLineColor||[[
0,0,0,1],[0,0,0,1]]),this.tickMarkLength=(t.tickMarkLength||[0,0,0,0]).slice(),this.tickMarkWidth=(t.tickMarkWidth||
[0,0,0,0]).slice(),this.tickMarkColor=u(t.tickMarkColor||[[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1]]),this.titleCenter=(t.titl
eCenter||[.5*(n[0]+n[2])/r,(n[3]+120)/r]).slice(),this.titleEnable=!("titleEnable"in
t)||!!t.titleEnable,this.titleAngle=t.titleAngle||0,this.titleColor=(t.titleColor||[0,0,0,1]).slice(),this.labelPad=(t.labelPad
||[15,15,15,15]).slice(),this.labelAngle=(t.labelAngle||[0,Math.PI/2,0,3*Math.PI/2]).slice(),this.labelEnable=(t.labelE
nable||[!0,!0,!0,!0]).slice(),this.labelColor=u(t.labelColor||[[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1]]),this.tickPad=(t.tick
Pad||[15,15,15,15]).slice(),this.tickAngle=(t.tickAngle||[0,0,0,0]).slice(),this.tickEnable=(t.tickEnable||[!0,!0,!0,!0]).s
lice(),this.tickColor=u(t.tickColor||[[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1]]),this.borderLineEnable=(t.borderLineEnabl
e||[!0,!0,!0,!0]).slice(),this.borderLineWidth=(t.borderLineWidth||[2,2,2,2]).slice(),this.borderLineColor=u(t.borderL
ineColor||[[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1]]);var a=t.ticks||[[],[]],o=this._tickBounds;o[0]=o[1]=1/0,o[2]=o[3]=-
1/0;for(var s=0;s<2;++s){var
l=a[s].slice(0);0!==l.length&&(l.sort(f),o[s]=Math.min(o[s],l[0].x),o[s+2]=Math.max(o[s+2],l[l.length-
1].x))}this.grid.update({bounds:o,ticks:a}),this.text.update({bounds:o,ticks:a,labels:t.labels||["x","y"],labelSize:t.lab
elSize||[12,12],labelFont:t.labelFont||["sans-serif","sans-
serif"],title:t.title||"",titleSize:t.titleSize||18,titleFont:t.titleFont||"sans-
serif"}),this.static=!!t.static,this.setDirty()},c.dispose=function(){this.box.dispose(),this.grid.dispose(),this.text.dispo
se(),this.line.dispose();for(var t=this.objects.length-1;t>=0;--
t)this.objects[t].dispose();for(this.objects.length=0,t=this.overlays.length-1;t>=0;--
t)this.overlays[t].dispose();this.overlays.length=0,this.gl=null},c.addObject=function(t){this.objects.indexOf(t)<0&
&(this.objects.push(t),this.setDirty())},c.removeObject=function(t){for(var
e=this.objects,r=0;r<e.length;++r)if(e[r]===t){e.splice(r,1),this.setDirty();break}},c.addOverlay=function(t){this.ov
erlays.indexOf(t)<0&&(this.overlays.push(t),this.setOverlayDirty())},c.removeOverlay=function(t){for(var
e=this.overlays,r=0;r<e.length;++r)if(e[r]===t){e.splice(r,1),this.setOverlayDirty();break}}},{"./lib/box":113,"./lib/
grid":114,"./lib/line":115,"./lib/text":117,"gl-select-static":131}],119:[function(t,e,r){"use
strict";e.exports=function(t,e){t=t||document.body;var
r=[.01,1/0];"distanceLimits"in(e=e||{})&&(r[0]=e.distanceLimits[0],r[1]=e.distanceLimits[1]),"zoomMin"in
e&&(r[0]=e.zoomMin),"zoomMax"in e&&(r[1]=e.zoomMax);var
c=i({center:e.center||[0,0,0],up:e.up||[0,1,0],eye:e.eye||[0,0,10],mode:e.mode||"orbit",distanceLimits:r}),u=[0,0,0,0,0,
0,0,0,0,0,0,0,0,0,0,0],f=0,h=t.clientWidth,p=t.clientHeight,d={keyBindingMode:"rotate",enableWheel:!0,view:c,ele
ment:t,delay:e.delay||16,rotateSpeed:e.rotateSpeed||1,zoomSpeed:e.zoomSpeed||1,translateSpeed:e.translateSpeed||1,
flipX:!!e.flipX,flipY:!!e.flipY,modes:c.modes,_ortho:e._ortho||e.projection&&"orthographic"===e.projection.type||!
1,tick:function(){var e=n(),r=this.delay,i=e-2*r;c.idle(e-r),c.recalcMatrix(i),c.flush(e-(100+2*r));for(var

a=!0,o=c.computedMatrix,s=0;s<16;++s)a=a&&u[s]===o[s],u[s]=o[s];var
l=t.clientWidth===h&&t.clientHeight===p;return
h=t.clientWidth,p=t.clientHeight,a?!l:(f=Math.exp(c.computedRadius[0]),!0)},lookAt:function(t,e,r){c.lookAt(c.last
T(),t,e,r)},rotate:function(t,e,r){c.rotate(c.lastT(),t,e,r)},pan:function(t,e,r){c.pan(c.lastT(),t,e,r)},translate:function(t,
e,r){c.translate(c.lastT(),t,e,r)}};return Object.defineProperties(d,{matrix:{get:function(){return
c.computedMatrix},set:function(t){return
c.setMatrix(c.lastT(),t),c.computedMatrix},enumerable:!0},mode:{get:function(){return
c.getMode()},set:function(t){var
e=c.computedUp.slice(),r=c.computedEye.slice(),i=c.computedCenter.slice();if(c.setMode(t),"turntable"===t){var
a=n();c._active.lookAt(a,r,i,e),c._active.lookAt(a+500,r,i,[0,0,1]),c._active.flush(a)}return
c.getMode()},enumerable:!0},center:{get:function(){return c.computedCenter},set:function(t){return
c.lookAt(c.lastT(),null,t),c.computedCenter},enumerable:!0},eye:{get:function(){return
c.computedEye},set:function(t){return
c.lookAt(c.lastT(),t),c.computedEye},enumerable:!0},up:{get:function(){return
c.computedUp},set:function(t){return
c.lookAt(c.lastT(),null,null,t),c.computedUp},enumerable:!0},distance:{get:function(){return
f},set:function(t){return c.setDistance(c.lastT(),t),t},enumerable:!0},distanceLimits:{get:function(){return
c.getDistanceLimits(r)},set:function(t){return
c.setDistanceLimits(t),t},enumerable:!0}}),t.addEventListener("contextmenu",(function(t){return
t.preventDefault(),!1})),d._lastX=-1,d._lastY=-
1,d._lastMods={shift:!1,control:!1,alt:!1,meta:!1},d.enableMouseListeners=function(){function e(e,r,i,a){var
o=d.keyBindingMode;if(!1!==o){var
s="rotate"===o,l="pan"===o,u="zoom"===o,h=!!a.control,p=!!a.alt,g=!!a.shift,v=!!(1&e),m=!!(2&e),y=!!(4&e),x=
1/t.clientHeight,b=x*(r-d._lastX),_=x*(i-d._lastY),w=d.flipX?1:-1,T=d.flipY?1:-
1,k=Math.PI*d.rotateSpeed,A=n();if(-1!==d._lastX&&-
1!==d._lastY&&((s&&v&&!h&&!p&&!g||v&&!h&&!p&&g)&&c.rotate(A,w*k*b,-
T*k*_,0),(l&&v&&!h&&!p&&!g||m||v&&h&&!p&&!g)&&c.pan(A,-
d.translateSpeed*b*f,d.translateSpeed*_*f,0),u&&v&&!h&&!p&&!g||y||v&&!h&&p&&!g)){var M=-
d.zoomSpeed*_/window.innerHeight*(A-c.lastT())*100;c.pan(A,0,0,f*(Math.exp(M)-1))}return
d._lastX=r,d._lastY=i,d._lastMods=a,!0}d.mouseListener=a(t,e),t.addEventListener("touchstart",(function(r){var
n=s(r.changedTouches[0],t);e(0,n[0],n[1],d._lastMods),e(1,n[0],n[1],d._lastMods)}),!!l&&{passive:!0}),t.addEvent
Listener("touchmove",(function(r){var
n=s(r.changedTouches[0],t);e(1,n[0],n[1],d._lastMods),r.preventDefault()}),!!l&&{passive:!1}),t.addEventListener(
"touchend",(function(t){e(0,d._lastX,d._lastY,d._lastMods)}),!!l&&{passive:!0}),d.wheelListener=o(t,(function(t,e)
{if(!1!==d.keyBindingMode&&d.enableWheel){var r=d.flipX?1:-1,i=d.flipY?1:-
1,a=n();if(Math.abs(t)>Math.abs(e))c.rotate(a,0,0,-t*r*Math.PI*d.rotateSpeed/window.innerWidth);else
if(!d._ortho){var o=-d.zoomSpeed*i*e/window.innerHeight*(a-c.lastT())/20;c.pan(a,0,0,f*(Math.exp(o)-
1))}}}),!0)},d.enableMouseListeners(),d};var n=t("right-now"),i=t("3d-view"),a=t("mouse-change"),o=t("mouse-
wheel"),s=t("mouse-event-offset"),l=t("has-passive-events")},{"3d-view":7,"has-passive-events":232,"mouse-
change":247,"mouse-event-offset":248,"mouse-wheel":250,"right-now":278}],120:[function(t,e,r){var
n=t("glslify"),i=t("gl-shader"),a=n(["precision mediump float;\n#define GLSLIFY 1\nattribute vec2
position;\nvarying vec2 uv;\nvoid main() {\n uv = position;\n gl_Position = vec4(position, 0,
1);\n}"]),o=n(["precision mediump float;\n#define GLSLIFY 1\n\nuniform sampler2D accumBuffer;\nvarying vec2
uv;\n\nvoid main() {\n vec4 accum = texture2D(accumBuffer, 0.5 * (uv + 1.0));\n gl_FragColor =
min(vec4(1,1,1,1), accum);\n}"]);e.exports=function(t){return i(t,a,o,null,[{name:"position",type:"vec2"}])}},{"gl-
shader":132,glslify:231}],121:[function(t,e,r){"use strict";var n=t("./camera.js"),i=t("gl-axes3d"),a=t("gl-
axes3d/properties"),o=t("gl-spikes3d"),s=t("gl-select-static"),l=t("gl-fbo"),c=t("a-big-triangle"),u=t("mouse-
change"),f=t("gl-mat4/perspective"),h=t("gl-mat4/ortho"),p=t("./lib/shader"),d=t("is-

mobile")({tablet:!0,featureDetect:!0});function g(){this.mouse=[-1,-1],this.screen=null,this.distance=1/0,this.index=null,this.dataCoordinate=null,this.dataPosition=null,this.object=null,this.data=null}function v(t){var e=Math.round(Math.log(Math.abs(t))/Math.log(10));if(e<0){var r=Math.round(Math.pow(10,-e));return Math.ceil(t*r)/r}return e>0?(r=Math.round(Math.pow(10,e)),Math.ceil(t/r)*r):Math.ceil(t)}function m(t){return"boolean"!=typeof t||t}e.exports={createScene:function(t){(t=t||{}).camera=t.camera||{};var e=t.canvas;e||(e=document.createElement("canvas"),t.container?t.container.appendChild(e):document.body.appendChild(e));var r=t.gl;if(r||(t.glOptions&&(d=!!t.glOptions.preserveDrawingBuffer),r=function(t,e){var r=null;try{(r=t.getContext("webgl",e))||(r=t.getContext("experimental-webgl",e))}catch(t){return null}return r}(e,t.glOptions||{premultipliedAlpha:!0,antialias:!0,preserveDrawingBuffer:d})),!r)throw new Error("webgl not supported");var y=t.bounds||[[-10,-10,-10],[10,10,10]],x=new g,b=l(r,r.drawingBufferWidth,r.drawingBufferHeight,{preferFloat:!d}),_=p(r),w=t.cameraObject&&!0===t.cameraObject._ortho||t.camera.projection&&"orthographic"===t.camera.projection.type||!1,T={eye:t.camera.eye||[2,0,0],center:t.camera.center||[0,0,0],up:t.camera.up||[0,1,0],zoomMin:t.camera.zoomMax||.1,zoomMax:t.camera.zoomMin||100,mode:t.camera.mode||"turntable",_ortho:w},k=t.axes||{},A=i(r,k);A.enable=!k.disable;var M=t.spikes||{},S=o(r,M),E=[],L=[],C=[],P=[],I=!0,O=!0,z={view:null,projection:new Array(16),model:new Array(16),_ortho:!1},D=(O=!0,[r.drawingBufferWidth,r.drawingBufferHeight]),R=t.cameraObject||n(e,T),F={gl:r,contextLost:!1,pixelRatio:t.pixelRatio||1,canvas:e,selection:x,camera:R,axes:A,axesPixels:null,spikes:S,bounds:y,objects:E,shape:D,aspect:t.aspectRatio||[1,1,1],pickRadius:t.pickRadius||10,zNear:t.zNear||.01,zFar:t.zFar||1e3,fovy:t.fovy||Math.PI/4,clearColor:t.clearColor||[0,0,0,0],autoResize:m(t.autoResize),autoBounds:m(t.autoBounds),autoScale:!!t.autoScale,autoCenter:m(t.autoCenter),clipToBounds:m(t.clipToBounds),snapToData:!!t.snapToData,onselect:t.onselect||null,onrender:t.onrender||null,onclick:t.onclick||null,cameraParams:z,oncontextloss:null,mouseListener:null,_stopped:!1,getAspectratio:function(){return{x:this.aspect[0],y:this.aspect[1],z:this.aspect[2]}},setAspectratio:function(t){this.aspect[0]=t.x,this.aspect[1]=t.y,this.aspect[2]=t.z,O=!0},setBounds:function(t,e){this.bounds[0][t]=e.min,this.bounds[1][t]=e.max},setClearColor:function(t){this.clearColor=t},clearRGBA:function(){this.gl.clearColor(this.clearColor[0],this.clearColor[1],this.clearColor[2],this.clearColor[3]),this.gl.clear(this.gl.COLOR_BUFFER_BIT|this.gl.DEPTH_BUFFER_BIT)}},B=[r.drawingBufferWidth/F.pixelRatio|0,r.drawingBufferHeight/F.pixelRatio|0];function N(){if(!F._stopped&&F.autoResize){var t=e.parentNode,r=1,n=1;t&&t!==document.body?(r=t.clientWidth,n=t.clientHeight):(r=window.innerWidth,n=window.innerHeight);var i=0|Math.ceil(r*F.pixelRatio),a=0|Math.ceil(n*F.pixelRatio);if(i!==e.width||a!==e.height){e.width=i,e.height=a;var o=e.style;o.position=o.position||"absolute",o.left="0px",o.top="0px",o.width=r+"px",o.height=n+"px",I=!0}}}function j(){for(var t=E.length,e=P.length,n=0;n<e;++n)C[n]=0;t:for(n=0;n<t;++n){var i=E[n],a=i.pickSlots;if(a){for(var o=0;o<e;++o)if(C[o]+a<255){L[n]=o,i.setPickBase(C[o]+1),C[o]+=a;continue t}var l=s(r,D);L[n]=e,P.push(l),C.push(a),i.setPickBase(1),e+=1}else L[n]=-1}for(;e>0&&0===C[e-1];)C.pop(),P.pop().dispose()}function U(){if(F.contextLost)return!0;r.isContextLost()&&(F.contextLost=!0,F.mouseListener.enabled=!1,F.selection.object=null,F.oncontextloss&&F.oncontextloss())}F.autoResize&&N(),window.addEventListener("resize",N),F.update=function(t){F._stopped||(t=t||{},I=!0,O=!0)},F.add=function(t){F._stopped||(t.axes=A,E.push(t),L.push(-1),I=!0,O=!0,j())},F.remove=function(t){if(!F._stopped){var e=E.indexOf(t);e<0||(E.splice(e,1),L.pop(),I=!0,O=!0,j())}},F.dispose=function(){if(!F._stopped&&(F._stopped=!0,window.removeEventListener("resize",N),e.removeEventListener("webglcontextlost",U),F.mouseListener.enabled=!1,!F.contextLost)){A.dispose(),S.dispose();for(var t=0;t<E.length;++t)E[t].dispose();for(b.dispose(),t=0;t<P.length;++t)P[t].dispose();_.dispose(),r=null,A=null,S=null,E=[]}},F._mouseRotating=!1,F._prevButtons=0,F.enableMouseListeners=function(){F.mouseListener=u(e,(function(t,e,r){if(!F._stopped){var n=P.length,i=E.length,a=x.object;x.distance=1/0,x.mouse[0]=e,x.mouse[1]=r,x.object=null,x.screen=null,x.dataCoordinate=x.dataPosition=null;var

o=!1;if(t&&F._prevButtons)F._mouseRotating=!0;else{F._mouseRotating&&(O=!0),F._mouseRotating=!1;for(var s=0;s<n;++s){var l=P[s].query(e,B[1]-r-1,F.pickRadius);if(l){if(l.distance>x.distance)continue;for(var c=0;c<i;++c){var u=E[c];if(L[c]===s){var f=u.pick(l);f&&(x.buttons=t,x.screen=l.coord,x.distance=l.distance,x.object=u,x.index=f.distance,x.dataPosition=f.position,x.dataCoordinate=f.dataCoordinate,x.data=f,o=!0)}}}}}a&&a!==x.object&&(a.highlight&&a.highlight(null),I=!0),x.object&&(x.object.highlight&&x.object.highlight(x.data),I=!0),(o=o||x.object!==a)&&F.onselect&&F.onselect(x),1&t&&!(1&F._prevButtons)&&F.onclick&&F.onclick(x),F._prevButtons=t}))},e.addEventListener("webglcontextlost",U);var V=[[1/0,1/0,1/0],[-1/0,-1/0,-1/0]],q=[V[0].slice(),V[1].slice()];function H(){if(!U()){N();var t=F.camera.tick();z.view=F.camera.matrix,I=I||t,O=O||t,A.pixelRatio=F.pixelRatio,S.pixelRatio=F.pixelRatio;var e=E.length,n=V[0],i=V[1];n[0]=n[1]=n[2]=1/0,i[0]=i[1]=i[2]=-1/0;for(var o=0;o<e;++o){(C=E[o]).pixelRatio=F.pixelRatio,C.axes=F.axes,I=I||!!C.dirty,O=O||!!C.dirty;var s=C.bounds;if(s)for(var l=s[0],u=s[1],p=0;p<3;++p)n[p]=Math.min(n[p],l[p]),i[p]=Math.max(i[p],u[p])}var d=F.bounds;if(F.autoBounds)for(p=0;p<3;++p){if(i[p]<n[p])n[p]=-1,i[p]=1;else{n[p]===i[p]&&(n[p]-=1,i[p]+=1);var g=.05*(i[p]-n[p]);n[p]=n[p]-g,i[p]=i[p]+g}d[0][p]=n[p],d[1][p]=i[p]}var m=!1;for(p=0;p<3;++p)m=m||q[0][p]!==d[0][p]||q[1][p]!==d[1][p],q[0][p]=d[0][p],q[1][p]=d[1][p];if(O=O||m,I=I||m){if(m){var y=[0,0,0];for(o=0;o<3;++o)y[o]=v((d[1][o]-d[0][o])/10);A.autoTicks?A.update({bounds:d,tickSpacing:y}):A.update({bounds:d})}var T=r.drawingBufferWidth,k=r.drawingBufferHeight;for(D[0]=T,D[1]=k,B[0]=0|Math.max(T/F.pixelRatio,1),B[1]=0|Math.max(k/F.pixelRatio,1),function(t,e){var r=t.bounds,n=t.cameraParams,i=n.projection,a=n.model,o=t.gl.drawingBufferWidth,s=t.gl.drawingBufferHeight,l=t.zNear,c=t.zFar,u=t.fovy,p=o/s;e?(h(i,-p,p,-1,1,l,c),n._ortho=!0):(f(i,u,p,l,c),n._ortho=!1);for(var d=0;d<16;++d)a[d]=0;a[15]=1;var g=0;for(d=0;d<3;++d)g=Math.max(g,r[1][d]-r[0][d]);for(d=0;d<3;++d)t.autoScale?a[5*d]=t.aspect[d]/(r[1][d]-r[0][d]):a[5*d]=1/g,t.autoCenter&&(a[12+d]=.5*-a[5*d]*(r[0][d]+r[1][d]))}(F,w),o=0;o<e;++o)(C=E[o]).axesBounds=d,F.clipToBounds&&(C.clipBounds=d);x.object&&(F.snapToData?S.position=x.dataCoordinate:S.position=x.dataPosition,S.bounds=d),O&&(O=!1,function(){if(!U()){r.colorMask(!0,!0,!0,!0),r.depthMask(!0),r.disable(r.BLEND),r.enable(r.DEPTH_TEST),r.depthFunc(r.LEQUAL);for(var t=E.length,e=P.length,n=0;n<e;++n){var i=P[n];i.shape=B,i.begin();for(var a=0;a<t;++a)if(L[a]===n){var o=E[a];o.drawPick&&(o.pixelRatio=1,o.drawPick(z))}i.end()}}()),F.axesPixels=a(F.axes,z,T,k),F.onrender&&F.onrender(),r.bindFramebuffer(r.FRAMEBUFFER,null),r.viewport(0,0,T,k),F.clearRGBA(),r.depthMask(!0),r.colorMask(!0,!0,!0,!0),r.enable(r.DEPTH_TEST),r.depthFunc(r.LEQUAL),r.disable(r.BLEND),r.disable(r.CULL_FACE);var M=!1;for(A.enable&&(M=M||A.isTransparent(),A.draw(z)),S.axes=A,x.object&&S.draw(z),r.disable(r.CULL_FACE),o=0;o<e;++o)(C=E[o]).axes=A,C.pixelRatio=F.pixelRatio,C.isOpaque&&C.isOpaque()&&C.draw(z),C.isTransparent&&C.isTransparent()&&(M=!0);if(M){for(b.shape=D,b.bind(),r.clear(r.DEPTH_BUFFER_BIT),r.colorMask(!1,!1,!1,!1),r.depthMask(!0),r.depthFunc(r.LESS),A.enable&&A.isTransparent()&&A.drawTransparent(z),o=0;o<e;++o)(C=E[o]).isOpaque&&C.isOpaque()&&C.draw(z);for(r.enable(r.BLEND),r.blendEquation(r.FUNC_ADD),r.blendFunc(r.ONE,r.ONE_MINUS_SRC_ALPHA),r.colorMask(!0,!0,!0,!0),r.depthMask(!1),r.clearColor(0,0,0,0),r.clear(r.COLOR_BUFFER_BIT),A.isTransparent()&&A.drawTransparent(z),o=0;o<e;++o){var C;(C=E[o]).isTransparent&&C.isTransparent()&&C.drawTransparent(z)}r.bindFramebuffer(r.FRAMEBUFFER,null),r.blendFunc(r.ONE,r.ONE_MINUS_SRC_ALPHA),r.disable(r.DEPTH_TEST),_.bind(),b.color[0].bind(0),_.uniforms.accumBuffer=0,c(r),r.disable(r.BLEND)}for(I=!1,o=0;o<e;++o)E[o].dirty=!1}}return F.enableMouseListeners(),function t(){F._stopped||F.contextLost||(H(),requestAnimationFrame(t))}(),F.redraw=function(){F._stopped||(I=!0,H())},F},createCamera:n}},{"./camera.js":119,"./lib/shader":120,"a-big-triangle":8,"gl-axes3d":70,"gl-axes3d/properties":77,"gl-fbo":86,"gl-mat4/ortho":101,"gl-mat4/perspective":102,"gl-select-static":131,"gl-spikes3d":141,"is-mobile":238,"mouse-change":247}],122:[function(t,e,r){var n=t("glslify");r.pointVertex=n(["precision mediump float;\n#define GLSLIFY 1\n\nattribute vec2

position;\n\nuniform mat3 matrix;\nuniform float pointSize;\nuniform float pointCloud;\n\nhighp float rand(vec2 co) {\n highp float a = 12.9898;\n highp float b = 78.233;\n highp float c = 43758.5453;\n highp float d = dot(co.xy, vec2(a, b));\n highp float e = mod(d, 3.14);\n return fract(sin(e) * c);\n}\n\nvoid main() {\n vec3 hgPosition = matrix * vec3(position, 1);\n gl_Position = vec4(hgPosition.xy, 0, hgPosition.z);\n   // if we don't jitter the point size a bit, overall point cloud\n   // saturation 'jumps' on zooming, which is disturbing and confusing\n gl_PointSize = pointSize * ((19.5 + rand(position)) / 20.0);\n if(pointCloud != 0.0) { // pointCloud is truthy\n   // get the same square surface as circle would be\n   gl_PointSize *= 0.886;\n }\n}"]),r.pointFragment=n(["precision mediump float;\n#define GLSLIFY 1\n\nuniform vec4 color, borderColor;\nuniform float centerFraction;\nuniform float pointCloud;\n\nvoid main() {\n float radius;\n vec4 baseColor;\n if(pointCloud != 0.0) { // pointCloud is truthy\n   if(centerFraction == 1.0) {\n   gl_FragColor = color;\n   } else {\n   gl_FragColor = mix(borderColor, color, centerFraction);\n   }\n } else {\n   radius = length(2.0 * gl_PointCoord.xy - 1.0);\n   if(radius > 1.0) {\n   discard;\n   }\n   baseColor = mix(borderColor, color, step(radius, centerFraction));\n   gl_FragColor = vec4(baseColor.rgb * baseColor.a, baseColor.a);\n }\n}\n"]),r.pickVertex=n(["precision mediump float;\n#define GLSLIFY 1\n\nattribute vec2 position;\nattribute vec4 pickId;\n\nuniform mat3 matrix;\nuniform float pointSize;\nuniform vec4 pickOffset;\n\nvarying vec4 fragId;\n\nvoid main() {\n vec3 hgPosition = matrix * vec3(position, 1);\n gl_Position = vec4(hgPosition.xy, 0, hgPosition.z);\n gl_PointSize = pointSize;\n\n vec4 id = pickId + pickOffset;\n id.y += floor(id.x / 256.0);\n id.x -= floor(id.x / 256.0) * 256.0;\n\n id.z += floor(id.y / 256.0);\n id.y -= floor(id.y / 256.0) * 256.0;\n\n id.w += floor(id.z / 256.0);\n id.z -= floor(id.z / 256.0) * 256.0;\n\n fragId = id;\n}\n"]),r.pickFragment=n(["precision mediump float;\n#define GLSLIFY 1\n\nvarying vec4 fragId;\n\nvoid main() {\n float radius = length(2.0 * gl_PointCoord.xy - 1.0);\n if(radius > 1.0) {\n   discard;\n }\n gl_FragColor = fragId / 255.0;\n}\n"])},{glslify:231}],123:[function(t,e,r){"use strict";var n=t("gl-shader"),i=t("gl-buffer"),a=t("typedarray-pool"),o=t("./lib/shader");function s(t,e,r,n,i){this.plot=t,this.offsetBuffer=e,this.pickBuffer=r,this.shader=n,this.pickShader=i,this.sizeMin=.5,this.sizeMinCap=2,this.sizeMax=20,this.areaRatio=1,this.pointCount=0,this.color=[1,0,0,1],this.borderColor=[0,0,0,1],this.blend=!1,this.pickOffset=0,this.points=null}e.exports=function(t,e){var r=t.gl,a=new s(t,i(r),i(r),n(r,o.pointVertex,o.pointFragment),n(r,o.pickVertex,o.pickFragment));return a.update(e),t.addObject(a),a};var l,c,u=s.prototype;u.dispose=function(){this.shader.dispose(),this.pickShader.dispose(),this.offsetBuffer.dispose(),this.pickBuffer.dispose(),this.plot.removeObject(this)},u.update=function(t){var e;function r(e,r){return e in t?t[e]:r}t=t||{},this.sizeMin=r("sizeMin",.5),this.sizeMax=r("sizeMax",20),this.color=r("color",[1,0,0,1]).slice(),this.areaRatio=r("areaRatio",1),this.borderColor=r("borderColor",[0,0,0,1]).slice(),this.blend=r("blend",!1);var n=t.positions.length>>>1,i=t.positions instanceof Float32Array,o=t.idToIndex instanceof Int32Array&&t.idToIndex.length>=n,s=t.positions,l=i?s:a.mallocFloat32(s.length),c=o?t.idToIndex:a.mallocInt32(n);if(i||l.set(s),!o)for(l.set(s),e=0;e<n;e++)c[e]=e;this.points=s,this.offsetBuffer.update(l),this.pickBuffer.update(c),i||a.free(l),o||a.free(c),this.pointCount=n,this.pickOffset=0},u.unifiedDraw=(l=[1,0,0,0,1,0,0,0,1],c=[0,0,0,0],function(t){var e=void 0!==t,r=e?this.pickShader:this.shader,n=this.plot.gl,i=this.plot.dataBox;if(0===this.pointCount)return t;var a=i[2]-i[0],o=i[3]-i[1],s=function(t,e){var r,n=0,i=t.length>>>1;for(r=0;r<i;r++){var a=t[2*r],o=t[2*r+1];a>=e[0]&&a<=e[2]&&o>=e[1]&&o<=e[3]&&n++}return n}(this.points,i),u=this.plot.pickPixelRatio*Math.max(Math.min(this.sizeMinCap,this.sizeMin),Math.min(this.sizeMax,this.sizeMax/Math.pow(s,.33333)));l[0]=2/a,l[4]=2/o,l[6]=-2*i[0]/a-1,l[7]=-2*i[1]/o-1,this.offsetBuffer.bind(),r.bind(),r.attributes.position.pointer(),r.uniforms.matrix=l,r.uniforms.color=this.color,r.uniforms.borderColor=this.borderColor,r.uniforms.pointCloud=u<5,r.uniforms.pointSize=u,r.uniforms.centerFraction=Math.min(1,Math.max(0,Math.sqrt(1-this.areaRatio))),e&&(c[0]=255&t,c[1]=t>>8&255,c[2]=t>>16&255,c[3]=t>>24&255,this.pickBuffer.bind(),r.attributes.pickId.pointer(n.UNSIGNED_BYTE),r.uniforms.pickOffset=c,this.pickOffset=t);var f=n.getParameter(n.BLEND),h=n.getParameter(n.DITHER);return f&&!this.blend&&n.disable(n.BLEND),h&&n.disable(n.DITHER),n.drawArrays(n.POINTS,0,this.pointCount),f&

&!this.blend&&n.enable(n.BLEND),h&&n.enable(n.DITHER),t+this.pointCount}),u.draw=u.unifiedDraw,u.drawPick=u.unifiedDraw,u.pick=function(t,e,r){var n=this.pickOffset,i=this.pointCount;if(r<n||r>=n+i)return null;var a=r-n,o=this.points;return{object:this,pointId:a,dataCoord:[o[2*a],o[2*a+1]]}}},{"./lib/shader":122,"gl-buffer":78,"gl-shader":132,"typedarray-pool":308}],124:[function(t,e,r){e.exports=function(t,e,r,n){var i,a,o,s,l,c=e[0],u=e[1],f=e[2],h=e[3],p=r[0],d=r[1],g=r[2],v=r[3];return(a=c*p+u*d+f*g+h*v)<0&&(a=-a,p=-p,d=-d,g=-g,v=-v),1-a>1e-6?(i=Math.acos(a),o=Math.sin(i),s=Math.sin((1-n)*i)/o,l=Math.sin(n*i)/o):(s=1-n,l=n),t[0]=s*c+l*p,t[1]=s*u+l*d,t[2]=s*f+l*g,t[3]=s*h+l*v,t}},{}],125:[function(t,e,r){"use strict";e.exports=function(t){return t||0===t?t.toString():""}},{}],126:[function(t,e,r){"use strict";var n=t("vectorize-text");e.exports=function(t,e,r){var a=i[e];if(a||(a=i[e]={}),t in a)return a[t];var o={textAlign:"center",textBaseline:"middle",lineHeight:1,font:e,lineSpacing:1.25,styletags:{breaklines:!0,bolds:!0,italics:!0,subscripts:!0,superscripts:!0},triangles:!0},s=n(t,o);o.triangles=!1;var l,c,u=n(t,o);if(r&&1!==r){for(l=0;l<s.positions.length;++l)for(c=0;c<s.positions[l].length;++c)s.positions[l][c]/=r;for(l=0;l<u.positions.length;++l)for(c=0;c<u.positions[l].length;++c)u.positions[l][c]/=r}var f=[[1/0,1/0],[-1/0,-1/0]],h=u.positions.length;for(l=0;l<h;++l){var p=u.positions[l];for(c=0;c<2;++c)f[0][c]=Math.min(f[0][c],p[c]),f[1][c]=Math.max(f[1][c],p[c])}return a[t]=[s,u,f]};var i={}},{"vectorize-text":311}],127:[function(t,e,r){var n=t("gl-shader"),i=t("glslify"),a=i(["precision highp float;\n#define GLSLIFY 1\n\nbool outOfRange(float a, float b, float p) {\n return ((p > max(a, b)) || \n (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y) ||\n   outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nattribute vec3 position;\nattribute vec4 color;\nattribute vec2 glyph;\nattribute vec4 id;\n\nuniform vec4 highlightId;\nuniform float highlightScale;\nuniform mat4 model, view, projection;\nuniform vec3 clipBounds[2];\n\nvarying vec4 interpColor;\nvarying vec4 pickId;\nvarying vec3 dataCoordinate;\n\nvoid main() {\n if (outOfRange(clipBounds[0], clipBounds[1], position)) {\n\n   gl_Position = vec4(0,0,0,0);\n } else {\n   float scale = 1.0;\n   if(distance(highlightId, id) < 0.0001) {\n   scale = highlightScale;\n   }\n\n   vec4 worldPosition = model * vec4(position, 1);\n   vec4 viewPosition = view * worldPosition;\n   viewPosition = viewPosition / viewPosition.w;\n   vec4 clipPosition = projection * (viewPosition + scale * vec4(glyph.x, -glyph.y, 0, 0));\n\n   gl_Position = clipPosition;\n   interpColor = color;\n   pickId = id;\n   dataCoordinate = position;\n }\n}"]),o=i(["precision highp float;\n#define GLSLIFY 1\n\nbool outOfRange(float a, float b, float p) {\n return ((p > max(a, b)) || \n   (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y) ||\n   outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nattribute vec3 position;\nattribute vec4 color;\nattribute vec2 glyph;\nattribute vec4 id;\n\nuniform mat4 model, view, projection;\nuniform vec2 screenSize;\nuniform vec3 clipBounds[2];\nuniform float highlightScale, pixelRatio;\nuniform vec4 highlightId;\n\nvarying vec4 interpColor;\nvarying vec4 pickId;\nvarying vec3 dataCoordinate;\n\nvoid main() {\n if (outOfRange(clipBounds[0], clipBounds[1], position)) {\n\n   gl_Position = vec4(0,0,0,0);\n } else {\n   float scale = pixelRatio;\n   if(distance(highlightId.bgr, id.bgr) < 0.001) {\n   scale *= highlightScale;\n   }\n\n   vec4 worldPosition = model * vec4(position, 1.0);\n   vec4 viewPosition = view * worldPosition;\n   vec4 clipPosition = projection * viewPosition;\n   clipPosition /= clipPosition.w;\n\n   gl_Position = clipPosition + vec4(screenSize * scale * vec2(glyph.x, -glyph.y), 0.0, 0.0);\n   interpColor = color;\n   pickId = id;\n   dataCoordinate = position;\n }\n}"]),s=i(["precision highp float;\n#define GLSLIFY 1\n\nbool outOfRange(float a, float b, float p) {\n return ((p > max(a, b)) || \n   (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n outOfRange(a.y, b.y, p.y) ||\n   outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nattribute vec3 position;\nattribute vec4 color;\nattribute vec2 glyph;\nattribute vec4 id;\n\nuniform float highlightScale;\nuniform vec4 highlightId;\nuniform vec3

axes[2];\nuniform mat4 model, view, projection;\nuniform vec2 screenSize;\nuniform vec3 clipBounds[2];\nuniform float scale, pixelRatio;\n\nvarying vec4 interpColor;\nvarying vec4 pickId;\nvarying vec3 dataCoordinate;\n\nvoid main() {\n if (outOfRange(clipBounds[0], clipBounds[1], position)) {\n\n   gl_Position = vec4(0,0,0,0);\n } else {\n   float lscale = pixelRatio * scale;\n   if(distance(highlightId, id) < 0.0001) {\n   lscale *= highlightScale;\n   }\n\n   vec4 clipCenter   = projection * view * model * vec4(position, 1);\n   vec3 dataPosition = position + 0.5*lscale*(axes[0] * glyph.x + axes[1] * glyph.y) * clipCenter.w * screenSize.y;\n   vec4 clipPosition = projection * view * model * vec4(dataPosition, 1);\n\n   gl_Position = clipPosition;\n   interpColor = color;\n   pickId = id;\n   dataCoordinate = dataPosition;\n }\n}\n"]),l=i(["precision highp float;\n#define GLSLIFY 1\n\nbool outOfRange(float a, float b, float p) {\n return ((p > max(a, b)) || \n   (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y) ||\n   outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nuniform vec3 fragClipBounds[2];\nuniform float opacity;\n\nvarying vec4 interpColor;\nvarying vec3 dataCoordinate;\n\nvoid main() {\n if (\n   outOfRange(fragClipBounds[0], fragClipBounds[1], dataCoordinate) ||\n   interpColor.a * opacity == 0.\n) discard;\n gl_FragColor = interpColor * opacity;\n}\n"]),c=i(["precision highp float;\n#define GLSLIFY 1\n\nbool outOfRange(float a, float b, float p) {\n return ((p > max(a, b)) || \n   (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y) ||\n   outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nuniform vec3 fragClipBounds[2];\nuniform float pickGroup;\n\nvarying vec4 pickId;\nvarying vec3 dataCoordinate;\n\nvoid main() {\n if (outOfRange(fragClipBounds[0], fragClipBounds[1], dataCoordinate)) discard;\n\n gl_FragColor = vec4(pickGroup,
pickId.bgr);\n}\n"]),u=[{name:"position",type:"vec3"},{name:"color",type:"vec4"},{name:"glyph",type:"vec2"},{name:"id",type:"vec4"}],f={vertex:a,fragment:l,attributes:u},h={vertex:o,fragment:l,attributes:u},p={vertex:s,fragment:l,attributes:u},d={vertex:a,fragment:c,attributes:u},g={vertex:o,fragment:c,attributes:u},v={vertex:s,fragment:c,attributes:u};function m(t,e){var r=n(t,e),i=r.attributes;return i.position.location=0,i.color.location=1,i.glyph.location=2,i.id.location=3,r}r.createPerspective=function(t){return m(t,f)},r.createOrtho=function(t){return m(t,h)},r.createProject=function(t){return m(t,p)},r.createPickPerspective=function(t){return m(t,d)},r.createPickOrtho=function(t){return m(t,g)},r.createPickProject=function(t){return m(t,v)}},{"gl-shader":132,glslify:231}],128:[function(t,e,r){"use strict";var n=t("is-string-blank"),i=t("gl-buffer"),a=t("gl-vao"),o=t("typedarray-pool"),s=t("gl-mat4/multiply"),l=t("./lib/shaders"),c=t("./lib/glyphs"),u=t("./lib/get-simple-string"),f=[1,0,0,0,0,1,0,0,0,0,1,0,0,0,0,1];function h(t,e){var r=t[0],n=t[1],i=t[2],a=t[3];return t[0]=e[0]*r+e[4]*n+e[8]*i+e[12]*a,t[1]=e[1]*r+e[5]*n+e[9]*i+e[13]*a,t[2]=e[2]*r+e[6]*n+e[10]*i+e[14]*a,t[3]=e[3]*r+e[7]*n+e[11]*i+e[15]*a,t}function p(t,e,r,n){return h(n,n),h(n,n),h(n,n)}function d(t,e){this.index=t,this.dataCoordinate=this.position=e}function g(t){return!0===t||t>1?1:t}function v(t,e,r,n,i,a,o,s,l,c,u,f){this.gl=t,this.pixelRatio=1,this.shader=e,this.orthoShader=r,this.projectShader=n,this.pointBuffer=i,this.colorBuffer=a,this.glyphBuffer=o,this.idBuffer=s,this.vao=l,this.vertexCount=0,this.lineVertexCount=0,this.opacity=1,this.hasAlpha=!1,this.lineWidth=0,this.projectScale=[2/3,2/3,2/3],this.projectOpacity=[1,1,1],this.projectHasAlpha=!1,this.pickId=0,this.pickPerspectiveShader=c,this.pickOrthoShader=u,this.pickProjectShader=f,this.points=[],this._selectResult=new d(0,[0,0,0]),this.useOrtho=!0,this.bounds=[[1/0,1/0,1/0],[-1/0,-1/0,-1/0]],this.axesProject=[!0,!0,!0],this.axesBounds=[[-1/0,-1/0,-1/0],[1/0,1/0,1/0]],this.highlightId=[1,1,1,1],this.highlightScale=2,this.clipBounds=[[-1/0,-1/0,-1/0],[1/0,1/0,1/0]],this.dirty=!0}e.exports=function(t){var e=t.gl,r=l.createPerspective(e),n=l.createOrtho(e),o=l.createProject(e),s=l.createPickPerspective(e),c=l.createPickOrtho(e),u=l.createPickProject(e),f=i(e),h=i(e),p=i(e),d=i(e),g=new

v(e,r,n,o,f,h,p,d,a(e,[{buffer:f,size:3,type:e.FLOAT},{buffer:h,size:4,type:e.FLOAT},{buffer:p,size:2,type:e.FLOAT},{buffer:d,size:4,type:e.UNSIGNED_BYTE,normalized:!0}]),s,c,u);return g.update(t),g};var m=v.prototype;m.pickSlots=1,m.setPickBase=function(t){this.pickId=t},m.isTransparent=function(){if(this.hasAlpha)return!0;for(var t=0;t<3;++t)if(this.axesProject[t]&&this.projectHasAlpha)return!0;return!1},m.isOpaque=function(){if(!this.hasAlpha)return!0;for(var t=0;t<3;++t)if(this.axesProject[t]&&!this.projectHasAlpha)return!0;return!1};var y=[0,0],x=[0,0,0],b=[0,0,0],_=[0,0,0,1],w=[0,0,0,1],T=f.slice(),k=[0,0,0],A=[[0,0,0],[0,0,0]];function M(t){return t[0]=t[1]=t[2]=0,t}function S(t,e){return t[0]=e[0],t[1]=e[1],t[2]=e[2],t[3]=1,t}function E(t,e,r,n){return t[0]=e[0],t[1]=e[1],t[2]=e[2],t[r]=n,t}function L(t,e,r,n){var i,a=e.axesProject,o=e.gl,l=t.uniforms,c=r.model||f,u=r.view||f,h=r.projection||f,d=e.axesBounds,g=function(t){for(var e=A,r=0;r<2;++r)for(var n=0;n<3;++n)e[r][n]=Math.max(Math.min(t[r][n],1e8),-1e8);return e}(e.clipBounds);i=e.axes&&e.axes.lastCubeProps?e.axes.lastCubeProps.axis:[1,1,1],y[0]=2/o.drawingBufferWidth,y[1]=2/o.drawingBufferHeight,t.bind(),l.view=u,l.projection=h,l.screenSize=y,l.highlightId=e.highlightId,l.highlightScale=e.highlightScale,l.clipBounds=g,l.pickGroup=e.pickId/255,l.pixelRatio=n;for(var v=0;v<3;++v)if(a[v]){l.scale=e.projectScale[v],l.opacity=e.projectOpacity[v];for(var m=T,L=0;L<16;++L)m[L]=0;for(L=0;L<4;++L)m[5*L]=1;m[5*v]=0,i[v]<0?m[12+v]=d[0][v]:m[12+v]=d[1][v],s(m,c,m),l.model=m;var C=(v+1)%3,P=(v+2)%3,I=M(x),O=M(b);I[C]=1,O[P]=1;var z=p(0,0,0,S(_,I)),D=p(0,0,0,S(w,O));if(Math.abs(z[1])>Math.abs(D[1])){var R=z;z=D,D=R,R=I,I=O,O=R;var F=C;C=P,P=F}z[0]<0&&(I[C]=-1),D[1]>0&&(O[P]=-1);var B=0,N=0;for(L=0;L<4;++L)B+=Math.pow(c[4*C+L],2),N+=Math.pow(c[4*P+L],2);I[C]/=Math.sqrt(B),O[P]/=Math.sqrt(N),l.axes[0]=I,l.axes[1]=O,l.fragClipBounds[0]=E(k,g[0],v,-1e8),l.fragClipBounds[1]=E(k,g[1],v,1e8),e.vao.bind(),e.vao.draw(o.TRIANGLES,e.vertexCount),e.lineWidth>0&&(o.lineWidth(e.lineWidth*n),e.vao.draw(o.LINES,e.lineVertexCount,e.vertexCount)),e.vao.unbind()}}var C=[[-1e8,-1e8,-1e8],[1e8,1e8,1e8]];function P(t,e,r,n,i,a,o){var s=r.gl;if((a===r.projectHasAlpha||o)&&L(e,r,n,i),a===r.hasAlpha||o){t.bind();var l=t.uniforms;l.model=n.model||f,l.view=n.view||f,l.projection=n.projection||f,y[0]=2/s.drawingBufferWidth,y[1]=2/s.drawingBufferHeight,l.screenSize=y,l.highlightId=r.highlightId,l.highlightScale=r.highlightScale,l.fragClipBounds=C,l.clipBounds=r.axes.bounds,l.opacity=r.opacity,l.pickGroup=r.pickId/255,l.pixelRatio=i,r.vao.bind(),r.vao.draw(s.TRIANGLES,r.vertexCount),r.lineWidth>0&&(s.lineWidth(r.lineWidth*i),r.vao.draw(s.LINES,r.lineVertexCount,r.vertexCount)),r.vao.unbind()}}function I(t,e,r,i){var a;a=Array.isArray(t)?e<t.length?t[e]:void 0:t,a=u(a);var o=!0;n(a)&&(a="",o=!1);var s=c(a,r,i);return{mesh:s[0],lines:s[1],bounds:s[2],visible:o}}m.draw=function(t){P(this.useOrtho?this.orthoShader:this.shader,this.projectShader,this,t,this.pixelRatio,!1,!1)},m.drawTransparent=function(t){P(this.useOrtho?this.orthoShader:this.shader,this.projectShader,this,t,this.pixelRatio,!0,!1)},m.drawPick=function(t){P(this.useOrtho?this.pickOrthoShader:this.pickPerspectiveShader,this.pickProjectShader,this,t,1,!0,!0)},m.pick=function(t){if(!t)return null;if(t.id!==this.pickId)return null;var e=t.value[2]+(t.value[1]<<8)+(t.value[0]<<16);if(e>=this.pointCount||e<0)return null;var r=this.points[e],n=this._selectResult;n.index=e;for(var i=0;i<3;++i)n.position[i]=n.dataCoordinate[i]=r[i];return n},m.highlight=function(t){if(t){var e=t.index,r=255&e,n=e>>8&255,i=e>>16&255;this.highlightId=[r/255,n/255,i/255,0]}else this.highlightId=[1,1,1,1]},m.update=function(t){if("perspective"in(t=t||{})&&(this.useOrtho=!t.perspective),"orthographic"in t&&(this.useOrtho=!!t.orthographic),"lineWidth"in t&&(this.lineWidth=t.lineWidth),"project"in t)if(Array.isArray(t.project))this.axesProject=t.project;else{var e=!!t.project;this.axesProject=[e,e,e]}if("projectScale"in t)if(Array.isArray(t.projectScale))this.projectScale=t.projectScale.slice();else{var r=+t.projectScale;this.projectScale=[r,r,r]}if(this.projectHasAlpha=!1,"projectOpacity"in t){Array.isArray(t.projectOpacity)?this.projectOpacity=t.projectOpacity.slice():(r=+t.projectOpacity,this.projectOpacity=[r,r,r]);for(var

n=0;n<3;++n)this.projectOpacity[n]=g(this.projectOpacity[n]),this.projectOpacity[n]<1&&(this.projectHasAlpha=!0)}this.hasAlpha=!1,"opacity"in t&&(this.opacity=g(t.opacity),this.opacity<1&&(this.hasAlpha=!0)),this.dirty=!0;var i,a,s=t.position,l=t.font||"normal",c=t.alignment||[0,0];if(2===c.length)i=c[0],a=c[1];else for(i=[],a=[],n=0;n<c.length;++n)i[n]=c[n][0],a[n]=c[n][1];var u=[1/0,1/0,1/0],f=[-1/0,-1/0,-1/0],h=t.glyph,p=t.color,d=t.size,v=t.angle,m=t.lineColor,y=-1,x=0,b=0,_=0;if(s.length){_=s.length;t:for(n=0;n<_;++n){for(var w=s[n],T=0;T<3;++T)if(isNaN(w[T])||!isFinite(w[T]))continue t;var k=(N=I(h,n,l,this.pixelRatio)).mesh,A=N.lines,M=N.bounds;x+=3*k.cells.length,b+=2*A.edges.length}}var S=x+b,E=o.mallocFloat(3*S),L=o.mallocFloat(4*S),C=o.mallocFloat(2*S),P=o.mallocUint32(S);if(S>0){var O=0,z=x,D=[0,0,0,1],R=[0,0,0,1],F=Array.isArray(p)&&Array.isArray(p[0]),B=Array.isArray(m)&&Array.isArray(m[0]);t:for(n=0;n<_;++n){for(y+=1,w=s[n],T=0;T<3;++T){if(isNaN(w[T])||!isFinite(w[T]))continue t;f[T]=Math.max(f[T],w[T]),u[T]=Math.min(u[T],w[T])}k=(N=I(h,n,l,this.pixelRatio)).mesh,A=N.lines,M=N.bounds;var N,j=N.visible;if(j)if(Array.isArray(p)){if(3===(U=F?n<p.length?p[n]:[0,0,0,0]:p).length){for(T=0;T<3;++T)D[T]=U[T];D[3]=1}else if(4===U.length){for(T=0;T<4;++T)D[T]=U[T];!this.hasAlpha&&U[3]<1&&(this.hasAlpha=!0)}}else D[0]=D[1]=D[2]=0,D[3]=1;else D=[1,1,1,0];if(j)if(Array.isArray(m)){var U;if(3===(U=B?n<m.length?m[n]:[0,0,0,0]:m).length){for(T=0;T<3;++T)R[T]=U[T];R[T]=1}else if(4===U.length){for(T=0;T<4;++T)R[T]=U[T];!this.hasAlpha&&U[3]<1&&(this.hasAlpha=!0)}}else R[0]=R[1]=R[2]=0,R[3]=1;else R=[1,1,1,0];var V=.5;j?Array.isArray(d)?V=n<d.length?+d[n]:12:d?V=+d:this.useOrtho&&(V=12):V=0;var q=0;Array.isArray(v)?q=n<v.length?+v[n]:0:v&&(q=+v);var H=Math.cos(q),G=Math.sin(q);for(w=s[n],T=0;T<3;++T)f[T]=Math.max(f[T],w[T]),u[T]=Math.min(u[T],w[T]);var Y=i,W=a;Y=0,Array.isArray(i)?Y=n<i.length?i[n]:0:i&&(Y=i),W=0,Array.isArray(a)?W=n<a.length?a[n]:0:a&&(W=a);var X=[Y*=Y>0?1-M[0][0]:Y<0?1+M[1][0]:1,W*=W>0?1-M[0][1]:W<0?1+M[1][1]:1],Z=k.cells||[],J=k.positions||[];for(T=0;T<Z.length;++T)for(var K=Z[T],Q=0;Q<3;++Q){for(var $=0;$<3;++$)E[3*O+$]=w[$];for($=0;$<4;++$)L[4*O+$]=D[$];P[O]=y;var tt=J[K[Q]];C[2*O]=V*(H*tt[0]-G*tt[1]+X[0]),C[2*O+1]=V*(G*tt[0]+H*tt[1]+X[1]),O+=1}for(Z=A.edges,J=A.positions,T=0;T<Z.length;++T)for(K=Z[T],Q=0;Q<2;++Q){for($=0;$<3;++$)E[3*z+$]=w[$];for($=0;$<4;++$)L[4*z+$]=R[$];P[z]=y,tt=J[K[Q]],C[2*z]=V*(H*tt[0]-G*tt[1]+X[0]),C[2*z+1]=V*(G*tt[0]+H*tt[1]+X[1]),z+=1}}this.bounds=[u,f],this.points=s,this.pointCount=s.length,this.vertexCount=x,this.lineVertexCount=b,this.pointBuffer.update(E),this.colorBuffer.update(L),this.glyphBuffer.update(C),this.idBuffer.update(P),o.free(E),o.free(L),o.free(C),o.free(P)},m.dispose=function(){this.shader.dispose(),this.orthoShader.dispose(),this.pickPerspectiveShader.dispose(),this.pickOrthoShader.dispose(),this.vao.dispose(),this.pointBuffer.dispose(),this.colorBuffer.dispose(),this.glyphBuffer.dispose(),this.idBuffer.dispose()}},{"./lib/get-simple-string":125,"./lib/glyphs":126,"./lib/shaders":127,"gl-buffer":78,"gl-mat4/multiply":100,"gl-vao":150,"is-string-blank":239,"typedarray-pool":308}],129:[function(t,e,r){"use strict";var n=t("glslify");r.boxVertex=n(["precision mediump float;\n#define GLSLIFY 1\n\nattribute vec2 vertex;\n\nuniform vec2 cornerA, cornerB;\n\nvoid main() {\n gl_Position = vec4(mix(cornerA, cornerB, vertex), 0, 1);\n}\n"]),r.boxFragment=n(["precision mediump float;\n#define GLSLIFY 1\n\nuniform vec4 color;\n\nvoid main() {\n gl_FragColor = color;\n}\n"])},{glslify:231}],130:[function(t,e,r){"use strict";var n=t("gl-shader"),i=t("gl-buffer"),a=t("./lib/shaders");function o(t,e,r){this.plot=t,this.boxBuffer=e,this.boxShader=r,this.enabled=!0,this.selectBox=[1/0,1/0,-1/0,-1/0],this.borderColor=[0,0,0,1],this.innerFill=!1,this.innerColor=[0,0,0,.25],this.outerFill=!0,this.outerColor=[0,0,0,.5],this.borderWidth=10}e.exports=function(t,e){var r=t.gl,s=new o(t,i(r,[0,0,0,1,1,0,1,1]),n(r,a.boxVertex,a.boxFragment));return s.update(e),t.addOverlay(s),s};var

s=o.prototype;s.draw=function(){if(this.enabled){var
t=this.plot,e=this.selectBox,r=this.borderWidth,n=(this.innerFill,this.innerColor),i=(this.outerFill,this.outerColor),a=
this.borderColor,o=t.box,s=t.screenBox,l=t.dataBox,c=t.viewBox,u=t.pixelRatio,f=(e[0]-l[0])*(c[2]-c[0])/(l[2]-
l[0])+c[0],h=(e[1]-l[1])*(c[3]-c[1])/(l[3]-l[1])+c[1],p=(e[2]-l[0])*(c[2]-c[0])/(l[2]-l[0])+c[0],d=(e[3]-l[1])*(c[3]-
c[1])/(l[3]-
l[1])+c[1];if(f=Math.max(f,c[0]),h=Math.max(h,c[1]),p=Math.min(p,c[2]),d=Math.min(d,c[3]),!(p<f||d<h)){o.bind()
;var g=s[2]-s[0],v=s[3]-
s[1];if(this.outerFill&&(o.drawBox(0,0,g,h,i),o.drawBox(0,h,f,d,i),o.drawBox(0,d,g,v,i),o.drawBox(p,h,g,d,i)),this.i
nnerFill&&o.drawBox(f,h,p,d,n),r>0){var m=r*u;o.drawBox(f-m,h-m,p+m,h+m,a),o.drawBox(f-m,d-
m,p+m,d+m,a),o.drawBox(f-m,h-m,f+m,d+m,a),o.drawBox(p-m,h-
m,p+m,d+m,a)}}}},s.update=function(t){t=t||{},this.innerFill=!!t.innerFill,this.outerFill=!!t.outerFill,this.innerColor
=(t.innerColor||[0,0,0,.5]).slice(),this.outerColor=(t.outerColor||[0,0,0,.5]).slice(),this.borderColor=(t.borderColor||[0,
0,0,1]).slice(),this.borderWidth=t.borderWidth||0,this.selectBox=(t.selectBox||this.selectBox).slice()},s.dispose=func
tion(){this.boxBuffer.dispose(),this.boxShader.dispose(),this.plot.removeOverlay(this)}},{"./lib/shaders":129,"gl-
buffer":78,"gl-shader":132}],131:[function(t,e,r){"use strict";e.exports=function(t,e){var r=e[0],a=e[1];return new
l(t,n(t,r,a,{}),i.mallocUint8(r*a*4))};var n=t("gl-fbo"),i=t("typedarray-pool"),a=t("ndarray"),o=t("bit-
twiddle").nextPow2;function s(t,e,r,n,i){this.coord=[t,e],this.id=r,this.value=n,this.distance=i}function
l(t,e,r){this.gl=t,this.fbo=e,this.buffer=r,this._readTimeout=null;var
n=this;this._readCallback=function(){n.gl&&(e.bind(),t.readPixels(0,0,e.shape[0],e.shape[1],t.RGBA,t.UNSIGNED
_BYTE,n.buffer),n._readTimeout=null)}}var c=l.prototype;Object.defineProperty(c,"shape",{get:function(){return
this.gl?this.fbo.shape.slice():[0,0]},set:function(t){if(this.gl){this.fbo.shape=t;var
e=this.fbo.shape[0],r=this.fbo.shape[1];if(r*e*4>this.buffer.length){i.free(this.buffer);for(var
n=this.buffer=i.mallocUint8(o(r*e*4)),a=0;a<r*e*4;++a)n[a]=255}return t}}}),c.begin=function(){var
t=this.gl;this.shape,t&&(this.fbo.bind(),t.clearColor(1,1,1,1),t.clear(t.COLOR_BUFFER_BIT|t.DEPTH_BUFFER_
BIT))},c.end=function(){var
t=this.gl;t&&(t.bindFramebuffer(t.FRAMEBUFFER,null),this._readTimeout||clearTimeout(this._readTimeout),this.
_readTimeout=setTimeout(this._readCallback,1))},c.query=function(t,e,r){if(!this.gl)return null;var
n=this.fbo.shape.slice();t|=0,e|=0,"number"!=typeof r&&(r=1);var i=0|Math.min(Math.max(t-
r,0),n[0]),o=0|Math.min(Math.max(t+r,0),n[0]),l=0|Math.min(Math.max(e-
r,0),n[1]),c=0|Math.min(Math.max(e+r,0),n[1]);if(o<=i||c<=l)return null;var u=[o-i,c-
l],f=a(this.buffer,[u[0],u[1],4],[4,4*n[0],1],4*(i+n[0]*l)),h=function(t,e,r){for(var n=1e8,i=-1,a=-
1,o=t.shape[0],s=t.shape[1],l=0;l<o;l++)for(var c=0;c<s;c++){var
u=t.get(l,c,0),f=t.get(l,c,1),h=t.get(l,c,2),p=t.get(l,c,3);if(u<255||f<255||h<255||p<255){var d=e-l,g=r-
c,v=d*d+g*g;v<n&&(n=v,i=l,a=c)}}return[i,a,n]}(f.hi(u[0],u[1],1),r,r),p=h[0],d=h[1];return
p<0||Math.pow(this.radius,2)<h[2]?null:new
s(p+i|0,d+l|0,f.get(p,d,0),[f.get(p,d,1),f.get(p,d,2),f.get(p,d,3)],Math.sqrt(h[2]))},c.dispose=function(){this.gl&&(this
.fbo.dispose(),i.free(this.buffer),this.gl=null,this._readTimeout&&clearTimeout(this._readTimeout))}},{"bit-
twiddle":32,"gl-fbo":86,ndarray:259,"typedarray-pool":308}],132:[function(t,e,r){"use strict";var n=t("./lib/create-
uniforms"),i=t("./lib/create-attributes"),a=t("./lib/reflect"),o=t("./lib/shader-cache"),s=t("./lib/runtime-
reflect"),l=t("./lib/GLError");function
c(t){this.gl=t,this.gl.lastAttribCount=0,this._vref=this._fref=this._relink=this.vertShader=this.fragShader=this.progr
am=this.attributes=this.uniforms=this.types=null}var u=c.prototype;function f(t,e){return t.name<e.name?-
1:1}u.bind=function(){var t;this.program||this._relink();var
e=this.gl.getProgramParameter(this.program,this.gl.ACTIVE_ATTRIBUTES),r=this.gl.lastAttribCount;if(e>r)for(t=
r;t<e;t++)this.gl.enableVertexAttribArray(t);else
if(r>e)for(t=e;t<r;t++)this.gl.disableVertexAttribArray(t);this.gl.lastAttribCount=e,this.gl.useProgram(this.program)
},u.dispose=function(){for(var
t=this.gl.lastAttribCount,e=0;e<t;e++)this.gl.disableVertexAttribArray(e);this.gl.lastAttribCount=0,this._fref&&this

._fref.dispose(),this._vref&&this._vref.dispose(),this.attributes=this.types=this.vertShader=this.fragShader=this.program=this._relink=this._fref=this._vref=null},u.update=function(t,e,r,c){if(!e||1===arguments.length){var u=t;t=u.vertex,e=u.fragment,r=u.uniforms,c=u.attributes}var h=this,p=h.gl,d=h._vref;h._vref=o.shader(p,p.VERTEX_SHADER,t),d&&d.dispose(),h.vertShader=h._vref.shader;var g=this._fref;if(h._fref=o.shader(p,p.FRAGMENT_SHADER,e),g&&g.dispose(),h.fragShader=h._fref.shader,!r||!c){var v=p.createProgram();if(p.attachShader(v,h.fragShader),p.attachShader(v,h.vertShader),p.linkProgram(v),!p.getProgramParameter(v,p.LINK_STATUS)){var m=p.getProgramInfoLog(v);throw new l(m,"Error linking program:"+m)}r=r||s.uniforms(p,v),c=c||s.attributes(p,v),p.deleteProgram(v)}(c=c.slice()).sort(f);var y,x=[],b=[],_=[];for(y=0;y<c.length;++y){var w=c[y];if(w.type.indexOf("mat")>=0){for(var T=0|w.type.charAt(w.type.length-1),k=new Array(T),A=0;A<T;++A)k[A]=_.length,b.push(w.name+"["+A+"]"),"number"==typeof w.location?_.push(w.location+A):Array.isArray(w.location)&&w.location.length===T&&"number"==typeof w.location[A]?_.push(0|w.location[A]):_.push(-1);x.push({name:w.name,type:w.type,locations:k})}else x.push({name:w.name,type:w.type,locations:[_.length]}),b.push(w.name),"number"==typeof w.location?_.push(0|w.location):_.push(-1)}var M=0;for(y=0;y<_.length;++y)if(_[y]<0){for(;_.indexOf(M)>=0;)M+=1;_[y]=M}var S=new Array(r.length);function E(){h.program=o.program(p,h._vref,h._fref,b,_);for(var t=0;t<r.length;++t)S[t]=p.getUniformLocation(h.program,r[t].name)}E(),h._relink=E,h.types={uniforms:a(r),attributes:a(c)},h.attributes=i(p,h,x,_),Object.defineProperty(h,"uniforms",n(p,h,r,S))},e.exports=function(t,e,r,n,i){var a=new c(t);return a.update(e,r,n,i),a}},{"./lib/GLError":133,"./lib/create-attributes":134,"./lib/create-uniforms":135,"./lib/reflect":136,"./lib/runtime-reflect":137,"./lib/shader-cache":138}],133:[function(t,e,r){function n(t,e,r){this.shortMessage=e||"",this.longMessage=r||"",this.rawError=t||"",this.message="gl-shader: "+(e||t||"")+(r?"\n"+r:""),this.stack=(new Error).stack}n.prototype=new Error,n.prototype.name="GLError",n.prototype.constructor=n,e.exports=n},{}],134:[function(t,e,r){"use strict";e.exports=function(t,e,r,i){for(var a={},o=0,c=r.length;o<c;++o){var u=r[o],f=u.name,h=u.type,p=u.locations;switch(h){case"bool":case"int":case"float":s(t,e,p[0],i,1,a,f);break;default:if(h.indexOf("vec")>=0){if((d=h.charCodeAt(h.length-1)-48)<2||d>4)throw new n("","Invalid data type for attribute "+f+": "+h);s(t,e,p[0],i,d,a,f)}else{if(!(h.indexOf("mat")>=0))throw new n("","Unknown data type for attribute "+f+": "+h);var d;if((d=h.charCodeAt(h.length-1)-48)<2||d>4)throw new n("","Invalid data type for attribute "+f+": "+h);l(t,e,p,i,d,a,f)}}}return a};var n=t("./GLError");function i(t,e,r,n,i,a){this._gl=t,this._wrapper=e,this._index=r,this._locations=n,this._dimension=i,this._constFunc=a}var a=i.prototype;a.pointer=function(t,e,r,n){var i=this,a=i._gl,o=i._locations[i._index];a.vertexAttribPointer(o,i._dimension,t||a.FLOAT,!!e,r||0,n||0),a.enableVertexAttribArray(o)},a.set=function(t,e,r,n){return this._constFunc(this._locations[this._index],t,e,r,n)},Object.defineProperty(a,"location",{get:function(){return this._locations[this._index]},set:function(t){return t!==this._locations[this._index]&&(this._locations[this._index]=0|t,this._wrapper.program=null),0|t}});var o=[function(t,e,r){return void 0===r.length?t.vertexAttrib1f(e,r):t.vertexAttrib1fv(e,r)},function(t,e,r,n){return void 0===r.length?t.vertexAttrib2f(e,r,n):t.vertexAttrib2fv(e,r)},function(t,e,r,n,i){return void 0===r.length?t.vertexAttrib3f(e,r,n,i):t.vertexAttrib3fv(e,r)},function(t,e,r,n,i,a){return void 0===r.length?t.vertexAttrib4f(e,r,n,i,a):t.vertexAttrib4fv(e,r)}];function s(t,e,r,n,a,s,l){var c=o[a],u=new i(t,e,r,n,a,c);Object.defineProperty(s,l,{set:function(e){return t.disableVertexAttribArray(n[r]),c(t,n[r],e),e},get:function(){return u},enumerable:!0})}function l(t,e,r,n,i,a,o){for(var l=new Array(i),c=new Array(i),u=0;u<i;++u)s(t,e,r[u],n,i,l,u),c[u]=l[u];Object.defineProperty(l,"location",{set:function(t){if(Array.isArray(t))for(var e=0;e<i;++e)c[e].location=t[e];else for(e=0;e<i;++e)c[e].location=t+e;return t},get:function(){for(var

t=new Array(i),e=0;e<i;++e)t[e]=n[r[e]];return
t},enumerable:!0}),l.pointer=function(e,a,o,s){e=e||t.FLOAT,a=!!a,o=o||i*i,s=s||0;for(var l=0;l<i;++l){var
c=n[r[l]];t.vertexAttribPointer(c,i,e,a,o,s+l*i),t.enableVertexAttribArray(c)}};var f=new
Array(i),h=t["vertexAttrib"+i+"fv"];Object.defineProperty(a,o,{set:function(e){for(var a=0;a<i;++a){var
o=n[r[a]];if(t.disableVertexAttribArray(o),Array.isArray(e[0]))h.call(t,o,e[a]);else{for(var
s=0;s<i;++s)f[s]=e[i*a+s];h.call(t,o,f)}}return e},get:function(){return
l},enumerable:!0})}},{"./GLError":133}],135:[function(t,e,r){"use strict";var
n=t("./reflect"),i=t("./GLError");function a(t){return function(){return t}}function o(t,e){for(var r=new
Array(t),n=0;n<t;++n)r[n]=e;return r}e.exports=function(t,e,r,s){function l(e){return function(n){for(var
a=c("",e),o=0;o<a.length;++o){var l=a[o],u=l[0],f=l[1];if(s[f]){var h=n;if("string"==typeof
u&&(0===u.indexOf(".")||0===u.indexOf("[")){var
p=u;if(0===u.indexOf(".")&&(p=u.slice(1)),p.indexOf("]")===p.length-1){var
d=p.indexOf("["),g=p.slice(0,d),v=p.slice(d+1,p.length-1);h=g?n[g][v]:n[v]}else h=n[p]}var
m,y=r[f].type;switch(y){case"bool":case"int":case"sampler2D":case"samplerCube":t.uniform1i(s[f],h);break;case"fl
oat":t.uniform1f(s[f],h);break;default:var
x=y.indexOf("vec");if(!(0<=x&&x<=1&&y.length===4+x)){if(0===y.indexOf("mat")&&4===y.length){if((m=y.c
harCodeAt(y.length-1)-48)<2||m>4)throw new i("","Invalid uniform dimension type for matrix "+name+":
"+y);t["uniformMatrix"+m+"fv"](s[f],!1,h);break}throw new i("","Unknown uniform data type for "+name+":
"+y)}if((m=y.charCodeAt(y.length-1)-48)<2||m>4)throw new i("","Invalid data
type");switch(y.charAt(0)){case"b":case"i":t["uniform"+m+"iv"](s[f],h);break;case"v":t["uniform"+m+"fv"](s[f],h);
break;default:throw new i("","Unrecognized data type for vector "+name+": "+y)}}}}}function
c(t,e){if("object"!=typeof e)return[[t,e]];var r=[];for(var n in e){var
i=e[n],a=t;parseInt(n)+""===n?a+="["+n+"]":a+="."+n,"object"==typeof i?r.push.apply(r,c(a,i)):r.push([a,i])}return
r}function u(t,e,n){if("object"==typeof n){var
c=f(n);Object.defineProperty(t,e,{get:a(c),set:l(n),enumerable:!0,configurable:!1})}else
s[n]?Object.defineProperty(t,e,{get:(u=n,function(t,e,r){return
t.getUniform(e.program,r[u])}),set:l(n),enumerable:!0,configurable:!1}):t[e]=function(t){switch(t){case"bool":retur
n!1;case"int":case"sampler2D":case"samplerCube":case"float":return 0;default:var
e=t.indexOf("vec");if(0<=e&&e<=1&&t.length===4+e){if((r=t.charCodeAt(t.length-1)-48)<2||r>4)throw new
i("","Invalid data type");return"b"===t.charAt(0)?o(r,!1):o(r,0)}if(0===t.indexOf("mat")&&4===t.length){var
r;if((r=t.charCodeAt(t.length-1)-48)<2||r>4)throw new i("","Invalid uniform dimension type for matrix "+name+":
"+t);return o(r*r,0)}throw new i("","Unknown uniform data type for "+name+": "+t)}}(r[n].type);var u}function
f(t){var e;if(Array.isArray(t)){e=new Array(t.length);for(var r=0;r<t.length;++r)u(e,r,t[r])}else for(var n in
e={},t)u(e,n,t[n]);return e}var
h=n(r,!0);return{get:a(f(h)),set:l(h),enumerable:!0,configurable:!0}}},{"./GLError":133,"./reflect":136}],136:[functi
on(t,e,r){"use strict";e.exports=function(t,e){for(var r={},n=0;n<t.length;++n)for(var
i=t[n].name.split("."),a=r,o=0;o<i.length;++o){var s=i[o].split("[");if(s.length>1){s[0]in
a||(a[s[0]]=[]),a=a[s[0]];for(var l=1;l<s.length;++l){var c=parseInt(s[l]);l<s.length-1||o<i.length-1?(c in
a||(l<s.length-1?a[c]=[]:a[c]={}),a=a[c]):a[c]=e?n:t[n].type}}else o<i.length-1?(s[0]in
a||(a[s[0]]={}),a=a[s[0]]):a[s[0]]=e?n:t[n].type}return r}},{}],137:[function(t,e,r){"use
strict";r.uniforms=function(t,e){for(var r=t.getProgramParameter(e,t.ACTIVE_UNIFORMS),n=[],i=0;i<r;++i){var
o=t.getActiveUniform(e,i);if(o){var s=a(t,o.type);if(o.size>1)for(var
l=0;l<o.size;++l)n.push({name:o.name.replace("[0]","["+l+"]"),type:s});else n.push({name:o.name,type:s})}}return
n},r.attributes=function(t,e){for(var r=t.getProgramParameter(e,t.ACTIVE_ATTRIBUTES),n=[],i=0;i<r;++i){var
o=t.getActiveAttrib(e,i);o&&n.push({name:o.name,type:a(t,o.type)})}return n};var
n={FLOAT:"float",FLOAT_VEC2:"vec2",FLOAT_VEC3:"vec3",FLOAT_VEC4:"vec4",INT:"int",INT_VEC2:"iv
ec2",INT_VEC3:"ivec3",INT_VEC4:"ivec4",BOOL:"bool",BOOL_VEC2:"bvec2",BOOL_VEC3:"bvec3",BOOL_
VEC4:"bvec4",FLOAT_MAT2:"mat2",FLOAT_MAT3:"mat3",FLOAT_MAT4:"mat4",SAMPLER_2D:"sampler2

D",SAMPLER_CUBE:"samplerCube"},i=null;function a(t,e){if(!i){var r=Object.keys(n);i={};for(var a=0;a<r.length;++a){var o=r[a];i[t[o]]=n[o]}}return i[e]}},{}],138:[function(t,e,r){"use strict";r.shader=function(t,e,r){return u(t).getShaderReference(e,r)},r.program=function(t,e,r,n,i){return u(t).getProgram(e,r,n,i)};var n=t("./GLError"),i=t("gl-format-compiler-error"),a=new("undefined"==typeof WeakMap?t("weakmap-shim"):WeakMap),o=0;function s(t,e,r,n,i,a,o){this.id=t,this.src=e,this.type=r,this.shader=n,this.count=a,this.programs=[],this.cache=o}function l(t){this.gl=t,this.shaders=[{},{}],this.programs={}}s.prototype.dispose=function(){if(0==--this.count){for(var t=this.cache,e=t.gl,r=this.programs,n=0,i=r.length;n<i;++n){var a=t.programs[r[n]];a&&(delete t.programs[n],e.deleteProgram(a))}e.deleteShader(this.shader),delete t.shaders[this.type===e.FRAGMENT_SHADER|0][this.src]}};var c=l.prototype;function u(t){var e=a.get(t);return e||(e=new l(t),a.set(t,e)),e}c.getShaderReference=function(t,e){var r=this.gl,a=this.shaders[t===r.FRAGMENT_SHADER|0],l=a[e];if(l&&r.isShader(l.shader))l.count+=1;else{var c=function(t,e,r){var a=t.createShader(e);if(t.shaderSource(a,r),t.compileShader(a),!t.getShaderParameter(a,t.COMPILE_STATUS)){var o=t.getShaderInfoLog(a);try{var s=i(o,r,e)}catch(t){throw console.warn("Failed to format compiler error: "+t),new n(o,"Error compiling shader:\n"+o)}throw new n(o,s.short,s.long)}return a}(r,t,e);l=a[e]=new s(o++,e,t,c,[],1,this)}return l},c.getProgram=function(t,e,r,i){var a=[t.id,e.id,r.join(":"),i.join(":")].join("@"),o=this.programs[a];return o&&this.gl.isProgram(o)||(this.programs[a]=o=function(t,e,r,i,a){var o=t.createProgram();t.attachShader(o,e),t.attachShader(o,r);for(var s=0;s<i.length;++s)t.bindAttribLocation(o,a[s],i[s]);if(t.linkProgram(o),!t.getProgramParameter(o,t.LINK_STATUS)){var l=t.getProgramInfoLog(o);throw new n(l,"Error linking program: "+l)}return o}(this.gl,t.shader,e.shader,r,i),t.programs.push(a),e.programs.push(a)),o}},{"./GLError":133,"gl-format-compiler-error":87,"weakmap-shim":316}],139:[function(t,e,r){"use strict";function n(t){this.plot=t,this.enable=[!0,!0,!1,!1],this.width=[1,1,1,1],this.color=[[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.center=[1/0,1/0]}e.exports=function(t,e){var r=new n(t);return r.update(e),t.addOverlay(r),r};var i=n.prototype;i.update=function(t){t=t||{},this.enable=(t.enable||[!0,!0,!1,!1]).slice(),this.width=(t.width||[1,1,1,1]).slice(),this.color=(t.color||[[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1]]).map((function(t){return t.slice()})),this.center=(t.center||[1/0,1/0]).slice(),this.plot.setOverlayDirty()},i.draw=function(){var t=this.enable,e=this.width,r=this.color,n=this.center,i=this.plot,a=i.line,o=i.dataBox,s=i.viewBox;if(a.bind(),o[0]<=n[0]&&n[0]<=o[2]&&o[1]<=n[1]&&n[1]<=o[3]){var l=s[0]+(n[0]-o[0])/(o[2]-o[0])*(s[2]-s[0]),c=s[1]+(n[1]-o[1])/(o[3]-o[1])*(s[3]-s[1]);t[0]&&a.drawLine(l,c,s[0],c,e[0],r[0]),t[1]&&a.drawLine(l,c,l,s[1],e[1],r[1]),t[2]&&a.drawLine(l,c,s[2],c,e[2],r[2]),t[3]&&a.drawLine(l,c,l,s[3],e[3],r[3])}},i.dispose=function(){this.plot.removeOverlay(this)}},{}],140:[function(t,e,r){"use strict";var n=t("glslify"),i=t("gl-shader"),a=n(["precision mediump float;\n#define GLSLIFY 1\n\nattribute vec3 position, color;\nattribute float weight;\n\nuniform mat4 model, view, projection;\nuniform vec3 coordinates[3];\nuniform vec4 colors[3];\nuniform vec2 screenShape;\nuniform float lineWidth;\n\nvarying vec4 fragColor;\n\nvoid main() {\n vec3 vertexPosition = mix(coordinates[0],\n   mix(coordinates[2], coordinates[1], 0.5 * (position + 1.0)), abs(position));\n\n vec4 clipPos = projection * view * model * vec4(vertexPosition, 1.0);\n vec2 clipOffset = (projection * view * model * vec4(color, 0.0)).xy;\n vec2 delta = weight * clipOffset * screenShape;\n vec2 lineOffset = normalize(vec2(delta.y, -delta.x)) / screenShape;\n\n gl_Position   = vec4(clipPos.xy + clipPos.w * 0.5 * lineWidth * lineOffset, clipPos.z, clipPos.w);\n fragColor   = color.x * colors[0] + color.y * colors[1] + color.z * colors[2];\n}\n"]),o=n(["precision mediump float;\n#define GLSLIFY 1\n\nvarying vec4 fragColor;\n\nvoid main() {\n gl_FragColor = fragColor;\n}"]);e.exports=function(t){return i(t,a,o,null,[{name:"position",type:"vec3"},{name:"color",type:"vec3"},{name:"weight",type:"float"}])}},{"gl-shader":132,glslify:231}],141:[function(t,e,r){"use strict";var n=t("gl-buffer"),i=t("gl-vao"),a=t("./shaders/index");e.exports=function(t,e){var r=[];function o(t,e,n,i,a,o){var s=[t,e,n,0,0,0,1];s[i+3]=1,s[i]=a,r.push.apply(r,s),s[6]=-

1,r.push.apply(r,s),s[i]=o,r.push.apply(r,s),r.push.apply(r,s),s[6]=1,r.push.apply(r,s),s[i]=a,r.push.apply(r,s)}o(0,0,0,0,0,1),o(0,0,0,1,0,1),o(0,0,0,2,0,1),o(1,0,0,1,-1,1),o(1,0,0,2,-1,1),o(0,1,0,0,-1,1),o(0,1,0,2,-1,1),o(0,0,1,0,-1,1),o(0,0,1,1,-1,1);var l=n(t,r),c=i(t,[{type:t.FLOAT,buffer:l,size:3,offset:0,stride:28},{type:t.FLOAT,buffer:l,size:3,offset:12,stride:28},{type:t.FLOAT,buffer:l,size:1,offset:24,stride:28}]),u=a(t);u.attributes.position.location=0,u.attributes.color.location=1,u.attributes.weight.location=2;var f=new s(t,l,c,u);return f.update(e),f};var o=[1,0,0,0,0,1,0,0,0,0,1,0,0,0,0,1];function s(t,e,r,n){this.gl=t,this.buffer=e,this.vao=r,this.shader=n,this.pixelRatio=1,this.bounds=[[-1e3,-1e3,-1e3],[1e3,1e3,1e3]],this.position=[0,0,0],this.lineWidth=[2,2,2],this.colors=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.enabled=[!0,!0,!0],this.drawSides=[!0,!0,!0],this.axes=null}var l=s.prototype,c=[0,0,0],u=[0,0,0],f=[0,0];l.isTransparent=function(){return!1},l.drawTransparent=function(t){},l.draw=function(t){var e=this.gl,r=this.vao,n=this.shader;r.bind(),n.bind();var i,a=t.model||o,s=t.view||o,l=t.projection||o;this.axes&&(i=this.axes.lastCubeProps.axis);for(var h=c,p=u,d=0;d<3;++d)i&&i[d]<0?(h[d]=this.bounds[0][d],p[d]=this.bounds[1][d]):(h[d]=this.bounds[1][d],p[d]=this.bounds[0][d]);for(f[0]=e.drawingBufferWidth,f[1]=e.drawingBufferHeight,n.uniforms.model=a,n.uniforms.view=s,n.uniforms.projection=l,n.uniforms.coordinates=[this.position,h,p],n.uniforms.colors=this.colors,n.uniforms.screenShape=f,d=0;d<3;++d)n.uniforms.lineWidth=this.lineWidth[d]*this.pixelRatio,this.enabled[d]&&(r.draw(e.TRIANGLES,6,6*d),this.drawSides[d]&&r.draw(e.TRIANGLES,12,18+12*d));r.unbind()},l.update=function(t){t&&("bounds"in t&&(this.bounds=t.bounds),"position"in t&&(this.position=t.position),"lineWidth"in t&&(this.lineWidth=t.lineWidth),"colors"in t&&(this.colors=t.colors),"enabled"in t&&(this.enabled=t.enabled),"drawSides"in t&&(this.drawSides=t.drawSides))},l.dispose=function(){this.vao.dispose(),this.buffer.dispose(),this.shader.dispose()}},{"./shaders/index":140,"gl-buffer":78,"gl-vao":150}],142:[function(t,e,r){var n=t("glslify"),i=n(["precision highp float;\n\nprecision highp float;\n#define GLSLIFY 1\n\nvec3 getOrthogonalVector(vec3 v) {\n // Return up-vector for only-z vector.\n // Return ax + by + cz = 0, a point that lies on the plane that has v as a normal and that isn't (0,0,0).\n // From the above if-statement we have ||a|| > 0 U ||b|| > 0.\n // Assign z = 0, x = -b, y = a:\n // a*-b + b*a + c*0 = -ba + ba + 0 = 0\n if (v.x*v.x > v.z*v.z || v.y*v.y > v.z*v.z) {\n   return normalize(vec3(-v.y, v.x, 0.0));\n } else {\n   return normalize(vec3(0.0, v.z, -v.y));\n }\n}\n\n// Calculate the tube vertex and normal at the given index.\n//\n// The returned vertex is for a tube ring with its center at origin, radius of length(d), pointing in the direction of d.\n//\n// Each tube segment is made up of a ring of vertices.\n// These vertices are used to make up the triangles of the tube by connecting them together in the vertex array.\n// The indexes of tube segments run from 0 to 8.\n//\nvec3 getTubePosition(vec3 d, float index, out vec3 normal) {\n float segmentCount = 8.0;\n\n float angle = 2.0 * 3.14159 * (index / segmentCount);\n\n vec3 u = getOrthogonalVector(d);\n vec3 v = normalize(cross(u, d));\n\n vec3 x = u * cos(angle) * length(d);\n vec3 y = v * sin(angle) * length(d);\n vec3 v3 = x + y;\n\n normal = normalize(v3);\n\n return v3;\n}\n\nattribute vec4 vector;\nattribute vec4 color, position;\nattribute vec2 uv;\n\nuniform float vectorScale, tubeScale;\nuniform mat4 model, view, projection, inverseModel;\nuniform vec3 eyePosition, lightPosition;\n\nvarying vec3 f_normal, f_lightDirection, f_eyeDirection, f_data, f_position;\nvarying vec4 f_color;\nvarying vec2 f_uv;\n\nvoid main() {\n // Scale the vector magnitude to stay constant with\n // model & view changes.\n vec3 normal;\n vec3 XYZ = getTubePosition(mat3(model) * (tubeScale * vector.w * normalize(vector.xyz)), position.w, normal);\n vec4 tubePosition = model * vec4(position.xyz, 1.0) + vec4(XYZ, 0.0);\n\n //Lighting geometry parameters\n vec4 cameraCoordinate = view * tubePosition;\n cameraCoordinate.xyz /= cameraCoordinate.w;\n f_lightDirection = lightPosition - cameraCoordinate.xyz;\n f_eyeDirection   = eyePosition - cameraCoordinate.xyz;\n f_normal = normalize((vec4(normal, 0.0) * inverseModel).xyz);\n\n // vec4 m_position = model * vec4(tubePosition, 1.0);\n vec4 t_position = view * tubePosition;\n gl_Position   = projection * t_position;\n\n f_color   = color;\n f_data   = tubePosition.xyz;\n f_position   = position.xyz;\n f_uv   = uv;\n}\n"]),a=n(["#extension GL_OES_standard_derivatives : enable\n\nprecision highp float;\n#define GLSLIFY 1\n\nfloat beckmannDistribution(float x, float roughness) {\n float NdotH = max(x, 0.0001);\n float cos2Alpha = NdotH *

NdotH;\n float tan2Alpha = (cos2Alpha - 1.0) / cos2Alpha;\n float roughness2 = roughness * roughness;\n float denom = 3.141592653589793 * roughness2 * cos2Alpha * cos2Alpha;\n return exp(tan2Alpha / roughness2) / denom;\n}\n\nfloat cookTorranceSpecular(\n vec3 lightDirection,\n vec3 viewDirection,\n vec3 surfaceNormal,\n float roughness,\n float fresnel) {\n\n float VdotN = max(dot(viewDirection, surfaceNormal), 0.0);\n float LdotN = max(dot(lightDirection, surfaceNormal), 0.0);\n\n //Half angle vector\n vec3 H = normalize(lightDirection + viewDirection);\n\n //Geometric term\n float NdotH = max(dot(surfaceNormal, H), 0.0);\n float VdotH = max(dot(viewDirection, H), 0.000001);\n float LdotH = max(dot(lightDirection, H), 0.000001);\n float G1 = (2.0 * NdotH * VdotN) / VdotH;\n float G2 = (2.0 * NdotH * LdotN) / LdotH;\n float G = min(1.0, min(G1, G2));\n \n //Distribution term\n float D = beckmannDistribution(NdotH, roughness);\n\n //Fresnel term\n float F = pow(1.0 - VdotN, fresnel);\n\n //Multiply terms and done\n return G * F * D / max(3.14159265 * VdotN, 0.000001);\n}\n\nbool outOfRange(float a, float b, float p) {\n return ((p > max(a, b)) || \n   (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y) ||\n   outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nuniform vec3 clipBounds[2];\nuniform float roughness, fresnel, kambient, kdiffuse, kspecular, opacity;\nuniform sampler2D texture;\n\nvarying vec3 f_normal, f_lightDirection, f_eyeDirection, f_data, f_position;\nvarying vec4 f_color;\nvarying vec2 f_uv;\n\nvoid main() {\n if (outOfRange(clipBounds[0], clipBounds[1], f_position)) discard;\n vec3 N = normalize(f_normal);\n vec3 L = normalize(f_lightDirection);\n vec3 V = normalize(f_eyeDirection);\n\n if(gl_FrontFacing) {\n   N = -N;\n }\n\n float specular = min(1.0, max(0.0, cookTorranceSpecular(L, V, N, roughness, fresnel)));\n float diffuse = min(kambient + kdiffuse * max(dot(N, L), 0.0), 1.0);\n\n vec4 surfaceColor = f_color * texture2D(texture, f_uv);\n vec4 litColor = surfaceColor.a * vec4(diffuse * surfaceColor.rgb + kspecular * vec3(1,1,1) * specular, 1.0);\n\n gl_FragColor = litColor * opacity;\n}\n"]),o=n(["precision highp float;\n\nprecision highp float;\n#define GLSLIFY 1\n\nvec3 getOrthogonalVector(vec3 v) {\n // Return up-vector for only-z vector.\n // Return ax + by + cz = 0, a point that lies on the plane that has v as a normal and that isn't (0,0,0).\n // From the above if-statement we have ||a|| > 0 U ||b|| > 0.\n // Assign z = 0, x = -b, y = a:\n // a*-b + b*a + c*0 = -ba + ba + 0 = 0\n if (v.x*v.x > v.z*v.z || v.y*v.y > v.z*v.z) {\n   return normalize(vec3(-v.y, v.x, 0.0));\n } else {\n   return normalize(vec3(0.0, v.z, -v.y));\n }\n}\n\n// Calculate the tube vertex and normal at the given index.\n//\n// The returned vertex is for a tube ring with its center at origin, radius of length(d), pointing in the direction of d.\n//\n// Each tube segment is made up of a ring of vertices.\n// These vertices are used to make up the triangles of the tube by connecting them together in the vertex array.\n// The indexes of tube segments run from 0 to 8.\n//\nvec3 getTubePosition(vec3 d, float index, out vec3 normal) {\n float segmentCount = 8.0;\n\n float angle = 2.0 * 3.14159 * (index / segmentCount);\n\n vec3 u = getOrthogonalVector(d);\n vec3 v = normalize(cross(u, d));\n\n vec3 x = u * cos(angle) * length(d);\n vec3 y = v * sin(angle) * length(d);\n vec3 v3 = x + y;\n\n normal = normalize(v3);\n\n return v3;\n}\n\nattribute vec4 vector;\nattribute vec4 position;\nattribute vec4 id;\n\nuniform mat4 model, view, projection;\nuniform float tubeScale;\n\nvarying vec3 f_position;\nvarying vec4 f_id;\n\nvoid main() {\n vec3 normal;\n vec3 XYZ = getTubePosition(mat3(model) * (tubeScale * vector.w * normalize(vector.xyz)), position.w, normal);\n vec4 tubePosition = model * vec4(position.xyz, 1.0) + vec4(XYZ, 0.0);\n\n gl_Position = projection * view * tubePosition;\n f_id   = id;\n f_position = position.xyz;\n}\n"]),s=n(["precision highp float;\n#define GLSLIFY 1\n\nbool outOfRange(float a, float b, float p) {\n return ((p > max(a, b)) || \n   (p < min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y) ||\n   outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nuniform vec3 clipBounds[2];\nuniform float pickId;\n\nvarying vec3 f_position;\nvarying vec4 f_id;\n\nvoid main() {\n if (outOfRange(clipBounds[0], clipBounds[1], f_position)) discard;\n\n gl_FragColor = vec4(pickId, f_id.xyz);\n}\n"]);r.meshShader={vertex:i,fragment:a,attributes:[{name:"position",type:"vec4"},{name:"color",type:"vec4"},{name:"uv",type:"vec2"},{name:"vector",type:"vec4"}]},r.pickShader={vertex:o,fragment:s,attributes:[{na

me:"position",type:"vec4"},{name:"id",type:"vec4"},{name:"vector",type:"vec4"}]}},{glslify:231}],143:[function(t,e,r){"use strict";var n=t("gl-vec3"),i=t("gl-vec4"),a=["xyz","xzy","yxz","yzx","zxy","zyx"],o=function(t,e,r,a){for(var o=0,s=0;s<t.length;s++)for(var l=t[s].velocities,c=0;c<l.length;c++)o=Math.max(o,n.length(l[c]));var u=t.map((function(t){return function(t,e,r,a){for(var o=t.points,s=t.velocities,l=t.divergences,c=[],u=[],f=[],h=[],p=[],d=[],g=0,v=0,m=i.create(),y=i.create(),x=0;x<o.length;x++){var b=o[x],_=s[x],w=l[x];0===e&&(w=.05*r),v=n.length(_)/a,m=i.create(),n.copy(m,_),m[3]=w;for(var T=0;T<8;T++)p[T]=[b[0],b[1],b[2],T];if(h.length>0)for(T=0;T<8;T++){var k=(T+1)%8;c.push(h[T],p[T],p[k],p[k],h[k],h[T]),f.push(y,m,m,m,y,y),d.push(g,v,v,v,g,g);var A=c.length;u.push([A-6,A-5,A-4],[A-3,A-2,A-1])}var M=h;h=p,p=M;var S=y;y=m,m=S;var E=g;g=v,v=E}return{positions:c,cells:u,vectors:f,vertexIntensity:d}}(t,r,a,o)})),f=[],h=[],p=[],d=[];for(s=0;s<u.length;s++){var g=u[s],v=f.length;for(f=f.concat(g.positions),p=p.concat(g.vectors),d=d.concat(g.vertexIntensity),c=0;c<g.cells.length;c++){var m=g.cells[c],y=[];h.push(y);for(var x=0;x<m.length;x++)y.push(m[x]+v)}}return{positions:f,cells:h,vectors:p,vertexIntensity:d,colormap:e}},s=function(t,e){var r,n=t.length;for(r=0;r<n;r++){var i=t[r];if(i===e)return r;if(i>e)return r-1}return r},l=function(t,e,r){return t<e?e:t>r?r:t},c=function(t){var e=1/0;t.sort((function(t,e){return t-e}));for(var r=t.length,n=1;n<r;n++){var i=Math.abs(t[n]-t[n-1]);i<e&&(e=i)}return e};e.exports=function(t,e){var r=t.startingPositions,i=t.maxLength||1e3,u=t.tubeSize||1,f=t.absoluteTubeSize,h=t.gridFill||""+x+y+z",p={};-1!==h.indexOf("-x")&&(p.reversedX=!0),-1!==h.indexOf("-y")&&(p.reversedY=!0),-1!==h.indexOf("-z")&&(p.reversedZ=!0),p.filled=a.indexOf(h.replace(/-/g,"").replace(/\+/g,""));var d=t.getVelocity||function(e){return function(t,e,r){var i=e.vectors,a=e.meshgrid,o=t[0],c=t[1],u=t[2],f=a[0].length,h=a[1].length,p=a[2].length,d=s(a[0],o),g=s(a[1],c),v=s(a[2],u),m=d+1,y=g+1,x=v+1;if(d=l(d,0,f-1),m=l(m,0,f-1),g=l(g,0,h-1),y=l(y,0,h-1),v=l(v,0,p-1),x=l(x,0,p-1),d<0||g<0||v<0||m>f-1||y>h-1||x>p-1)return n.create();var b,_,w,T,k,A,M=a[0][d],S=a[0][m],E=a[1][g],L=a[1][y],C=a[2][v],P=(o-M)/(S-M),I=(c-E)/(L-E),O=(u-C)/(a[2][x]-C);switch(isFinite(P)||(P=.5),isFinite(I)||(I=.5),isFinite(O)||(O=.5),r.reversedX&&(d=f-1-d,m=f-1-m),r.reversedY&&(g=h-1-g,y=h-1-y),r.reversedZ&&(v=p-1-v,x=p-1-x),r.filled){case 5:k=v,A=x,w=g*p,T=y*p,b=d*p*h,_=m*p*h;break;case 4:k=v,A=x,b=d*p,_=m*p,w=g*p*f,T=y*p*f;break;case 3:w=g,T=y,k=v*h,A=x*h,b=d*h*p,_=m*h*p;break;case 2:w=g,T=y,b=d*h,_=m*h,k=v*h*f,A=x*h*f;break;case 1:b=d,_=m,k=v*f,A=x*f,w=g*f*p,T=y*f*p;break;default:b=d,_=m,w=g*f,T=y*f,k=v*f*h,A=x*f*h}var z=i[b+w+k],D=i[b+w+A],R=i[b+T+k],F=i[b+T+A],B=i[_+w+k],N=i[_+w+A],j=i[_+T+k],U=i[_+T+A],V=n.create(),q=n.create(),H=n.create(),G=n.create();n.lerp(V,z,B,P),n.lerp(q,D,N,P),n.lerp(H,R,j,P),n.lerp(G,F,U,P);var Y=n.create(),W=n.create();n.lerp(Y,V,H,I),n.lerp(W,q,G,I);var X=n.create();return n.lerp(X,Y,W,O),X}(e,t,p)},g=t.getDivergence||function(t,e){var r=n.create(),i=1e-4;n.add(r,t,[i,0,0]);var a=d(r);n.subtract(a,a,e),n.scale(a,a,1/i),n.add(r,t,[0,i,0]);var o=d(r);n.subtract(o,o,e),n.scale(o,o,1/i),n.add(r,t,[0,0,i]);var s=d(r);return n.subtract(s,s,e),n.scale(s,s,1/i),n.add(r,a,o),n.add(r,r,s),r},v=[],m=e[0][0],y=e[0][1],x=e[0][2],b=e[1][0],_=e[1][1],w=e[1][2],T=function(t){var e=t[0],r=t[1],n=t[2];return!(e<m||e>b||r<y||r>_||n<x||n>w)},k=10*n.distance(e[0],e[1])/i,A=k*k,M=1,S=0,E=r.length;E>1&&(M=function(t){for(var e=[],r=[],n=[],i={},a={},o={},s=t.length,l=0;l<s;l++){var u=t[l],f=u[0],h=u[1],p=u[2];i[f]||(e.push(f),i[f]=!0),a[h]||(r.push(h),a[h]=!0),o[p]||(n.push(p),o[p]=!0)}var d=c(e),g=c(r),v=c(n),m=Math.min(d,g,v);return isFinite(m)?m:1}(r));for(var L=0;L<E;L++){var C=n.create();n.copy(C,r[L]);var P=[C],I=[],O=d(C),z=C;I.push(O);var D=[],R=g(C,O),F=n.length(R);isFinite(F)&&F>S&&(S=F),D.push(F),v.push({points:P,velocities:I,divergences:D});for(var B=0;B<100*i&&P.length<i&&T(C);){B++;var N=n.clone(O),j=n.squaredLength(N);if(0===j)break;j>A&&n.scale(N,N,k/Math.sqrt(j)),n.add(N,N,C),O=d(N),n.squaredDistance(z,N)-A>-1e-

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4*A&&(P.push(N),z=N,I.push(O),R=g(N,O),F=n.length(R),isFinite(F)&&F>S&&(S=F),D.push(F)),C=N}}var
U=o(v,t.colormap,S,M);return f?U.tubeScale=f:(0===S&&(S=1),U.tubeScale=.5*u*M/S),U};var
u=t("./lib/shaders"),f=t("gl-cone3d").createMesh;e.exports.createTubeMesh=function(t,e){return
f(t,e,{shaders:u,traceType:"streamtube"})}},{"./lib/shaders":142,"gl-cone3d":79,"gl-vec3":169,"gl-
vec4":205}],144:[function(t,e,r){var n=t("gl-shader"),i=t("glslify"),a=i(["precision highp float;\n#define GLSLIFY
1\n\nattribute vec4 uv;\nattribute vec3 f;\nattribute vec3 normal;\n\nuniform vec3 objectOffset;\nuniform mat4
model, view, projection, inverseModel;\nuniform vec3 lightPosition, eyePosition;\nuniform sampler2D
colormap;\n\nvarying float value, kill;\nvarying vec3 worldCoordinate;\nvarying vec2 planeCoordinate;\nvarying
vec3 lightDirection, eyeDirection, surfaceNormal;\nvarying vec4 vColor;\n\nvoid main() {\n  vec3 localCoordinate
= vec3(uv.zw, f.x);\n  worldCoordinate = objectOffset + localCoordinate;\n  vec4 worldPosition = model *
vec4(worldCoordinate, 1.0);\n  vec4 clipPosition = projection * view * worldPosition;\n  gl_Position =
clipPosition;\n  kill = f.y;\n  value = f.z;\n  planeCoordinate = uv.xy;\n\n  vColor = texture2D(colormap, vec2(value,
value));\n\n  //Lighting geometry parameters\n  vec4 cameraCoordinate = view * worldPosition;\n
cameraCoordinate.xyz /= cameraCoordinate.w;\n  lightDirection = lightPosition - cameraCoordinate.xyz;\n
eyeDirection   = eyePosition - cameraCoordinate.xyz;\n  surfaceNormal  = normalize((vec4(normal,0) *
inverseModel).xyz);\n}\n"]),o=i(["precision highp float;\n#define GLSLIFY 1\n\nfloat beckmannDistribution(float
x, float roughness) {\n  float NdotH = max(x, 0.0001);\n  float cos2Alpha = NdotH * NdotH;\n  float tan2Alpha =
(cos2Alpha - 1.0) / cos2Alpha;\n  float roughness2 = roughness * roughness;\n  float denom = 3.141592653589793
* roughness2 * cos2Alpha * cos2Alpha;\n  return exp(tan2Alpha / roughness2) / denom;\n}\n\nfloat
beckmannSpecular(\n  vec3 lightDirection,\n  vec3 viewDirection,\n  vec3 surfaceNormal,\n  float roughness) {\n
return beckmannDistribution(dot(surfaceNormal, normalize(lightDirection + viewDirection)),
roughness);\n}\n\nbool outOfRange(float a, float b, float p) {\n  return ((p > max(a, b)) || \n          (p < min(a,
b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n  return (outOfRange(a.x, b.x, p.x) ||\n
outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n  return (outOfRange(a.x, b.x, p.x) ||\n
        outOfRange(a.y, b.y, p.y) ||\n          outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p)
{\n  return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nuniform vec3 lowerBound, upperBound;\nuniform float
contourTint;\nuniform vec4 contourColor;\nuniform sampler2D colormap;\nuniform vec3 clipBounds[2];\nuniform
float roughness, fresnel, kambient, kdiffuse, kspecular, opacity;\nuniform float vertexColor;\n\nvarying float value,
kill;\nvarying vec3 worldCoordinate;\nvarying vec3 lightDirection, eyeDirection, surfaceNormal;\nvarying vec4
vColor;\n\nvoid main() {\n  if (\n    kill > 0.0 ||\n    vColor.a == 0.0 ||\n    outOfRange(clipBounds[0], clipBounds[1],
worldCoordinate)\n  ) discard;\n\n  vec3 N = normalize(surfaceNormal);\n  vec3 V = normalize(eyeDirection);\n
vec3 L = normalize(lightDirection);\n\n  if(gl_FrontFacing) {\n    N = -N;\n  }\n\n  float specular =
max(beckmannSpecular(L, V, N, roughness), 0.);\n  float diffuse  = min(kambient + kdiffuse * max(dot(N, L), 0.0),
1.0);\n\n  //decide how to interpolate color — in vertex or in fragment\n  vec4 surfaceColor =\n    step(vertexColor,
.5) * texture2D(colormap, vec2(value, value)) +\n    step(.5, vertexColor) * vColor;\n\n  vec4 litColor =
surfaceColor.a * vec4(diffuse * surfaceColor.rgb + kspecular * vec3(1,1,1) * specular,  1.0);\n\n  gl_FragColor =
mix(litColor, contourColor, contourTint) * opacity;\n}\n"]),s=i(["precision highp float;\n#define GLSLIFY
1\n\nattribute vec4 uv;\nattribute float f;\n\nuniform vec3 objectOffset;\nuniform mat3 permutation;\nuniform mat4
model, view, projection;\nuniform float height, zOffset;\nuniform sampler2D colormap;\n\nvarying float value,
kill;\nvarying vec3 worldCoordinate;\nvarying vec2 planeCoordinate;\nvarying vec3 lightDirection, eyeDirection,
surfaceNormal;\nvarying vec4 vColor;\n\nvoid main() {\n  vec3 dataCoordinate = permutation * vec3(uv.xy,
height);\n  worldCoordinate = objectOffset + dataCoordinate;\n  vec4 worldPosition = model *
vec4(worldCoordinate, 1.0);\n\n  vec4 clipPosition = projection * view * worldPosition;\n  clipPosition.z +=
zOffset;\n\n  gl_Position = clipPosition;\n  value = f + objectOffset.z;\n  kill = -1.0;\n  planeCoordinate = uv.zw;\n\n
vColor = texture2D(colormap, vec2(value, value));\n\n  //Don't do lighting for contours\n  surfaceNormal   =
vec3(1,0,0);\n  eyeDirection   = vec3(0,1,0);\n  lightDirection  = vec3(0,0,1);\n}\n"]),l=i(["precision highp
float;\n#define GLSLIFY 1\n\nbool outOfRange(float a, float b, float p) {\n  return ((p > max(a, b)) || \n          (p <
min(a, b)));\n}\n\nbool outOfRange(vec2 a, vec2 b, vec2 p) {\n  return (outOfRange(a.x, b.x, p.x) ||\n
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outOfRange(a.y, b.y, p.y));\n}\n\nbool outOfRange(vec3 a, vec3 b, vec3 p) {\n return (outOfRange(a.x, b.x, p.x) ||\n   outOfRange(a.y, b.y, p.y) ||\n   outOfRange(a.z, b.z, p.z));\n}\n\nbool outOfRange(vec4 a, vec4 b, vec4 p) {\n return outOfRange(a.xyz, b.xyz, p.xyz);\n}\n\nuniform vec2 shape;\nuniform vec3 clipBounds[2];\nuniform float pickId;\n\nvarying float value, kill;\nvarying vec3 worldCoordinate;\nvarying vec2 planeCoordinate;\nvarying vec3 surfaceNormal;\n\nvec2 splitFloat(float v) {\n float vh = 255.0 * v;\n float upper = floor(vh);\n float lower = fract(vh);\n return vec2(upper / 255.0, floor(lower * 16.0) / 16.0);\n}\n\nvoid main() {\n if ((kill > 0.0) ||\n   (outOfRange(clipBounds[0], clipBounds[1], worldCoordinate))) discard;\n\n vec2 ux = splitFloat(planeCoordinate.x / shape.x);\n vec2 uy = splitFloat(planeCoordinate.y / shape.y);\n gl_FragColor = vec4(pickId, ux.x, uy.x, ux.y + (uy.y/16.0));\n}\n"]);r.createShader=function(t){var e=n(t,a,o,null,[{name:"uv",type:"vec4"},{name:"f",type:"vec3"},{name:"normal",type:"vec3"}]);return e.attributes.uv.location=0,e.attributes.f.location=1,e.attributes.normal.location=2,e},r.createPickShader=function(t){var e=n(t,a,l,null,[{name:"uv",type:"vec4"},{name:"f",type:"vec3"},{name:"normal",type:"vec3"}]);return e.attributes.uv.location=0,e.attributes.f.location=1,e.attributes.normal.location=2,e},r.createContourShader=function(t){var e=n(t,s,o,null,[{name:"uv",type:"vec4"},{name:"f",type:"float"}]);return e.attributes.uv.location=0,e.attributes.f.location=1,e},r.createPickContourShader=function(t){var e=n(t,s,l,null,[{name:"uv",type:"vec4"},{name:"f",type:"float"}]);return e.attributes.uv.location=0,e.attributes.f.location=1,e}},{"gl-shader":132,glslify:231}],145:[function(t,e,r){"use strict";e.exports=function(t){var e=t.gl,r=y(e),n=b(e),s=x(e),l=_(e),c=i(e),u=a(e,[{buffer:c,size:4,stride:40,offset:0},{buffer:c,size:3,stride:40,offset:16},{buffer:c,size:3,stride:40,offset:28}]),f=i(e),h=a(e,[{buffer:f,size:4,stride:20,offset:0},{buffer:f,size:1,stride:20,offset:16}]),p=i(e),d=a(e,[{buffer:p,size:2,type:e.FLOAT}]),g=o(e,1,256,e.RGBA,e.UNSIGNED_BYTE);g.minFilter=e.LINEAR,g.magFilter=e.LINEAR;var v=new M(e,[0,0],[[0,0,0],[0,0,0]],r,n,c,u,g,s,l,f,h,p,d,[0,0,0]),m={levels:[[],[],[]]};for(var w in t)m[w]=t[w];return m.colormap=m.colormap||"jet",v.update(m),v};var n=t("bit-twiddle"),i=t("gl-buffer"),a=t("gl-vao"),o=t("gl-texture2d"),s=t("typedarray-pool"),l=t("colormap"),c=t("ndarray-ops"),u=t("ndarray-pack"),f=t("ndarray"),h=t("surface-nets"),p=t("gl-mat4/multiply"),d=t("gl-mat4/invert"),g=t("binary-search-bounds"),v=t("ndarray-gradient"),m=t("./lib/shaders"),y=m.createShader,x=m.createContourShader,b=m.createPickShader,_=m.createPickContourShader,w=[1,0,0,0,0,1,0,0,0,0,1,0,0,0,0,1],T=[[0,0],[0,1],[1,0],[1,1],[1,0],[0,1]],k=[[0,0,0,0,0,0,0,0,0],[0,0,0,0,0,0,0,0,0],[0,0,0,0,0,0,0,0,0]];function A(t,e,r,n,i){this.position=t,this.index=e,this.uv=r,this.level=n,this.dataCoordinate=i}function M(t,e,r,n,i,a,o,l,c,u,h,p,d,g,v){this.gl=t,this.shape=e,this.bounds=r,this.objectOffset=v,this.intensityBounds=[],this._shader=n,this._pickShader=i,this._coordinateBuffer=a,this._vao=o,this._colorMap=l,this._contourShader=c,this._contourPickShader=u,this._contourBuffer=h,this._contourVAO=p,this._contourOffsets=[[],[],[]],this._contourCounts=[[],[],[]],this._vertexCount=0,this._pickResult=new A([0,0,0],[0,0],[0,0],[0,0,0],[0,0,0]),this._dynamicBuffer=d,this._dynamicVAO=g,this._dynamicOffsets=[0,0,0],this._dynamicCounts=[0,0,0],this.contourWidth=[1,1,1],this.contourLevels=[[1],[1],[1]],this.contourTint=[0,0,0],this.contourColor=[[.5,.5,.5,1],[.5,.5,.5,1],[.5,.5,.5,1]],this.showContour=!0,this.showSurface=!0,this.enableHighlight=[!0,!0,!0],this.highlightColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.highlightTint=[1,1,1],this.highlightLevel=[-1,-1,-1],this.enableDynamic=[!0,!0,!0],this.dynamicLevel=[NaN,NaN,NaN],this.dynamicColor=[[0,0,0,1],[0,0,0,1],[0,0,0,1]],this.dynamicTint=[1,1,1],this.dynamicWidth=[1,1,1],this.axesBounds=[[1/0,1/0,1/0],[-1/0,-1/0,-1/0]],this.surfaceProject=[!1,!1,!1],this.contourProject=[[!1,!1,!1],[!1,!1,!1],[!1,!1,!1]],this.colorBounds=[!1,!1],this._field=[f(s.mallocFloat(1024),[0,0]),f(s.mallocFloat(1024),[0,0]),f(s.mallocFloat(1024),[0,0])],this.pickId=1,this.clipBounds=[[-1/0,-1/0,-1/0],[1/0,1/0,1/0]],this.snapToData=!1,this.pixelRatio=1,this.opacity=1,this.lightPosition=[10,1e4,0],this.ambientLight=.8,this.diffuseLight=.8,this.specularLight=2,this.roughness=.5,this.fresnel=1.5,this.vertexColor=0,this.dirty=!0}!function(){for(var t=0;t<3;++t){var e=k[t],r=(t+2)%3;e[(t+1)%3+0]=1,e[r+3]=1,e[t+6]=1}}();var S=M.prototype;S.genColormap=function(t,e){var

r=!1,n=u([l({colormap:t,nshades:256,format:"rgba"}).map((function(t,n){var i=e?function(t,e){if(!e)return 1;if(!e.length)return 1;for(var r=0;r<e.length;++r){if(e.length<2)return 1;if(e[r][0]===t)return e[r][1];if(e[r][0]>t&&r>0){var n=(e[r][0]-t)/(e[r][0]-e[r-1][0]);return e[r][1]*(1-n)+n*e[r-1][1]}}return 1}(n/255,e):t[3];return i<1&&(r=!0),[t[0],t[1],t[2],255*i]}))]);return c.divseq(n,255),this.hasAlphaScale=r,n},S.isTransparent=function(){return this.opacity<1||this.hasAlphaScale},S.isOpaque=function(){return!this.isTransparent()},S.pickSlots=1,S.setPickBase=function(t){this.pickId=t};var E=[0,0,0],L={showSurface:!1,showContour:!1,projections:[w.slice(),w.slice(),w.slice()],clipBounds:[[[0,0,0],[0,0,0]],[[0,0,0],[0,0,0]],[[0,0,0],[0,0,0]]]};function C(t,e){var r,n,i,a=e.axes&&e.axes.lastCubeProps.axis||E,o=e.showSurface,s=e.showContour;for(r=0;r<3;++r)for(o=o||e.surfaceProject[r],n=0;n<3;++n)s=s||e.contourProject[r][n];for(r=0;r<3;++r){var l=L.projections[r];for(n=0;n<16;++n)l[n]=0;for(n=0;n<4;++n)l[5*n]=1;l[5*r]=0,l[12+r]=e.axesBounds[+(a[r]>0)][r],p(l,t.model,l);var c=L.clipBounds[r];for(i=0;i<2;++i)for(n=0;n<3;++n)c[i][n]=t.clipBounds[i][n];c[0][r]=-1e8,c[1][r]=1e8}return L.showSurface=o,L.showContour=s,L}var P={model:w,view:w,projection:w,inverseModel:w.slice(),lowerBound:[0,0,0],upperBound:[0,0,0],colorMap:0,clipBounds:[[0,0,0],[0,0,0]],height:0,contourTint:0,contourColor:[0,0,0,1],permutation:[1,0,0,0,1,0,0,0,1],zOffset:-1e-4,objectOffset:[0,0,0],kambient:1,kdiffuse:1,kspecular:1,lightPosition:[1e3,1e3,1e3],eyePosition:[0,0,0],roughness:1,fresnel:1,opacity:1,vertexColor:0},I=w.slice(),O=[1,0,0,0,1,0,0,0,1];function z(t,e){t=t||{};var r=this.gl;r.disable(r.CULL_FACE),this._colorMap.bind(0);var n=P;n.model=t.model||w,n.view=t.view||w,n.projection=t.projection||w,n.lowerBound=[this.bounds[0][0],this.bounds[0][1],this.colorBounds[0]||this.bounds[0][2]],n.upperBound=[this.bounds[1][0],this.bounds[1][1],this.colorBounds[1]||this.bounds[1][2]],n.objectOffset=this.objectOffset,n.contourColor=this.contourColor[0],n.inverseModel=d(n.inverseModel,n.model);for(var i=0;i<2;++i)for(var a=n.clipBounds[i],o=0;o<3;++o)a[o]=Math.min(Math.max(this.clipBounds[i][o],-1e8),1e8);n.kambient=this.ambientLight,n.kdiffuse=this.diffuseLight,n.kspecular=this.specularLight,n.roughness=this.roughness,n.fresnel=this.fresnel,n.opacity=this.opacity,n.height=0,n.permutation=O,n.vertexColor=this.vertexColor;var s=I;for(p(s,n.view,n.model),p(s,n.projection,s),d(s,s),i=0;i<3;++i)n.eyePosition[i]=s[12+i]/s[15];var l=s[15];for(i=0;i<3;++i)l+=this.lightPosition[i]*s[4*i+3];for(i=0;i<3;++i){var c=s[12+i];for(o=0;o<3;++o)c+=s[4*o+i]*this.lightPosition[o];n.lightPosition[i]=c/l}var u=C(n,this);if(u.showSurface){for(this._shader.bind(),this._shader.uniforms=n,this._vao.bind(),this.showSurface&&this._vertexCount&&this._vao.draw(r.TRIANGLES,this._vertexCount),i=0;i<3;++i)this.surfaceProject[i]&&this.vertexCount&&(this._shader.uniforms.model=u.projections[i],this._shader.uniforms.clipBounds=u.clipBounds[i],this._vao.draw(r.TRIANGLES,this._vertexCount));this._vao.unbind()}if(u.showContour){var f=this._contourShader;n.kambient=1,n.kdiffuse=0,n.kspecular=0,n.opacity=1,f.bind(),f.uniforms=n;var h=this._contourVAO;for(h.bind(),i=0;i<3;++i)for(f.uniforms.permutation=k[i],r.lineWidth(this.contourWidth[i]*this.pixelRatio),o=0;o<this.contourLevels[i].length;++o)o===this.highlightLevel[i]?(f.uniforms.contourColor=this.highlightColor[i],f.uniforms.contourTint=this.highlightTint[i]):0!==o&&o-1!==this.highlightLevel[i]||(f.uniforms.contourColor=this.contourColor[i],f.uniforms.contourTint=this.contourTint[i]),this._contourCounts[i][o]&&(f.uniforms.height=this.contourLevels[i][o],h.draw(r.LINES,this._contourCounts[i][o],this._contourOffsets[i][o]));for(i=0;i<3;++i)for(f.uniforms.model=u.projections[i],f.uniforms.clipBounds=u.clipBounds[i],o=0;o<3;++o)if(this.contourProject[i][o]){f.uniforms.permutation=k[o],r.lineWidth(this.contourWidth[o]*this.pixelRatio);for(var g=0;g<this.contourLevels[o].length;++g)g===this.highlightLevel[o]?(f.uniforms.contourColor=this.highlightColor[o],f.uniforms.contourTint=this.highlightTint[o]):0!==g&&g-1!==this.highlightLevel[o]||(f.uniforms.contourColor=this.contourColor[o],f.uniforms.contourTint=this.contourTint[o]),this._contourCounts[o][g]&&(f.uniforms.height=this.contourLevels[o][g],h.draw(r.LINES,this._contourCounts[o][g],this._contourOffsets[o][g]))}for(h.unbind(),(h=this._dynamicVAO).bind(),i=0;i<3;++i)if(0!==this._dynamicCounts[i])for(f.uniforms.model=n.model,f.uniforms.clipBounds=n.clipBounds,f.uniforms.permutation=k[i],r.lineWidt

h(this.dynamicWidth[i]*this.pixelRatio),f.uniforms.contourColor=this.dynamicColor[i],f.uniforms.contourTint=this.dynamicTint[i],f.uniforms.height=this.dynamicLevel[i],h.draw(r.LINES,this._dynamicCounts[i],this._dynamicOffsets[i]),o=0;o<3;++o)this.contourProject[o][i]&&(f.uniforms.model=u.projections[o],f.uniforms.clipBounds=u.clipBounds[o],h.draw(r.LINES,this._dynamicCounts[i],this._dynamicOffsets[i]));h.unbind()}}S.draw=function(t){return z.call(this,t,!1)},S.drawTransparent=function(t){return z.call(this,t,!0)};var D={model:w,view:w,projection:w,inverseModel:w,clipBounds:[[0,0,0],[0,0,0]],height:0,shape:[0,0],pickId:0,lowerBound:[0,0,0],upperBound:[0,0,0],zOffset:0,objectOffset:[0,0,0],permutation:[1,0,0,0,1,0,0,0,1],lightPosition:[0,0,0],eyePosition:[0,0,0]};function R(t,e){return Array.isArray(t)?[e(t[0]),e(t[1]),e(t[2])]:[e(t),e(t),e(t)]}function F(t){return Array.isArray(t)?3===t.length?[t[0],t[1],t[2],1]:[t[0],t[1],t[2],t[3]]:[0,0,0,1]}function B(t){if(Array.isArray(t)){if(Array.isArray(t))return[F(t[0]),F(t[1]),F(t[2])];var e=F(t);return[e.slice(),e.slice(),e.slice()]}}S.drawPick=function(t){t=t||{};var e=this.gl;e.disable(e.CULL_FACE);var r=D;r.model=t.model||w,r.view=t.view||w,r.projection=t.projection||w,r.shape=this._field[2].shape,r.pickId=this.pickId/255,r.lowerBound=this.bounds[0],r.upperBound=this.bounds[1],r.objectOffset=this.objectOffset,r.permutation=O;for(var n=0;n<2;++n)for(var i=r.clipBounds[n],a=0;a<3;++a)i[a]=Math.min(Math.max(this.clipBounds[n][a],-1e8),1e8);var o=C(r,this);if(o.showSurface){for(this._pickShader.bind(),this._pickShader.uniforms=r,this._vao.bind(),this._vao.draw(e.TRIANGLES,this._vertexCount),n=0;n<3;++n)this.surfaceProject[n]&&(this._pickShader.uniforms.model=o.projections[n],this._pickShader.uniforms.clipBounds=o.clipBounds[n],this._vao.draw(e.TRIANGLES,this._vertexCount));this._vao.unbind()}if(o.showContour){var s=this._contourPickShader;s.bind(),s.uniforms=r;var l=this._contourVAO;for(l.bind(),a=0;a<3;++a)for(e.lineWidth(this.contourWidth[a]*this.pixelRatio),s.uniforms.permutation=k[a],n=0;n<this.contourLevels[a].length;++n)this._contourCounts[a][n]&&(s.uniforms.height=this.contourLevels[a][n],l.draw(e.LINES,this._contourCounts[a][n],this._contourOffsets[a][n]));for(n=0;n<3;++n)for(s.uniforms.model=o.projections[n],s.uniforms.clipBounds=o.clipBounds[n],a=0;a<3;++a)if(this.contourProject[n][a]){s.uniforms.permutation=k[a],e.lineWidth(this.contourWidth[a]*this.pixelRatio);for(var c=0;c<this.contourLevels[a].length;++c)this._contourCounts[a][c]&&(s.uniforms.height=this.contourLevels[a][c],l.draw(e.LINES,this._contourCounts[a][c],this._contourOffsets[a][c]))}l.unbind()}},S.pick=function(t){if(!t)return null;if(t.id!==this.pickId)return null;var e=this._field[2].shape,r=this._pickResult,n=e[0]*(t.value[0]+(t.value[2]>>4)/16)/255,i=Math.floor(n),a=n-i,o=e[1]*(t.value[1]+(15&t.value[2])/16)/255,s=Math.floor(o),l=o-s;i+=1,s+=1;var c=r.position;c[0]=c[1]=c[2]=0;for(var u=0;u<2;++u)for(var f=u?a:1-a,h=0;h<2;++h)for(var p=i+u,d=s+h,v=f*(h?l:1-l),m=0;m<3;++m)c[m]+=this._field[m].get(p,d)*v;for(var y=this._pickResult.level,x=0;x<3;++x)if(y[x]=g.le(this.contourLevels[x],c[x]),y[x]<0)this.contourLevels[x].length>0&&(y[x]=0);else if(y[x]<this.contourLevels[x].length-1){var b=this.contourLevels[x][y[x]],_=this.contourLevels[x][y[x]+1];Math.abs(b-c[x])>Math.abs(_-c[x])&&(y[x]+=1)}for(r.index[0]=a<.5?i:i+1,r.index[1]=l<.5?s:s+1,r.uv[0]=n/e[0],r.uv[1]=o/e[1],m=0;m<3;++m)r.dataCoordinate[m]=this._field[m].get(r.index[0],r.index[1]);return r},S.padField=function(t,e){var r=e.shape.slice(),n=t.shape.slice();c.assign(t.lo(1,1).hi(r[0],r[1]),e),c.assign(t.lo(1).hi(r[0],1),e.hi(r[0],1)),c.assign(t.lo(1,n[1]-1).hi(r[0],1),e.lo(0,r[1]-1).hi(r[0],1)),c.assign(t.lo(0,1).hi(1,r[1]),e.hi(1)),c.assign(t.lo(n[0]-1,1).hi(1,r[1]),e.lo(r[0]-1)),t.set(0,0,e.get(0,0)),t.set(0,n[1]-1,e.get(0,r[1]-1)),t.set(n[0]-1,0,e.get(r[0]-1,0)),t.set(n[0]-1,n[1]-1,e.get(r[0]-1,r[1]-1))},S.update=function(t){t=t||{},this.objectOffset=t.objectOffset||this.objectOffset,this.dirty=!0,"contourWidth"in t&&(this.contourWidth=R(t.contourWidth,Number)),"showContour"in t&&(this.showContour=R(t.showContour,Boolean)),"showSurface"in t&&(this.showSurface=!!t.showSurface),"contourTint"in t&&(this.contourTint=R(t.contourTint,Boolean)),"contourColor"in t&&(this.contourColor=B(t.contourColor)),"contourProject"in t&&(this.contourProject=R(t.contourProject,(function(t){return R(t,Boolean)}))),"surfaceProject"in

t&&(this.surfaceProject=t.surfaceProject),"dynamicColor"in
t&&(this.dynamicColor=B(t.dynamicColor)),"dynamicTint"in
t&&(this.dynamicTint=R(t.dynamicTint,Number)),"dynamicWidth"in
t&&(this.dynamicWidth=R(t.dynamicWidth,Number)),"opacity"in t&&(this.opacity=t.opacity),"opacityscale"in
t&&(this.opacityscale=t.opacityscale),"colorBounds"in t&&(this.colorBounds=t.colorBounds),"vertexColor"in
t&&(this.vertexColor=t.vertexColor?1:0),"colormap"in
t&&this._colorMap.setPixels(this.genColormap(t.colormap,this.opacityscale));var
e=t.field||t.coords&&t.coords[2]||null,r=!1;if(e||(e=this._field[2].shape[0]||this._field[2].shape[2]?this._field[2].lo(1,1
).hi(this._field[2].shape[0]-2,this._field[2].shape[1]-2):this._field[2].hi(0,0)),"field"in t||"coords"in t){var
i=(e.shape[0]+2)*(e.shape[1]+2);i>this._field[2].data.length&&(s.freeFloat(this._field[2].data),this._field[2].data=s.
mallocFloat(n.nextPow2(i))),this._field[2]=f(this._field[2].data,[e.shape[0]+2,e.shape[1]+2]),this.padField(this._fiel
d[2],e),this.shape=e.shape.slice();for(var
a=this.shape,o=0;o<2;++o)this._field[2].size>this._field[o].data.length&&(s.freeFloat(this._field[o].data),this._field
[o].data=s.mallocFloat(this._field[2].size)),this._field[o]=f(this._field[o].data,[a[0]+2,a[1]+2]);if(t.coords){var
l=t.coords;if(!Array.isArray(l)||3!==l.length)throw new Error("gl-surface: invalid coordinates for
x/y");for(o=0;o<2;++o){var c=l[o];for(m=0;m<2;++m)if(c.shape[m]!==a[m])throw new Error("gl-surface: coords
have incorrect shape");this.padField(this._field[o],c)}}else if(t.ticks){var
u=t.ticks;if(!Array.isArray(u)||2!==u.length)throw new Error("gl-surface: invalid ticks");for(o=0;o<2;++o){var
p=u[o];if((Array.isArray(p)||p.length)&&(p=f(p)),p.shape[0]!==a[o])throw new Error("gl-surface: invalid tick
length");var
d=f(p.data,a);d.stride[o]=p.stride[0],d.stride[1^o]=0,this.padField(this._field[o],d)}}else{for(o=0;o<2;++o){var
g=[0,0];g[o]=1,this._field[o]=f(this._field[o].data,[a[0]+2,a[1]+2],g,0)}this._field[0].set(0,0,0);for(var
m=0;m<a[0];++m)this._field[0].set(m+1,0,m);for(this._field[0].set(a[0]+1,0,a[0]-
1),this._field[1].set(0,0,0),m=0;m<a[1];++m)this._field[1].set(0,m+1,m);this._field[1].set(0,a[1]+1,a[1]-1)}var
y=this._field,x=f(s.mallocFloat(3*y[2].size*2),[3,a[0]+2,a[1]+2,2]);for(o=0;o<3;++o)v(x.pick(o),y[o],"mirror");var
b=f(s.mallocFloat(3*y[2].size),[a[0]+2,a[1]+2,3]);for(o=0;o<a[0]+2;++o)for(m=0;m<a[1]+2;++m){var
_=x.get(0,o,m,0),w=x.get(0,o,m,1),k=x.get(1,o,m,0),A=x.get(1,o,m,1),M=x.get(2,o,m,0),S=x.get(2,o,m,1),E=k*S-
A*M,L=M*w-S*_,C=_*A-w*k,P=Math.sqrt(E*E+L*L+C*C);P<1e-
8?(P=Math.max(Math.abs(E),Math.abs(L),Math.abs(C)))<1e-
8?(C=1,L=E=0,P=1):P=1/P:P=1/Math.sqrt(P),b.set(o,m,0,E*P),b.set(o,m,1,L*P),b.set(o,m,2,C*P)}s.free(x.data);var
I=[1/0,1/0,1/0],O=[-1/0,-1/0,-1/0],z=1/0,D=-1/0,F=(a[0]-1)*(a[1]-
1)*6,N=s.mallocFloat(n.nextPow2(10*F)),j=0,U=0;for(o=0;o<a[0]-1;++o)t:for(m=0;m<a[1]-1;++m){for(var
V=0;V<2;++V)for(var q=0;q<2;++q)for(var H=0;H<3;++H){var
G=this._field[H].get(1+o+V,1+m+q);if(isNaN(G)||!isFinite(G))continue t}for(H=0;H<6;++H){var
Y=o+T[H][0],W=m+T[H][1],X=this._field[0].get(Y+1,W+1),Z=this._field[1].get(Y+1,W+1);G=this._field[2].get(Y
+1,W+1),E=b.get(Y+1,W+1,0),L=b.get(Y+1,W+1,1),C=b.get(Y+1,W+1,2),t.intensity&&(J=t.intensity.get(Y,W));v
ar
J=t.intensity?t.intensity.get(Y,W):G+this.objectOffset[2];N[j++]=Y,N[j++]=W,N[j++]=X,N[j++]=Z,N[j++]=G,N[j+
+]=0,N[j++]=J,N[j++]=E,N[j++]=L,N[j++]=C,I[0]=Math.min(I[0],X+this.objectOffset[0]),I[1]=Math.min(I[1],Z+th
is.objectOffset[1]),I[2]=Math.min(I[2],G+this.objectOffset[2]),z=Math.min(z,J),O[0]=Math.max(O[0],X+this.object
Offset[0]),O[1]=Math.max(O[1],Z+this.objectOffset[1]),O[2]=Math.max(O[2],G+this.objectOffset[2]),D=Math.ma
x(D,J),U+=1}}for(t.intensityBounds&&(z=+t.intensityBounds[0],D=+t.intensityBounds[1]),o=6;o<j;o+=10)N[o]=(
N[o]-z)/(D-
z);this._vertexCount=U,this._coordinateBuffer.update(N.subarray(0,j)),s.freeFloat(N),s.free(b.data),this.bounds=[I,
O],this.intensity=t.intensity||this._field[2],this.intensityBounds[0]===z&&this.intensityBounds[1]===D||(r=!0),this.i
ntensityBounds=[z,D]}if("levels"in t){var
K=t.levels;for(K=Array.isArray(K[0])?K.slice():[[],[],K],o=0;o<3;++o)K[o]=K[o].slice(),K[o].sort((function(t,e){re
turn t-e}));for(o=0;o<3;++o)for(m=0;m<K[o].length;++m)K[o][m]-

=this.objectOffset[o];t:for(o=0;o<3;++o){if(K[o].length!==this.contourLevels[o].length){r=!0;break}for(m=0;m<K[o].length;++m)if(K[o][m]!==this.contourLevels[o][m]){r=!0;break t}}this.contourLevels=K}if(r){y=this._field,a=this.shape;for(var Q=[],$=0;$<3;++$){var tt=this.contourLevels[$],et=[],rt=[],nt=[0,0,0];for(o=0;o<tt.length;++o){var it=h(this._field[$],tt[o]);et.push(Q.length/5|0),U=0;t:for(m=0;m<it.cells.length;++m){var at=it.cells[m];for(H=0;H<2;++H){var ot=it.positions[at[H]],st=ot[0],lt=0|Math.floor(st),ct=st-lt,ut=ot[1],ft=0|Math.floor(ut),ht=ut-ft,pt=!1;e:for(var dt=0;dt<3;++dt){nt[dt]=0;var gt=($+dt+1)%3;for(V=0;V<2;++V){var vt=V?ct:1-ct;for(Y=0|Math.min(Math.max(lt+V,0),a[0]),q=0;q<2;++q){var mt=q?ht:1-ht;if(W=0|Math.min(Math.max(ft+q,0),a[1]),G=dt<2?this._field[gt].get(Y,W):(this.intensity.get(Y,W)-this.intensityBounds[0])/(this.intensityBounds[1]-this.intensityBounds[0]),!isFinite(G)||isNaN(G)){pt=!0;break e}var yt=vt*mt;nt[dt]+=yt*G}}}if(pt){if(H>0){for(var xt=0;xt<5;++xt)Q.pop();U-=1}continue t}Q.push(nt[0],nt[1],ot[0],ot[1],nt[2]),U+=1}}rt.push(U)}this._contourOffsets[$]=et,this._contourCounts[$]=rt}var bt=s.mallocFloat(Q.length);for(o=0;o<Q.length;++o)bt[o]=Q[o];this._contourBuffer.update(bt),s.freeFloat(bt)}},S.dispose=function(){this._shader.dispose(),this._vao.dispose(),this._coordinateBuffer.dispose(),this._colorMap.dispose(),this._contourBuffer.dispose(),this._contourVAO.dispose(),this._contourShader.dispose(),this._contourPickShader.dispose(),this._dynamicBuffer.dispose(),this._dynamicVAO.dispose();for(var t=0;t<3;++t)s.freeFloat(this._field[t].data)},S.highlight=function(t){var e,r;if(!t)return this._dynamicCounts=[0,0,0],this.dyanamicLevel=[NaN,NaN,NaN],void(this.highlightLevel=[-1,-1,-1]);for(e=0;e<3;++e)this.enableHighlight[e]?this.highlightLevel[e]=t.level[e]:this.highlightLevel[e]=-1;for(r=this.snapToData?t.dataCoordinate:t.position,e=0;e<3;++e)r[e]-=this.objectOffset[e];if(this.enableDynamic[0]&&r[0]!==this.dynamicLevel[0]||this.enableDynamic[1]&&r[1]!==this.dynamicLevel[1]||this.enableDynamic[2]&&r[2]!==this.dynamicLevel[2]){for(var n=0,i=this.shape,a=s.mallocFloat(12*i[0]*i[1]),o=0;o<3;++o)if(this.enableDynamic[o]){this.dynamicLevel[o]=r[o];var l=(o+1)%3,c=(o+2)%3,u=this._field[o],f=this._field[l],p=this._field[c],d=h(u,r[o]),g=d.cells,v=d.positions;for(this._dynamicOffsets[o]=n,e=0;e<g.length;++e)for(var m=g[e],y=0;y<2;++y){var x=v[m[y]],b=+x[0],_=0|b,w=0|Math.min(_+1,i[0]),T=b-_,k=1-T,A=+x[1],M=0|A,S=0|Math.min(M+1,i[1]),E=A-M,L=1-E,C=k*L,P=k*E,I=T*L,O=T*E,z=C*f.get(_,M)+P*f.get(_,S)+I*f.get(w,M)+O*f.get(w,S),D=C*p.get(_,M)+P*p.get(_,S)+I*p.get(w,M)+O*p.get(w,S);if(isNaN(z)||isNaN(D)){y&&(n-=1);break}a[2*n+0]=z,a[2*n+1]=D,n+=1}this._dynamicCounts[o]=n-this._dynamicOffsets[o]}else this.dynamicLevel[o]=NaN,this._dynamicCounts[o]=0;this._dynamicBuffer.update(a.subarray(0,2*n)),s.freeFloat(a)}}},{"./lib/shaders":144,"binary-search-bounds":31,"bit-twiddle":32,colormap:53,"gl-buffer":78,"gl-mat4/invert":98,"gl-mat4/multiply":100,"gl-texture2d":146,"gl-vao":150,ndarray:259,"ndarray-gradient":252,"ndarray-ops":254,"ndarray-pack":255,"surface-nets":302,"typedarray-pool":308}],146:[function(t,e,r){"use strict";var n=t("ndarray"),i=t("ndarray-ops"),a=t("typedarray-pool");e.exports=function(t){if(arguments.length<=1)throw new Error("gl-texture2d: Missing arguments for texture2d constructor");if(o||c(t),"number"==typeof arguments[1])return m(t,arguments[1],arguments[2],arguments[3]||t.RGBA,arguments[4]||t.UNSIGNED_BYTE);if(Array.isArray(arguments[1]))return m(t,0|arguments[1][0],0|arguments[1][1],arguments[2]||t.RGBA,arguments[3]||t.UNSIGNED_BYTE);if("object"==typeof arguments[1]){var e=arguments[1],r=u(e)?e:e.raw;if(r)return y(t,r,0|e.width,0|e.height,arguments[2]||t.RGBA,arguments[3]||t.UNSIGNED_BYTE);if(e.shape&&e.data&&e.stride)return x(t,e)}throw new Error("gl-texture2d: Invalid arguments for texture2d constructor")};var o=null,s=null,l=null;function c(t){o=[t.LINEAR,t.NEAREST_MIPMAP_LINEAR,t.LINEAR_MIPMAP_NEAREST,t.LINEAR_MIPMAP_NEAREST],s=[t.NEAREST,t.LINEAR,t.NEAREST_MIPMAP_NEAREST,t.NEAREST_MIPMAP_LINEAR,t.LINEAR_MIPMAP_NEAREST,t.LINEAR_MIPMAP_LINEAR],l=[t.REPEAT,t.CLAMP_TO_EDGE,t.MIRRORED_RE

PEAT]}function u(t){return"undefined"!=typeof HTMLCanvasElement&&t instanceof HTMLCanvasElement||"undefined"!=typeof HTMLImageElement&&t instanceof HTMLImageElement||"undefined"!=typeof HTMLVideoElement&&t instanceof HTMLVideoElement||"undefined"!=typeof ImageData&&t instanceof ImageData}var f=function(t,e){i.muls(t,e,255)};function h(t,e,r){var n=t.gl,i=n.getParameter(n.MAX_TEXTURE_SIZE);if(e<0||e>i||r<0||r>i)throw new Error("gl-texture2d: Invalid texture size");return t._shape=[e,r],t.bind(),n.texImage2D(n.TEXTURE_2D,0,t.format,e,r,0,t.format,t.type,null),t._mipLevels=[0],t}function p(t,e,r,n,i,a){this.gl=t,this.handle=e,this.format=i,this.type=a,this._shape=[r,n],this._mipLevels=[0],this._magFilter=t.NEAREST,this._minFilter=t.NEAREST,this._wrapS=t.CLAMP_TO_EDGE,this._wrapT=t.CLAMP_TO_EDGE,this._anisoSamples=1;var o=this,s=[this._wrapS,this._wrapT];Object.defineProperties(s,[{get:function(){return o._wrapS},set:function(t){return o.wrapS=t}},{get:function(){return o._wrapT},set:function(t){return o.wrapT=t}}]),this._wrapVector=s;var l=[this._shape[0],this._shape[1]];Object.defineProperties(l,[{get:function(){return o._shape[0]},set:function(t){return o.width=t}},{get:function(){return o._shape[1]},set:function(t){return o.height=t}}]),this._shapeVector=l}var d=p.prototype;function g(t,e){return 3===t.length?1===e[2]&&e[1]===t[0]*t[2]&&e[0]===t[2]:1===e[0]&&e[1]===t[0]}function v(t){var e=t.createTexture();return t.bindTexture(t.TEXTURE_2D,e),t.texParameteri(t.TEXTURE_2D,t.TEXTURE_MIN_FILTER,t.NEAREST),t.texParameteri(t.TEXTURE_2D,t.TEXTURE_MAG_FILTER,t.NEAREST),t.texParameteri(t.TEXTURE_2D,t.TEXTURE_WRAP_S,t.CLAMP_TO_EDGE),t.texParameteri(t.TEXTURE_2D,t.TEXTURE_WRAP_T,t.CLAMP_TO_EDGE),e}function m(t,e,r,n,i){var a=t.getParameter(t.MAX_TEXTURE_SIZE);if(e<0||e>a||r<0||r>a)throw new Error("gl-texture2d: Invalid texture shape");if(i===t.FLOAT&&!t.getExtension("OES_texture_float"))throw new Error("gl-texture2d: Floating point textures not supported on this platform");var o=v(t);return t.texImage2D(t.TEXTURE_2D,0,n,e,r,0,n,i,null),new p(t,o,e,r,n,i)}function y(t,e,r,n,i,a){var o=v(t);return t.texImage2D(t.TEXTURE_2D,0,i,i,a,e),new p(t,o,r,n,i,a)}function x(t,e){var r=e.dtype,o=e.shape.slice(),s=t.getParameter(t.MAX_TEXTURE_SIZE);if(o[0]<0||o[0]>s||o[1]<0||o[1]>s)throw new Error("gl-texture2d: Invalid texture size");var l=g(o,e.stride.slice()),c=0;"float32"===r?c=t.FLOAT:"float64"===r?(c=t.FLOAT,l=!1,r="float32"):"uint8"===r?c=t.UNSIGNED_BYTE:(c=t.UNSIGNED_BYTE,l=!1,r="uint8");var u,h,d=0;if(2===o.length)d=t.LUMINANCE,o=[o[0],o[1],1],e=n(e.data,o,[e.stride[0],e.stride[1],1],e.offset);else{if(3!==o.length)throw new Error("gl-texture2d: Invalid shape for texture");if(1===o[2])d=t.ALPHA;else if(2===o[2])d=t.LUMINANCE_ALPHA;else if(3===o[2])d=t.RGB;else{if(4!==o[2])throw new Error("gl-texture2d: Invalid shape for pixel coords");d=t.RGBA}}c!==t.FLOAT||t.getExtension("OES_texture_float")||(c=t.UNSIGNED_BYTE,l=!1);var m=e.size;if(l)u=0===e.offset&&e.data.length===m?e.data:e.data.subarray(e.offset,e.offset+m);else{var y=[o[2],o[2]*o[0],1];h=a.malloc(m,r);var x=n(h,o,y,0);"float32"!==r&&"float64"!==r||c!==t.UNSIGNED_BYTE?i.assign(x,e):f(x,e),u=h.subarray(0,m)}var b=v(t);return t.texImage2D(t.TEXTURE_2D,0,d,o[0],o[1],0,d,c,u),l||a.free(h),new p(t,b,o[0],o[1],d,c)}Object.defineProperties(d,{minFilter:{get:function(){return this._minFilter},set:function(t){this.bind();var e=this.gl;if(this.type===e.FLOAT&&o.indexOf(t)>=0&&(e.getExtension("OES_texture_float_linear")||(t=e.NEAREST)),s.indexOf(t)<0)throw new Error("gl-texture2d: Unknown filter mode "+t);return e.texParameteri(e.TEXTURE_2D,e.TEXTURE_MIN_FILTER,t),this._minFilter=t}},magFilter:{get:function(){return this._magFilter},set:function(t){this.bind();var e=this.gl;if(this.type===e.FLOAT&&o.indexOf(t)>=0&&(e.getExtension("OES_texture_float_linear")||(t=e.NEAREST)),s.indexOf(t)<0)throw new Error("gl-texture2d: Unknown filter mode "+t);return

e.texParameteri(e.TEXTURE_2D,e.TEXTURE_MAG_FILTER,t),this._magFilter=t}},mipSamples:{get:function(){return this._anisoSamples},set:function(t){var e=this._anisoSamples;if(this._anisoSamples=0|Math.max(t,1),e!==this._anisoSamples){var r=this.gl.getExtension("EXT_texture_filter_anisotropic");r&&this.gl.texParameterf(this.gl.TEXTURE_2D,r.TEXTURE_MAX_ANISOTROPY_EXT,this._anisoSamples)}return this._anisoSamples}},wrapS:{get:function(){return this._wrapS},set:function(t){if(this.bind(),l.indexOf(t)<0)throw new Error("gl-texture2d: Unknown wrap mode "+t);return this.gl.texParameteri(this.gl.TEXTURE_2D,this.gl.TEXTURE_WRAP_S,t),this._wrapS=t}},wrapT:{get:function(){return this._wrapT},set:function(t){if(this.bind(),l.indexOf(t)<0)throw new Error("gl-texture2d: Unknown wrap mode "+t);return this.gl.texParameteri(this.gl.TEXTURE_2D,this.gl.TEXTURE_WRAP_T,t),this._wrapT=t}},wrap:{get:function(){return this._wrapVector},set:function(t){if(Array.isArray(t)||(t=[t,t]),2!==t.length)throw new Error("gl-texture2d: Must specify wrap mode for rows and columns");for(var e=0;e<2;++e)if(l.indexOf(t[e])<0)throw new Error("gl-texture2d: Unknown wrap mode "+t);this._wrapS=t[0],this._wrapT=t[1];var r=this.gl;return this.bind(),r.texParameteri(r.TEXTURE_2D,r.TEXTURE_WRAP_S,this._wrapS),r.texParameteri(r.TEXTURE_2D,r.TEXTURE_WRAP_T,this._wrapT),t}},shape:{get:function(){return this._shapeVector},set:function(t){if(Array.isArray(t)){if(2!==t.length)throw new Error("gl-texture2d: Invalid texture shape")}else t=[0|t,0|t];return h(this,0|t[0],0|t[1]),[0|t[0],0|t[1]]}},width:{get:function(){return this._shape[0]},set:function(t){return h(this,t|=0,this._shape[1]),t}},height:{get:function(){return this._shape[1]},set:function(t){return t|=0,h(this,this._shape[0],t),t}}}),d.bind=function(t){var e=this.gl;return void 0!==t&&e.activeTexture(e.TEXTURE0+(0|t)),e.bindTexture(e.TEXTURE_2D,this.handle),void 0!==t?0|t:e.getParameter(e.ACTIVE_TEXTURE)-e.TEXTURE0},d.dispose=function(){this.gl.deleteTexture(this.handle)},d.generateMipmap=function(){this.bind(),this.gl.generateMipmap(this.gl.TEXTURE_2D);for(var t=Math.min(this._shape[0],this._shape[1]),e=0;t>0;++e,t>>>=1)this._mipLevels.indexOf(e)<0&&this._mipLevels.push(e)},d.setPixels=function(t,e,r,o){var s=this.gl;this.bind(),Array.isArray(e)?(o=r,r=0|e[1],e=0|e[0]):(e=e||0,r=r||0),o=o||0;var l=u(t)?t:t.raw;if(l)this._mipLevels.indexOf(o)<0?(s.texImage2D(s.TEXTURE_2D,0,this.format,this.format,this.type,l),this._mipLevels.push(o)):s.texSubImage2D(s.TEXTURE_2D,o,e,r,this.format,this.type,l);else{if(!(t.shape&&t.stride&&t.data))throw new Error("gl-texture2d: Unsupported data type");if(t.shape.length<2||e+t.shape[1]>this._shape[1]>>>o||r+t.shape[0]>this._shape[0]>>>o||e<0||r<0)throw new Error("gl-texture2d: Texture dimensions are out of bounds");!function(t,e,r,o,s,l,c,u){var h=u.dtype,p=u.shape.slice();if(p.length<2||p.length>3)throw new Error("gl-texture2d: Invalid ndarray, must be 2d or 3d");var d=0,v=0,m=g(p,u.stride.slice());if("float32"===h?d=t.FLOAT:"float64"===h?(d=t.FLOAT,m=!1,h="float32"):"uint8"===h?d=t.UNSIGNED_BYTE:(d=t.UNSIGNED_BYTE,m=!1,h="uint8"),2===p.length)v=t.LUMINANCE,p=[p[0],p[1],1],u=n(u.data,p,[u.stride[0],u.stride[1],1],u.offset);else{if(3!==p.length)throw new Error("gl-texture2d: Invalid shape for texture");if(1===p[2])v=t.ALPHA;else if(2===p[2])v=t.LUMINANCE_ALPHA;else if(3===p[2])v=t.RGB;else{if(4!==p[2])throw new Error("gl-texture2d: Invalid shape for pixel coords");v=t.RGBA}p[2]}if(v!==t.LUMINANCE&&v!==t.ALPHA||s!==t.LUMINANCE&&s!==t.ALPHA||(v=s),v!==s)throw new Error("gl-texture2d: Incompatible texture format for setPixels");var y=u.size,x=c.indexOf(o)<0;if(x&&c.push(o),d===l&&m)0===u.offset&&u.data.length===y?x?t.texImage2D(t.TEXTURE_2D,o,s,p[0],p[1],0,s,l,u.data):t.texSubImage2D(t.TEXTURE_2D,o,e,r,p[0],p[1],s,l,u.data):x?t.texImage2D(t.TEXTURE_2D,o,s,p[0],p[1],0,s,l,u.data.subarray(u.offset,u.offset+y)):t.texSubImage2D(t.TEXTURE_2D,o,e,r,p[0],p[1],s,l,u.data.subarray(u.offset,u.offset+y));else{var b;b=l===t.FLOAT?a.mallocFloat32(y):a.mallocUint8(y);var _=n(b,p,[p[2],p[2]*p[0],1]);d===t.FLOAT&&l===t.UNSIGNED_BYTE?f(_,u):i.assign(_,u),x?t.texImage2D(t.TEXTURE_2D,o,s,p[0],p[1],0,s,l,b.subarray(0,y)):t.texSubImage2D(t.TEXTURE_2D,o,e,r,p[0],p[1],s,l,b.subarray(0,y)),l===t.FLOAT?a.freeFloat32(b):a.freeUint8(b)}(s,e,r,o,this.format,this.type,this._mipLevels,t)}},{ndarray:259,"nd

array-ops":254,"typedarray-pool":308}],147:[function(t,e,r){"use
strict";e.exports=function(t,e,r){e?e.bind():t.bindBuffer(t.ELEMENT_ARRAY_BUFFER,null);var
n=0|t.getParameter(t.MAX_VERTEX_ATTRIBS);if(r){if(r.length>n)throw new Error("gl-vao: Too many vertex
attributes");for(var i=0;i<r.length;++i){var a=r[i];if(a.buffer){var
o=a.buffer,s=a.size||4,l=a.type||t.FLOAT,c=!!a.normalized,u=a.stride||0,f=a.offset||0;o.bind(),t.enableVertexAttribAr
ray(i),t.vertexAttribPointer(i,s,l,c,u,f)}else{if("number"==typeof a)t.vertexAttrib1f(i,a);else
if(1===a.length)t.vertexAttrib1f(i,a[0]);else if(2===a.length)t.vertexAttrib2f(i,a[0],a[1]);else
if(3===a.length)t.vertexAttrib3f(i,a[0],a[1],a[2]);else{if(4!==a.length)throw new Error("gl-vao: Invalid vertex
attribute");t.vertexAttrib4f(i,a[0],a[1],a[2],a[3])}t.disableVertexAttribArray(i)}}for(;i<n;++i)t.disableVertexAttribA
rray(i)}else
for(t.bindBuffer(t.ARRAY_BUFFER,null),i=0;i<n;++i)t.disableVertexAttribArray(i)}},{}],148:[function(t,e,r){"us
e strict";var n=t("./do-bind.js");function
i(t){this.gl=t,this._elements=null,this._attributes=null,this._elementsType=t.UNSIGNED_SHORT}i.prototype.bind
=function(){n(this.gl,this._elements,this._attributes)},i.prototype.update=function(t,e,r){this._elements=e,this._attrib
utes=t,this._elementsType=r||this.gl.UNSIGNED_SHORT},i.prototype.dispose=function(){},i.prototype.unbind=fu
nction(){},i.prototype.draw=function(t,e,r){r=r||0;var
n=this.gl;this._elements?n.drawElements(t,e,this._elementsType,r):n.drawArrays(t,r,e)},e.exports=function(t){retur
n new i(t)}},{"./do-bind.js":147}],149:[function(t,e,r){"use strict";var n=t("./do-bind.js");function
i(t,e,r,n,i,a){this.location=t,this.dimension=e,this.a=r,this.b=n,this.c=i,this.d=a}function
a(t,e,r){this.gl=t,this._ext=e,this.handle=r,this._attribs=[],this._useElements=!1,this._elementsType=t.UNSIGNED_
SHORT}i.prototype.bind=function(t){switch(this.dimension){case 1:t.vertexAttrib1f(this.location,this.a);break;case
2:t.vertexAttrib2f(this.location,this.a,this.b);break;case 3:t.vertexAttrib3f(this.location,this.a,this.b,this.c);break;case
4:t.vertexAttrib4f(this.location,this.a,this.b,this.c,this.d)}},a.prototype.bind=function(){this._ext.bindVertexArrayO
ES(this.handle);for(var
t=0;t<this._attribs.length;++t)this._attribs[t].bind(this.gl)},a.prototype.unbind=function(){this._ext.bindVertexArray
OES(null)},a.prototype.dispose=function(){this._ext.deleteVertexArrayOES(this.handle)},a.prototype.update=functi
on(t,e,r){if(this.bind(),n(this.gl,e,t),this.unbind(),this._attribs.length=0,t)for(var a=0;a<t.length;++a){var
o=t[a];"number"==typeof o?this._attribs.push(new i(a,1,o)):Array.isArray(o)&&this._attribs.push(new
i(a,o.length,o[0],o[1],o[2],o[3]))}this._useElements=!!e,this._elementsType=r||this.gl.UNSIGNED_SHORT},a.proto
type.draw=function(t,e,r){r=r||0;var
n=this.gl;this._useElements?n.drawElements(t,e,this._elementsType,r):n.drawArrays(t,r,e)},e.exports=function(t,e){
return new a(t,e,e.createVertexArrayOES())}},{"./do-bind.js":147}],150:[function(t,e,r){"use strict";var
n=t("./lib/vao-native.js"),i=t("./lib/vao-emulated.js");function
a(t){this.bindVertexArrayOES=t.bindVertexArray.bind(t),this.createVertexArrayOES=t.createVertexArray.bind(t),t
his.deleteVertexArrayOES=t.deleteVertexArray.bind(t)}e.exports=function(t,e,r,o){var
s,l=t.createVertexArray?new
a(t):t.getExtension("OES_vertex_array_object");return(s=l?n(t,l):i(t)).update(e,r,o),s}},{"./lib/vao-
emulated.js":148,"./lib/vao-native.js":149}],151:[function(t,e,r){e.exports=function(t,e,r){return
t[0]=e[0]+r[0],t[1]=e[1]+r[1],t[2]=e[2]+r[2],t}},{}],152:[function(t,e,r){e.exports=function(t,e){var
r=n(t[0],t[1],t[2]),o=n(e[0],e[1],e[2]);i(r,r),i(o,o);var s=a(r,o);return s>1?0:Math.acos(s)};var
n=t("./fromValues"),i=t("./normalize"),a=t("./dot")},{"./dot":162,"./fromValues":168,"./normalize":179}],153:[funct
ion(t,e,r){e.exports=function(t,e){return
t[0]=Math.ceil(e[0]),t[1]=Math.ceil(e[1]),t[2]=Math.ceil(e[2]),t}},{}],154:[function(t,e,r){e.exports=function(t){var
e=new Float32Array(3);return
e[0]=t[0],e[1]=t[1],e[2]=t[2],e}},{}],155:[function(t,e,r){e.exports=function(t,e){return
t[0]=e[0],t[1]=e[1],t[2]=e[2],t}},{}],156:[function(t,e,r){e.exports=function(){var t=new Float32Array(3);return
t[0]=0,t[1]=0,t[2]=0,t}},{}],157:[function(t,e,r){e.exports=function(t,e,r){var
n=e[0],i=e[1],a=e[2],o=r[0],s=r[1],l=r[2];return t[0]=i*l-a*s,t[1]=a*o-n*l,t[2]=n*s-

i*o,t}},{}],158:[function(t,e,r){e.exports=t("./distance")},{"./distance":159}],159:[function(t,e,r){e.exports=functio
n(t,e){var r=e[0]-t[0],n=e[1]-t[1],i=e[2]-t[2];return
Math.sqrt(r*r+n*n+i*i)}},{}],160:[function(t,e,r){e.exports=t("./divide")},{"./divide":161}],161:[function(t,e,r){e.e
xports=function(t,e,r){return
t[0]=e[0]/r[0],t[1]=e[1]/r[1],t[2]=e[2]/r[2],t}},{}],162:[function(t,e,r){e.exports=function(t,e){return
t[0]*e[0]+t[1]*e[1]+t[2]*e[2]}},{}],163:[function(t,e,r){e.exports=1e-
6},{}],164:[function(t,e,r){e.exports=function(t,e){var r=t[0],i=t[1],a=t[2],o=e[0],s=e[1],l=e[2];return Math.abs(r-
o)<=n*Math.max(1,Math.abs(r),Math.abs(o))&&Math.abs(i-
s)<=n*Math.max(1,Math.abs(i),Math.abs(s))&&Math.abs(a-l)<=n*Math.max(1,Math.abs(a),Math.abs(l))};var
n=t("./epsilon")},{"./epsilon":163}],165:[function(t,e,r){e.exports=function(t,e){return
t[0]===e[0]&&t[1]===e[1]&&t[2]===e[2]}},{}],166:[function(t,e,r){e.exports=function(t,e){return
t[0]=Math.floor(e[0]),t[1]=Math.floor(e[1]),t[2]=Math.floor(e[2]),t}},{}],167:[function(t,e,r){e.exports=function(t,e,
r,i,a,o){var
s,l;for(e||(e=3),r||(r=0),l=i?Math.min(i*e+r,t.length):t.length,s=r;s<l;s+=e)n[0]=t[s],n[1]=t[s+1],n[2]=t[s+2],a(n,n,o),t
[s]=n[0],t[s+1]=n[1],t[s+2]=n[2];return t};var
n=t("./create")()},{"./create":156}],168:[function(t,e,r){e.exports=function(t,e,r){var n=new Float32Array(3);return
n[0]=t,n[1]=e,n[2]=r,n}},{}],169:[function(t,e,r){e.exports={EPSILON:t("./epsilon"),create:t("./create"),clone:t("./cl
one"),angle:t("./angle"),fromValues:t("./fromValues"),copy:t("./copy"),set:t("./set"),equals:t("./equals"),exactEquals:
t("./exactEquals"),add:t("./add"),subtract:t("./subtract"),sub:t("./sub"),multiply:t("./multiply"),mul:t("./mul"),divide:t(
"./divide"),div:t("./div"),min:t("./min"),max:t("./max"),floor:t("./floor"),ceil:t("./ceil"),round:t("./round"),scale:t("./sc
ale"),scaleAndAdd:t("./scaleAndAdd"),distance:t("./distance"),dist:t("./dist"),squaredDistance:t("./squaredDistance")
,sqrDist:t("./sqrDist"),length:t("./length"),len:t("./len"),squaredLength:t("./squaredLength"),sqrLen:t("./sqrLen"),nega
te:t("./negate"),inverse:t("./inverse"),normalize:t("./normalize"),dot:t("./dot"),cross:t("./cross"),lerp:t("./lerp"),rando
m:t("./random"),transformMat4:t("./transformMat4"),transformMat3:t("./transformMat3"),transformQuat:t("./transfo
rmQuat"),rotateX:t("./rotateX"),rotateY:t("./rotateY"),rotateZ:t("./rotateZ"),forEach:t("./forEach")}},{"./add":151,"./
angle":152,"./ceil":153,"./clone":154,"./copy":155,"./create":156,"./cross":157,"./dist":158,"./distance":159,"./div":1
60,"./divide":161,"./dot":162,"./epsilon":163,"./equals":164,"./exactEquals":165,"./floor":166,"./forEach":167,"./fro
mValues":168,"./inverse":170,"./len":171,"./length":172,"./lerp":173,"./max":174,"./min":175,"./mul":176,"./multipl
y":177,"./negate":178,"./normalize":179,"./random":180,"./rotateX":181,"./rotateY":182,"./rotateZ":183,"./round":18
4,"./scale":185,"./scaleAndAdd":186,"./set":187,"./sqrDist":188,"./sqrLen":189,"./squaredDistance":190,"./squaredL
ength":191,"./sub":192,"./subtract":193,"./transformMat3":194,"./transformMat4":195,"./transformQuat":196}],170:
[function(t,e,r){e.exports=function(t,e){return
t[0]=1/e[0],t[1]=1/e[1],t[2]=1/e[2],t}},{}],171:[function(t,e,r){e.exports=t("./length")},{"./length":172}],172:[functi
on(t,e,r){e.exports=function(t){var e=t[0],r=t[1],n=t[2];return
Math.sqrt(e*e+r*r+n*n)}},{}],173:[function(t,e,r){e.exports=function(t,e,r,n){var i=e[0],a=e[1],o=e[2];return
t[0]=i+n*(r[0]-i),t[1]=a+n*(r[1]-a),t[2]=o+n*(r[2]-o),t}},{}],174:[function(t,e,r){e.exports=function(t,e,r){return
t[0]=Math.max(e[0],r[0]),t[1]=Math.max(e[1],r[1]),t[2]=Math.max(e[2],r[2]),t}},{}],175:[function(t,e,r){e.exports=
function(t,e,r){return
t[0]=Math.min(e[0],r[0]),t[1]=Math.min(e[1],r[1]),t[2]=Math.min(e[2],r[2]),t}},{}],176:[function(t,e,r){e.exports=t(
"./multiply")},{"./multiply":177}],177:[function(t,e,r){e.exports=function(t,e,r){return
t[0]=e[0]*r[0],t[1]=e[1]*r[1],t[2]=e[2]*r[2],t}},{}],178:[function(t,e,r){e.exports=function(t,e){return t[0]=-
e[0],t[1]=-e[1],t[2]=-e[2],t}},{}],179:[function(t,e,r){e.exports=function(t,e){var
r=e[0],n=e[1],i=e[2],a=r*r+n*n+i*i;return
a>0&&(a=1/Math.sqrt(a),t[0]=e[0]*a,t[1]=e[1]*a,t[2]=e[2]*a),t}},{}],180:[function(t,e,r){e.exports=function(t,e){e
=e||1;var r=2*Math.random()*Math.PI,n=2*Math.random()-1,i=Math.sqrt(1-n*n)*e;return
t[0]=Math.cos(r)*i,t[1]=Math.sin(r)*i,t[2]=n*e,t}},{}],181:[function(t,e,r){e.exports=function(t,e,r,n){var
i=r[1],a=r[2],o=e[1]-i,s=e[2]-a,l=Math.sin(n),c=Math.cos(n);return t[0]=e[0],t[1]=i+o*c-
s*l,t[2]=a+o*l+s*c,t}},{}],182:[function(t,e,r){e.exports=function(t,e,r,n){var i=r[0],a=r[2],o=e[0]-i,s=e[2]-

a,l=Math.sin(n),c=Math.cos(n);return t[0]=i+s*l+o*c,t[1]=e[1],t[2]=a+s*c-
o*l,t}},{}],183:[function(t,e,r){e.exports=function(t,e,r,n){var i=r[0],a=r[1],o=e[0]-i,s=e[1]-
a,l=Math.sin(n),c=Math.cos(n);return t[0]=i+o*c-
s*l,t[1]=a+o*l+s*c,t[2]=e[2],t}},{}],184:[function(t,e,r){e.exports=function(t,e){return
t[0]=Math.round(e[0]),t[1]=Math.round(e[1]),t[2]=Math.round(e[2]),t}},{}],185:[function(t,e,r){e.exports=function(
t,e,r){return t[0]=e[0]*r,t[1]=e[1]*r,t[2]=e[2]*r,t}},{}],186:[function(t,e,r){e.exports=function(t,e,r,n){return
t[0]=e[0]+r[0]*n,t[1]=e[1]+r[1]*n,t[2]=e[2]+r[2]*n,t}},{}],187:[function(t,e,r){e.exports=function(t,e,r,n){return
t[0]=e,t[1]=r,t[2]=n,t}},{}],188:[function(t,e,r){e.exports=t("./squaredDistance")},{"./squaredDistance":190}],189:[f
unction(t,e,r){e.exports=t("./squaredLength")},{"./squaredLength":191}],190:[function(t,e,r){e.exports=function(t,e)
{var r=e[0]-t[0],n=e[1]-t[1],i=e[2]-t[2];return r*r+n*n+i*i}},{}],191:[function(t,e,r){e.exports=function(t){var
e=t[0],r=t[1],n=t[2];return
e*e+r*r+n*n}},{}],192:[function(t,e,r){e.exports=t("./subtract")},{"./subtract":193}],193:[function(t,e,r){e.exports=
function(t,e,r){return t[0]=e[0]-r[0],t[1]=e[1]-r[1],t[2]=e[2]-
r[2],t}},{}],194:[function(t,e,r){e.exports=function(t,e,r){var n=e[0],i=e[1],a=e[2];return
t[0]=n*r[0]+i*r[3]+a*r[6],t[1]=n*r[1]+i*r[4]+a*r[7],t[2]=n*r[2]+i*r[5]+a*r[8],t}},{}],195:[function(t,e,r){e.exports
=function(t,e,r){var n=e[0],i=e[1],a=e[2],o=r[3]*n+r[7]*i+r[11]*a+r[15];return
o=o||1,t[0]=(r[0]*n+r[4]*i+r[8]*a+r[12])/o,t[1]=(r[1]*n+r[5]*i+r[9]*a+r[13])/o,t[2]=(r[2]*n+r[6]*i+r[10]*a+r[14])/o
,t}},{}],196:[function(t,e,r){e.exports=function(t,e,r){var
n=e[0],i=e[1],a=e[2],o=r[0],s=r[1],l=r[2],c=r[3],u=c*n+s*a-l*i,f=c*i+l*n-o*a,h=c*a+o*i-s*n,p=-o*n-s*i-l*a;return
t[0]=u*c+p*-o+f*-l-h*-s,t[1]=f*c+p*-s+h*-o-u*-l,t[2]=h*c+p*-l+u*-s-f*-
o,t}},{}],197:[function(t,e,r){e.exports=function(t,e,r){return
t[0]=e[0]+r[0],t[1]=e[1]+r[1],t[2]=e[2]+r[2],t[3]=e[3]+r[3],t}},{}],198:[function(t,e,r){e.exports=function(t){var
e=new Float32Array(4);return
e[0]=t[0],e[1]=t[1],e[2]=t[2],e[3]=t[3],e}},{}],199:[function(t,e,r){e.exports=function(t,e){return
t[0]=e[0],t[1]=e[1],t[2]=e[2],t[3]=e[3],t}},{}],200:[function(t,e,r){e.exports=function(){var t=new
Float32Array(4);return t[0]=0,t[1]=0,t[2]=0,t[3]=0,t}},{}],201:[function(t,e,r){e.exports=function(t,e){var r=e[0]-
t[0],n=e[1]-t[1],i=e[2]-t[2],a=e[3]-t[3];return
Math.sqrt(r*r+n*n+i*i+a*a)}},{}],202:[function(t,e,r){e.exports=function(t,e,r){return
t[0]=e[0]/r[0],t[1]=e[1]/r[1],t[2]=e[2]/r[2],t[3]=e[3]/r[3],t}},{}],203:[function(t,e,r){e.exports=function(t,e){return
t[0]*e[0]+t[1]*e[1]+t[2]*e[2]+t[3]*e[3]}},{}],204:[function(t,e,r){e.exports=function(t,e,r,n){var i=new
Float32Array(4);return
i[0]=t,i[1]=e,i[2]=r,i[3]=n,i}},{}],205:[function(t,e,r){e.exports={create:t("./create"),clone:t("./clone"),fromValues:t(
"./fromValues"),copy:t("./copy"),set:t("./set"),add:t("./add"),subtract:t("./subtract"),multiply:t("./multiply"),divide:t("
./divide"),min:t("./min"),max:t("./max"),scale:t("./scale"),scaleAndAdd:t("./scaleAndAdd"),distance:t("./distance"),s
quaredDistance:t("./squaredDistance"),length:t("./length"),squaredLength:t("./squaredLength"),negate:t("./negate"),i
nverse:t("./inverse"),normalize:t("./normalize"),dot:t("./dot"),lerp:t("./lerp"),random:t("./random"),transformMat4:t("
./transformMat4"),transformQuat:t("./transformQuat")}},{"./add":197,"./clone":198,"./copy":199,"./create":200,"./di
stance":201,"./divide":202,"./dot":203,"./fromValues":204,"./inverse":206,"./length":207,"./lerp":208,"./max":209,"./
min":210,"./multiply":211,"./negate":212,"./normalize":213,"./random":214,"./scale":215,"./scaleAndAdd":216,"./set
":217,"./squaredDistance":218,"./squaredLength":219,"./subtract":220,"./transformMat4":221,"./transformQuat":222
}],206:[function(t,e,r){e.exports=function(t,e){return
t[0]=1/e[0],t[1]=1/e[1],t[2]=1/e[2],t[3]=1/e[3],t}},{}],207:[function(t,e,r){e.exports=function(t){var
e=t[0],r=t[1],n=t[2],i=t[3];return
Math.sqrt(e*e+r*r+n*n+i*i)}},{}],208:[function(t,e,r){e.exports=function(t,e,r,n){var
i=e[0],a=e[1],o=e[2],s=e[3];return t[0]=i+n*(r[0]-i),t[1]=a+n*(r[1]-a),t[2]=o+n*(r[2]-o),t[3]=s+n*(r[3]-
s),t}},{}],209:[function(t,e,r){e.exports=function(t,e,r){return
t[0]=Math.max(e[0],r[0]),t[1]=Math.max(e[1],r[1]),t[2]=Math.max(e[2],r[2]),t[3]=Math.max(e[3],r[3]),t}},{}],210:[
function(t,e,r){e.exports=function(t,e,r){return

t[0]=Math.min(e[0],r[0]),t[1]=Math.min(e[1],r[1]),t[2]=Math.min(e[2],r[2]),t[3]=Math.min(e[3],r[3]),t}},{}],211:[function(t,e,r){e.exports=function(t,e,r){return
t[0]=e[0]*r[0],t[1]=e[1]*r[1],t[2]=e[2]*r[2],t[3]=e[3]*r[3],t}},{}],212:[function(t,e,r){e.exports=function(t,e){return
t[0]=-e[0],t[1]=-e[1],t[2]=-e[2],t[3]=-e[3],t}},{}],213:[function(t,e,r){e.exports=function(t,e){var
r=e[0],n=e[1],i=e[2],a=e[3],o=r*r+n*n+i*i+a*a;return
o>0&&(o=1/Math.sqrt(o),t[0]=r*o,t[1]=n*o,t[2]=i*o,t[3]=a*o),t}},{}],214:[function(t,e,r){var
n=t("./normalize"),i=t("./scale");e.exports=function(t,e){return
e=e||1,t[0]=Math.random(),t[1]=Math.random(),t[2]=Math.random(),t[3]=Math.random(),n(t,t),i(t,t,e),t}},{"./normalize":213,"./scale":215}],215:[function(t,e,r){e.exports=function(t,e,r){return
t[0]=e[0]*r,t[1]=e[1]*r,t[2]=e[2]*r,t[3]=e[3]*r,t}},{}],216:[function(t,e,r){e.exports=function(t,e,r,n){return
t[0]=e[0]+r[0]*n,t[1]=e[1]+r[1]*n,t[2]=e[2]+r[2]*n,t[3]=e[3]+r[3]*n,t}},{}],217:[function(t,e,r){e.exports=function(t,e,r,n,i){return t[0]=e,t[1]=r,t[2]=n,t[3]=i,t}},{}],218:[function(t,e,r){e.exports=function(t,e){var r=e[0]-t[0],n=e[1]-t[1],i=e[2]-t[2],a=e[3]-t[3];return r*r+n*n+i*i+a*a}},{}],219:[function(t,e,r){e.exports=function(t){var
e=t[0],r=t[1],n=t[2],i=t[3];return e*e+r*r+n*n+i*i}},{}],220:[function(t,e,r){e.exports=function(t,e,r){return
t[0]=e[0]-r[0],t[1]=e[1]-r[1],t[2]=e[2]-r[2],t[3]=e[3]-r[3],t}},{}],221:[function(t,e,r){e.exports=function(t,e,r){var
n=e[0],i=e[1],a=e[2],o=e[3];return
t[0]=r[0]*n+r[4]*i+r[8]*a+r[12]*o,t[1]=r[1]*n+r[5]*i+r[9]*a+r[13]*o,t[2]=r[2]*n+r[6]*i+r[10]*a+r[14]*o,t[3]=r[3]*n+r[7]*i+r[11]*a+r[15]*o,t}},{}],222:[function(t,e,r){e.exports=function(t,e,r){var
n=e[0],i=e[1],a=e[2],o=r[0],s=r[1],l=r[2],c=r[3],u=c*n+s*a-l*i,f=c*i+l*n-o*a,h=c*a+o*i-s*n,p=-o*n-s*i-l*a;return
t[0]=u*c+p*-o+f*-l-h*-s,t[1]=f*c+p*-s+h*-o-u*-l,t[2]=h*c+p*-l+u*-s-f*-o,t[3]=e[3],t}},{}],223:[function(t,e,r){var n=t("glsl-tokenizer"),i=t("atob-lite");e.exports=function(t){for(var
e=Array.isArray(t)?t:n(t),r=0;r<e.length;r++){var a=e[r];if("preprocessor"===a.type){var
o=a.data.match(/\#define\s+SHADER_NAME(_B64)?\s+(.+)$/);if(o&&o[2]){var
s=o[1],l=o[2];return(s?i(l):l).trim()}}}}},{"atob-lite":13,"glsl-tokenizer":230}],224:[function(t,e,r){e.exports=function(t){var
e,r,f,h=0,p=0,d=l,g=[],v=[],m=1,y=0,x=0,b=!1,_=!1,w="",T=a,k=n;"300 es"===(t=t||{}).version&&(T=s,k=o);var
A={},M={};for(h=0;h<T.length;h++)A[T[h]]=!0;for(h=0;h<k.length;h++)M[k[h]]=!0;return function(t){return
v=[],null!==t?function(t){var
r;for(h=0,t.toString&&(t=t.toString()),w+=t.replace(/\r\n/g,"\n"),f=w.length;e=w[h],h<f;){switch(r=h,d){case
0:h=I();break;case 1:h=P();break;case 2:h=C();break;case 3:h=O();break;case 4:h=R();break;case
11:h=D();break;case 5:h=F();break;case c:h=B();break;case 9:h=L();break;case
l:h=E()}if(r!==h)switch(w[r]){case"\n":y=0,++m;break;default:++y}}return
p+=h,w=w.slice(h),v}(t):(g.length&&S(g.join("")),d=10,S("(eof)"),v)};function
S(t){t.length&&v.push({type:u[d],data:t,position:x,line:m,column:y})}function E(){return
g=g.length?[]:g,"/"===r&&"*"===e?(x=p+h-1,d=0,r=e,h+1):"/"===r&&"/"===e?(x=p+h-1,d=1,r=e,h+1):"#"===e?(d=2,x=p+h,h):/\s/.test(e)?(d=9,x=p+h,h):(b=/\d/.test(e),_=/[^\w_]/.test(e),x=p+h,d=b?4:_?3:c,h)}function L(){return/[^\s]/g.test(e)?(S(g.join("")),d=l,h):(g.push(e),r=e,h+1)}function
C(){return"\r"!==e&&"\n"!==e||"\\"===r?(g.push(e),r=e,h+1):(S(g.join("")),d=l,h)}function P(){return C()}function
I(){return"/"===e&&"*"===r?(g.push(e),S(g.join("")),d=l,h+1):(g.push(e),r=e,h+1)}function
O(){if("."===r&&/\d/.test(e))return d=5,h;if("/"===r&&"*"===e)return d=0,h;if("/"===r&&"/"===e)return
d=1,h;if("."===e&&g.length){for(;z(g););return d=5,h}if(";"===e||")"===e||"("===e){if(g.length)for(;z(g););return
S(e),d=l,h+1}var t=2===g.length&&"="!==e;if(/[\w_\d\s]/.test(e)||t){for(;z(g););return d=l,h}return
g.push(e),r=e,h+1}function z(t){for(var e,r,n=0;;){if(e=i.indexOf(t.slice(0,t.length+n).join("")),r=i[e],-1===e){if(n--+t.length>0)continue;r=t.slice(0,1).join("")}return S(r),x+=r.length,(g=g.slice(r.length)).length}}function
D(){return/[^a-fA-F0-9]/.test(e)?(S(g.join("")),d=l,h):(g.push(e),r=e,h+1)}function
R(){return"."===e||/[eE]/.test(e)?(g.push(e),d=5,r=e,h+1):"x"===e&&1===g.length&&"0"===g[0]?(d=11,g.push(e),r=e,h+1):/[^\d]/.test(e)?(S(g.join("")),d=l,h):(g.push(e),r=e,h+1)}function
F(){return"f"===e&&(g.push(e),r=e,h+=1),/[eE]/.test(e)?(g.push(e),r=e,h+1):("-

"!==e&&"+"!==e||!/[eE]/.test(r))&&/[^\d]/.test(e)?(S(g.join("")),d=l,h):(g.push(e),r=e,h+1)}function B(){if(/[^\d\w_]/.test(e)){var t=g.join("");return d=M[t]?8:A[t]?7:6,S(g.join("")),d=l,h}return g.push(e),r=e,h+1}};var n=t("./lib/literals"),i=t("./lib/operators"),a=t("./lib/builtins"),o=t("./lib/literals-300es"),s=t("./lib/builtins-300es"),l=999,c=9999,u=["block-comment","line-comment","preprocessor","operator","integer","float","ident","builtin","keyword","whitespace","eof","integer"]},{"./lib/builtins":226,"./lib/builtins-300es":225,"./lib/literals":228,"./lib/literals-300es":227,"./lib/operators":229}],225:[function(t,e,r){var n=t("./builtins");n=n.slice().filter((function(t){return!/^(gl_|texture)/.test(t)})),e.exports=n.concat(["gl_VertexID","gl_InstanceID","gl_Position","gl_PointSize","gl_FragCoord","gl_FrontFacing","gl_FragDepth","gl_PointCoord","gl_MaxVertexAttribs","gl_MaxVertexUniformVectors","gl_MaxVertexOutputVectors","gl_MaxFragmentInputVectors","gl_MaxVertexTextureImageUnits","gl_MaxCombinedTextureImageUnits","gl_MaxTextureImageUnits","gl_MaxFragmentUniformVectors","gl_MaxDrawBuffers","gl_MinProgramTexelOffset","gl_MaxProgramTexelOffset","gl_DepthRangeParameters","gl_DepthRange","trunc","round","roundEven","isnan","isinf","floatBitsToInt","floatBitsToUint","intBitsToFloat","uintBitsToFloat","packSnorm2x16","unpackSnorm2x16","packUnorm2x16","unpackUnorm2x16","packHalf2x16","unpackHalf2x16","outerProduct","transpose","determinant","inverse","texture","textureSize","textureProj","textureLod","textureOffset","texelFetch","texelFetchOffset","textureProjOffset","textureLodOffset","textureProjLod","textureProjLodOffset","textureGrad","textureGradOffset","textureProjGrad","textureProjGradOffset"])},{"./builtins":226}],226:[function(t,e,r){e.exports=["abs","acos","all","any","asin","atan","ceil","clamp","cos","cross","dFdx","dFdy","degrees","distance","dot","equal","exp","exp2","faceforward","floor","fract","gl_BackColor","gl_BackLightModelProduct","gl_BackLightProduct","gl_BackMaterial","gl_BackSecondaryColor","gl_ClipPlane","gl_ClipVertex","gl_Color","gl_DepthRange","gl_DepthRangeParameters","gl_EyePlaneQ","gl_EyePlaneR","gl_EyePlaneS","gl_EyePlaneT","gl_Fog","gl_FogCoord","gl_FogFragCoord","gl_FogParameters","gl_FragColor","gl_FragCoord","gl_FragData","gl_FragDepth","gl_FragDepthEXT","gl_FrontColor","gl_FrontFacing","gl_FrontLightModelProduct","gl_FrontLightProduct","gl_FrontMaterial","gl_FrontSecondaryColor","gl_LightModel","gl_LightModelParameters","gl_LightModelProducts","gl_LightProducts","gl_LightSource","gl_LightSourceParameters","gl_MaterialParameters","gl_MaxClipPlanes","gl_MaxCombinedTextureImageUnits","gl_MaxDrawBuffers","gl_MaxFragmentUniformComponents","gl_MaxLights","gl_MaxTextureCoords","gl_MaxTextureImageUnits","gl_MaxTextureUnits","gl_MaxVaryingFloats","gl_MaxVertexAttribs","gl_MaxVertexTextureImageUnits","gl_MaxVertexUniformComponents","gl_ModelViewMatrix","gl_ModelViewMatrixInverse","gl_ModelViewMatrixInverseTranspose","gl_ModelViewMatrixTranspose","gl_ModelViewProjectionMatrix","gl_ModelViewProjectionMatrixInverse","gl_ModelViewProjectionMatrixInverseTranspose","gl_ModelViewProjectionMatrixTranspose","gl_MultiTexCoord0","gl_MultiTexCoord1","gl_MultiTexCoord2","gl_MultiTexCoord3","gl_MultiTexCoord4","gl_MultiTexCoord5","gl_MultiTexCoord6","gl_MultiTexCoord7","gl_Normal","gl_NormalMatrix","gl_NormalScale","gl_ObjectPlaneQ","gl_ObjectPlaneR","gl_ObjectPlaneS","gl_ObjectPlaneT","gl_Point","gl_PointCoord","gl_PointParameters","gl_PointSize","gl_Position","gl_ProjectionMatrix","gl_ProjectionMatrixInverse","gl_ProjectionMatrixInverseTranspose","gl_ProjectionMatrixTranspose","gl_SecondaryColor","gl_TexCoord","gl_TextureEnvColor","gl_TextureMatrix","gl_TextureMatrixInverse","gl_TextureMatrixInverseTranspose","gl_TextureMatrixTranspose","gl_Vertex","greaterThan","greaterThanEqual","inversesqrt","length","lessThan","lessThanEqual","log","log2","matrixCompMult","max","min","mix","mod","normalize","not","notEqual","pow","radians","reflect","refract","sign","sin","smoothstep","sqrt","step","tan","texture2D","texture2DLod","texture2DProj","texture2DProjLod","textureCube","textureCubeLod","texture2DLodEXT","texture2DProjLodEXT","textureCubeLodEXT","texture2DGradEXT","texture2DProjGradEXT","textureCubeGradEXT"]},{}],227:[function(t,e,r){var n=t("./literals");e.exports=n.slice().concat(["layout","centroid","smooth","case","mat2x2","mat2x3","mat2x4","mat3x2","mat3x3","mat3x4","mat4x2","mat4x3","mat4x4","uvec2","uvec3","uvec4","samplerCubeShadow","sampler2DArray","sampler2DArrayShadow","isampler2D","isampler3D","isamplerCube","isampler2DArray","usampler2D","usampler3D","usamplerCube","usampler2DArray","coherent","restrict","readonly","writeonly","resource","atomic_uint","noperspective","patch","sample","subroutine","common","partition","active","filter","image1D","image2D","image3D","imageCube","iimage1D","iimage2D","iimage3D","iimageCube","uimage1D","uimage2D","uimage3D",

"uimageCube","image1DArray","image2DArray","iimage1DArray","iimage2DArray","uimage1DArray","uimage2DArray","image1DShadow","image2DShadow","image1DArrayShadow","image2DArrayShadow","imageBuffer","iimageBuffer","uimageBuffer","sampler1DArray","sampler1DArrayShadow","isampler1D","isampler1DArray","usampler1D","usampler1DArray","isampler2DRect","usampler2DRect","samplerBuffer","isamplerBuffer","usamplerBuffer","sampler2DMS","isampler2DMS","usampler2DMS","sampler2DMSArray","isampler2DMSArray","usampler2DMSArray"])},{"./literals":228}],228:[function(t,e,r){e.exports=["precision","highp","mediump","lowp","attribute","const","uniform","varying","break","continue","do","for","while","if","else","in","out","inout","float","int","uint","void","bool","true","false","discard","return","mat2","mat3","mat4","vec2","vec3","vec4","ivec2","ivec3","ivec4","bvec2","bvec3","bvec4","sampler1D","sampler2D","sampler3D","samplerCube","sampler1DShadow","sampler2DShadow","struct","asm","class","union","enum","typedef","template","this","packed","goto","switch","default","inline","noinline","volatile","public","static","extern","external","interface","long","short","double","half","fixed","unsigned","input","output","hvec2","hvec3","hvec4","dvec2","dvec3","dvec4","fvec2","fvec3","fvec4","sampler2DRect","sampler3DRect","sampler2DRectShadow","sizeof","cast","namespace","using"]},{}],229:[function(t,e,r){e.exports=["<<=",">>=","++","--","<<",">>","<=",">=","==","!=","&&","||","+=","-=","*=","/=","%=","&=","^^","^=","|=","(",")","[","]",".","!","~","*","/","%","+","-","<",">","&","^","|","?",":","=",",",";","{","}"]},{}],230:[function(t,e,r){var n=t("./index");e.exports=function(t,e){var r=n(e),i=[];return(i=i.concat(r(t))).concat(r(null))}},{"./index":224}],231:[function(t,e,r){e.exports=function(t){"string"==typeof t&&(t=[t]);for(var e=[].slice.call(arguments,1),r=[],n=0;n<t.length-1;n++)r.push(t[n],e[n]||"");return r.push(t[n]),r.join("")}},{}],232:[function(t,e,r){"use strict";var n=t("is-browser");e.exports=n&&function(){var t=!1;try{var e=Object.defineProperty({},"passive",{get:function(){t=!0}});window.addEventListener("test",null,e),window.removeEventListener("test",null,e)}catch(e){t=!1}return t}()},{"is-browser":236}],233:[function(t,e,r){"use strict";e.exports=function(t,e){var r=t.length;if(0===r)throw new Error("Must have at least d+1 points");var i=t[0].length;if(r<=i)throw new Error("Must input at least d+1 points");var o=t.slice(0,i+1),s=n.apply(void 0,o);if(0===s)throw new Error("Input not in general position");for(var l=new Array(i+1),u=0;u<=i;++u)l[u]=u;s<0&&(l[0]=1,l[1]=0);var f=new a(l,new Array(i+1),!1),h=f.adjacent,p=new Array(i+2);for(u=0;u<=i;++u){for(var d=l.slice(),g=0;g<=i;++g)g===u&&(d[g]=-1);var v=d[0];d[0]=d[1],d[1]=v;var m=new a(d,new Array(i+1),!0);h[u]=m,p[u]=m}for(p[i+1]=f,u=0;u<=i;++u){d=h[u].vertices;var y=h[u].adjacent;for(g=0;g<=i;++g){var x=d[g];if(x<0)y[g]=f;else for(var b=0;b<=i;++b)h[b].vertices.indexOf(x)<0&&(y[g]=h[b])}}var _=new c(i,o,p),w=!!e;for(u=i+1;u<r;++u)_.insert(t[u],w);return _.boundary()};var n=t("robust-orientation"),i=t("simplicial-complex").compareCells;function a(t,e,r){this.vertices=t,this.adjacent=e,this.boundary=r,this.lastVisited=-1}function o(t,e,r){this.vertices=t,this.cell=e,this.index=r}function s(t,e){return i(t.vertices,e.vertices)}a.prototype.flip=function(){var t=this.vertices[0];this.vertices[0]=this.vertices[1],this.vertices[1]=t;var e=this.adjacent[0];this.adjacent[0]=this.adjacent[1],this.adjacent[1]=e};var l=[];function c(t,e,r){this.dimension=t,this.vertices=e,this.simplices=r,this.interior=r.filter((function(t){return!t.boundary})),this.tuple=new Array(t+1);for(var i=0;i<=t;++i)this.tuple[i]=this.vertices[i];var a,o=l[t];o||(o=l[t]=((a=n[t+1])||(a=n),function(t){return function(){var e=this.tuple;return t.apply(this,e)}}(a))),this.orient=o}var u=c.prototype;u.handleBoundaryDegeneracy=function(t,e){var r=this.dimension,n=this.vertices.length-1,i=this.tuple,a=this.vertices,o=[t];for(t.lastVisited=-n;o.length>0;)for(var s=(t=o.pop()).adjacent,l=0;l<=r;++l){var c=s[l];if(c.boundary&&!(c.lastVisited<=-n)){for(var u=c.vertices,f=0;f<=r;++f){var h=u[f];i[f]=h<0?e:a[h]}var p=this.orient();if(p>0)return c;c.lastVisited=-n,0===p&&o.push(c)}}return null},u.walk=function(t,e){var r=this.vertices.length-1,n=this.dimension,i=this.vertices,a=this.tuple,o=e?this.interior.length*Math.random()|0:this.interior.length-1,s=this.interior[o];t:for(;!s.boundary;){for(var

l=s.vertices,c=s.adjacent,u=0;u<=n;++u)a[u]=i[l[u]];for(s.lastVisited=r,u=0;u<=n;++u){var f=c[u];if(!(f.lastVisited>=r)){var h=a[u];a[u]=t;var p=this.orient();if(a[u]=h,p<0){s=f;continue t}f.boundary?f.lastVisited=-r:f.lastVisited=r}}return}return s},u.addPeaks=function(t,e){var r=this.vertices.length-1,n=this.dimension,i=this.vertices,l=this.tuple,c=this.interior,u=this.simplices,f=[e];e.lastVisited=r,e.vertices[e.vertices.indexOf(-1)]=r,e.boundary=!1,c.push(e);for(var h=[];f.length>0;){var p=(e=f.pop()).vertices,d=e.adjacent,g=p.indexOf(r);if(!(g<0))for(var v=0;v<=n;++v)if(v!==g){var m=d[v];if(m.boundary&&!(m.lastVisited>=r)){var y=m.vertices;if(m.lastVisited!==-r){for(var x=0,b=0;b<=n;++b)y[b]<0?(x=b,l[b]=t):l[b]=i[y[b]];if(this.orient()>0){y[x]=r,m.boundary=!1,c.push(m),f.push(m),m.lastVisited=r;continue}m.lastVisited=-r}var _=m.adjacent,w=p.slice(),T=d.slice(),k=new a(w,T,!0);u.push(k);var A=_.indexOf(e);if(!(A<0))for(_[A]=k,T[g]=m,w[v]=-1,T[v]=e,d[v]=k,k.flip(),b=0;b<=n;++b){var M=w[b];if(!(M<0||M===r)){for(var S=new Array(n-1),E=0,L=0;L<=n;++L){var C=w[L];C<0||L===b||(S[E++]=C)}h.push(new o(S,k,b))}}}}}for(h.sort(s),v=0;v+1<h.length;v+=2){var P=h[v],I=h[v+1],O=P.index,z=I.index;O<0||z<0||(P.cell.adjacent[P.index]=I.cell,I.cell.adjacent[I.index]=P.cell)}},u.insert=function(t,e){var r=this.vertices;r.push(t);var n=this.walk(t,e);if(n){for(var i=this.dimension,a=this.tuple,o=0;o<=i;++o){var s=n.vertices[o];a[o]=s<0?t:r[s]}var l=this.orient(a);l<0||(0!==l||(n=this.handleBoundaryDegeneracy(n,t)))&&this.addPeaks(t,n)}},u.boundary=function(){for(var t=this.dimension,e=[],r=this.simplices,n=r.length,i=0;i<n;++i){var a=r[i];if(a.boundary){for(var o=new Array(t),s=a.vertices,l=0,c=0,u=0;u<=t;++u)s[u]>=0?o[l++]=s[u]:c=1&u;if(c===(1&t)){var f=o[0];o[0]=o[1],o[1]=f}e.push(o)}}return e}},{"robust-orientation":284,"simplicial-complex":293}],234:[function(t,e,r){"use strict";var n=t("binary-search-bounds");function i(t,e,r,n,i){this.mid=t,this.left=e,this.right=r,this.leftPoints=n,this.rightPoints=i,this.count=(e?e.count:0)+(r?r.count:0)+n.length}e.exports=function(t){return t&&0!==t.length?new m(v(t)):new m(null)};var a=i.prototype;function o(t,e){t.mid=e.mid,t.left=e.left,t.right=e.right,t.leftPoints=e.leftPoints,t.rightPoints=e.rightPoints,t.count=e.count}function s(t,e){var r=v(e);t.mid=r.mid,t.left=r.left,t.right=r.right,t.leftPoints=r.leftPoints,t.rightPoints=r.rightPoints,t.count=r.count}function l(t,e){var r=t.intervals([]);r.push(e),s(t,r)}function c(t,e){var r=t.intervals([]),n=r.indexOf(e);return n<0?0:(r.splice(n,1),s(t,r),1)}function u(t,e,r){for(var n=0;n<t.length&&t[n][0]<=e;++n){var i=r(t[n]);if(i)return i}}function f(t,e,r){for(var n=t.length-1;n>=0&&t[n][1]>=e;--n){var i=r(t[n]);if(i)return i}}function h(t,e){for(var r=0;r<t.length;++r){var n=e(t[r]);if(n)return n}}function p(t,e){return t-e}function d(t,e){return t[0]-e[0]||t[1]-e[1]}function g(t,e){return t[1]-e[1]||t[0]-e[0]}function v(t){if(0===t.length)return null;for(var e=[],r=0;r<t.length;++r)e.push(t[r][0],t[r][1]);e.sort(p);var n=e[e.length>>1],a=[],o=[],s=[];for(r=0;r<t.length;++r){var l=t[r];l[1]<n?a.push(l):n<l[0]?o.push(l):s.push(l)}var c=s,u=s.slice();return c.sort(d),u.sort(g),new i(n,v(a),v(o),c,u)}function m(t){this.root=t}a.intervals=function(t){return t.push.apply(t,this.leftPoints),this.left&&this.left.intervals(t),this.right&&this.right.intervals(t),t},a.insert=function(t){var e=this.count-this.leftPoints.length;if(this.count+=1,t[1]<this.mid)this.left?4*(this.left.count+1)>3*(e+1)?l(this,t):this.left.insert(t):this.left=v([t]);else if(t[0]>this.mid)this.right?4*(this.right.count+1)>3*(e+1)?l(this,t):this.right.insert(t):this.right=v([t]);else{var r=n.ge(this.leftPoints,t,d),i=n.ge(this.rightPoints,t,g);this.leftPoints.splice(r,0,t),this.rightPoints.splice(i,0,t)}},a.remove=function(t){var e=this.count-this.leftPoints;if(t[1]<this.mid)return this.left?4*(this.right?this.right.count:0)>3*(e-1)?c(this,t):2===(s=this.left.remove(t))?(this.left=null,this.count-=1,1):(1===s&&(this.count-=1),s):0;if(t[0]>this.mid)return this.right?4*(this.left?this.left.count:0)>3*(e-1)?c(this,t):2===(s=this.right.remove(t))?(this.right=null,this.count-=1,1):(1===s&&(this.count-=1),s):0;if(1===this.count)return this.leftPoints[0]===t?2:0;if(1===this.leftPoints.length&&this.leftPoints[0]===t){if(this.left&&this.right){for(var r=this,i=this.left;i.right;)r=i,i=i.right;if(r===this)i.right=this.right;else{var a=this.left,s=this.right;r.count-=i.count,r.right=i.left,i.left=a,i.right=s}o(this,i),this.count=(this.left?this.left.count:0)+(this.right?this.right.count:0)+

this.leftPoints.length}else this.left?o(this,this.left):o(this,this.right);return
1}for(a=n.ge(this.leftPoints,t,d);a<this.leftPoints.length&&this.leftPoints[a][0]===t[0];++a)if(this.leftPoints[a]===t)
for(this.count-
=1,this.leftPoints.splice(a,1),s=n.ge(this.rightPoints,t,g);s<this.rightPoints.length&&this.rightPoints[s][1]===t[1];++
s)if(this.rightPoints[s]===t)return this.rightPoints.splice(s,1),1;return 0},a.queryPoint=function(t,e){return
t<this.mid?this.left&&(r=this.left.queryPoint(t,e))?r:u(this.leftPoints,t,e):t>this.mid?this.right&&(r=this.right.query
Point(t,e))?r:f(this.rightPoints,t,e):h(this.leftPoints,e);var r},a.queryInterval=function(t,e,r){var n;return
t<this.mid&&this.left&&(n=this.left.queryInterval(t,e,r))||e>this.mid&&this.right&&(n=this.right.queryInterval(t,e,r
))?n:e<this.mid?u(this.leftPoints,e,r):t>this.mid?f(this.rightPoints,t,r):h(this.leftPoints,r)};var
y=m.prototype;y.insert=function(t){this.root?this.root.insert(t):this.root=new
i(t[0],null,null,[t],[t])},y.remove=function(t){if(this.root){var e=this.root.remove(t);return
2===e&&(this.root=null),0!==e}return!1},y.queryPoint=function(t,e){if(this.root)return
this.root.queryPoint(t,e)},y.queryInterval=function(t,e,r){if(t<=e&&this.root)return
this.root.queryInterval(t,e,r)},Object.defineProperty(y,"count",{get:function(){return
this.root?this.root.count:0}}),Object.defineProperty(y,"intervals",{get:function(){return
this.root?this.root.intervals([]):[]}})},{"binary-search-bounds":31}],235:[function(t,e,r){"use
strict";e.exports=function(t){for(var e=new Array(t),r=0;r<t;++r)e[r]=r;return
e}},{}],236:[function(t,e,r){e.exports=!0},{}],237:[function(t,e,r){function
n(t){return!!t.constructor&&"function"==typeof
t.constructor.isBuffer&&t.constructor.isBuffer(t)}e.exports=function(t){return
null!=t&&(n(t)||function(t){return"function"==typeof t.readFloatLE&&"function"==typeof
t.slice&&n(t.slice(0,0))}(t)||!!t._isBuffer)}},{}],238:[function(t,e,r){"use
strict";e.exports=a,e.exports.isMobile=a,e.exports.default=a;var
n=/(android|bb\d+|meego).+mobile|avantgo|bada\/|blackberry|blazer|compal|elaine|fennec|hiptop|iemobile|ip(hone|od
)|iris|kindle|lge |maemo|midp|mmp|mobile.+firefox|netfront|opera m(ob|in)i|palm(
os)?|phone|p(ixi|re)\/|plucker|pocket|psp|series[46]0|symbian|treo|up\.(browser|link)|vodafone|wap|windows
(ce|phone)|xda|xiino/i,i=/(android|bb\d+|meego).+mobile|avantgo|bada\/|blackberry|blazer|compal|elaine|fennec|hipto
p|iemobile|ip(hone|od)|iris|kindle|lge |maemo|midp|mmp|mobile.+firefox|netfront|opera m(ob|in)i|palm(
os)?|phone|p(ixi|re)\/|plucker|pocket|psp|series[46]0|symbian|treo|up\.(browser|link)|vodafone|wap|windows
(ce|phone)|xda|xiino|android|ipad|playbook|silk/i;function a(t){t||(t={});var e=t.ua;if(e||"undefined"==typeof
navigator||(e=navigator.userAgent),e&&e.headers&&"string"==typeof e.headers["user-
agent"]&&(e=e.headers["user-agent"]),"string"!=typeof e)return!1;var
r=t.tablet?i.test(e):n.test(e);return!r&&t.tablet&&t.featureDetect&&navigator&&navigator.maxTouchPoints>1&&-
1!==e.indexOf("Macintosh")&&-1!==e.indexOf("Safari")&&(r=!0),r}},{}],239:[function(t,e,r){"use
strict";e.exports=function(t){for(var
e,r=t.length,n=0;n<r;n++)if(((e=t.charCodeAt(n))<9||e>13)&&32!==e&&133!==e&&160!==e&&5760!==e&&615
8!==e&&(e<8192||e>8205)&&8232!==e&&8233!==e&&8239!==e&&8287!==e&&8288!==e&&12288!==e&&6
5279!==e)return!1;return!0}},{}],240:[function(t,e,r){e.exports=function(t,e,r){return t*(1-
r)+e*r}},{}],241:[function(t,e,r){var n=t("./normalize"),i=t("gl-mat4/create"),a=t("gl-mat4/clone"),o=t("gl-
mat4/determinant"),s=t("gl-mat4/invert"),l=t("gl-mat4/transpose"),c={length:t("gl-vec3/length"),normalize:t("gl-
vec3/normalize"),dot:t("gl-vec3/dot"),cross:t("gl-
vec3/cross")},u=i(),f=i(),h=[0,0,0,0],p=[[0,0,0],[0,0,0],[0,0,0]],d=[0,0,0];function
g(t,e,r,n,i){t[0]=e[0]*n+r[0]*i,t[1]=e[1]*n+r[1]*i,t[2]=e[2]*n+r[2]*i}e.exports=function(t,e,r,i,v,m){if(e||(e=[0,0,0]),
r||(r=[0,0,0]),i||(i=[0,0,0]),v||(v=[0,0,0,1]),m||(m=[0,0,0,1]),!n(u,t))return!1;if(a(f,u),f[3]=0,f[7]=0,f[11]=0,f[15]=1,Ma
th.abs(o(f)<1e-8))return!1;var
y,x,b,_,w,T,k,A=u[3],M=u[7],S=u[11],E=u[12],L=u[13],C=u[14],P=u[15];if(0!==A||0!==M||0!==S){if(h[0]=A,h[1]
=M,h[2]=S,h[3]=P,!s(f,f))return!1;l(f,f),y=v,b=f,_=(x=h)[0],w=x[1],T=x[2],k=x[3],y[0]=b[0]*_+b[4]*w+b[8]*T+b[
12]*k,y[1]=b[1]*_+b[5]*w+b[9]*T+b[13]*k,y[2]=b[2]*_+b[6]*w+b[10]*T+b[14]*k,y[3]=b[3]*_+b[7]*w+b[11]*T

+b[15]*k}else
v[0]=v[1]=v[2]=0,v[3]=1;if(e[0]=E,e[1]=L,e[2]=C,function(t,e){t[0][0]=e[0],t[0][1]=e[1],t[0][2]=e[2],t[1][0]=e[4],t[1][1]=e[5],t[1][2]=e[6],t[2][0]=e[8],t[2][1]=e[9],t[2][2]=e[10]}(p,u),r[0]=c.length(p[0]),c.normalize(p[0],p[0]),i[0]=c.dot(p[0],p[1]),g(p[1],p[1],p[0],1,-i[0]),r[1]=c.length(p[1]),c.normalize(p[1],p[1]),i[0]/=r[1],i[1]=c.dot(p[0],p[2]),g(p[2],p[2],p[0],1,-i[1]),i[2]=c.dot(p[1],p[2]),g(p[2],p[2],p[1],1,-i[2]),r[2]=c.length(p[2]),c.normalize(p[2],p[2]),i[1]/=r[2],i[2]/=r[2],c.cross(d,p[1],p[2]),c.dot(p[0],d)<0)for(var I=0;I<3;I++)r[I]*=-1,p[I][0]*=-1,p[I][1]*=-1,p[I][2]*=-1;return m[0]=.5*Math.sqrt(Math.max(1+p[0][0]-p[1][1]-p[2][2],0)),m[1]=.5*Math.sqrt(Math.max(1-p[0][0]+p[1][1]-p[2][2],0)),m[2]=.5*Math.sqrt(Math.max(1-p[0][0]-p[1][1]+p[2][2],0)),m[3]=.5*Math.sqrt(Math.max(1+p[0][0]+p[1][1]+p[2][2],0)),p[2][1]>p[1][2]&&(m[0]=-m[0]),p[0][2]>p[2][0]&&(m[1]=-m[1]),p[1][0]>p[0][1]&&(m[2]=-m[2]),!0}},{"./normalize":242,"gl-mat4/clone":92,"gl-mat4/create":93,"gl-mat4/determinant":94,"gl-mat4/invert":98,"gl-mat4/transpose":109,"gl-vec3/cross":157,"gl-vec3/dot":162,"gl-vec3/length":172,"gl-vec3/normalize":179}],242:[function(t,e,r){e.exports=function(t,e){var r=e[15];if(0===r)return!1;for(var n=1/r,i=0;i<16;i++)t[i]=e[i]*n;return!0}},{}],243:[function(t,e,r){var n=t("gl-vec3/lerp"),i=t("mat4-recompose"),a=t("mat4-decompose"),o=t("gl-mat4/determinant"),s=t("quat-slerp"),l=f(),c=f(),u=f();function f(){return{translate:h(),scale:h(1),skew:h(),perspective:[0,0,0,1],quaternion:[0,0,0,1]}}function h(t){return[t||0,t||0,t||0]}e.exports=function(t,e,r,f){if(0===o(e)||0===o(r))return!1;var h=a(e,l.translate,l.scale,l.skew,l.perspective,l.quaternion),p=a(r,c.translate,c.scale,c.skew,c.perspective,c.quaternion);return!(!h||!p||(n(u.translate,l.translate,c.translate,f),n(u.skew,l.skew,c.skew,f),n(u.scale,l.scale,c.scale,f),n(u.perspective,l.perspective,c.perspective,f),s(u.quaternion,l.quaternion,c.quaternion,f),i(t,u.translate,u.scale,u.skew,u.perspective,u.quaternion),0))}},{"gl-mat4/determinant":94,"gl-vec3/lerp":173,"mat4-decompose":241,"mat4-recompose":244,"quat-slerp":271}],244:[function(t,e,r){var n={identity:t("gl-mat4/identity"),translate:t("gl-mat4/translate"),multiply:t("gl-mat4/multiply"),create:t("gl-mat4/create"),scale:t("gl-mat4/scale"),fromRotationTranslation:t("gl-mat4/fromRotationTranslation")},i=(n.create(),n.create());e.exports=function(t,e,r,a,o,s){return n.identity(t),n.fromRotationTranslation(t,s,e),t[3]=o[0],t[7]=o[1],t[11]=o[2],t[15]=o[3],n.identity(i),0!==a[2]&&(i[9]=a[2],n.multiply(t,t,i)),0!==a[1]&&(i[9]=0,i[8]=a[1],n.multiply(t,t,i)),0!==a[0]&&(i[8]=0,i[4]=a[0],n.multiply(t,t,i)),n.scale(t,t,r),t}},{"gl-mat4/create":93,"gl-mat4/fromRotationTranslation":96,"gl-mat4/identity":97,"gl-mat4/multiply":100,"gl-mat4/scale":107,"gl-mat4/translate":108}],245:[function(t,e,r){"use strict";var n=t("binary-search-bounds"),i=t("mat4-interpolate"),a=t("gl-mat4/invert"),o=t("gl-mat4/rotateX"),s=t("gl-mat4/rotateY"),l=t("gl-mat4/rotateZ"),c=t("gl-mat4/lookAt"),u=t("gl-mat4/translate"),f=(t("gl-mat4/scale"),t("gl-vec3/normalize")),h=[0,0,0];function p(t){this._components=t.slice(),this._time=[0],this.prevMatrix=t.slice(),this.nextMatrix=t.slice(),this.computedMatrix=t.slice(),this.computedInverse=t.slice(),this.computedEye=[0,0,0],this.computedUp=[0,0,0],this.computedCenter=[0,0,0],this.computedRadius=[0],this._limits=[-1/0,1/0]}e.exports=function(t){return new p((t=t||{}).matrix||[1,0,0,0,0,1,0,0,0,0,1,0,0,0,0,1])};var d=p.prototype;d.recalcMatrix=function(t){var e=this._time,r=n.le(e,t),o=this.computedMatrix;if(!(r<0)){var s=this._components;if(r===e.length-1)for(var l=16*r,c=0;c<16;++c)o[c]=s[l++];else{var u=e[r+1]-e[r],h=(l=16*r,this.prevMatrix),p=!0;for(c=0;c<16;++c)h[c]=s[l++];var d=this.nextMatrix;for(c=0;c<16;++c)d[c]=s[l++],p=p&&h[c]===d[c];if(u<1e-6||p)for(c=0;c<16;++c)o[c]=h[c];else i(o,h,d,(t-e[r])/u)}var g=this.computedUp;g[0]=o[1],g[1]=o[5],g[2]=o[9],f(g,g);var v=this.computedInverse;a(v,o);var m=this.computedEye,y=v[15];m[0]=v[12]/y,m[1]=v[13]/y,m[2]=v[14]/y;var x=this.computedCenter,b=Math.exp(this.computedRadius[0]);for(c=0;c<3;++c)x[c]=m[c]-o[2+4*c]*b}},d.idle=function(t){if(!(t<this.lastT())){for(var e=this._components,r=e.length-16,n=0;n<16;++n)e.push(e[r++]);this._time.push(t)}},d.flush=function(t){var e=n.gt(this._time,t)-2;e<0||(this._time.splice(0,e),this._components.splice(0,16*e))},d.lastT=function(){return this._time[this._time.length-

1]},d.lookAt=function(t,e,r,n){this.recalcMatrix(t),e=e||this.computedEye,r=r||h,n=n||this.computedUp,this.setMatrix(t,c(this.computedMatrix,e,r,n));for(var i=0,a=0;a<3;++a)i+=Math.pow(r[a]-e[a],2);i=Math.log(Math.sqrt(i)),this.computedRadius[0]=i},d.rotate=function(t,e,r,n){this.recalcMatrix(t);var i=this.computedInverse;e&&s(i,i,e),r&&o(i,i,r),n&&l(i,i,n),this.setMatrix(t,a(this.computedMatrix,i))};var g=[0,0,0];d.pan=function(t,e,r,n){g[0]=-(e||0),g[1]=-(r||0),g[2]=-(n||0),this.recalcMatrix(t);var i=this.computedInverse;u(i,i,g),this.setMatrix(t,a(i,i))},d.translate=function(t,e,r,n){g[0]=e||0,g[1]=r||0,g[2]=n||0,this.recalcMatrix(t);var i=this.computedMatrix;u(i,i,g),this.setMatrix(t,i)},d.setMatrix=function(t,e){if(!(t<this.lastT())){this._time.push(t);for(var r=0;r<16;++r)this._components.push(e[r])}},d.setDistance=function(t,e){this.computedRadius[0]=e},d.setDistanceLimits=function(t,e){var r=this._limits;r[0]=t,r[1]=e},d.getDistanceLimits=function(t){var e=this._limits;return t?(t[0]=e[0],t[1]=e[1],t):e}},{"binary-search-bounds":31,"gl-mat4/invert":98,"gl-mat4/lookAt":99,"gl-mat4/rotateX":104,"gl-mat4/rotateY":105,"gl-mat4/rotateZ":106,"gl-mat4/scale":107,"gl-mat4/translate":108,"gl-vec3/normalize":179,"mat4-interpolate":243}],246:[function(t,e,r){"use strict";e.exports=function(t){var e=t.length;if(e<3){for(var r=new Array(e),i=0;i<e;++i)r[i]=i;return 2===e&&t[0][0]===t[1][0]&&t[0][1]===t[1][1]?[0]:r}var a=new Array(e);for(i=0;i<e;++i)a[i]=i;a.sort((function(e,r){return t[e][0]-t[r][0]||t[e][1]-t[r][1]}));var o=[a[0],a[1]],s=[a[0],a[1]];for(i=2;i<e;++i){for(var l=a[i],c=t[l],u=o.length;u>1&&n(t[o[u-2]],t[o[u-1]],c)<=0;)u-=1,o.pop();for(o.push(l),u=s.length;u>1&&n(t[s[u-2]],t[s[u-1]],c)>=0;)u-=1,s.pop();s.push(l)}r=new Array(s.length+o.length-2);for(var f=0,h=(i=0,o.length);i<h;++i)r[f++]=o[i];for(var p=s.length-2;p>0;--p)r[f++]=s[p];return r};var n=t("robust-orientation")[3]},{"robust-orientation":284}],247:[function(t,e,r){"use strict";e.exports=function(t,e){e||(e=t,t=window);var r=0,i=0,a=0,o={shift:!1,alt:!1,control:!1,meta:!1},s=!1;function l(t){var e=!1;return"altKey"in t&&(e=e||t.altKey!==o.alt,o.alt=!!t.altKey),"shiftKey"in t&&(e=e||t.shiftKey!==o.shift,o.shift=!!t.shiftKey),"ctrlKey"in t&&(e=e||t.ctrlKey!==o.control,o.control=!!t.ctrlKey),"metaKey"in t&&(e=e||t.metaKey!==o.meta,o.meta=!!t.metaKey),e}function c(t,s){var c=n.x(s),u=n.y(s);"buttons"in s&&(t=0|s.buttons),(t!==r||c!==i||u!==a||l(s))&&(r=0|t,i=c||0,a=u||0,e&&e(r,i,a,o))}function u(t){c(0,t)}function f(){(r||i||a||o.shift||o.alt||o.meta||o.control)&&(i=a=0,r=0,o.shift=o.alt=o.control=o.meta=!1,e&&e(0,0,0,o))}function h(t){l(t)&&e&&e(r,i,a,o)}function p(t){0===n.buttons(t)?c(0,t):c(r,t)}function d(t){c(r|n.buttons(t),t)}function g(t){c(r&~n.buttons(t),t)}function v(){s||(s=!0,t.addEventListener("mousemove",p),t.addEventListener("mousedown",d),t.addEventListener("mouseup",g),t.addEventListener("mouseleave",u),t.addEventListener("mouseenter",u),t.addEventListener("mouseout",u),t.addEventListener("mouseover",u),t.addEventListener("blur",f),t.addEventListener("keyup",h),t.addEventListener("keydown",h),t.addEventListener("keypress",h),t!==window&&(window.addEventListener("blur",f),window.addEventListener("keyup",h),window.addEventListener("keydown",h),window.addEventListener("keypress",h)))}v();var m={element:t};return Object.defineProperties(m,{enabled:{get:function(){return s},set:function(e){e?v():s&&(s=!1,t.removeEventListener("mousemove",p),t.removeEventListener("mousedown",d),t.removeEventListener("mouseup",g),t.removeEventListener("mouseleave",u),t.removeEventListener("mouseenter",u),t.removeEventListener("mouseout",u),t.removeEventListener("mouseover",u),t.removeEventListener("blur",f),t.removeEventListener("keyup",h),t.removeEventListener("keydown",h),t.removeEventListener("keypress",h),t!==window&&(window.removeEventListener("blur",f),window.removeEventListener("keyup",h),window.removeEventListener("keydown",h),window.removeEventListener("keypress",h)))},enumerable:!0},buttons:{get:function(){return r},enumerable:!0},x:{get:function(){return i},enumerable:!0},y:{get:function(){return a},enumerable:!0},mods:{get:function(){return o},enumerable:!0}}),m};var n=t("mouse-event")},{"mouse-event":249}],248:[function(t,e,r){var n={left:0,top:0};e.exports=function(t,e,r){e=e||t.currentTarget||t.srcElement,Array.isArray(r)||(r=[0,0]);var i,a=t.clientX||0,o=t.clientY||0,s=(i=e)===window||i===document||i===document.body?n:i.getBoundingClientRect();return r[0]=a-s.left,r[1]=o-s.top,r}},{}],249:[function(t,e,r){"use strict";function n(t){return

t.target||t.srcElement||window}r.buttons=function(t){if("object"==typeof t){if("buttons"in t)return t.buttons;if("which"in t){if(2===(e=t.which))return 4;if(3===e)return 2;if(e>0)return 1<<e-1}else if("button"in t){var e;if(1===(e=t.button))return 4;if(2===e)return 2;if(e>=0)return 1<<e}}return 0},r.element=n,r.x=function(t){if("object"==typeof t){if("offsetX"in t)return t.offsetX;var e=n(t).getBoundingClientRect();return t.clientX-e.left}return 0},r.y=function(t){if("object"==typeof t){if("offsetY"in t)return t.offsetY;var e=n(t).getBoundingClientRect();return t.clientY-e.top}return 0}},{}],250:[function(t,e,r){"use strict";var n=t("to-px");e.exports=function(t,e,r){"function"==typeof t&&(r=!!e,e=t,t=window);var i=n("ex",t),a=function(t){r&&t.preventDefault();var n=t.deltaX||0,a=t.deltaY||0,o=t.deltaZ||0,s=1;switch(t.deltaMode){case 1:s=i;break;case 2:s=window.innerHeight}if(a*=s,o*=s,(n*=s)||a||o)return e(n,a,o,t)};return t.addEventListener("wheel",a),a}},{"to-px":304}],251:[function(t,e,r){"use strict";var n=t("typedarray-pool");e.exports=function(t){function e(t){throw new Error("ndarray-extract-contour: "+t)}"object"!=typeof t&&e("Must specify arguments");var r=t.order;Array.isArray(r)||e("Must specify order");var a=t.arrayArguments||1;a<1&&e("Must have at least one array argument");var o=t.scalarArguments||0;o<0&&e("Scalar arg count must be > 0"),"function"!=typeof t.vertex&&e("Must specify vertex creation function"),"function"!=typeof t.cell&&e("Must specify cell creation function"),"function"!=typeof t.phase&&e("Must specify phase function");for(var s=t.getters||[],l=new Array(a),c=0;c<a;++c)s.indexOf(c)>=0?l[c]=!0:l[c]=!1;return function(t,e,r,a,o,s){var l=[s,o].join(",");return(0,i[l])(t,e,r,n.mallocUint32,n.freeUint32)}(t.vertex,t.cell,t.phase,0,r,l)};var i={"false,0,1":function(t,e,r,n,i){return function(a,o,s,l){var c,u=0|a.shape[0],f=0|a.shape[1],h=a.data,p=0|a.offset,d=0|a.stride[0],g=0|a.stride[1],v=p,m=0|-d,y=0,x=0|-g,b=0,_=-d-g|0,w=0,T=0|d,k=g-d*u|0,A=0,M=0,S=0,E=2*u|0,L=n(E),C=n(E),P=0,I=0,O=-1,z=-1,D=0,R=0|-u,F=0|u,B=0,N=-u-1|0,j=u-1|0,U=0,V=0,q=0;for(A=0;A<u;++A)L[P++]=r(h[v],o,s,l),v+=T;if(v+=k,f>0){if(M=1,L[P++]=r(h[v],o,s,l),v+=T,u>0)for(A=1,c=h[v],I=L[P]=r(c,o,s,l),D=L[P+O],B=L[P+R],U=L[P+N],I===D&&I===B&&I===U||(y=h[v+m],b=h[v+x],w=h[v+_],t(A,M,c,y,b,w,I,D,B,U,o,s,l),V=C[P]=S++),P+=1,v+=T,A=2;A<u;++A)c=h[v],I=L[P]=r(c,o,s,l),D=L[P+O],B=L[P+R],U=L[P+N],I===D&&I===B&&I===U||(y=h[v+m],b=h[v+x],w=h[v+_],t(A,M,c,y,b,w,I,D,B,U,o,s,l),V=C[P]=S++,U!==D&&e(C[P+O],V,w,y,U,D,o,s,l)),P+=1,v+=T;for(v+=k,P=0,q=O,O=z,z=q,q=R,R=F,F=q,q=N,N=j,j=q,M=2;M<f;++M){if(L[P++]=r(h[v],o,s,l),v+=T,u>0)for(A=1,c=h[v],I=L[P]=r(c,o,s,l),D=L[P+O],B=L[P+R],U=L[P+N],I===D&&I===B&&I===U||(y=h[v+m],b=h[v+x],w=h[v+_],t(A,M,c,y,b,w,I,D,B,U,o,s,l),V=C[P]=S++,U!==B&&e(C[P+R],V,b,w,B,U,o,s,l)),P+=1,v+=T,A=2;A<u;++A)c=h[v],I=L[P]=r(c,o,s,l),D=L[P+O],B=L[P+R],U=L[P+N],I===D&&I===B&&I===U||(y=h[v+m],b=h[v+x],w=h[v+_],t(A,M,c,y,b,w,I,D,B,U,o,s,l),V=C[P]=S++,U!==B&&e(C[P+R],V,b,w,B,U,o,s,l),U!==D&&e(C[P+O],V,w,y,U,D,o,s,l)),P+=1,v+=T;1&M&&(P=0),q=O,O=z,z=q,q=R,R=F,F=q,q=N,N=j,j=q,v+=k}}i(C),i(L)}},"false,1,0":function(t,e,r,n,i){return function(a,o,s,l){var c,u=0|a.shape[0],f=0|a.shape[1],h=a.data,p=0|a.offset,d=0|a.stride[0],g=0|a.stride[1],v=p,m=0|-d,y=0,x=0|-g,b=0,_=-d-g|0,w=0,T=0|g,k=d-g*f|0,A=0,M=0,S=0,E=2*f|0,L=n(E),C=n(E),P=0,I=0,O=-1,z=-1,D=0,R=0|-f,F=0|f,B=0,N=-f-1|0,j=f-1|0,U=0,V=0,q=0;for(M=0;M<f;++M)L[P++]=r(h[v],o,s,l),v+=T;if(v+=k,u>0){if(A=1,L[P++]=r(h[v],o,s,l),v+=T,f>0)for(M=1,c=h[v],I=L[P]=r(c,o,s,l),B=L[P+R],D=L[P+O],U=L[P+N],I===B&&I===D&&I===U||(y=h[v+m],b=h[v+x],w=h[v+_],t(A,M,c,y,b,w,I,B,D,U,o,s,l),V=C[P]=S++),P+=1,v+=T,M=2;M<f;++M)c=h[v],I=L[P]=r(c,o,s,l),B=L[P+R],D=L[P+O],U=L[P+N],I===B&&I===D&&I===U||(y=h[v+m],b=h[v+x],w=h[v+_],t(A,M,c,y,b,w,I,B,D,U,o,s,l),V=C[P]=S++,U!==D&&e(C[P+O],V,b,w,D,U,o,s,l)),P+=1,v+=T;for(v+=k,P=0,q=R,R=F,F=q,q=O,O=z,z=q,q=N,N=j,j=q,A=2;A<u;++A){if(L[P++]=r(h[v],o,s,l),v+=T,f>0)for(M=1,c=h[v],I=L[P]=r(c,o,s,l),B=L[P+R],D=L[P+O],U=L[P+N],I===B&&I===D&&I===U||(y=h[v+m],b=h[v+x],w=h[v+_],t(A,M,c,y,b,w,I,B,D,U,o,s,l),V=C[P]=S++,U!==B&&e(C[P+R],V,w,y,U,B,o,s,l)),P+=1,v+=T,M=2;M<f;++M)c=h[v],I=L[P]=r(c,o,s,l),B=L[P+R],D=L[P+O],U=L[P+N],I===B&&I===D&&I===U||(y=h[v+m],b=h[v+x],w=h[v+_],t(A,M,c,y,b,w,I,B,D,U,o,s,l),V=C[P]=S++,U!==D&&e(C[P+O],V,b,w,D,U,o,s,l),U!==B&&e(C[P+R],V,w,y,U,B,o,s,l)),P+=1,v+=T;1&A&&(P=0),q=R,R=F,F=q,q=O,O=z,z=q,q=N,N=j,j=q,v+=k}}i(C),i(L)}}}},{"typedarray-pool":308}],252:[function(t,e,r){"use strict";var n=t("dup"),i={zero:function(t,e,r,n){var i=t[0];n|=0;var

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a=0,o=r[0];for(a=0;a<i;++a)e[n]=0,n+=o},fdTemplate1:function(t,e,r,n,i,a,o){var s=t[0],l=r[0],c=-
1*l,u=l;n|=0,o|=0;var f=0,h=l,p=a[0];for(f=0;f<s;++f)i[o]=.5*(e[n+c]-
e[n+u]),n+=h,o+=p},fdTemplate2:function(t,e,r,n,i,a,o,s,l,c){var
u=t[0],f=t[1],h=r[0],p=r[1],d=a[0],g=a[1],v=l[0],m=l[1],y=-1*h,x=h,b=-1*p,_=p;n|=0,o|=0,c|=0;var
w=0,T=0,k=p,A=h-f*p,M=g,S=d-f*g,E=m,L=v-f*m;for(T=0;T<u;++T){for(w=0;w<f;++w)i[o]=.5*(e[n+y]-
e[n+x]),s[c]=.5*(e[n+b]-e[n+_]),n+=k,o+=M,c+=E;n+=A,o+=S,c+=L}}},a={cdiff:function(t){var e={};return
function(r,n,i){var
a=r.dtype,o=r.order,s=n.dtype,l=n.order,c=i.dtype,u=i.order,f=[a,o.join(),s,l.join(),c,u.join()].join(),h=e[f];return
h||(e[f]=h=t([a,o,s,l,c,u])),h(r.shape.slice(0),r.data,r.stride,0|r.offset,n.data,n.stride,0|n.offset,i.data,i.stride,0|i.offset)}
},zero:function(t){var e={};return function(r){var n=r.dtype,i=r.order,a=[n,i.join()].join(),o=e[a];return
o||(e[a]=o=t([n,i])),o(r.shape.slice(0),r.data,r.stride,0|r.offset)}},fdTemplate1:function(t){var e={};return
function(r,n){var i=r.dtype,a=r.order,o=n.dtype,s=n.order,l=[i,a.join(),o,s.join()].join(),c=e[l];return
c||(e[l]=c=t([i,a,o,s])),c(r.shape.slice(0),r.data,r.stride,0|r.offset,n.data,n.stride,0|n.offset)}},fdTemplate2:function(t){
var e={};return function(r,n,i){var
a=r.dtype,o=r.order,s=n.dtype,l=n.order,c=i.dtype,u=i.order,f=[a,o.join(),s,l.join(),c,u.join()].join(),h=e[f];return
h||(e[f]=h=t([a,o,s,l,c,u])),h(r.shape.slice(0),r.data,r.stride,0|r.offset,n.data,n.stride,0|n.offset,i.data,i.stride,0|i.offset)}
}};function o(t){return(0,a[t.funcName])(s.bind(void 0,t))}function s(t){return i[t.funcName]}function l(t){return
o({funcName:t.funcName})}var c={},u={},f=l({funcName:"cdiff"}),h=l({funcName:"zero"});function p(t){return t
in c?c[t]:c[t]=l({funcName:"fdTemplate"+t})}function d(t,e,r,n){return function(t,i){var a=i.shape.slice();return
a[0]>2&&a[1]>2&&n(i.pick(-1,-1).lo(1,1).hi(a[0]-2,a[1]-2),t.pick(-1,-1,0).lo(1,1).hi(a[0]-2,a[1]-2),t.pick(-1,-
1,1).lo(1,1).hi(a[0]-2,a[1]-2)),a[1]>2&&(r(i.pick(0,-1).lo(1).hi(a[1]-2),t.pick(0,-1,1).lo(1).hi(a[1]-2)),e(t.pick(0,-
1,0).lo(1).hi(a[1]-2))),a[1]>2&&(r(i.pick(a[0]-1,-1).lo(1).hi(a[1]-2),t.pick(a[0]-1,-1,1).lo(1).hi(a[1]-2)),e(t.pick(a[0]-
1,-1,0).lo(1).hi(a[1]-2))),a[0]>2&&(r(i.pick(-1,0).lo(1).hi(a[0]-2),t.pick(-1,0,0).lo(1).hi(a[0]-2)),e(t.pick(-
1,0,1).lo(1).hi(a[0]-2))),a[0]>2&&(r(i.pick(-1,a[1]-1).lo(1).hi(a[0]-2),t.pick(-1,a[1]-1,0).lo(1).hi(a[0]-2)),e(t.pick(-
1,a[1]-1,1).lo(1).hi(a[0]-2))),t.set(0,0,0,0),t.set(0,0,1,0),t.set(a[0]-1,0,0,0),t.set(a[0]-1,0,1,0),t.set(0,a[1]-
1,0,0),t.set(0,a[1]-1,1,0),t.set(a[0]-1,a[1]-1,0,0),t.set(a[0]-1,a[1]-1,1,0),t}}e.exports=function(t,e,r){return
Array.isArray(r)||(r=n(e.dimension,"string"==typeof
r?r:"clamp")),0===e.size?t:0===e.dimension?(t.set(0),t):function(t){var e=t.join();if(a=u[e])return a;for(var
r=t.length,n=[f,h],i=1;i<=r;++i)n.push(p(i));var a=d.apply(void 0,n);return
u[e]=a,a}(r)(t,e)}},{dup:65}],253:[function(t,e,r){"use strict";function n(t,e){var r=Math.floor(e),n=e-
r,i=0<=r&&r<t.shape[0],a=0<=r+1&&r+1<t.shape[0];return(1-n)*(i?+t.get(r):0)+n*(a?+t.get(r+1):0)}function
i(t,e,r){var n=Math.floor(e),i=e-n,a=0<=n&&n<t.shape[0],o=0<=n+1&&n+1<t.shape[0],s=Math.floor(r),l=r-
s,c=0<=s&&s<t.shape[1],u=0<=s+1&&s+1<t.shape[1],f=a&&c?t.get(n,s):0,h=a&&u?t.get(n,s+1):0;return(1-l)*((1-
i)*f+i*(o&&c?t.get(n+1,s):0))+l*((1-i)*h+i*(o&&u?t.get(n+1,s+1):0))}function a(t,e,r,n){var i=Math.floor(e),a=e-
i,o=0<=i&&i<t.shape[0],s=0<=i+1&&i+1<t.shape[0],l=Math.floor(r),c=r-
l,u=0<=l&&l<t.shape[1],f=0<=l+1&&l+1<t.shape[1],h=Math.floor(n),p=n-
h,d=0<=h&&h<t.shape[2],g=0<=h+1&&h+1<t.shape[2],v=o&&u&&d?t.get(i,l,h):0,m=o&&f&&d?t.get(i,l+1,h):0,
y=s&&u&&d?t.get(i+1,l,h):0,x=s&&f&&d?t.get(i+1,l+1,h):0,b=o&&u&&g?t.get(i,l,h+1):0,_=o&&f&&g?t.get(i,l+
1,h+1):0;return(1-p)*((1-c)*((1-a)*v+a*y)+c*((1-a)*m+a*x))+p*((1-c)*((1-
a)*b+a*(s&&u&&g?t.get(i+1,l,h+1):0))+c*((1-a)*_+a*(s&&f&&g?t.get(i+1,l+1,h+1):0)))}function o(t){var
e,r,n=0|t.shape.length,i=new Array(n),a=new Array(n),o=new Array(n),s=new
Array(n);for(e=0;e<n;++e)r=+arguments[e+1],i[e]=Math.floor(r),a[e]=r-
i[e],o[e]=0<=i[e]&&i[e]<t.shape[e],s[e]=0<=i[e]+1&&i[e]+1<t.shape[e];var
l,c,u,f=0;t:for(e=0;e<1<<n;++e){for(c=1,u=t.offset,l=0;l<n;++l)if(e&1<<l){if(!s[l])continue
t;c*=a[l],u+=t.stride[l]*(i[l]+1)}else{if(!o[l])continue t;c*=1-a[l],u+=t.stride[l]*i[l]}f+=c*t.data[u]}return
f}e.exports=function(t,e,r,s){switch(t.shape.length){case 0:return 0;case 1:return n(t,e);case 2:return i(t,e,r);case
3:return a(t,e,r,s);default:return o.apply(void
0,arguments)}},e.exports.d1=n,e.exports.d2=i,e.exports.d3=a},{}],254:[function(t,e,r){"use strict";var
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n={"float64,2,1,0":function(){return function(t,e,r,n,i){var a=t[0],o=t[1],s=t[2],l=r[0],c=r[1],u=r[2];n|=0;var f=0,h=0,p=0,d=u,g=c-s*u,v=l-o*c;for(p=0;p<a;++p){for(h=0;h<o;++h){for(f=0;f<s;++f)e[n]/=i,n+=d;n+=g}n+=v}}},"uint8,2,0,1,float64,2,1,0":function(){return function(t,e,r,n,i,a,o,s){for(var l=t[0],c=t[1],u=t[2],f=r[0],h=r[1],p=r[2],d=a[0],g=a[1],v=a[2],m=n|=0,y=o|=0,x=0|t[0];x>0;){x<64?(l=x,x=0):(l=64,x-=64);for(var b=0|t[1];b>0;){b<64?(c=b,b=0):(c=64,b-=64),n=m+x*f+b*h,o=y+x*d+b*g;var _=0,w=0,T=0,k=p,A=f-u*p,M=h-l*f,S=v,E=d-u*v,L=g-l*d;for(T=0;T<c;++T){for(w=0;w<l;++w){for(_=0;_<u;++_)e[n]=i[o]*s,n+=k,o+=S;n+=A,o+=E}n+=M,o+=L}}}}},"float32,1,0,float32,1,0":function(){return function(t,e,r,n,i,a,o){var s=t[0],l=t[1],c=r[0],u=r[1],f=a[0],h=a[1];n|=0,o|=0;var p=0,d=0,g=u,v=c-l*u,m=h,y=f-l*h;for(d=0;d<s;++d){for(p=0;p<l;++p)e[n]=i[o],n+=g,o+=m;n+=v,o+=y}}},"float32,1,0,float32,0,1":function(){return function(t,e,r,n,i,a,o){for(var s=t[0],l=t[1],c=r[0],u=r[1],f=a[0],h=a[1],p=n|=0,d=o|=0,g=0|t[1];g>0;){g<64?(l=g,g=0):(l=64,g-=64);for(var v=0|t[0];v>0;){v<64?(s=v,v=0):(s=64,v-=64),n=p+g*u+v*c,o=d+g*h+v*f;var m=0,y=0,x=u,b=c-l*u,_=h,w=f-l*h;for(y=0;y<s;++y){for(m=0;m<l;++m)e[n]=i[o],n+=x,o+=_;n+=b,o+=w}}}}},"uint8,2,0,1,uint8,1,2,0":function(){return function(t,e,r,n,i,a,o){for(var s=t[0],l=t[1],c=t[2],u=r[0],f=r[1],h=r[2],p=a[0],d=a[1],g=a[2],v=n|=0,m=o|=0,y=0|t[2];y>0;){y<64?(c=y,y=0):(c=64,y-=64);for(var x=0|t[0];x>0;){x<64?(s=x,x=0):(s=64,x-=64);for(var b=0|t[1];b>0;){b<64?(l=b,b=0):(l=64,b-=64),n=v+y*h+x*u+b*f,o=m+y*g+x*p+b*d;var _=0,w=0,T=0,k=h,A=u-c*h,M=f-s*u,S=g,E=p-c*g,L=d-s*p;for(T=0;T<l;++T){for(w=0;w<s;++w){for(_=0;_<c;++_)e[n]=i[o],n+=k,o+=S;n+=A,o+=E}n+=M,o+=L}}}}}},"uint8,2,0,1,array,2,0,1":function(){return function(t,e,r,n,i,a,o){var s=t[0],l=t[1],c=t[2],u=r[0],f=r[1],h=r[2],p=a[0],d=a[1],g=a[2];n|=0,o|=0;var v=0,m=0,y=0,x=h,b=u-c*h,_=f-s*u,w=g,T=p-c*g,k=d-s*p;for(y=0;y<l;++y){for(m=0;m<s;++m){for(v=0;v<c;++v)e[n]=i[o],n+=x,o+=w;n+=b,o+=T}n+=_,o+=k}}}},i=function(t,e){var r=e.join(",");return(0,n[r])()},a={mul:function(t){var e={};return function(r,n,i){var a=r.dtype,o=r.order,s=n.dtype,l=n.order,c=i.dtype,u=i.order,f=[a,o.join(),s,l.join(),c,u.join()].join(),h=e[f];return h||(e[f]=h=t([a,o,s,l,c,u])),h(r.shape.slice(0),r.data,r.stride,0|r.offset,n.data,n.stride,0|n.offset,i.data,i.stride,0|i.offset)}},muls:function(t){var e={};return function(r,n,i){var a=r.dtype,o=r.order,s=n.dtype,l=n.order,c=[a,o.join(),s,l.join()].join(),u=e[c];return u||(e[c]=u=t([a,o,s,l])),u(r.shape.slice(0),r.data,r.stride,0|r.offset,n.data,n.stride,0|n.offset,i)}},mulseq:function(t){var e={};return function(r,n){var i=r.dtype,a=r.order,o=[i,a.join()].join(),s=e[o];return s||(e[o]=s=t([i,a])),s(r.shape.slice(0),r.data,r.stride,0|r.offset,n)}},div:function(t){var e={};return function(r,n,i){var a=r.dtype,o=r.order,s=n.dtype,l=n.order,c=i.dtype,u=i.order,f=[a,o.join(),s,l.join(),c,u.join()].join(),h=e[f];return h||(e[f]=h=t([a,o,s,l,c,u])),h(r.shape.slice(0),r.data,r.stride,0|r.offset,n.data,n.stride,0|n.offset,i.data,i.stride,0|i.offset)}},divs:function(t){var e={};return function(r,n,i){var a=r.dtype,o=r.order,s=n.dtype,l=n.order,c=[a,o.join(),s,l.join()].join(),u=e[c];return u||(e[c]=u=t([a,o,s,l])),u(r.shape.slice(0),r.data,r.stride,0|r.offset,n.data,n.stride,0|n.offset,i)}},divseq:function(t){var e={};return function(r,n){var i=r.dtype,a=r.order,o=[i,a.join()].join(),s=e[o];return s||(e[o]=s=t([i,a])),s(r.shape.slice(0),r.data,r.stride,0|r.offset,n)}},assign:function(t){var e={};return function(r,n){var i=r.dtype,a=r.order,o=n.dtype,s=n.order,l=[i,a.join(),o,s.join()].join(),c=e[l];return c||(e[l]=c=t([i,a,o,s])),c(r.shape.slice(0),r.data,r.stride,0|r.offset,n.data,n.stride,0|n.offset)}}};function o(t){return e={funcName:t.funcName},(0,a[e.funcName])(i.bind(void 0,e));var e}var s={mul:"*",div:"/"};!function(){for(var t in s)r[t]=o({funcName:t}),r[t+"s"]=o({funcName:t+"s"}),r[t+"seq"]=o({funcName:t+"seq"})}(),r.assign=o({funcName:"assign"})},{}],255:[function(t,e,r){"use strict";var n=t("ndarray"),i=t("./doConvert.js");e.exports=function(t,e){for(var r=[],a=t,o=1;Array.isArray(a);)r.push(a.length),o*=a.length,a=a[0];return 0===r.length?n():(e||(e=n(new Float64Array(o),r)),i(e,t),e)}},{"./doConvert.js":256,ndarray:259}],256:[function(t,e,r){"use strict";var

n,i=function(){return function(t,e,r,n,i){var a=t[0],o=t[1],s=t[2],l=r[0],c=r[1],u=r[2],f=[0,0,0];n|=0;var h=0,p=0,d=0,g=u,v=c-s*u,m=l-o*c;for(d=0;d<a;++d){for(p=0;p<o;++p){for(h=0;h<s;++h){var y,x=i;for(y=0;y<f.length-1;++y)x=x[f[y]];e[n]=x[f[f.length-1]],n+=g,++f[2]}n+=v,f[2]-=s,++f[1]}n+=m,f[1]-=o,++f[0]}};e.exports=(n={funcName:"convert"},function(t){var e={};return function(r,n){var i=r.dtype,a=r.order,o=[i,a.join()].join(),s=e[o];return s||(e[o]=s=t([i,a])),s(r.shape.slice(0),r.data,r.stride,0|r.offset,n)}}(i.bind(void 0,n)))},{}],257:[function(t,e,r){"use strict";var n=t("typedarray-pool");function i(t){switch(t){case"uint32":return[n.mallocUint32,n.freeUint32];default:return null}}var a={"uint32,1,0":function(t,e){return function(r,n,i,a,o,s,l,c,u,f,h){var p,d,g,v,m,y,x,b,_=r*o+a,w=t(c);for(p=r+1;p<=n;++p){for(d=p,g=_+=o,m=0,y=_,v=0;v<c;++v)w[m++]=i[y],y+=u;t:for(;d-- >r;){m=0,y=g-o;e:for(v=0;v<c;++v){if((x=i[y])<(b=w[m]))break t;if(x>b)break e;y+=f,m+=h}for(m=g,y=g-o,v=0;v<c;++v)i[m]=i[y],m+=u,y+=u;g-=o}for(m=g,y=0,v=0;v<c;++v)i[m]=w[y++],m+=u}e(w)}}},o={"uint32,1,0":function(t,e,r){return function n(i,a,o,s,l,c,u,f,h,p,d){var g,v,m,y,x,b,_,w,T,k,A,M,S,E,L,C,P,I,O,z,D,R,F,B,N,j=(a-i+1)/6|0,U=i+j,V=a-j,q=i+a>>1,H=q-j,G=q+j,Y=U,W=H,X=q,Z=G,J=V,K=i+1,Q=a-1,$=!0,tt=0,et=0,rt=0,nt=f,it=e(nt),at=e(nt);A=l*Y,M=l*W,N=s;t:for(k=0;k<f;++k){if(w=M+N,(rt=o[_=A+N]-o[w])>0){v=Y,Y=W,W=v;break t}if(rt<0)break t;N+=p}A=l*Z,M=l*J,N=s;t:for(k=0;k<f;++k){if(w=M+N,(rt=o[_=A+N]-o[w])>0){v=Z,Z=J,J=v;break t}if(rt<0)break t;N+=p}A=l*Y,M=l*X,N=s;t:for(k=0;k<f;++k){if(w=M+N,(rt=o[_=A+N]-o[w])>0){v=Y,Y=X,X=v;break t}if(rt<0)break t;N+=p}A=l*W,M=l*X,N=s;t:for(k=0;k<f;++k){if(w=M+N,(rt=o[_=A+N]-o[w])>0){v=W,W=X,X=v;break t}if(rt<0)break t;N+=p}A=l*Y,M=l*Z,N=s;t:for(k=0;k<f;++k){if(w=M+N,(rt=o[_=A+N]-o[w])>0){v=Y,Y=Z,Z=v;break t}if(rt<0)break t;N+=p}A=l*X,M=l*Z,N=s;t:for(k=0;k<f;++k){if(w=M+N,(rt=o[_=A+N]-o[w])>0){v=X,X=Z,Z=v;break t}if(rt<0)break t;N+=p}A=l*W,M=l*J,N=s;t:for(k=0;k<f;++k){if(w=M+N,(rt=o[_=A+N]-o[w])>0){v=W,W=J,J=v;break t}if(rt<0)break t;N+=p}A=l*W,M=l*X,N=s;t:for(k=0;k<f;++k){if(w=M+N,(rt=o[_=A+N]-o[w])>0){v=W,W=X,X=v;break t}if(rt<0)break t;N+=p}A=l*Z,M=l*J,N=s;t:for(k=0;k<f;++k){if(w=M+N,(rt=o[_=A+N]-o[w])>0){v=Z,Z=J,J=v;break t}if(rt<0)break t;N+=p}for(A=l*Y,M=l*W,S=l*X,E=l*Z,L=l*J,C=l*U,P=l*q,I=l*V,B=0,N=s,k=0;k<f;++k)_=A+N,w=M+N,T=S+N,O=E+N,z=L+N,D=C+N,R=P+N,F=I+N,it[B]=o[w],at[B]=o[O],$=$&&it[B]===at[B],m=o[_],y=o[T],x=o[z],o[D]=m,o[R]=y,o[F]=x,++B,N+=h;for(A=l*H,M=l*i,N=s,k=0;k<f;++k)w=M+N,o[_=A+N]=o[w],N+=h;for(A=l*G,M=l*a,N=s,k=0;k<f;++k)w=M+N,o[_=A+N]=o[w],N+=h;if($)for(b=K;b<=Q;++b){for(_=s+b*l,B=0,k=0;k<f&&0==(rt=o[_]-it[B]);++k)B+=d,_+=p;if(0!==rt)if(rt<0){if(b!==K)for(A=l*b,M=l*K,N=s,k=0;k<f;++k)w=M+N,g=o[_=A+N],o[_]=o[w],o[w]=g,N+=h;++K}else for(;;){for(_=s+Q*l,B=0,k=0;k<f&&0==(rt=o[_]-it[B]);++k)B+=d,_+=p;if(!(rt>0)){if(rt<0){for(A=l*b,M=l*K,S=l*Q,N=s,k=0;k<f;++k)w=M+N,T=S+N,g=o[_=A+N],o[_]=o[w],o[w]=o[T],o[T]=g,N+=h;++K,--Q;break}for(A=l*b,M=l*Q,N=s,k=0;k<f;++k)w=M+N,g=o[_=A+N],o[_]=o[w],o[w]=g,N+=h;--Q;break}Q--}}else for(b=K;b<=Q;++b){for(_=s+b*l,B=0,k=0;k<f&&0==(tt=o[_]-it[B]);++k)B+=d,_+=p;if(tt<0){if(b!==K)for(A=l*b,M=l*K,N=s,k=0;k<f;++k)w=M+N,g=o[_=A+N],o[_]=o[w],o[w]=g,N+=h;++K}else{for(_=s+b*l,B=0,k=0;k<f&&0==(et=o[_]-at[B]);++k)B+=d,_+=p;if(et>0)for(;;){for(_=s+Q*l,B=0,k=0;k<f&&0==(rt=o[_]-at[B]);++k)B+=d,_+=p;if(!(rt>0)){for(_=s+Q*l,B=0,k=0;k<f&&0==(rt=o[_]-it[B]);++k)B+=d,_+=p;if(rt<0){for(A=l*b,M=l*K,S=l*Q,N=s,k=0;k<f;++k)w=M+N,T=S+N,g=o[_=A+N],o[_]=o[w],o[w]=o[T],o[T]=g,N+=h;++K,--Q}else{for(A=l*b,M=l*Q,N=s,k=0;k<f;++k)w=M+N,g=o[_=A+N],o[_]=o[w],o[w]=g,N+=h;--Q}break}if(--Q<b)break}}}for(A=l*i,M=l*(K-

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1),B=0,N=s,k=0;k<f;++k)w=M+N,o[_=A+N]=o[w],o[w]=it[B],++B,N+=h;for(A=l*a,M=l*(Q+1),B=0,N=s,k=0;k<f
;++k)w=M+N,o[_=A+N]=o[w],o[w]=at[B],++B,N+=h;if(K-2-i<=32?t(i,K-2,o,s,l,c,u,f,h,p,d):n(i,K-
2,o,s,l,c,u,f,h,p,d),a-(Q+2)<=32?t(Q+2,a,o,s,l,c,u,f,h,p,d):n(Q+2,a,o,s,l,c,u,f,h,p,d),$)return r(it),void
r(at);if(K<U&&Q>V){t:for(;;){for(_=s+K*l,B=0,N=s,k=0;k<f;++k){if(o[_]!==it[B])break
t;++B,_+=h}++K}t:for(;;){for(_=s+Q*l,B=0,N=s,k=0;k<f;++k){if(o[_]!==at[B])break t;++B,_+=h}--
Q}for(b=K;b<=Q;++b){for(_=s+b*l,B=0,k=0;k<f&&0==(tt=o[_]-
it[B]);++k)B+=d,_+=p;if(0===tt){if(b!==K)for(A=l*b,M=l*K,N=s,k=0;k<f;++k)w=M+N,g=o[_=A+N],o[_]=o[w],
o[w]=g,N+=h;++K}else{for(_=s+b*l,B=0,k=0;k<f&&0==(et=o[_]-
at[B]);++k)B+=d,_+=p;if(0===et)for(;;){for(_=s+Q*l,B=0,k=0;k<f&&0==(rt=o[_]-
at[B]);++k)B+=d,_+=p;if(0!==rt){for(_=s+Q*l,B=0,k=0;k<f&&0==(rt=o[_]-
it[B]);++k)B+=d,_+=p;if(rt<0){for(A=l*b,M=l*K,S=l*Q,N=s,k=0;k<f;++k)w=M+N,T=S+N,g=o[_=A+N],o[_]=o[
w],o[w]=o[T],o[T]=g,N+=h;++K,--
Q}else{for(A=l*b,M=l*Q,N=s,k=0;k<f;++k)w=M+N,g=o[_=A+N],o[_]=o[w],o[w]=g,N+=h;--Q}break}if(--
Q<b)break}}}}r(it),r(at),Q-
K<=32?t(K,Q,o,s,l,c,u,f,h,p,d):n(K,Q,o,s,l,c,u,f,h,p,d)}}},s={"uint32,1,0":function(t,e){return function(r){var
n=r.data,i=0|r.offset,a=r.shape,o=r.stride,s=0|o[0],l=0|a[0],c=0|o[1],u=0|a[1],f=c,h=c;l<=32?t(0,l-
1,n,i,s,c,l,u,f,h,1):e(0,l-1,n,i,s,c,l,u,f,h,1)}}};e.exports=function(t,e){var r=[e,t].join(","),n=s[r],l=function(t,e){var
r=i(e),n=[e,t].join(","),o=a[n];return r?o(r[0],r[1]):o()}(t,e);return n(l,function(t,e,r){var
n=i(e),a=[e,t].join(","),s=o[a];return t.length>1&&n?s(r,n[0],n[1]):s(r)}(t,e,l))}},{"typedarray-
pool":308}],258:[function(t,e,r){"use strict";var n=t("./lib/compile_sort.js"),i={};e.exports=function(t){var
e=t.order,r=t.dtype,a=[e,r].join(":"),o=i[a];return
o||(i[a]=o=n(e,r)),o(t),t}},{"./lib/compile_sort.js":257}],259:[function(t,e,r){var n=t("is-
buffer"),i="undefined"!=typeof Float64Array;function a(t,e){return t[0]-e[0]}function o(){var t,e=this.stride,r=new
Array(e.length);for(t=0;t<r.length;++t)r[t]=[Math.abs(e[t]),t];r.sort(a);var n=new
Array(r.length);for(t=0;t<n.length;++t)n[t]=r[t][1];return n}var s={T:function(t){function e(t){this.data=t}var
r=e.prototype;return r.dtype=t,r.index=function(){return-1},r.size=0,r.dimension=-
1,r.shape=r.stride=r.order=[],r.lo=r.hi=r.transpose=r.step=function(){return new
e(this.data)},r.get=r.set=function(){},r.pick=function(){return null},function(t){return new
e(t)}},0:function(t,e){function r(t,e){this.data=t,this.offset=e}var n=r.prototype;return
n.dtype=t,n.index=function(){return
this.offset},n.dimension=0,n.size=1,n.shape=n.stride=n.order=[],n.lo=n.hi=n.transpose=n.step=function(){return
new r(this.data,this.offset)},n.pick=function(){return
e(this.data)},n.valueOf=n.get=function(){return"generic"===t?this.data.get(this.offset):this.data[this.offset]},n.set=f
unction(e){return"generic"===t?this.data.set(this.offset,e):this.data[this.offset]=e},function(t,e,n,i){return new
r(t,i)}},1:function(t,e,r){function n(t,e,r,n){this.data=t,this.shape=[e],this.stride=[r],this.offset=0|n}var
i=n.prototype;return i.dtype=t,i.dimension=1,Object.defineProperty(i,"size",{get:function(){return
this.shape[0]}}),i.order=[0],i.set=function(e,r){return"generic"===t?this.data.set(this.offset+this.stride[0]*e,r):this.d
ata[this.offset+this.stride[0]*e]=r},i.get=function(e){return"generic"===t?this.data.get(this.offset+this.stride[0]*e):t
his.data[this.offset+this.stride[0]*e]},i.index=function(t){return this.offset+this.stride[0]*t},i.hi=function(t){return
new n(this.data,"number"!=typeof t||t<0?this.shape[0]:0|t,this.stride[0],this.offset)},i.lo=function(t){var
e=this.offset,r=0,i=this.shape[0],a=this.stride[0];return"number"==typeof t&&t>=0&&(e+=a*(r=0|t),i-=r),new
n(this.data,i,a,e)},i.step=function(t){var
e=this.shape[0],r=this.stride[0],i=this.offset,a=0,o=Math.ceil;return"number"==typeof t&&((a=0|t)<0?(i+=r*(e-
1),e=o(-e/a)):e=o(e/a),r*=a),new n(this.data,e,r,i)},i.transpose=function(t){t=void 0===t?0:0|t;var
e=this.shape,r=this.stride;return new n(this.data,e[t],r[t],this.offset)},i.pick=function(t){var
r=[],n=[],i=this.offset;return"number"==typeof
t&&t>=0?i=i+this.stride[0]*t|0:(r.push(this.shape[0]),n.push(this.stride[0])),(0,e[r.length+1])(this.data,r,n,i)},functio
n(t,e,r,i){return new n(t,e[0],r[0],i)}},2:function(t,e,r){function
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n(t,e,r,n,i,a){this.data=t,this.shape=[e,r],this.stride=[n,i],this.offset=0|a}var i=n.prototype;return i.dtype=t,i.dimension=2,Object.defineProperty(i,"size",{get:function(){return this.shape[0]*this.shape[1]}}),Object.defineProperty(i,"order",{get:function(){return Math.abs(this.stride[0])>Math.abs(this.stride[1])?[1,0]:[0,1]}}),i.set=function(e,r,n){return"generic"===t?this.data.set(this.offset+this.stride[0]*e+this.stride[1]*r,n):this.data[this.offset+this.stride[0]*e+this.stride[1]*r]=n},i.get=function(e,r){return"generic"===t?this.data.get(this.offset+this.stride[0]*e+this.stride[1]*r):this.data[this.offset+this.stride[0]*e+this.stride[1]*r]},i.index=function(t,e){return this.offset+this.stride[0]*t+this.stride[1]*e},i.hi=function(t,e){return new n(this.data,"number"!=typeof t||t<0?this.shape[0]:0|t,"number"!=typeof e||e<0?this.shape[1]:0|e,this.stride[0],this.stride[1],this.offset)},i.lo=function(t,e){var r=this.offset,i=0,a=this.shape[0],o=this.shape[1],s=this.stride[0],l=this.stride[1];return"number"==typeof t&&t>=0&&(r+=s*(i=0|t),a-=i),"number"==typeof e&&e>=0&&(r+=l*(i=0|e),o-=i),new n(this.data,a,o,s,l,r)},i.step=function(t,e){var r=this.shape[0],i=this.shape[1],a=this.stride[0],o=this.stride[1],s=this.offset,l=0,c=Math.ceil;return"number"==typeof t&&((l=0|t)<0?(s+=a*(r-1),r=c(-r/l)):r=c(r/l),a*=l),"number"==typeof e&&((l=0|e)<0?(s+=o*(i-1),i=c(-i/l)):i=c(i/l),o*=l),new n(this.data,r,i,a,o,s)},i.transpose=function(t,e){t=void 0===t?0:0|t,e=void 0===e?1:0|e;var r=this.shape,i=this.stride;return new n(this.data,r[t],r[e],i[t],i[e],this.offset)},i.pick=function(t,r){var n=[],i=[],a=this.offset;return"number"==typeof t&&t>=0?a=a+this.stride[0]*t|0:(n.push(this.shape[0]),i.push(this.stride[0])),"number"==typeof r&&r>=0?a=a+this.stride[1]*r|0:(n.push(this.shape[1]),i.push(this.stride[1])),(0,e[n.length+1])(this.data,n,i,a)},function(t,e,r,i){return new n(t,e[0],e[1],r[0],r[1],i)}},3:function(t,e,r){function n(t,e,r,n,i,a,o,s){this.data=t,this.shape=[e,r,n],this.stride=[i,a,o],this.offset=0|s}var i=n.prototype;return i.dtype=t,i.dimension=3,Object.defineProperty(i,"size",{get:function(){return this.shape[0]*this.shape[1]*this.shape[2]}}),Object.defineProperty(i,"order",{get:function(){var t=Math.abs(this.stride[0]),e=Math.abs(this.stride[1]),r=Math.abs(this.stride[2]);return t>e?e>r?[2,1,0]:t>r?[1,2,0]:[1,0,2]:t>r?[2,0,1]:r>e?[0,1,2]:[0,2,1]}}),i.set=function(e,r,n,i){return"generic"===t?this.data.set(this.offset+this.stride[0]*e+this.stride[1]*r+this.stride[2]*n,i):this.data[this.offset+this.stride[0]*e+this.stride[1]*r+this.stride[2]*n]=i},i.get=function(e,r,n){return"generic"===t?this.data.get(this.offset+this.stride[0]*e+this.stride[1]*r+this.stride[2]*n):this.data[this.offset+this.stride[0]*e+this.stride[1]*r+this.stride[2]*n]},i.index=function(t,e,r){return this.offset+this.stride[0]*t+this.stride[1]*e+this.stride[2]*r},i.hi=function(t,e,r){return new n(this.data,"number"!=typeof t||t<0?this.shape[0]:0|t,"number"!=typeof e||e<0?this.shape[1]:0|e,"number"!=typeof r||r<0?this.shape[2]:0|r,this.stride[0],this.stride[1],this.stride[2],this.offset)},i.lo=function(t,e,r){var i=this.offset,a=0,o=this.shape[0],s=this.shape[1],l=this.shape[2],c=this.stride[0],u=this.stride[1],f=this.stride[2];return"number"==typeof t&&t>=0&&(i+=c*(a=0|t),o-=a),"number"==typeof e&&e>=0&&(i+=u*(a=0|e),s-=a),"number"==typeof r&&r>=0&&(i+=f*(a=0|r),l-=a),new n(this.data,o,s,l,c,u,f,i)},i.step=function(t,e,r){var i=this.shape[0],a=this.shape[1],o=this.shape[2],s=this.stride[0],l=this.stride[1],c=this.stride[2],u=this.offset,f=0,h=Math.ceil;return"number"==typeof t&&((f=0|t)<0?(u+=s*(i-1),i=h(-i/f)):i=h(i/f),s*=f),"number"==typeof e&&((f=0|e)<0?(u+=l*(a-1),a=h(-a/f)):a=h(a/f),l*=f),"number"==typeof r&&((f=0|r)<0?(u+=c*(o-1),o=h(-o/f)):o=h(o/f),c*=f),new n(this.data,i,a,o,s,l,c,u)},i.transpose=function(t,e,r){t=void 0===t?0:0|t,e=void 0===e?1:0|e,r=void 0===r?2:0|r;var i=this.shape,a=this.stride;return new n(this.data,i[t],i[e],i[r],a[t],a[e],a[r],this.offset)},i.pick=function(t,r,n){var i=[],a=[],o=this.offset;return"number"==typeof t&&t>=0?o=o+this.stride[0]*t|0:(i.push(this.shape[0]),a.push(this.stride[0])),"number"==typeof r&&r>=0?o=o+this.stride[1]*r|0:(i.push(this.shape[1]),a.push(this.stride[1])),"number"==typeof n&&n>=0?o=o+this.stride[2]*n|0:(i.push(this.shape[2]),a.push(this.stride[2])),(0,e[i.length+1])(this.data,i,a,o)},function(t,e,r,i){return new n(t,e[0],e[1],e[2],r[0],r[1],r[2],i)}},4:function(t,e,r){function n(t,e,r,n,i,a,o,s,l,c){this.data=t,this.shape=[e,r,n,i],this.stride=[a,o,s,l],this.offset=0|c}var i=n.prototype;return i.dtype=t,i.dimension=4,Object.defineProperty(i,"size",{get:function(){return

this.shape[0]*this.shape[1]*this.shape[2]*this.shape[3]}}),Object.defineProperty(i,"order",{get:r}),i.set=function(e,r,n,i,a){return"generic"===t?this.data.set(this.offset+this.stride[0]*e+this.stride[1]*r+this.stride[2]*n+this.stride[3]*i,a):this.data[this.offset+this.stride[0]*e+this.stride[1]*r+this.stride[2]*n+this.stride[3]*i]=a},i.get=function(e,r,n,i){return"generic"===t?this.data.get(this.offset+this.stride[0]*e+this.stride[1]*r+this.stride[2]*n+this.stride[3]*i):this.data[this.offset+this.stride[0]*e+this.stride[1]*r+this.stride[2]*n+this.stride[3]*i]},i.index=function(t,e,r,n){return this.offset+this.stride[0]*t+this.stride[1]*e+this.stride[2]*r+this.stride[3]*n},i.hi=function(t,e,r,i){return new n(this.data,"number"!=typeof t||t<0?this.shape[0]:0|t,"number"!=typeof e||e<0?this.shape[1]:0|e,"number"!=typeof r||r<0?this.shape[2]:0|r,"number"!=typeof i||i<0?this.shape[3]:0|i,this.stride[0],this.stride[1],this.stride[2],this.stride[3],this.offset)},i.lo=function(t,e,r,i){var a=this.offset,o=0,s=this.shape[0],l=this.shape[1],c=this.shape[2],u=this.shape[3],f=this.stride[0],h=this.stride[1],p=this.stride[2],d=this.stride[3];return"number"==typeof t&&t>=0&&(a+=f*(o=0|t),s-=o),"number"==typeof e&&e>=0&&(a+=h*(o=0|e),l-=o),"number"==typeof r&&r>=0&&(a+=p*(o=0|r),c-=o),"number"==typeof i&&i>=0&&(a+=d*(o=0|i),u-=o),new n(this.data,s,l,c,u,f,h,p,d,a)},i.step=function(t,e,r,i){var a=this.shape[0],o=this.shape[1],s=this.shape[2],l=this.shape[3],c=this.stride[0],u=this.stride[1],f=this.stride[2],h=this.stride[3],p=this.offset,d=0,g=Math.ceil;return"number"==typeof t&&((d=0|t)<0?(p+=c*(a-1),a=g(-a/d)):a=g(a/d),c*=d),"number"==typeof e&&((d=0|e)<0?(p+=u*(o-1),o=g(-o/d)):o=g(o/d),u*=d),"number"==typeof r&&((d=0|r)<0?(p+=f*(s-1),s=g(-s/d)):s=g(s/d),f*=d),"number"==typeof i&&((d=0|i)<0?(p+=h*(l-1),l=g(-l/d)):l=g(l/d),h*=d),new n(this.data,a,o,s,l,c,u,f,h,p)},i.transpose=function(t,e,r,i){t=void 0===t?0:0|t,e=void 0===e?1:0|e,r=void 0===r?2:0|r,i=void 0===i?3:0|i;var a=this.shape,o=this.stride;return new n(this.data,a[t],a[e],a[r],a[i],o[t],o[e],o[r],o[i],this.offset)},i.pick=function(t,r,n,i){var a=[],o=[],s=this.offset;return"number"==typeof t&&t>=0?s=s+this.stride[0]*t|0:(a.push(this.shape[0]),o.push(this.stride[0])),"number"==typeof r&&r>=0?s=s+this.stride[1]*r|0:(a.push(this.shape[1]),o.push(this.stride[1])),"number"==typeof n&&n>=0?s=s+this.stride[2]*n|0:(a.push(this.shape[2]),o.push(this.stride[2])),"number"==typeof i&&i>=0?s=s+this.stride[3]*i|0:(a.push(this.shape[3]),o.push(this.stride[3])),(0,e[a.length+1])(this.data,a,o,s)},function(t,e,r,i){return new n(t,e[0],e[1],e[2],e[3],r[0],r[1],r[2],r[3],i)}},5:function(t,e,r){function n(t,e,r,n,i,a,o,s,l,c,u,f){this.data=t,this.shape=[e,r,n,i,a],this.stride=[o,s,l,c,u],this.offset=0|f}var i=n.prototype;return i.dtype=t,i.dimension=5,Object.defineProperty(i,"size",{get:function(){return this.shape[0]*this.shape[1]*this.shape[2]*this.shape[3]*this.shape[4]}}),Object.defineProperty(i,"order",{get:r}),i.set=function(e,r,n,i,a,o){return"generic"===t?this.data.set(this.offset+this.stride[0]*e+this.stride[1]*r+this.stride[2]*n+this.stride[3]*i+this.stride[4]*a,o):this.data[this.offset+this.stride[0]*e+this.stride[1]*r+this.stride[2]*n+this.stride[3]*i+this.stride[4]*a]=o},i.get=function(e,r,n,i,a){return"generic"===t?this.data.get(this.offset+this.stride[0]*e+this.stride[1]*r+this.stride[2]*n+this.stride[3]*i+this.stride[4]*a):this.data[this.offset+this.stride[0]*e+this.stride[1]*r+this.stride[2]*n+this.stride[3]*i+this.stride[4]*a]},i.index=function(t,e,r,n,i){return this.offset+this.stride[0]*t+this.stride[1]*e+this.stride[2]*r+this.stride[3]*n+this.stride[4]*i},i.hi=function(t,e,r,i,a){return new n(this.data,"number"!=typeof t||t<0?this.shape[0]:0|t,"number"!=typeof e||e<0?this.shape[1]:0|e,"number"!=typeof r||r<0?this.shape[2]:0|r,"number"!=typeof i||i<0?this.shape[3]:0|i,"number"!=typeof a||a<0?this.shape[4]:0|a,this.stride[0],this.stride[1],this.stride[2],this.stride[3],this.stride[4],this.offset)},i.lo=function(t,e,r,i,a){var o=this.offset,s=0,l=this.shape[0],c=this.shape[1],u=this.shape[2],f=this.shape[3],h=this.shape[4],p=this.stride[0],d=this.stride[1],g=this.stride[2],v=this.stride[3],m=this.stride[4];return"number"==typeof t&&t>=0&&(o+=p*(s=0|t),l-=s),"number"==typeof e&&e>=0&&(o+=d*(s=0|e),c-=s),"number"==typeof r&&r>=0&&(o+=g*(s=0|r),u-=s),"number"==typeof i&&i>=0&&(o+=v*(s=0|i),f-=s),"number"==typeof a&&a>=0&&(o+=m*(s=0|a),h-=s),new n(this.data,l,c,u,f,h,p,d,g,v,m,o)},i.step=function(t,e,r,i,a){var o=this.shape[0],s=this.shape[1],l=this.shape[2],c=this.shape[3],u=this.shape[4],f=this.stride[0],h=this.stride[1],p=this.stride[2],d=this.stride[3],g=this.stride[4],v=this.offset,m=0,y=Math.ceil;return"number"==typeof t&&((m=0|t)<0?(v+=f*(o-1),o=y(-o/m)):o=y(o/m),f*=m),"number"==typeof e&&((m=0|e)<0?(v+=h*(s-1),s=y(-

s/m)):s=y(s/m),h*=m),"number"==typeof r&&((m=0|r)<0?(v+=p*(l-1),l=y(-
l/m)):l=y(l/m),p*=m),"number"==typeof i&&((m=0|i)<0?(v+=d*(c-1),c=y(-
c/m)):c=y(c/m),d*=m),"number"==typeof a&&((m=0|a)<0?(v+=g*(u-1),u=y(-u/m)):u=y(u/m),g*=m),new
n(this.data,o,s,l,c,u,f,h,p,d,g,v)},i.transpose=function(t,e,r,i,a){t=void 0===t?0:0|t,e=void 0===e?1:0|e,r=void
0===r?2:0|r,i=void 0===i?3:0|i,a=void 0===a?4:0|a;var o=this.shape,s=this.stride;return new
n(this.data,o[t],o[e],o[r],o[i],o[a],s[t],s[e],s[r],s[i],s[a],this.offset)},i.pick=function(t,r,n,i,a){var
o=[],s=[],l=this.offset;return"number"==typeof
t&&t>=0?l=l+this.stride[0]*t|0:(o.push(this.shape[0]),s.push(this.stride[0])),"number"==typeof
r&&r>=0?l=l+this.stride[1]*r|0:(o.push(this.shape[1]),s.push(this.stride[1])),"number"==typeof
n&&n>=0?l=l+this.stride[2]*n|0:(o.push(this.shape[2]),s.push(this.stride[2])),"number"==typeof
i&&i>=0?l=l+this.stride[3]*i|0:(o.push(this.shape[3]),s.push(this.stride[3])),"number"==typeof
a&&a>=0?l=l+this.stride[4]*a|0:(o.push(this.shape[4]),s.push(this.stride[4])),(0,e[o.length+1])(this.data,o,s,l)},funct
ion(t,e,r,i){return new n(t,e[0],e[1],e[2],e[3],e[4],r[0],r[1],r[2],r[3],r[4],i)}}};function l(t,e){var r=-
1===e?"T":String(e),n=s[r];return-1===e?n(t):0===e?n(t,c[t][0]):n(t,c[t],o)}var
c={generic:[],buffer:[],array:[],float32:[],float64:[],int8:[],int16:[],int32:[],uint8_clamped:[],uint8:[],uint16:[],uint32:
[],bigint64:[],biguint64:[]};e.exports=function(t,e,r,a){if(void 0===t)return(0,c.array[0])([]);"number"==typeof
t&&(t=[t]),void 0===e&&(e=[t.length]);var o=e.length;if(void 0===r){r=new Array(o);for(var s=o-1,u=1;s>=0;--
s)r[s]=u,u*=e[s]}if(void 0===a)for(a=0,s=0;s<o;++s)r[s]<0&&(a-=(e[s]-1)*r[s]);for(var
f=function(t){if(n(t))return"buffer";if(i)switch(Object.prototype.toString.call(t)){case"[object
Float64Array]":return"float64";case"[object Float32Array]":return"float32";case"[object
Int8Array]":return"int8";case"[object Int16Array]":return"int16";case"[object
Int32Array]":return"int32";case"[object Uint8ClampedArray]":return"uint8_clamped";case"[object
Uint8Array]":return"uint8";case"[object Uint16Array]":return"uint16";case"[object
Uint32Array]":return"uint32";case"[object BigInt64Array]":return"bigint64";case"[object
BigUint64Array]":return"biguint64"}return
Array.isArray(t)?"array":"generic"}(t),h=c[f];h.length<=o+1;)h.push(l(f,h.length-1));return(0,h[o+1])(t,e,r,a)}},{"is-
buffer":237}],260:[function(t,e,r){"use strict";var n=t("double-bits"),i=Math.pow(2,-1074),a=-
1>>>0;e.exports=function(t,e){if(isNaN(t)||isNaN(e))return NaN;if(t===e)return t;if(0===t)return e<0?-i:i;var
r=n.hi(t),o=n.lo(t);return e>t==t>0?o===a?(r+=1,o=0):o+=1:0===o?(o=a,r-=1):o-=1,n.pack(o,r)}},{"double-
bits":64}],261:[function(t,e,r){r.vertexNormals=function(t,e,r){for(var n=e.length,i=new Array(n),a=void 0===r?1e-
6:r,o=0;o<n;++o)i[o]=[0,0,0];for(o=0;o<t.length;++o)for(var s=t[o],l=0,c=s[s.length-
1],u=s[0],f=0;f<s.length;++f){l=c,c=u,u=s[(f+1)%s.length];for(var h=e[l],p=e[c],d=e[u],g=new
Array(3),v=0,m=new Array(3),y=0,x=0;x<3;++x)g[x]=h[x]-p[x],v+=g[x]*g[x],m[x]=d[x]-
p[x],y+=m[x]*m[x];if(v*y>a){var b=i[c],_=1/Math.sqrt(v*y);for(x=0;x<3;++x){var
w=(x+1)%3,T=(x+2)%3;b[x]+=_*(m[w]*g[T]-m[T]*g[w])}}}for(o=0;o<n;++o){b=i[o];var
k=0;for(x=0;x<3;++x)k+=b[x]*b[x];if(k>a)for(_=1/Math.sqrt(k),x=0;x<3;++x)b[x]*=_;else
for(x=0;x<3;++x)b[x]=0}return i},r.faceNormals=function(t,e,r){for(var n=t.length,i=new Array(n),a=void
0===r?1e-6:r,o=0;o<n;++o){for(var s=t[o],l=new Array(3),c=0;c<3;++c)l[c]=e[s[c]];var u=new Array(3),f=new
Array(3);for(c=0;c<3;++c)u[c]=l[1][c]-l[0][c],f[c]=l[2][c]-l[0][c];var h=new Array(3),p=0;for(c=0;c<3;++c){var
d=(c+1)%3,g=(c+2)%3;h[c]=u[d]*f[g]-
u[g]*f[d],p+=h[c]*h[c]}for(p=p>a?1/Math.sqrt(p):0,c=0;c<3;++c)h[c]*=p;i[o]=h}return
i}},{}],262:[function(t,e,r){"use strict";e.exports=function(t,e,r,n,i,a,o,s,l,c){var u=e+a+c;if(f>0){var
f=Math.sqrt(u+1);t[0]=.5*(o-l)/f,t[1]=.5*(s-n)/f,t[2]=.5*(r-a)/f,t[3]=.5*f}else{var
h=Math.max(e,a,c);f=Math.sqrt(2*h-u+1),e>=h?(t[0]=.5*f,t[1]=.5*(i+r)/f,t[2]=.5*(s+n)/f,t[3]=.5*(o-
l)/f):a>=h?(t[0]=.5*(r+i)/f,t[1]=.5*f,t[2]=.5*(l+o)/f,t[3]=.5*(s-
n)/f):(t[0]=.5*(n+s)/f,t[1]=.5*(o+l)/f,t[2]=.5*f,t[3]=.5*(r-i)/f)}return t}},{}],263:[function(t,e,r){"use
strict";e.exports=function(t){var
e=(t=t||{}).center||[0,0,0],r=t.rotation||[0,0,0,1],n=t.radius||1;e=[].slice.call(e,0,3),u(r=[].slice.call(r,0,4),r);var i=new

f(r,e,Math.log(n));return i.setDistanceLimits(t.zoomMin,t.zoomMax),("eye"in t||"up"in t)&&i.lookAt(0,t.eye,t.center,t.up),i};var n=t("filtered-vector"),i=t("gl-mat4/lookAt"),a=t("gl-mat4/fromQuat"),o=t("gl-mat4/invert"),s=t("./lib/quatFromFrame");function l(t,e,r){return Math.sqrt(Math.pow(t,2)+Math.pow(e,2)+Math.pow(r,2))}function c(t,e,r,n){return Math.sqrt(Math.pow(t,2)+Math.pow(e,2)+Math.pow(r,2)+Math.pow(n,2))}function u(t,e){var r=e[0],n=e[1],i=e[2],a=e[3],o=c(r,n,i,a);o>1e-6?(t[0]=r/o,t[1]=n/o,t[2]=i/o,t[3]=a/o):(t[0]=t[1]=t[2]=0,t[3]=1)}function f(t,e,r){this.radius=n([r]),this.center=n(e),this.rotation=n(t),this.computedRadius=this.radius.curve(0),this.computedCenter=this.center.curve(0),this.computedRotation=this.rotation.curve(0),this.computedUp=[.1,0,0],this.computedEye=[.1,0,0],this.computedMatrix=[.1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0],this.recalcMatrix(0)}var h=f.prototype;h.lastT=function(){return Math.max(this.radius.lastT(),this.center.lastT(),this.rotation.lastT())},h.recalcMatrix=function(t){this.radius.curve(t),this.center.curve(t),this.rotation.curve(t);var e=this.computedRotation;u(e,e);var r=this.computedMatrix;a(r,e);var n=this.computedCenter,i=this.computedEye,o=this.computedUp,s=Math.exp(this.computedRadius[0]);i[0]=n[0]+s*r[2],i[1]=n[1]+s*r[6],i[2]=n[2]+s*r[10],o[0]=r[1],o[1]=r[5],o[2]=r[9];for(var l=0;l<3;++l){for(var c=0,f=0;f<3;++f)c+=r[l+4*f]*i[f];r[12+l]=-c}},h.getMatrix=function(t,e){this.recalcMatrix(t);var r=this.computedMatrix;if(e){for(var n=0;n<16;++n)e[n]=r[n];return e}return r},h.idle=function(t){this.center.idle(t),this.radius.idle(t),this.rotation.idle(t)},h.flush=function(t){this.center.flush(t),this.radius.flush(t),this.rotation.flush(t)},h.pan=function(t,e,r,n){e=e||0,r=r||0,n=n||0,this.recalcMatrix(t);var i=this.computedMatrix,a=i[1],o=i[5],s=i[9],c=l(a,o,s);a/=c,o/=c,s/=c;var u=i[0],f=i[4],h=i[8],p=u*a+f*o+h*s,d=l(u-=a*p,f-=o*p,h-=s*p);u/=d,f/=d,h/=d;var g=i[2],v=i[6],m=i[10],y=g*a+v*o+m*s,x=g*u+v*f+m*h,b=l(g-=y*a+x*u,v-=y*o+x*f,m-=y*s+x*h);g/=b,v/=b,m/=b;var _=u*e+a*r,w=f*e+o*r,T=h*e+s*r;this.center.move(t,_,w,T);var k=Math.exp(this.computedRadius[0]);k=Math.max(1e-4,k+n),this.radius.set(t,Math.log(k))},h.rotate=function(t,e,r,n){this.recalcMatrix(t),e=e||0,r=r||0;var i=this.computedMatrix,a=i[0],o=i[4],s=i[8],u=i[1],f=i[5],h=i[9],p=i[2],d=i[6],g=i[10],v=e*a+r*u,m=e*o+r*f,y=e*s+r*h,x=-(d*y-g*m),b=-(g*v-p*y),_=-(p*m-d*v),w=Math.sqrt(Math.max(0,1-Math.pow(x,2)-Math.pow(b,2)-Math.pow(_,2))),T=c(x,b,_,w);T>1e-6?(x/=T,b/=T,_/=T,w/=T):(x=b=_=0,w=1);var k=this.computedRotation,A=k[0],M=k[1],S=k[2],E=k[3],L=A*w+E*x+M*_-S*b,C=M*w+E*b+S*x-A*_,P=S*w+E*_+A*b-M*x,I=E*w-A*x-M*b-S*_;if(n){x=p,b=d,_=g;var O=Math.sin(n)/l(x,b,_);x*=O,b*=O,_*=O,I=I*(w=Math.cos(e))-(L=L*w+I*x+C*_-P*b)*x-(C=C*w+I*b+P*x-L*_)*b-(P=P*w+I*_+L*b-C*x)*_}var z=c(L,C,P,I);z>1e-6?(L/=z,C/=z,P/=z,I/=z):(L=C=P=0,I=1),this.rotation.set(t,L,C,P,I)},h.lookAt=function(t,e,r,n){this.recalcMatrix(t),r=r||this.computedCenter,e=e||this.computedEye,n=n||this.computedUp;var a=this.computedMatrix;i(a,e,r,n);var o=this.computedRotation;s(o,a[0],a[1],a[2],a[4],a[5],a[6],a[8],a[9],a[10]),u(o,o),this.rotation.set(t,o[0],o[1],o[2],o[3]);for(var l=0,c=0;c<3;++c)l+=Math.pow(r[c]-e[c],2);this.radius.set(t,.5*Math.log(Math.max(l,1e-6))),this.center.set(t,r[0],r[1],r[2])},h.translate=function(t,e,r,n){this.center.move(t,e||0,r||0,n||0)},h.setMatrix=function(t,e){var r=this.computedRotation;s(r,e[0],e[1],e[2],e[4],e[5],e[6],e[8],e[9],e[10]),u(r,r),this.rotation.set(t,r[0],r[1],r[2],r[3]);var n=this.computedMatrix;o(n,e);var i=n[15];if(Math.abs(i)>1e-6){var a=n[12]/i,l=n[13]/i,c=n[14]/i;this.recalcMatrix(t);var f=Math.exp(this.computedRadius[0]);this.center.set(t,-n[2]*f,-n[6]*f,-n[10]*f),this.radius.idle(t)}else this.center.idle(t),this.radius.idle(t)},h.setDistance=function(t,e){e>0&&this.radius.set(t,Math.log(e))},h.setDistanceLimits=function(t,e){t=t>0?Math.log(t):-1/0,e=e>0?Math.log(e):1/0,e=Math.max(e,t),this.radius.bounds[0][0]=t,this.radius.bounds[1][0]=e},h.getDistanceLimits=function(t){var e=this.radius.bounds;return t?(t[0]=Math.exp(e[0][0]),t[1]=Math.exp(e[1][0]),t):[Math.exp(e[0][0]),Math.exp(e[1][0])]},h.toJSON=function(){return

this.recalcMatrix(this.lastT()),{center:this.computedCenter.slice(),rotation:this.computedRotation.slice(),distance:Math.log(this.computedRadius[0]),zoomMin:this.radius.bounds[0][0],zoomMax:this.radius.bounds[1][0]}},h.fromJSON=function(t){var e=this.lastT(),r=t.center;r&&this.center.set(e,r[0],r[1],r[2]);var n=t.rotation;n&&this.rotation.set(e,n[0],n[1],n[2],n[3]);var i=t.distance;i&&i>0&&this.radius.set(e,Math.log(i)),this.setDistanceLimits(t.zoomMin,t.zoomMax)}},{"./lib/quatFromFrame":262,"filtered-vector":68,"gl-mat4/fromQuat":95,"gl-mat4/invert":98,"gl-mat4/lookAt":99}],264:[function(t,e,r){"use strict";var n=t("repeat-string");e.exports=function(t,e,r){return n(r=void 0!==r?r+"":" ",e)+t}},{"repeat-string":277}],265:[function(t,e,r){e.exports=function(t,e){e||(e=[0,""]),t=String(t);var r=parseFloat(t,10);return e[0]=r,e[1]=t.match(/[\d.\-\+]*\s*(.*)/)[1]||"",e}},{}],266:[function(t,e,r){"use strict";e.exports=function(t,e){for(var r=0|e.length,i=t.length,a=[new Array(r),new Array(r)],o=0;o<r;++o)a[0][o]=[],a[1][o]=[];for(o=0;o<i;++o){var s=t[o];a[0][s[0]].push(s),a[1][s[1]].push(s)}var l=[];for(o=0;o<r;++o)a[0][o].length+a[1][o].length===0&&l.push([o]);function c(t,e){var r=a[e][t[e]];r.splice(r.indexOf(t),1)}function u(t,r,i){for(var o,s,l,u=0;u<2;++u)if(a[u][r].length>0){o=a[u][r][0],l=u;break}s=o[1^l];for(var f=0;f<2;++f)for(var h=a[f][r],p=0;p<h.length;++p){var d=h[p],g=d[1^f];n(e[t],e[r],e[s],e[g])>0&&(o=d,s=g,l=f)}return i||o&&c(o,l),s}function f(t,r){var i=a[r][t][0],o=[t];c(i,r);for(var s=i[1^r];;){for(;s!==t;)o.push(s),s=u(o[o.length-2],s,!1);if(a[0][t].length+a[1][t].length===0)break;var l=o[o.length-1],f=t,h=o[1],p=u(l,f,!0);if(n(e[l],e[f],e[h],e[p])<0)break;o.push(t),s=u(l,f)}return o}function h(t,e){return e[1]===e[e.length-1]}for(o=0;o<r;++o)for(var p=0;p<2;++p){for(var d=[];a[p][o].length>0;){a[0][o].length;var g=f(o,p);h(0,g)?d.push.apply(d,g):(d.length>0&&l.push(d),d=g)}d.length>0&&l.push(d)}return l};var n=t("compare-angle")},{"compare-angle":54}],267:[function(t,e,r){"use strict";e.exports=function(t,e){for(var r=n(t,e.length),i=new Array(e.length),a=new Array(e.length),o=[],s=0;s<e.length;++s){var l=r[s].length;a[s]=l,i[s]=!0,l<=1&&o.push(s)}for(;o.length>0;){i[p=o.pop()]=!1;var c=r[p];for(s=0;s<c.length;++s){var u=c[s];0==--a[u]&&o.push(u)}}var f=new Array(e.length),h=[];for(s=0;s<e.length;++s)if(i[s]){var p=h.length;f[s]=p,h.push(e[s])}else f[s]=-1;var d=[];for(s=0;s<t.length;++s){var g=t[s];i[g[0]]&&i[g[1]]&&d.push([f[g[0]],f[g[1]]])}return[d,h]};var n=t("edges-to-adjacency-list")},{"edges-to-adjacency-list":66}],268:[function(t,e,r){"use strict";e.exports=function(t,e){t=(F=c(t,e))[0];for(var r=(e=F[1]).length,f=(t.length,n(t,e.length)),h=0;h<r;++h)if(f[h].length%2==1)throw new Error("planar-graph-to-polyline: graph must be manifold");var p=i(t,e),d=(p=p.filter((function(t){for(var r=t.length,n=[0],i=0;i<r;++i){var a=e[t[i]],l=e[t[(i+1)%r]],c=o(-a[0],a[1]),u=o(-a[0],l[1]),f=o(l[0],a[1]),h=o(l[0],l[1]);n=s(n,s(s(c,u),s(f,h)))}return n[n.length-1]>0}))).length,g=new Array(d),v=new Array(d);for(h=0;h<d;++h){g[h]=h;var m=new Array(d),y=p[h].map((function(t){return e[t]})),x=a([y]),b=0;t:for(var _=0;_<d;++_)if(m[_]=0,h!==_){for(var w=(q=p[_]).length,T=0;T<w;++T){var k=x(e[q[T]]);if(0!==k){k<0&&(m[_]=1,b+=1);continue t}}m[_]=1,b+=1}v[h]=[b,h,m]}for(v.sort((function(t,e){return e[0]-t[0]})),h=0;h<d;++h){var A=(m=v[h])[1],M=m[2];for(_=0;_<d;++_)M[_]&&(g[_]=A)}var S=function(t){for(var e=new Array(t),r=0;r<t;++r)e[r]=[];return e}(d);for(h=0;h<d;++h)S[h].push(g[h]),S[g[h]].push(h);var E={},L=u(r,!1);for(h=0;h<d;++h)for(w=(q=p[h]).length,_=0;_<w;++_){var C=q[_],P=q[(_+1)%w],I=Math.min(C,P)+":"+Math.max(C,P);if(I in E){var O=E[I];S[O].push(h),S[h].push(O),L[C]=L[P]=!0}else E[I]=h}function z(t){for(var e=t.length,r=0;r<e;++r)if(!L[t[r]])return!1;return!0}var D=[],R=u(d,-1);for(h=0;h<d;++h)g[h]!==h||z(p[h])?R[h]=-1:(D.push(h),R[h]=0);for(var F=[];D.length>0;){var B=D.pop(),N=S[B];l(N,(function(t,e){return t-e}));var j,U=N.length,V=R[B];for(0===V&&(j=[q=p[B]]),h=0;h<U;++h){var q,H=N[h];R[H]>=0||(R[H]=1^V,D.push(H),0===V&&(z(q=p[H])||(q.reverse(),j.push(q))))}0===V&&F.push(j)}return F};var n=t("edges-to-adjacency-list"),i=t("planar-dual"),a=t("point-in-big-polygon"),o=t("two-product"),s=t("robust-sum"),l=t("uniq"),c=t("./lib/trim-leaves");function u(t,e){for(var r=new Array(t),n=0;n<t;++n)r[n]=e;return r}},{"./lib/trim-leaves":267,"edges-to-adjacency-list":66,"planar-dual":266,"point-in-big-polygon":269,"robust-sum":289,"two-

product":306,uniq:310}],269:[function(t,e,r){e.exports=function(t){for(var e=t.length,r=[],a=[],s=0;s<e;++s)for(var u=t[s],f=u.length,h=f-1,p=0;p<f;h=p++){var d=u[h],g=u[p];d[0]===g[0]?a.push([d,g]):r.push([d,g])}if(0===r.length)return 0===a.length?c:(v=l(a),function(t){return v(t[0],t[1])?0:1});var v,m=i(r),y=function(t,e){return function(r){var i=o.le(e,r[0]);if(i<0)return 1;var a=t[i];if(!a){if(!(i>0&&e[i]===r[0]))return 1;a=t[i-1]}for(var s=1;a;){var l=a.key,c=n(r,l[0],l[1]);if(l[0][0]<l[1][0])if(c<0)a=a.left;else{if(!(c>0))return 0;s=-1,a=a.right}else if(c>0)a=a.left;else{if(!(c<0))return 0;s=1,a=a.right}}return s}}(m.slabs,m.coordinates);return 0===a.length?y:function(t,e){return function(r){return t(r[0],r[1])?0:e(r)}}(l(a),y)};var n=t("robust-orientation")[3],i=t("slab-decomposition"),a=t("interval-tree-1d"),o=t("binary-search-bounds");function s(){return!0}function l(t){for(var e={},r=0;r<t.length;++r){var n=t[r],i=n[0][0],o=n[0][1],l=n[1][1],c=[Math.min(o,l),Math.max(o,l)];i in e?e[i].push(c):e[i]=[c]}var u={},f=Object.keys(e);for(r=0;r<f.length;++r){var h=e[f[r]];u[f[r]]=a(h)}return function(t){return function(e,r){var n=t[e];return!!n&&!!n.queryPoint(r,s)}}(u)}function c(t){return 1}},{"binary-search-bounds":31,"interval-tree-1d":234,"robust-orientation":284,"slab-decomposition":299}],270:[function(t,e,r){"use strict";var n=new Float64Array(4),i=new Float64Array(4),a=new Float64Array(4);e.exports=function(t,e,r,o,s){n.length<o.length&&(n=new Float64Array(o.length),i=new Float64Array(o.length),a=new Float64Array(o.length));for(var l=0;l<o.length;++l)n[l]=t[l]-o[l],i[l]=e[l]-t[l],a[l]=r[l]-t[l];var c=0,u=0,f=0,h=0,p=0,d=0;for(l=0;l<o.length;++l){var g=i[l],v=a[l],m=n[l];c+=g*g,u+=g*v,f+=v*v,h+=m*g,p+=m*v,d+=m*m}var y,x,b,_,w,T=Math.abs(c*f-u*u),k=u*p-f*h,A=u*h-c*p;if(k+A<=T)if(k<0)A<0&&h<0?(A=0,-h>=c?(k=1,y=c+2*h+d):y=h*(k=-h/c)+d):(k=0,p>=0?(A=0,y=d):-p>=f?(A=1,y=f+2*p+d):y=p*(A=-p/f)+d);else if(A<0)A=0,h>=0?(k=0,y=d):-h>=c?(k=1,y=c+2*h+d):y=h*(k=-h/c)+d;else{var M=1/T;y=(k*=M)*(c*k+u*(A*=M)+2*h)+A*(u*k+f*A+2*p)+d}else k<0?(b=f+p)>(x=u+h)?(_=b-x)>=(w=c-2*u+f)?(k=1,A=0,y=c+2*h+d):y=(k=_/w)*(c*k+u*(A=1-k)+2*h)+A*(u*k+f*A+2*p)+d:(k=0,b<=0?(A=1,y=f+2*p+d):p>=0?(A=0,y=d):y=p*(A=-p/f)+d):A<0?(b=c+h)>(x=u+p)?(_=b-x)>=(w=c-2*u+f)?(A=1,k=0,y=f+2*p+d):y=(k=1-(A=_/w))*(c*k+u*A+2*h)+A*(u*k+f*A+2*p)+d:(A=0,b<=0?(k=1,y=c+2*h+d):h>=0?(k=0,y=d):y=h*(k=-h/c)+d):(_=f+p-u-h)<=0?(k=0,A=1,y=f+2*p+d):_>=(w=c-2*u+f)?(k=1,A=0,y=c+2*h+d):y=(k=_/w)*(c*k+u*(A=1-k)+2*h)+A*(u*k+f*A+2*p)+d;var S=1-k-A;for(l=0;l<o.length;++l)s[l]=S*t[l]+k*e[l]+A*r[l];return y<0?0:y}},{}],271:[function(t,e,r){e.exports=t("gl-quat/slerp")},{"gl-quat/slerp":124}],272:[function(t,e,r){"use strict";var n=t("big-rat/add");e.exports=function(t,e){for(var r=t.length,i=new Array(r),a=0;a<r;++a)i[a]=n(t[a],e[a]);return i}},{"big-rat/add":15}],273:[function(t,e,r){"use strict";e.exports=function(t){for(var e=new Array(t.length),r=0;r<t.length;++r)e[r]=n(t[r]);return e};var n=t("big-rat")},{"big-rat":18}],274:[function(t,e,r){"use strict";var n=t("big-rat"),i=t("big-rat/mul");e.exports=function(t,e){for(var r=n(e),a=t.length,o=new Array(a),s=0;s<a;++s)o[s]=i(t[s],r);return o}},{"big-rat":18,"big-rat/mul":27}],275:[function(t,e,r){"use strict";var n=t("big-rat/sub");e.exports=function(t,e){for(var r=t.length,i=new Array(r),a=0;a<r;++a)i[a]=n(t[a],e[a]);return i}},{"big-rat/sub":29}],276:[function(t,e,r){"use strict";var n=t("compare-cell"),i=t("compare-oriented-cell"),a=t("cell-orientation");e.exports=function(t){t.sort(i);for(var e=t.length,r=0,o=0;o<e;++o){var s=t[o],l=a(s);if(0!==l){if(r>0){var c=t[r-1];if(0===n(s,c)&&a(c)!==l){r-=1;continue}}t[r++]=s}}return t.length=r,t}},{"cell-orientation":47,"compare-cell":56,"compare-oriented-cell":57}],277:[function(t,e,r){"use strict";var n,i="";e.exports=function(t,e){if("string"!=typeof t)throw new TypeError("expected a string");if(1===e)return t;if(2===e)return t+t;var r=t.length*e;if(n!==t||void 0===n)n=t,i="";else if(i.length>=r)return i.substr(0,r);for(;r>i.length&&e>1;)1&e&&(i+=t),e>>=1,t+=t;return i=(i+=t).substr(0,r)}},{}],278:[function(t,e,n){(function(t){(function(){e.exports=t.performance&&t.performance.now?function(){return performance.now()}:Date.now||function(){return+new Date}}).call(this)}).call(this,void 0!==r?r:"undefined"!=typeof self?self:"undefined"!=typeof window?window:{})},{}],279:[function(t,e,r){"use strict";e.exports=function(t){for(var e=t.length,r=t[t.length-1],n=e,i=e-2;i>=0;--i){var a=r;(l=(s=t[i])-((r=a+s)-

a))&&(t[--n]=r,r=l)}var o=0;for(i=n;i<e;++i){var s,l;(l=(s=r)-((r=(a=t[i])+s)-a))&&(t[o++]=l)}return t[o++]=r,t.length=o,t}},{}],280:[function(t,e,r){"use strict";var n=t("two-product"),i=t("robust-sum"),a=t("robust-scale"),o=t("robust-compress");function s(t,e,r,n){return function(e){return n(t(r(e[0][0],e[1][1]),r(-e[0][1],e[1][0])))}}function l(t,e,r,n){return function(i){return n(t(e(t(r(i[1][1],i[2][2]),r(-i[1][2],i[2][1])),i[0][0]),t(e(t(r(i[1][0],i[2][2]),r(-i[1][2],i[2][0])),-i[0][1]),e(t(r(i[1][0],i[2][1]),r(-i[1][1],i[2][0])),i[0][2])))}}function c(t,e,r,n){return function(i){return n(t(t(e(t(e(t(r(i[2][2],i[3][3]),r(-i[2][3],i[3][2])),i[1][1]),t(e(t(r(i[2][1],i[3][3]),r(-i[2][3],i[3][1])),-i[1][2]),e(t(r(i[2][1],i[3][2]),r(-i[2][2],i[3][1])),i[1][3]))),i[0][0]),e(t(e(t(r(i[2][2],i[3][3]),r(-i[2][3],i[3][2])),i[1][0]),t(e(t(r(i[2][0],i[3][3]),r(-i[2][3],i[3][0])),-i[1][2]),e(t(r(i[2][0],i[3][2]),r(-i[2][2],i[3][0])),i[1][3]))),-i[0][1])),t(e(t(e(t(r(i[2][1],i[3][3]),r(-i[2][3],i[3][1])),i[1][0]),t(e(t(r(i[2][0],i[3][3]),r(-i[2][3],i[3][0])),-i[1][1]),e(t(r(i[2][0],i[3][1]),r(-i[2][1],i[3][0])),i[1][3]))),i[0][2]),e(t(e(t(r(i[2][1],i[3][2]),r(-i[2][2],i[3][1])),i[1][0]),t(e(t(r(i[2][0],i[3][2]),r(-i[2][2],i[3][0])),-i[1][1]),e(t(r(i[2][0],i[3][1]),r(-i[2][1],i[3][0])),i[1][2]))),-i[0][3])))}}function u(t,e,r,n){return function(i){return n(t(t(e(t(t(e(t(e(t(r(i[3][3],i[4][4]),r(-i[3][4],i[4][3])),i[2][2]),t(e(t(r(i[3][2],i[4][4]),r(-i[3][4],i[4][2])),-i[2][3]),e(t(r(i[3][2],i[4][3]),r(-i[3][3],i[4][2])),i[2][4]))),i[1][1]),e(t(e(t(r(i[3][3],i[4][4]),r(-i[3][4],i[4][3])),i[2][1]),t(e(t(r(i[3][1],i[4][4]),r(-i[3][4],i[4][1])),-i[2][3]),e(t(r(i[3][1],i[4][3]),r(-i[3][3],i[4][1])),i[2][4]))),-i[1][2])),t(e(t(e(t(r(i[3][2],i[4][4]),r(-i[3][4],i[4][2])),i[2][1]),t(e(t(r(i[3][1],i[4][4]),r(-i[3][4],i[4][1])),-i[2][2]),e(t(r(i[3][1],i[4][2]),r(-i[3][2],i[4][1])),i[2][4]))),i[1][3]),e(t(e(t(r(i[3][2],i[4][3]),r(-i[3][3],i[4][2])),i[2][1]),t(e(t(r(i[3][1],i[4][3]),r(-i[3][3],i[4][1])),-i[2][2]),e(t(r(i[3][1],i[4][2]),r(-i[3][2],i[4][1])),i[2][3]))),-i[1][4]))),i[0][0]),e(t(t(e(t(e(t(r(i[3][3],i[4][4]),r(-i[3][4],i[4][3])),i[2][2]),t(e(t(r(i[3][2],i[4][4]),r(-i[3][4],i[4][2])),-i[2][3]),e(t(r(i[3][2],i[4][3]),r(-i[3][3],i[4][2])),i[2][4]))),i[1][0]),e(t(e(t(r(i[3][3],i[4][4]),r(-i[3][4],i[4][3])),i[2][0]),t(e(t(r(i[3][0],i[4][4]),r(-i[3][4],i[4][0])),-i[2][3]),e(t(r(i[3][0],i[4][3]),r(-i[3][3],i[4][0])),i[2][4]))),-i[1][2])),t(e(t(e(t(r(i[3][2],i[4][4]),r(-i[3][4],i[4][2])),i[2][0]),t(e(t(r(i[3][0],i[4][4]),r(-i[3][4],i[4][0])),-i[2][2]),e(t(r(i[3][0],i[4][2]),r(-i[3][2],i[4][0])),i[2][4]))),i[1][3]),e(t(e(t(r(i[3][2],i[4][3]),r(-i[3][3],i[4][2])),i[2][0]),t(e(t(r(i[3][0],i[4][3]),r(-i[3][3],i[4][0])),-i[2][2]),e(t(r(i[3][0],i[4][2]),r(-i[3][2],i[4][0])),i[2][3]))),-i[1][4]))),-i[0][1])),t(e(t(t(e(t(e(t(r(i[3][3],i[4][4]),r(-i[3][4],i[4][3])),i[2][1]),t(e(t(r(i[3][1],i[4][4]),r(-i[3][4],i[4][1])),-i[2][3]),e(t(r(i[3][1],i[4][3]),r(-i[3][3],i[4][1])),i[2][4]))),i[1][0]),e(t(e(t(r(i[3][3],i[4][4]),r(-i[3][4],i[4][3])),i[2][0]),t(e(t(r(i[3][0],i[4][4]),r(-i[3][4],i[4][0])),-i[2][3]),e(t(r(i[3][0],i[4][3]),r(-i[3][3],i[4][0])),i[2][4]))),-i[1][1])),t(e(t(e(t(r(i[3][1],i[4][4]),r(-i[3][4],i[4][1])),i[2][0]),t(e(t(r(i[3][0],i[4][4]),r(-i[3][4],i[4][0])),-i[2][1]),e(t(r(i[3][0],i[4][1]),r(-i[3][1],i[4][0])),i[2][4]))),i[1][3]),e(t(e(t(r(i[3][1],i[4][3]),r(-i[3][3],i[4][1])),i[2][0]),t(e(t(r(i[3][0],i[4][3]),r(-i[3][3],i[4][0])),-i[2][1]),e(t(r(i[3][0],i[4][1]),r(-i[3][1],i[4][0])),i[2][3]))),-i[1][4]))),i[0][2]),t(e(t(t(e(t(e(t(r(i[3][2],i[4][4]),r(-i[3][4],i[4][2])),i[2][1]),t(e(t(r(i[3][1],i[4][4]),r(-i[3][4],i[4][1])),-i[2][2]),e(t(r(i[3][1],i[4][2]),r(-i[3][2],i[4][1])),i[2][4]))),i[1][0]),e(t(e(t(r(i[3][2],i[4][4]),r(-i[3][4],i[4][2])),i[2][0]),t(e(t(r(i[3][0],i[4][4]),r(-i[3][4],i[4][0])),-i[2][2]),e(t(r(i[3][0],i[4][2]),r(-i[3][2],i[4][0])),i[2][4]))),-i[1][1])),t(e(t(e(t(r(i[3][1],i[4][4]),r(-i[3][4],i[4][1])),i[2][0]),t(e(t(r(i[3][0],i[4][4]),r(-i[3][4],i[4][0])),-i[2][1]),e(t(r(i[3][0],i[4][1]),r(-i[3][1],i[4][0])),i[2][4]))),i[1][2]),e(t(e(t(r(i[3][1],i[4][2]),r(-i[3][2],i[4][1])),i[2][0]),t(e(t(r(i[3][0],i[4][2]),r(-i[3][2],i[4][0])),-i[2][1]),e(t(r(i[3][0],i[4][1]),r(-i[3][1],i[4][0])),i[2][2]))),-i[1][4]))),-i[0][3]),e(t(t(e(t(e(t(r(i[3][2],i[4][3]),r(-i[3][3],i[4][2])),i[2][1]),t(e(t(r(i[3][1],i[4][3]),r(-i[3][3],i[4][1])),-i[2][2]),e(t(r(i[3][1],i[4][2]),r(-i[3][2],i[4][1])),i[2][3]))),i[1][0]),e(t(e(t(r(i[3][2],i[4][3]),r(-i[3][3],i[4][2])),i[2][0]),t(e(t(r(i[3][0],i[4][3]),r(-i[3][3],i[4][0])),-i[2][2]),e(t(r(i[3][0],i[4][2]),r(-i[3][2],i[4][0])),i[2][3]))),-i[1][1])),t(e(t(e(t(r(i[3][1],i[4][3]),r(-i[3][3],i[4][1])),i[2][0]),t(e(t(r(i[3][0],i[4][3]),r(-i[3][3],i[4][0])),-i[2][1]),e(t(r(i[3][0],i[4][1]),r(-i[3][1],i[4][0])),i[2][3]))),i[1][2]),e(t(e(t(r(i[3][1],i[4][2]),r(-i[3][2],i[4][1])),i[2][0]),t(e(t(r(i[3][0],i[4][2]),r(-i[3][2],i[4][0])),-i[2][1]),e(t(r(i[3][0],i[4][1]),r(-i[3][1],i[4][0])),i[2][2]))),-i[1][3]))),i[0][4])))))}}function f(t){return(2===t?s:3===t?l:4===t?c:5===t?u:void 0)(i,a,n,o)}var h=[function(){return[0]},function(t){return[t[0][0]]}];function p(t,e,r,n,i,a,o,s){return function(l){switch(l.length){case 0:return t(l);case 1:return e(l);case 2:return r(l);case 3:return n(l);case 4:return i(l);case 5:return a(l)}var c=o[l.length];return

c||(c=o[l.length]=s(l.length)),c(l)}}!function(){for(;h.length<6;)h.push(f(h.length));e.exports=p.apply(void 0,h.concat([h,f]));for(var t=0;t<h.length;++t)e.exports[t]=h[t]}()},{"robust-compress":279,"robust-scale":286,"robust-sum":289,"two-product":306}],281:[function(t,e,r){"use strict";var n=t("two-product"),i=t("robust-sum");e.exports=function(t,e){for(var r=n(t[0],e[0]),a=1;a<t.length;++a)r=i(r,n(t[a],e[a]));return r}},{"robust-sum":289,"two-product":306}],282:[function(t,e,r){"use strict";var n=t("two-product"),i=t("robust-sum"),a=t("robust-subtract"),o=t("robust-scale");function s(t){return(3===t?l:4===t?c:5===t?u:f)(i,a,n,o)}function l(t,e,r,n){return function(i,a,o){var s=r(i[0],i[0]),l=n(s,a[0]),c=n(s,o[0]),u=r(a[0],a[0]),f=n(u,i[0]),h=n(u,o[0]),p=r(o[0],o[0]),d=n(p,i[0]),g=n(p,a[0]),v=t(e(g,h),e(f,l)),m=e(d,c),y=e(v,m);return y[y.length-1]}}function c(t,e,r,n){return function(i,a,o,s){var l=t(r(i[0],i[0]),r(i[1],i[1])),c=n(l,a[0]),u=n(l,o[0]),f=n(l,s[0]),h=t(r(a[0],a[0]),r(a[1],a[1])),p=n(h,i[0]),d=n(h,o[0]),g=n(h,s[0]),v=t(r(o[0],o[0]),r(o[1],o[1])),m=n(v,i[0]),y=n(v,a[0]),x=n(v,s[0]),b=t(r(s[0],s[0]),r(s[1],s[1])),_=n(b,i[0]),w=n(b,a[0]),T=n(b,o[0]),k=t(t(n(e(T,x),a[1]),t(n(e(w,g),-o[1]),n(e(y,d),s[1]))),t(n(e(w,g),i[1]),t(n(e(_,f),-a[1]),n(e(p,c),s[1])))),A=t(t(n(e(T,x),i[1]),t(n(e(_,f),-o[1]),n(e(m,u),s[1]))),t(n(e(y,d),i[1]),t(n(e(m,u),-a[1]),n(e(p,c),o[1])))),M=e(k,A);return M[M.length-1]}}function u(t,e,r,n){return function(i,a,o,s,l){var c=t(r(i[0],i[0]),t(r(i[1],i[1]),r(i[2],i[2]))),u=n(c,a[0]),f=n(c,o[0]),h=n(c,s[0]),p=n(c,l[0]),d=t(r(a[0],a[0]),t(r(a[1],a[1]),r(a[2],a[2]))),g=n(d,i[0]),v=n(d,o[0]),m=n(d,s[0]),y=n(d,l[0]),x=t(r(o[0],o[0]),t(r(o[1],o[1]),r(o[2],o[2]))),b=n(x,i[0]),_=n(x,a[0]),w=n(x,s[0]),T=n(x,l[0]),k=t(r(s[0],s[0]),t(r(s[1],s[1]),r(s[2],s[2]))),A=n(k,i[0]),M=n(k,a[0]),S=n(k,o[0]),E=n(k,l[0]),L=t(r(l[0],l[0]),t(r(l[1],l[1]),r(l[2],l[2]))),C=n(L,i[0]),P=n(L,a[0]),I=n(L,o[0]),O=n(L,s[0]),z=t(t(t(n(t(n(e(O,E),o[1]),t(n(e(I,T),-s[1]),n(e(S,w),l[1]))),a[2]),t(n(t(n(e(O,E),a[1]),t(n(e(P,y),-s[1]),n(e(M,m),l[1]))),-o[2]),n(t(n(e(I,T),a[1]),t(n(e(P,y),-o[1]),n(e(_,v),l[1]))),s[2]))),t(n(t(n(e(S,w),a[1]),t(n(e(M,m),-o[1]),n(e(_,v),s[1]))),-l[2]),t(n(t(n(e(O,E),a[1]),t(n(e(P,y),-s[1]),n(e(M,m),l[1]))),i[2]),n(t(n(e(O,E),i[1]),t(n(e(C,p),-s[1]),n(e(A,h),l[1]))),-a[2])))),t(t(n(t(n(e(P,y),i[1]),t(n(e(C,p),-a[1]),n(e(g,u),l[1]))),s[2]),t(n(t(n(e(M,m),i[1]),t(n(e(A,h),-a[1]),n(e(g,u),s[1]))),-l[2]),n(t(n(e(S,w),a[1]),t(n(e(M,m),-o[1]),n(e(_,v),s[1]))),i[2]))),t(n(t(n(e(S,w),i[1]),t(n(e(A,h),-o[1]),n(e(b,f),s[1]))),-a[2]),t(n(t(n(e(M,m),i[1]),t(n(e(A,h),-a[1]),n(e(g,u),s[1]))),o[2]),n(t(n(e(_,v),i[1]),t(n(e(b,f),-a[1]),n(e(g,u),o[1]))),-s[2])))),D=t(t(t(n(t(n(e(O,E),o[1]),t(n(e(I,T),-s[1]),n(e(S,w),l[1]))),i[2]),n(t(n(e(O,E),i[1]),t(n(e(C,p),-s[1]),n(e(A,h),l[1]))),-o[2])),t(n(t(n(e(I,T),i[1]),t(n(e(C,p),-o[1]),n(e(b,f),l[1]))),s[2]),n(t(n(e(S,w),i[1]),t(n(e(A,h),-o[1]),n(e(b,f),s[1]))),-l[2]))),t(t(n(t(n(e(I,T),a[1]),t(n(e(P,y),-o[1]),n(e(_,v),l[1]))),i[2]),n(t(n(e(I,T),i[1]),t(n(e(C,p),-o[1]),n(e(b,f),l[1]))),-a[2])),t(n(t(n(e(P,y),i[1]),t(n(e(C,p),-a[1]),n(e(g,u),l[1]))),o[2]),n(t(n(e(_,v),i[1]),t(n(e(b,f),-a[1]),n(e(g,u),o[1]))),-l[2])))),R=e(z,D);return R[R.length-1]}}function f(t,e,r,n){return function(i,a,o,s,l,c){var u=t(t(r(i[0],i[0]),r(i[1],i[1])),t(r(i[2],i[2]),r(i[3],i[3]))),f=n(u,a[0]),h=n(u,o[0]),p=n(u,s[0]),d=n(u,l[0]),g=n(u,c[0]),v=t(t(r(a[0],a[0]),r(a[1],a[1])),t(r(a[2],a[2]),r(a[3],a[3]))),m=n(v,i[0]),y=n(v,o[0]),x=n(v,s[0]),b=n(v,l[0]),_=n(v,c[0]),w=t(t(r(o[0],o[0]),r(o[1],o[1])),t(r(o[2],o[2]),r(o[3],o[3]))),T=n(w,i[0]),k=n(w,a[0]),A=n(w,s[0]),M=n(w,l[0]),S=n(w,c[0]),E=t(t(r(s[0],s[0]),r(s[1],s[1])),t(r(s[2],s[2]),r(s[3],s[3]))),L=n(E,i[0]),C=n(E,a[0]),P=n(E,o[0]),I=n(E,l[0]),O=n(E,c[0]),z=t(t(r(l[0],l[0]),r(l[1],l[1])),t(r(l[2],l[2]),r(l[3],l[3]))),D=n(z,i[0]),R=n(z,a[0]),F=n(z,o[0]),B=n(z,s[0]),N=n(z,c[0]),j=t(t(r(c[0],c[0]),r(c[1],c[1])),t(r(c[2],c[2]),r(c[3],c[3]))),U=n(j,i[0]),V=n(j,a[0]),q=n(j,o[0]),H=n(j,s[0]),G=n(j,l[0]),Y=t(t(n(t(t(n(t(n(e(G,N),s[1]),t(n(e(H,O),-l[1]),n(e(B,I),c[1]))),o[2]),n(t(n(e(G,N),o[1]),t(n(e(q,S),-l[1]),n(e(F,M),c[1]))),-s[2])),t(n(t(n(e(H,O),o[1]),t(n(e(q,S),-s[1]),n(e(P,A),c[1]))),l[2]),n(t(n(e(B,I),o[1]),t(n(e(F,M),-s[1]),n(e(P,A),l[1]))),-c[2]))),a[3]),t(n(t(t(n(t(n(e(G,N),s[1]),t(n(e(H,O),-l[1]),n(e(B,I),c[1]))),a[2]),n(t(n(e(G,N),a[1]),t(n(e(V,_),-l[1]),n(e(R,b),c[1]))),-s[2])),t(n(t(n(e(H,O),a[1]),t(n(e(V,_),-s[1]),n(e(C,x),c[1]))),l[2]),n(t(n(e(B,I),a[1]),t(n(e(R,b),-s[1]),n(e(C,x),l[1]))),-c[2]))),-o[3]),n(t(t(n(t(n(e(G,N),o[1]),t(n(e(q,S),-l[1]),n(e(F,M),c[1]))),a[2]),n(t(n(e(G,N),a[1]),t(n(e(V,_),-l[1]),n(e(R,b),c[1]))),-o[2])),t(n(t(n(e(q,S),a[1]),t(n(e(V,_),-o[1]),n(e(k,y),c[1]))),l[2]),n(t(n(e(F,M),a[1]),t(n(e(R,b),-o[1]),n(e(k,y),l[1]))),-c[2]))),s[3]))),t(t(n(t(t(n(t(n(e(H,O),o[1]),t(n(e(q,S),-s[1]),n(e(P,A),c[1]))),a[2]),n(t(n(e(H,O),a[1]),t(n(e(V,_),-s[1]),n(e(C,x),c[1]))),-o[2])),t(n(t(n(e(q,S),a[1]),t(n(e(V,_),-o[1]),n(e(k,y),c[1]))),s[2]),n(t(n(e(P,A),a[1]),t(n(e(C,x),-o[1]),n(e(k,y),s[1]))),-c[2]))),-l[3]),n(t(t(n(t(n(e(B,I),o[1]),t(n(e(F,M),-

s[1]),n(e(P,A),l[1]))),a[2]),n(t(n(e(B,I),a[1]),t(n(e(R,b),-s[1]),n(e(C,x),l[1]))),-o[2])),t(n(t(n(e(F,M),a[1]),t(n(e(R,b),-o[1]),n(e(k,y),l[1]))),s[2]),n(t(n(e(P,A),a[1]),t(n(e(C,x),-o[1]),n(e(k,y),s[1]))),-l[2]))),c[3])),t(n(t(t(n(t(n(e(G,N),s[1]),t(n(e(H,O),-l[1]),n(e(B,I),c[1]))),a[2]),n(t(n(e(G,N),a[1]),t(n(e(V,_),-l[1]),n(e(R,b),c[1]))),-s[2])),t(n(t(n(e(H,O),a[1]),t(n(e(V,_),-s[1]),n(e(C,x),c[1]))),l[2]),n(t(n(e(B,I),a[1]),t(n(e(R,b),-s[1]),n(e(C,x),l[1]))),-c[2]))),i[3]),n(t(t(n(t(n(e(G,N),s[1]),t(n(e(H,O),-l[1]),n(e(B,I),c[1]))),i[2]),n(t(n(e(G,N),i[1]),t(n(e(U,g),-l[1]),n(e(D,d),c[1]))),-s[2])),t(n(t(n(e(H,O),i[1]),t(n(e(U,g),-s[1]),n(e(L,p),c[1]))),l[2]),n(t(n(e(B,I),i[1]),t(n(e(D,d),-s[1]),n(e(L,p),l[1]))),-c[2]))),-a[3])))),t(t(t(n(t(t(n(t(n(e(G,N),a[1]),t(n(e(V,_),-l[1]),n(e(R,b),c[1]))),i[2]),n(t(n(e(G,N),i[1]),t(n(e(U,g),-l[1]),n(e(D,d),c[1]))),-a[2])),t(n(t(n(e(V,_),i[1]),t(n(e(U,g),-a[1]),n(e(m,f),c[1]))),l[2]),n(t(n(e(R,b),i[1]),t(n(e(D,d),-a[1]),n(e(m,f),l[1]))),-c[2]))),s[3]),n(t(t(n(t(n(e(H,O),a[1]),t(n(e(V,_),-s[1]),n(e(C,x),c[1]))),i[2]),n(t(n(e(H,O),i[1]),t(n(e(U,g),-s[1]),n(e(L,p),c[1]))),-a[2])),t(n(t(n(e(V,_),i[1]),t(n(e(U,g),-a[1]),n(e(m,f),c[1]))),s[2]),n(t(n(e(C,x),i[1]),t(n(e(L,p),-a[1]),n(e(m,f),s[1]))),-c[2]))),-l[3])),t(n(t(t(n(t(n(e(B,I),a[1]),t(n(e(R,b),-s[1]),n(e(C,x),l[1]))),i[2]),n(t(n(e(B,I),i[1]),t(n(e(D,d),-s[1]),n(e(L,p),l[1]))),-a[2])),t(n(t(n(e(R,b),i[1]),t(n(e(D,d),-a[1]),n(e(m,f),l[1]))),s[2]),n(t(n(e(C,x),i[1]),t(n(e(L,p),-a[1]),n(e(m,f),s[1]))),-l[2]))),c[3]),n(t(t(n(t(n(e(H,O),o[1]),t(n(e(q,S),-s[1]),n(e(P,A),c[1]))),a[2]),n(t(n(e(H,O),a[1]),t(n(e(V,_),-s[1]),n(e(C,x),c[1]))),-o[2])),t(n(t(n(e(q,S),a[1]),t(n(e(V,_),-o[1]),n(e(k,y),c[1]))),s[2]),n(t(n(e(P,A),a[1]),t(n(e(C,x),-o[1]),n(e(k,y),s[1]))),-c[2]))),i[3]))),t(t(n(t(t(n(t(n(e(H,O),o[1]),t(n(e(q,S),-s[1]),n(e(P,A),c[1]))),i[2]),n(t(n(e(H,O),i[1]),t(n(e(U,g),-s[1]),n(e(L,p),c[1]))),-o[2])),t(n(t(n(e(q,S),i[1]),t(n(e(U,g),-o[1]),n(e(T,h),c[1]))),s[2]),n(t(n(e(P,A),i[1]),t(n(e(L,p),-o[1]),n(e(T,h),s[1]))),-c[2]))),-a[3]),n(t(t(n(t(n(e(H,O),a[1]),t(n(e(V,_),-s[1]),n(e(C,x),c[1]))),i[2]),n(t(n(e(H,O),i[1]),t(n(e(U,g),-s[1]),n(e(L,p),c[1]))),-a[2])),t(n(t(n(e(V,_),i[1]),t(n(e(U,g),-a[1]),n(e(m,f),c[1]))),s[2]),n(t(n(e(C,x),i[1]),t(n(e(L,p),-a[1]),n(e(m,f),s[1]))),-c[2]))),o[3])),t(n(t(t(n(t(n(e(q,S),a[1]),t(n(e(V,_),-o[1]),n(e(k,y),c[1]))),i[2]),n(t(n(e(q,S),i[1]),t(n(e(U,g),-o[1]),n(e(T,h),c[1]))),-a[2])),t(n(t(n(e(V,_),i[1]),t(n(e(U,g),-a[1]),n(e(m,f),c[1]))),o[2]),n(t(n(e(k,y),i[1]),t(n(e(T,h),-a[1]),n(e(m,f),o[1]))),-c[2]))),-s[3]),n(t(t(n(t(n(e(P,A),a[1]),t(n(e(C,x),-o[1]),n(e(k,y),s[1]))),i[2]),n(t(n(e(P,A),i[1]),t(n(e(L,p),-o[1]),n(e(T,h),s[1]))),-a[2])),t(n(t(n(e(C,x),i[1]),t(n(e(L,p),-a[1]),n(e(m,f),s[1]))),o[2]),n(t(n(e(k,y),i[1]),t(n(e(T,h),-a[1]),n(e(m,f),o[1]))),-s[2]))),c[3]))))),W=t(t(t(n(t(t(n(t(n(e(G,N),s[1]),t(n(e(H,O),-l[1]),n(e(B,I),c[1]))),o[2]),n(t(n(e(G,N),o[1]),t(n(e(q,S),-l[1]),n(e(F,M),c[1]))),-s[2])),t(n(t(n(e(H,O),o[1]),t(n(e(q,S),-s[1]),n(e(P,A),c[1]))),l[2]),n(t(n(e(B,I),o[1]),t(n(e(F,M),-s[1]),n(e(P,A),l[1]))),-c[2]))),i[3]),t(n(t(t(n(t(n(e(G,N),s[1]),t(n(e(H,O),-l[1]),n(e(B,I),c[1]))),i[2]),n(t(n(e(G,N),i[1]),t(n(e(U,g),-l[1]),n(e(D,d),c[1]))),-s[2])),t(n(t(n(e(H,O),i[1]),t(n(e(U,g),-s[1]),n(e(L,p),c[1]))),l[2]),n(t(n(e(B,I),i[1]),t(n(e(D,d),-s[1]),n(e(L,p),l[1]))),-c[2]))),-o[3]),n(t(t(n(t(n(e(G,N),o[1]),t(n(e(q,S),-l[1]),n(e(F,M),c[1]))),i[2]),n(t(n(e(G,N),i[1]),t(n(e(U,g),-l[1]),n(e(D,d),c[1]))),-o[2])),t(n(t(n(e(q,S),i[1]),t(n(e(U,g),-o[1]),n(e(T,h),c[1]))),l[2]),n(t(n(e(F,M),i[1]),t(n(e(D,d),-o[1]),n(e(T,h),l[1]))),-c[2]))),s[3])),t(t(n(t(t(n(t(n(e(H,O),o[1]),t(n(e(q,S),-s[1]),n(e(P,A),c[1]))),i[2]),n(t(n(e(H,O),i[1]),t(n(e(U,g),-s[1]),n(e(L,p),c[1]))),-o[2])),t(n(t(n(e(q,S),i[1]),t(n(e(U,g),-o[1]),n(e(T,h),c[1]))),s[2]),n(t(n(e(P,A),i[1]),t(n(e(L,p),-o[1]),n(e(T,h),s[1]))),-c[2]))),-l[3]),n(t(t(n(t(n(e(B,I),o[1]),t(n(e(F,M),-s[1]),n(e(P,A),l[1]))),i[2]),n(t(n(e(B,I),i[1]),t(n(e(D,d),-s[1]),n(e(L,p),l[1]))),-o[2])),t(n(t(n(e(F,M),i[1]),t(n(e(D,d),-o[1]),n(e(T,h),l[1]))),s[2]),n(t(n(e(P,A),i[1]),t(n(e(L,p),-o[1]),n(e(T,h),s[1]))),-l[2]))),c[3])),t(n(t(t(n(t(n(e(G,N),o[1]),t(n(e(q,S),-l[1]),n(e(F,M),c[1]))),a[2]),n(t(n(e(G,N),a[1]),t(n(e(V,_),-l[1]),n(e(R,b),c[1]))),-o[2])),t(n(t(n(e(q,S),a[1]),t(n(e(V,_),-o[1]),n(e(k,y),c[1]))),l[2]),n(t(n(e(F,M),a[1]),t(n(e(R,b),-o[1]),n(e(k,y),l[1]))),-c[2]))),i[3]),n(t(t(n(t(n(e(G,N),o[1]),t(n(e(q,S),-l[1]),n(e(F,M),c[1]))),i[2]),n(t(n(e(G,N),i[1]),t(n(e(U,g),-l[1]),n(e(D,d),c[1]))),-o[2])),t(n(t(n(e(q,S),i[1]),t(n(e(U,g),-o[1]),n(e(T,h),c[1]))),l[2]),n(t(n(e(F,M),i[1]),t(n(e(D,d),-o[1]),n(e(T,h),l[1]))),-c[2]))),-a[3])))),t(t(t(n(t(t(n(t(n(e(G,N),a[1]),t(n(e(V,_),-l[1]),n(e(R,b),c[1]))),i[2]),n(t(n(e(G,N),i[1]),t(n(e(U,g),-l[1]),n(e(D,d),c[1]))),-a[2])),t(n(t(n(e(V,_),i[1]),t(n(e(U,g),-a[1]),n(e(m,f),c[1]))),l[2]),n(t(n(e(R,b),i[1]),t(n(e(D,d),-a[1]),n(e(m,f),l[1]))),-c[2]))),o[3]),n(t(t(n(t(n(e(q,S),a[1]),t(n(e(V,_),-

o[1]),n(e(k,y),c[1]))),i[2]),n(t(n(e(q,S),i[1]),t(n(e(U,g),-o[1]),n(e(T,h),c[1]))),-a[2])),t(n(t(n(e(V,_),i[1]),t(n(e(U,g),-a[1]),n(e(m,f),c[1]))),o[2]),n(t(n(e(k,y),i[1]),t(n(e(T,h),-a[1]),n(e(m,f),o[1]))),-c[2]))),-l[3])),t(n(t(t(n(t(n(e(F,M),a[1]),t(n(e(R,b),-o[1]),n(e(k,y),l[1]))),i[2]),n(t(n(e(F,M),i[1]),t(n(e(D,d),-o[1]),n(e(T,h),l[1]))),-a[2])),t(n(t(n(e(R,b),i[1]),t(n(e(D,d),-a[1]),n(e(m,f),l[1]))),o[2]),n(t(n(e(k,y),i[1]),t(n(e(T,h),-a[1]),n(e(m,f),o[1]))),-l[2]))),c[3]),n(t(t(n(t(n(e(B,I),o[1]),t(n(e(F,M),-s[1]),n(e(P,A),l[1]))),a[2]),n(t(n(e(B,I),a[1]),t(n(e(R,b),-s[1]),n(e(C,x),l[1]))),-o[2])),t(n(t(n(e(F,M),a[1]),t(n(e(R,b),-o[1]),n(e(k,y),l[1]))),s[2]),n(t(n(e(P,A),a[1]),t(n(e(C,x),-o[1]),n(e(k,y),s[1]))),-l[2]))),i[3]))),t(t(n(t(t(n(t(n(e(B,I),o[1]),t(n(e(F,M),-s[1]),n(e(P,A),l[1]))),i[2]),n(t(n(e(B,I),i[1]),t(n(e(D,d),-s[1]),n(e(L,p),l[1]))),-o[2])),t(n(t(n(e(F,M),i[1]),t(n(e(D,d),-o[1]),n(e(T,h),l[1]))),s[2]),n(t(n(e(P,A),i[1]),t(n(e(L,p),-o[1]),n(e(T,h),s[1]))),-l[2]))),-a[3]),n(t(t(n(t(n(e(B,I),a[1]),t(n(e(R,b),-s[1]),n(e(C,x),l[1]))),i[2]),n(t(n(e(B,I),i[1]),t(n(e(D,d),-s[1]),n(e(L,p),l[1]))),-a[2])),t(n(t(n(e(R,b),i[1]),t(n(e(D,d),-a[1]),n(e(m,f),l[1]))),s[2]),n(t(n(e(C,x),i[1]),t(n(e(L,p),-a[1]),n(e(m,f),s[1]))),-l[2]))),o[3])),t(n(t(t(n(t(n(e(F,M),a[1]),t(n(e(R,b),-o[1]),n(e(k,y),l[1]))),i[2]),n(t(n(e(F,M),i[1]),t(n(e(D,d),-o[1]),n(e(T,h),l[1]))),-a[2])),t(n(t(n(e(R,b),i[1]),t(n(e(D,d),-a[1]),n(e(m,f),l[1]))),o[2]),n(t(n(e(k,y),i[1]),t(n(e(T,h),-a[1]),n(e(m,f),o[1]))),-l[2]))),-s[3]),n(t(t(n(t(n(e(P,A),a[1]),t(n(e(C,x),-o[1]),n(e(k,y),s[1]))),i[2]),n(t(n(e(P,A),i[1]),t(n(e(L,p),-o[1]),n(e(T,h),s[1]))),-a[2])),t(n(t(n(e(C,x),i[1]),t(n(e(L,p),-a[1]),n(e(m,f),s[1]))),o[2]),n(t(n(e(k,y),i[1]),t(n(e(T,h),-a[1]),n(e(m,f),o[1]))),-s[2]))),l[3])))))),X=e(Y,W);return X[X.length-1]}}var h=[function(){return 0},function(){return 0},function(){return 0}];function p(t){var e=h[t.length];return e||(e=h[t.length]=s(t.length)),e.apply(void 0,t)}function d(t,e,r,n,i,a,o,s){return function(e,r,l,c,u,f){switch(arguments.length){case 0:case 1:return 0;case 2:return n(e,r);case 3:return i(e,r,l);case 4:return a(e,r,l,c);case 5:return o(e,r,l,c,u);case 6:return s(e,r,l,c,u,f)}for(var h=new Array(arguments.length),p=0;p<arguments.length;++p)h[p]=arguments[p];return t(h)}}!function(){for(;h.length<=6;)h.push(s(h.length));e.exports=d.apply(void 0,[p].concat(h));for(var t=0;t<=6;++t)e.exports[t]=h[t]}()},{"robust-scale":286,"robust-subtract":288,"robust-sum":289,"two-product":306}],283:[function(t,e,r){"use strict";var n=t("robust-determinant");function i(t){return(2===t?a:3===t?o:4===t?s:5===t?l:c)(t<6?n[t]:n)}function a(t){return function(e,r){return[t([[+r[0],+e[0][1]],[+r[1],+e[1][1]]]),t([[+e[0][0],+r[0]],[+e[1][0],+r[1]]]),t(e)]}}function o(t){return function(e,r){return[t([[+r[0],+e[0][1],+e[0][2]],[+r[1],+e[1][1],+e[1][2]],[+r[2],+e[2][1],+e[2][2]]]),t([[+e[0][0],+r[0],+e[0][2]],[+e[1][0],+r[1],+e[1][2]],[+e[2][0],+r[2],+e[2][2]]]),t([[+e[0][0],+e[0][1],+r[0]],[+e[1][0],+e[1][1],+r[1]],[+e[2][0],+e[2][1],+r[2]]]),t(e)]}}function s(t){return function(e,r){return[t([[+r[0],+e[0][1],+e[0][2],+e[0][3]],[+r[1],+e[1][1],+e[1][2],+e[1][3]],[+r[2],+e[2][1],+e[2][2],+e[2][3]],[+r[3],+e[3][1],+e[3][2],+e[3][3]]]),t([[+e[0][0],+r[0],+e[0][2],+e[0][3]],[+e[1][0],+r[1],+e[1][2],+e[1][3]],[+e[2][0],+r[2],+e[2][2],+e[2][3]],[+e[3][0],+r[3],+e[3][2],+e[3][3]]]),t([[+e[0][0],+e[0][1],+r[0],+e[0][3]],[+e[1][0],+e[1][1],+r[1],+e[1][3]],[+e[2][0],+e[2][1],+r[2],+e[2][3]],[+e[3][0],+e[3][1],+r[3],+e[3][3]]]),t([[+e[0][0],+e[0][1],+e[0][2],+r[0]],[+e[1][0],+e[1][1],+e[1][2],+r[1]],[+e[2][0],+e[2][1],+e[2][2],+r[2]],[+e[3][0],+e[3][1],+e[3][2],+r[3]]]),t(e)]}}function l(t){return function(e,r){return[t([[+r[0],+e[0][1],+e[0][2],+e[0][3],+e[0][4]],[+r[1],+e[1][1],+e[1][2],+e[1][3],+e[1][4]],[+r[2],+e[2][1],+e[2][2],+e[2][3],+e[2][4]],[+r[3],+e[3][1],+e[3][2],+e[3][3],+e[3][4]],[+r[4],+e[4][1],+e[4][2],+e[4][3],+e[4][4]]]),t([[+e[0][0],+r[0],+e[0][2],+e[0][3],+e[0][4]],[+e[1][0],+r[1],+e[1][2],+e[1][3],+e[1][4]],[+e[2][0],+r[2],+e[2][2],+e[2][3],+e[2][4]],[+e[3][0],+r[3],+e[3][2],+e[3][3],+e[3][4]],[+e[4][0],+r[4],+e[4][2],+e[4][3],+e[4][4]]]),t([[+e[0][0],+e[0][1],+r[0],+e[0][3],+e[0][4]],[+e[1][0],+e[1][1],+r[1],+e[1][3],+e[1][4]],[+e[2][0],+e[2][1],+r[2],+e[2][3],+e[2][4]],[+e[3][0],+e[3][1],+r[3],+e[3][3],+e[3][4]],[+e[4][0],+e[4][1],+r[4],+e[4][3],+e[4][4]]]),t([[+e[0][0],+e[0][1],+e[0][2],+r[0],+e[0][4]],[+e[1][0],+e[1][1],+e[1][2],+r[1],+e[1][4]],[+e[2][0],+e[2][1],+e[2][2],+r[2],+e[2][4]],[+e[3][0],+e[3][1],+e[3][2],+r[3],+e[3][4]],[+e[4][0],+e[4][1],+e[4][2],+r[4],+e[4][4]]]),t([[+e[0][0],+e[0][1],+e[0][2],+e[0][3],+r[0]],[+e[1][0],+e[1][1],+e[1][2],+e[1][3],+r[1]],[+e[2][0],+e[2][1],+e[2][2],+e[2][3],+r[2]],[+e[3][0],+e[3][1],+e[3][2],+e[3][3],+r[3]],[+e[4][0],+e[4][1],+e[4][2],+e[4][3],+r[4]]]),t(e)]}}function c(t){return function(e,r){return[t([[+r[0],+e[0][1],+e[0][2],+e[0][3],+e[0][4],+e[0][5]],[+r[1],+e[1][1],+e[1][2],+e[1][3],+e[1][4

],+e[1][5]],[+r[2],+e[2][1],+e[2][2],+e[2][3],+e[2][4],+e[2][5]],[+r[3],+e[3][1],+e[3][2],+e[3][3],+e[3][4],+e[3][5]],[+r[4],+e[4][1],+e[4][2],+e[4][3],+e[4][4],+e[4][5]],[+r[5],+e[5][1],+e[5][2],+e[5][3],+e[5][4],+e[5][5]]]),t([[+e[0][0],+r[0],+e[0][2],+e[0][3],+e[0][4],+e[0][5]],[+e[1][0],+r[1],+e[1][2],+e[1][3],+e[1][4],+e[1][5]],[+e[2][0],+r[2],+e[2][2],+e[2][3],+e[2][4],+e[2][5]],[+e[3][0],+r[3],+e[3][2],+e[3][3],+e[3][4],+e[3][5]],[+e[4][0],+r[4],+e[4][2],+e[4][3],+e[4][4],+e[4][5]],[+e[5][0],+r[5],+e[5][2],+e[5][3],+e[5][4],+e[5][5]]]),t([[+e[0][0],+e[0][1],+r[0],+e[0][3],+e[0][4],+e[0][5]],[+e[1][0],+e[1][1],+r[1],+e[1][3],+e[1][4],+e[1][5]],[+e[2][0],+e[2][1],+r[2],+e[2][3],+e[2][4],+e[2][5]],[+e[3][0],+e[3][1],+r[3],+e[3][3],+e[3][4],+e[3][5]],[+e[4][0],+e[4][1],+r[4],+e[4][3],+e[4][4],+e[4][5]],[+e[5][0],+e[5][1],+r[5],+e[5][3],+e[5][4],+e[5][5]]]),t([[+e[0][0],+e[0][1],+e[0][2],+r[0],+e[0][4],+e[0][5]],[+e[1][0],+e[1][1],+e[1][2],+r[1],+e[1][4],+e[1][5]],[+e[2][0],+e[2][1],+e[2][2],+r[2],+e[2][4],+e[2][5]],[+e[3][0],+e[3][1],+e[3][2],+r[3],+e[3][4],+e[3][5]],[+e[4][0],+e[4][1],+e[4][2],+r[4],+e[4][4],+e[4][5]],[+e[5][0],+e[5][1],+e[5][2],+r[5],+e[5][4],+e[5][5]]]),t([[+e[0][0],+e[0][1],+e[0][2],+e[0][3],+r[0],+e[0][5]],[+e[1][0],+e[1][1],+e[1][2],+e[1][3],+r[1],+e[1][5]],[+e[2][0],+e[2][1],+e[2][2],+e[2][3],+r[2],+e[2][5]],[+e[3][0],+e[3][1],+e[3][2],+e[3][3],+r[3],+e[3][5]],[+e[4][0],+e[4][1],+e[4][2],+e[4][3],+r[4],+e[4][5]],[+e[5][0],+e[5][1],+e[5][2],+e[5][3],+r[5],+e[5][5]]]),t([[+e[0][0],+e[0][1],+e[0][2],+e[0][3],+e[0][4],+r[0]],[+e[1][0],+e[1][1],+e[1][2],+e[1][3],+e[1][4],+r[1]],[+e[2][0],+e[2][1],+e[2][2],+e[2][3],+e[2][4],+r[2]],[+e[3][0],+e[3][1],+e[3][2],+e[3][3],+e[3][4],+r[3]],[+e[4][0],+e[4][1],+e[4][2],+e[4][3],+e[4][4],+r[4]],[+e[5][0],+e[5][1],+e[5][2],+e[5][3],+e[5][4],+r[5]]),t(e)]}var u=[function(){return[[0]]},function(t,e){return[[e[0]],[t[0][0]]]}];function f(t,e,r,n,i,a,o,s){return function(l,c){switch(l.length){case 0:return t(l,c);case 1:return e(l,c);case 2:return r(l,c);case 3:return n(l,c);case 4:return i(l,c);case 5:return a(l,c)}var u=o[l.length];return u||(u=o[l.length]=s(l.length)),u(l,c)}}!function(){for(;u.length<6;)u.push(i(u.length));e.exports=f.apply(void 0,u.concat([u,i]));for(var t=0;t<6;++t)e.exports[t]=u[t]}()},{"robust-determinant":280}],284:[function(t,e,r){"use strict";var n=t("two-product"),i=t("robust-sum"),a=t("robust-scale"),o=t("robust-subtract");function s(t,e,r,n){return function(r,i,a){var o=t(t(e(i[1],a[0]),e(-a[1],i[0])),t(e(r[1],i[0]),e(-i[1],r[0]))),s=t(e(r[1],a[0]),e(-a[1],r[0])),l=n(o,s);return l[l.length-1]}}function l(t,e,r,n){return function(i,a,o,s){var l=t(t(r(t(e(o[1],s[0]),e(-s[1],o[0])),a[2]),t(r(t(e(a[1],s[0]),e(-s[1],a[0])),-o[2]),r(t(e(a[1],o[0]),e(-o[1],a[0])),s[2]))),t(r(t(e(a[1],s[0]),e(-s[1],a[0])),i[2]),t(r(t(e(i[1],s[0]),e(-s[1],i[0])),-a[2]),r(t(e(i[1],a[0]),e(-a[1],i[0])),s[2])))),c=t(t(r(t(e(o[1],s[0]),e(-s[1],o[0])),i[2]),t(r(t(e(i[1],s[0]),e(-s[1],i[0])),-o[2]),r(t(e(i[1],o[0]),e(-o[1],i[0])),s[2]))),t(r(t(e(a[1],o[0]),e(-o[1],a[0])),i[2]),t(r(t(e(i[1],o[0]),e(-o[1],i[0])),-a[2]),r(t(e(i[1],a[0]),e(-a[1],i[0])),o[2]))));return u[u.length-1]}}function c(t,e,r,n){return function(i,a,o,s,l){var c=t(t(t(r(t(r(t(e(s[1],l[0]),e(-l[1],s[0])),o[2]),t(r(t(e(o[1],l[0]),e(-l[1],o[0])),-s[2]),r(t(e(o[1],s[0]),e(-s[1],o[0])),l[2]))),a[3]),t(r(t(r(t(e(s[1],l[0]),e(-l[1],s[0])),a[2]),t(r(t(e(a[1],l[0]),e(-l[1],a[0])),-s[2]),r(t(e(a[1],s[0]),e(-s[1],a[0])),l[2]))),-o[3]),r(t(r(t(e(o[1],l[0]),e(-l[1],o[0])),a[2]),t(r(t(e(a[1],l[0]),e(-l[1],a[0])),-o[2]),r(t(e(a[1],o[0]),e(-o[1],a[0])),l[2]))),s[3]))),t(r(t(r(t(e(o[1],s[0]),e(-s[1],o[0])),a[2]),t(r(t(e(a[1],s[0]),e(-s[1],a[0])),-o[2]),r(t(e(a[1],o[0]),e(-o[1],a[0])),s[2]))),-l[3]),t(r(t(r(t(e(s[1],l[0]),e(-l[1],s[0])),a[2]),t(r(t(e(a[1],l[0]),e(-l[1],a[0])),-s[2]),r(t(e(a[1],s[0]),e(-s[1],a[0])),l[2]))),i[3]),r(t(r(t(e(s[1],l[0]),e(-l[1],s[0])),i[2]),t(r(t(e(i[1],l[0]),e(-l[1],i[0])),-s[2]),r(t(e(i[1],s[0]),e(-s[1],i[0])),l[2]))),-a[3]))))),t(t(r(t(r(t(e(a[1],l[0]),e(-l[1],a[0])),i[2]),t(r(t(e(i[1],l[0]),e(-l[1],i[0])),-a[2]),r(t(e(i[1],a[0]),e(-a[1],i[0])),l[2]))),s[3]),t(r(t(r(t(e(a[1],s[0]),e(-s[1],a[0])),i[2]),t(r(t(e(i[1],s[0]),e(-s[1],i[0])),-a[2]),r(t(e(i[1],a[0]),e(-a[1],i[0])),s[2]))),-l[3]),r(t(r(t(e(o[1],s[0]),e(-s[1],o[0])),a[2]),t(r(t(e(a[1],s[0]),e(-s[1],a[0])),-o[2]),r(t(e(a[1],o[0]),e(-o[1],a[0])),s[2]))),i[3]))),t(r(t(r(t(e(o[1],s[0]),e(-s[1],o[0])),i[2]),t(r(t(e(i[1],s[0]),e(-s[1],i[0])),-o[2]),r(t(e(i[1],o[0]),e(-o[1],i[0])),s[2]))),-a[3]),t(r(t(r(t(e(a[1],s[0]),e(-s[1],a[0])),i[2]),t(r(t(e(i[1],s[0]),e(-s[1],i[0])),-a[2]),r(t(e(i[1],a[0]),e(-a[1],i[0])),s[2]))),o[3]),r(t(r(t(e(a[1],o[0]),e(-o[1],a[0])),i[2]),t(r(t(e(i[1],o[0]),e(-o[1],i[0])),-a[2]),r(t(e(i[1],a[0]),e(-a[1],i[0])),o[2]))),-s[3])))))),u=t(t(t(r(t(r(t(e(s[1],l[0]),e(-l[1],s[0])),o[2]),t(r(t(e(o[1],l[0]),e(-l[1],o[0])),-s[2]),r(t(e(o[1],s[0]),e(-s[1],o[0])),l[2]))),i[3]),r(t(r(t(e(s[1],l[0]),e(-l[1],s[0])),i[2]),t(r(t(e(i[1],l[0]),e(-l[1],i[0])),-s[2]),r(t(e(i[1],s[0]),e(-s[1],i[0])),l[2]))),-o[3])),t(r(t(r(t(e(o[1],l[0]),e(-l[1],o[0])),i[2]),t(r(t(e(i[1],l[0]),e(-l[1],i[0])),-o[2]),r(t(e(i[1],o[0]),e(-o[1],i[0])),l[2]))),i[3]),r(t(r(t(e(s[1],l[0]),e(-l[1],s[0])),i[2]),t(r(t(e(i[1],l[0]),e(-l[1],i[0])),-s[2]),r(t(e(i[1],s[0]),e(-s[1],i[0])),l[2]))),-o[3])),t(r(t(r(t(e(o[1],l[0]),e(-l[1],o[0])),i[2]),t(r(t(e(i[1],l[0]),e(-l[1],i[0])),-o[2]),r(t(e(i[1],o[0]),e(-o[1],i[0])),l[2]))),i[3]),r(t(r(t(e(s[1],l[0]),e(-l[1],s[0])),i[2]),t(r(t(e(i[1],l[0]),e(-l[1],i[0])),-s[2]),r(t(e(i[1],s[0]),e(-s[1],i[0])),l[2]))),-o[3]))),t(t(r(t(r(t(e(o[1],l[0]),e(-l[1],o[0])),a[2]),t(r(t(e(a[1],l[0]),e(-l[1],a[0])),-o[2]),r(t(e(a[1],o[0]),e(-o[1],a[0])),l[2]))),i[3]),r(t(r(t(e(o[1],l[0]),e(-l[1],o[0])),i[2]),t(r(t(e(i[1],l[0]),e(-l[1],i[0])),-o[2]),r(t(e(i[1],o[0]),e(-

o[1],i[0])),l[2]))),-a[3])),t(r(t(r(t(e(a[1],l[0]),e(-l[1],a[0])),i[2]),t(r(t(e(i[1],l[0]),e(-l[1],i[0])),-a[2]),r(t(e(i[1],a[0]),e(-a[1],i[0])),l[2]))),o[3]),r(t(r(t(e(a[1],o[0]),e(-o[1],a[0])),i[2]),t(r(t(e(i[1],o[0]),e(-o[1],i[0])),-a[2]),r(t(e(i[1],a[0]),e(-a[1],i[0])),o[2]))),-l[3])))),f=n(c,u);return f[f.length-1]}}function u(t){return(3===t?s:4===t?l:c)(i,n,a,o)}var f=u(3),h=u(4),p=[function(){return 0},function(){return 0},function(t,e){return e[0]-t[0]},function(t,e,r){var n,i=(t[1]-r[1])*(e[0]-r[0]),a=(t[0]-r[0])*(e[1]-r[1]),o=i-a;if(i>0){if(a<=0)return o;n=i+a}else{if(!(i<0))return o;if(a>=0)return o;n=-(i+a)}var s=33306690738754716e-32*n;return o>=s||o<=-s?o:f(t,e,r)},function(t,e,r,n){var i=t[0]-n[0],a=e[0]-n[0],o=r[0]-n[0],s=t[1]-n[1],l=e[1]-n[1],c=r[1]-n[1],u=t[2]-n[2],f=e[2]-n[2],p=r[2]-n[2],d=a*c,g=o*l,v=o*s,m=i*c,y=i*l,x=a*s,b=u*(d-g)+f*(v-m)+p*(y-x),_=7771561172376103e-31*((Math.abs(d)+Math.abs(g))*Math.abs(u)+(Math.abs(v)+Math.abs(m))*Math.abs(f)+(Math.abs(y)+Math.abs(x))*Math.abs(p));return b>_||-b>_?b:h(t,e,r,n)}];function d(t){var e=p[t.length];return e||(e=p[t.length]=u(t.length)),e.apply(void 0,t)}function g(t,e,r,n,i,a,o){return function(e,r,s,l,c){switch(arguments.length){case 0:case 1:return 0;case 2:return n(e,r);case 3:return i(e,r,s);case 4:return a(e,r,s,l);case 5:return o(e,r,s,l,c)}for(var u=new Array(arguments.length),f=0;f<arguments.length;++f)u[f]=arguments[f];return t(u)}}!function(){for(;p.length<=5;)p.push(u(p.length));e.exports=g.apply(void 0,[d].concat(p));for(var t=0;t<=5;++t)e.exports[t]=p[t]}()},{"robust-scale":286,"robust-subtract":288,"robust-sum":289,"two-product":306}],285:[function(t,e,r){"use strict";var n=t("robust-sum"),i=t("robust-scale");e.exports=function(t,e){if(1===t.length)return i(e,t[0]);if(1===e.length)return i(t,e[0]);if(0===t.length||0===e.length)return[0];var r=[0];if(t.length<e.length)for(var a=0;a<t.length;++a)r=n(r,i(e,t[a]));else for(a=0;a<e.length;++a)r=n(r,i(t,e[a]));return r}},{"robust-scale":286,"robust-sum":289}],286:[function(t,e,r){"use strict";var n=t("two-product"),i=t("two-sum");e.exports=function(t,e){var r=t.length;if(1===r){var a=n(t[0],e);return a[0]?a:[a[1]]}var o=new Array(2*r),s=[.1,.1],l=[.1,.1],c=0;n(t[0],e,s),s[0]&&(o[c++]=s[0]);for(var u=1;u<r;++u){n(t[u],e,l);var f=s[1];i(f,l[0],s),s[0]&&(o[c++]=s[0]);var h=l[1],p=s[1],d=h+p,g=p-(d-h);s[1]=d,g&&(o[c++]=g)}return s[1]&&(o[c++]=s[1]),0===c&&(o[c++]=0),o.length=c,o}},{"two-product":306,"two-sum":307}],287:[function(t,e,r){"use strict";e.exports=function(t,e,r,i){var a=n(t,r,i),o=n(e,r,i);if(a>0&&o>0||a<0&&o<0)return!1;var s=n(r,t,e),l=n(i,t,e);return!(s>0&&l>0||s<0&&l<0)&&(0!==a||0!==o||0!==s||0!==l||function(t,e,r,n){for(var i=0;i<2;++i){var a=t[i],o=e[i],s=Math.min(a,o),l=Math.max(a,o),c=r[i],u=n[i],f=Math.min(c,u);if(Math.max(c,u)<s||l<f)return!1}return!0}(t,e,r,i))};var n=t("robust-orientation")[3]},{"robust-orientation":284}],288:[function(t,e,r){"use strict";e.exports=function(t,e){var r=0|t.length,n=0|e.length;if(1===r&&1===n)return function(t,e){var r=t+e,n=r-t,i=t-(r-n)+(e-n);return i?[i,r]:[r]}(t[0],-e[0]);var i,a,o=new Array(r+n),s=0,l=0,c=0,u=Math.abs,f=t[l],h=u(f),p=-e[c],d=u(p);h<d?(a=f,(l+=1)<r&&(h=u(f=t[l]))):(a=p,(c+=1)<n&&(d=u(p=-e[c]))),l<r&&h<d||c>=n?(i=f,(l+=1)<r&&(h=u(f=t[l]))):(i=p,(c+=1)<n&&(d=u(p=-e[c]))),l<r&&c<n;)h<d?(i=f,(l+=1)<r&&(h=u(f=t[l]))):(i=p,(c+=1)<n&&(d=u(p=-e[c]))),(x=(a=b)-(y=(m=i+a)-i))&&(o[s++]=x),b=_-((g=_+m)-(v=g-_))+(m-v),_=g;for(;l<r;)(x=(a=b)-(y=(m=(i=f)+a)-i))&&(o[s++]=x),b=_-((g=_+m)-(v=g-_))+(m-v),_=g,(l+=1)<r&&(f=t[l]);for(;c<n;)(x=(a=b)-(y=(m=(i=p)+a)-i))&&(o[s++]=x),b=_-((g=_+m)-(v=g-_))+(m-v),_=g,(c+=1)<n&&(p=-e[c]);return b&&(o[s++]=b),_&&(o[s++]=_),s||(o[s++]=0),o.length=s,o}},{}],289:[function(t,e,r){"use strict";e.exports=function(t,e){var r=0|t.length,n=0|e.length;if(1===r&&1===n)return function(t,e){var r=t+e,n=r-t,i=t-(r-n)+(e-n);return i?[i,r]:[r]}(t[0],e[0]);var i,a,o=new Array(r+n),s=0,l=0,c=0,u=Math.abs,f=t[l],h=u(f),p=e[c],d=u(p);h<d?(a=f,(l+=1)<r&&(h=u(f=t[l]))):(a=p,(c+=1)<n&&(d=u(p=e[c]))),l<r&&h<d||c>=n?(i=f,(l+=1)<r&&(h=u(f=t[l]))):(i=p,(c+=1)<n&&(d=u(p=e[c]))),l<r&&c<n;)h<d?(i=f,(l+=1)<r&&(h=u(f=t[l]))):(i=p,(c+=1)<n&&(d=u(p=e[c]))),(x=(a=b)-(y=(m=i+a)-i))&&(o[s++]=x),b=_-((g=_+m)-(v=g-_))+(m-v),_=g;for(;l<r;)(x=(a=b)-(y=(m=(i=f)+a)-i))&&(o[s++]=x),b=_-((g=_+m)-(v=g-_))+(m-v),_=g,(l+=1)<r&&(f=t[l]);for(;c<n;)(x=(a=b)-(y=(m=(i=p)+a)-i))&&(o[s++]=x),b=_-

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((g=_+m)-(v=g-_))+(m-v),_=g,(c+=1)<n&&(p=e[c]);return
b&&(o[s++]=b),_&&(o[s++]=_),s||(o[s++]=0),o.length=s,o)},{}],290:[function(t,e,r){"use
strict";e.exports=function(t){return i(n(t))};var n=t("boundary-cells"),i=t("reduce-simplicial-
complex")},{"boundary-cells":34,"reduce-simplicial-complex":276}],291:[function(t,e,r){"use
strict";e.exports=function(t,e,r,s){if(r=r||0,void 0===s&&(s=function(t){for(var
e=t.length,r=0,n=0;n<e;++n)r=0|Math.max(r,t[n].length);return r-
1}(t)),0===t.length||s<1)return{cells:[],vertexIds:[],vertexWeights:[]};var l=function(t,e){for(var
r=t.length,n=i.mallocUint8(r),a=0;a<r;++a)n[a]=t[a]<e|0;return n}(e,+r),c=function(t,e){for(var
r=t.length,o=e*(e+1)/2*r|0,s=i.mallocUint32(2*o),l=0,c=0;c<r;++c)for(var u=t[c],f=(e=u.length,0);f<e;++f)for(var
h=0;h<f;++h){var p=u[h],d=u[f];s[l++]=0|Math.min(p,d),s[l++]=0|Math.max(p,d)}a(n(s,[l/2|0,2]));var
g=2;for(c=2;c<l;c+=2)s[c-2]===s[c]&&s[c-1]===s[c+1]||(s[g++]=s[c],s[g++]=s[c+1]);return
n(s,[g/2|0,2])}(t,s),u=function(t,e,r,a){for(var o=t.data,s=t.shape[0],l=i.mallocDouble(s),c=0,u=0;u<s;++u){var
f=o[2*u],h=o[2*u+1];if(r[f]!==r[h]){var p=e[f],d=e[h];o[2*c]=f,o[2*c+1]=h,l[c++]=(d-a)/(d-p)}}return
t.shape[0]=c,n(l,[c])}(c,e,l,+r),f=function(t,e){var r=i.mallocInt32(2*e),n=t.shape[0],a=t.data;r[0]=0;for(var
o=0,s=0;s<n;++s){var
l=a[2*s];if(l!==o){for(r[2*o+1]=s;++o<l;)r[2*o]=s,r[2*o+1]=s;r[2*o]=s}}for(r[2*o+1]=n;++o<e;)r[2*o]=r[2*o+1]=
n;return r}(c,0|e.length),h=o(s)(t,c.data,f,l),p=function(t){for(var e=0|t.shape[0],r=t.data,n=new
Array(e),i=0;i<e;++i)n[i]=[r[2*i],r[2*i+1]];return n}(c),d=[].slice.call(u.data,0,u.shape[0]);return
i.free(l),i.free(c.data),i.free(u.data),i.free(f),{cells:h,vertexIds:p,vertexWeights:d}};var
n=t("ndarray"),i=t("typedarray-pool"),a=t("ndarray-
sort"),o=t("./lib/codegen")},{"./lib/codegen":292,ndarray:259,"ndarray-sort":258,"typedarray-
pool":308}],292:[function(t,e,r){"use strict";e.exports=function(t){return n[t]()};var n=[function(){return
function(t,e,r,n){for(var i=t.length,a=0;a<i;++a)t[a].length;return[]}},function(){function t(t,e,r,n){for(var
i=0|Math.min(r,n),a=0|Math.max(r,n),o=t[2*i],s=t[2*i+1];o<s;){var l=o+s>>1,c=e[2*l+1];if(c===a)return
l;a<c?s=l:o=l+1}return o}return function(e,r,n,i){for(var a=e.length,o=[],s=0;s<a;++s){var
l=e[s];if(2===l.length){var c=(i[l[0]]<<0)+(i[l[1]]<<1);if(0===c||3===c)continue;switch(c){case 0:break;case
1:o.push([t(n,r,l[0],l[1])]);break;case 2:o.push([t(n,r,l[1],l[0])])}}}return o}},function(){function t(t,e,r,n){for(var
i=0|Math.min(r,n),a=0|Math.max(r,n),o=t[2*i],s=t[2*i+1];o<s;){var l=o+s>>1,c=e[2*l+1];if(c===a)return
l;a<c?s=l:o=l+1}return o}return function(e,r,n,i){for(var a=e.length,o=[],s=0;s<a;++s){var
l=e[s],c=l.length;if(3===c){if(0==(u=(i[l[0]]<<0)+(i[l[1]]<<1)+(i[l[2]]<<2))||7===u)continue;switch(u){case
0:break;case 1:o.push([t(n,r,l[0],l[2]),t(n,r,l[0],l[1])]);break;case 2:o.push([t(n,r,l[1],l[0]),t(n,r,l[1],l[2])]);break;case
3:o.push([t(n,r,l[0],l[2]),t(n,r,l[1],l[2])]);break;case 4:o.push([t(n,r,l[2],l[1]),t(n,r,l[2],l[0])]);break;case
5:o.push([t(n,r,l[2],l[1]),t(n,r,l[0],l[1])]);break;case 6:o.push([t(n,r,l[1],l[0]),t(n,r,l[2],l[0])])}}else if(2===c){var
u;if(0==(u=(i[l[0]]<<0)+(i[l[1]]<<1))||3===u)continue;switch(u){case 0:break;case
1:o.push([t(n,r,l[0],l[1])]);break;case 2:o.push([t(n,r,l[1],l[0])])}}}return o}},function(){function t(t,e,r,n){for(var
i=0|Math.min(r,n),a=0|Math.max(r,n),o=t[2*i],s=t[2*i+1];o<s;){var l=o+s>>1,c=e[2*l+1];if(c===a)return
l;a<c?s=l:o=l+1}return o}return function(e,r,n,i){for(var a=e.length,o=[],s=0;s<a;++s){var
l=e[s],c=l.length;if(4===c){if(0==(u=(i[l[0]]<<0)+(i[l[1]]<<1)+(i[l[2]]<<2)+(i[l[3]]<<3))||15===u)continue;switch(
u){case 0:break;case 1:o.push([t(n,r,l[0],l[1]),t(n,r,l[0],l[2]),t(n,r,l[0],l[3])]);break;case
2:o.push([t(n,r,l[1],l[2]),t(n,r,l[1],l[0]),t(n,r,l[1],l[3])]);break;case
3:o.push([t(n,r,l[1],l[2]),t(n,r,l[0],l[2]),t(n,r,l[0],l[3])],[t(n,r,l[1],l[3]),t(n,r,l[1],l[2]),t(n,r,l[0],l[3])]);break;case
4:o.push([t(n,r,l[2],l[0]),t(n,r,l[2],l[1]),t(n,r,l[2],l[3])]);break;case
5:o.push([t(n,r,l[0],l[1]),t(n,r,l[2],l[1]),t(n,r,l[0],l[3])],[t(n,r,l[2],l[1]),t(n,r,l[2],l[3]),t(n,r,l[0],l[3])]);break;case
6:o.push([t(n,r,l[2],l[0]),t(n,r,l[1],l[0]),t(n,r,l[1],l[3])],[t(n,r,l[2],l[3]),t(n,r,l[2],l[0]),t(n,r,l[1],l[3])]);break;case
7:o.push([t(n,r,l[0],l[3]),t(n,r,l[1],l[3]),t(n,r,l[2],l[3])]);break;case
8:o.push([t(n,r,l[3],l[1]),t(n,r,l[3],l[0]),t(n,r,l[3],l[2])]);break;case
9:o.push([t(n,r,l[3],l[1]),t(n,r,l[0],l[1]),t(n,r,l[0],l[2])],[t(n,r,l[3],l[2]),t(n,r,l[3],l[1]),t(n,r,l[0],l[2])]);break;case
10:o.push([t(n,r,l[1],l[0]),t(n,r,l[3],l[0]),t(n,r,l[1],l[2])],[t(n,r,l[3],l[0]),t(n,r,l[3],l[2]),t(n,r,l[1],l[2])]);break;case
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11:o.push([t(n,r,l[1],l[2]),t(n,r,l[0],l[2]),t(n,r,l[3],l[2])]);break;case
12:o.push([t(n,r,l[3],l[0]),t(n,r,l[2],l[0]),t(n,r,l[2],l[1])],[t(n,r,l[3],l[1]),t(n,r,l[3],l[0]),t(n,r,l[2],l[1])]);break;case
13:o.push([t(n,r,l[0],l[1]),t(n,r,l[2],l[1]),t(n,r,l[3],l[1])]);break;case
14:o.push([t(n,r,l[2],l[0]),t(n,r,l[1],l[0]),t(n,r,l[3],l[0])])}}else
if(3===c){if(0==(u=(i[l[0]]<<0)+(i[l[1]]<<1)+(i[l[2]]<<2))||7===u)continue;switch(u){case 0:break;case
1:o.push([t(n,r,l[0],l[2]),t(n,r,l[0],l[1])]);break;case 2:o.push([t(n,r,l[1],l[0]),t(n,r,l[1],l[2])]);break;case
3:o.push([t(n,r,l[0],l[2]),t(n,r,l[1],l[2])]);break;case 4:o.push([t(n,r,l[2],l[1]),t(n,r,l[2],l[0])]);break;case
5:o.push([t(n,r,l[2],l[1]),t(n,r,l[0],l[1])]);break;case 6:o.push([t(n,r,l[1],l[0]),t(n,r,l[2],l[0])])}}else if(2===c){var
u;if(0==(u=(i[l[0]]<<0)+(i[l[1]]<<1))||3===u)continue;switch(u){case 0:break;case
1:o.push([t(n,r,l[0],l[1])]);break;case 2:o.push([t(n,r,l[1],l[0])])}}}return o}}],{}],293:[function(t,e,r){"use
strict";var n=t("bit-twiddle"),i=t("union-find");function a(t,e){var r=t.length,n=t.length-
e.length,i=Math.min;if(n)return n;switch(r){case 0:return 0;case 1:return t[0]-e[0];case 2:return(s=t[0]+t[1]-e[0]-
e[1])||i(t[0],t[1])-i(e[0],e[1]);case 3:var a=t[0]+t[1],o=e[0]+e[1];if(s=a+t[2]-(o+e[2]))return s;var
s,l=i(t[0],t[1]),c=i(e[0],e[1]);return(s=i(l,t[2])-i(c,e[2]))||i(l+t[2],a)-i(c+e[2],o);default:var u=t.slice(0);u.sort();var
f=e.slice(0);f.sort();for(var h=0;h<r;++h)if(n=u[h]-f[h])return n;return 0}}function o(t,e){return
a(t[0],e[0])}function s(t,e){if(e){for(var r=t.length,n=new
Array(r),i=0;i<r;++i)n[i]=[t[i],e[i]];for(n.sort(o),i=0;i<r;++i)t[i]=n[i][0],e[i]=n[i][1];return t}return
t.sort(a),t}function l(t){if(0===t.length)return[];for(var e=1,r=t.length,n=1;n<r;++n){var i=t[n];if(a(i,t[n-
1])){if(n===e){e++;continue}t[e++]=i}}return t.length=e,t}function c(t,e){for(var r=0,n=t.length-1,i=-1;r<=n;){var
o=r+n>>1,s=a(t[o],e);s<=0?(0===s&&(i=o),r=o+1):s>0&&(n=o-1)}return i}function u(t,e){for(var r=new
Array(t.length),i=0,o=r.length;i<o;++i)r[i]=[];for(var s=[],l=(i=0,e.length);i<l;++i)for(var
u=e[i],f=u.length,h=1,p=1<<f;h<p;++h){s.length=n.popCount(h);for(var
d=0,g=0;g<f;++g)h&1<<g&&(s[d++]=u[g]);var
v=c(t,s);if(!(v<0))for(;r[v++].push(i),!(v>=t.length||0!==a(t[v],s)););}return r}function f(t,e){if(e<0)return[];for(var
r=[],i=(1<<e+1)-1,a=0;a<t.length;++a)for(var o=t[a],l=i;l<1<<o.length;l=n.nextCombination(l)){for(var c=new
Array(e+1),u=0,f=0;f<o.length;++f)l&1<<f&&(c[u++]=o[f]);r.push(c)}return s(r)}r.dimension=function(t){for(var
e=0,r=Math.max,n=0,i=t.length;n<i;++n)e=r(e,t[n].length);return e-1},r.countVertices=function(t){for(var e=-
1,r=Math.max,n=0,i=t.length;n<i;++n)for(var a=t[n],o=0,s=a.length;o<s;++o)e=r(e,a[o]);return
e+1},r.cloneCells=function(t){for(var e=new Array(t.length),r=0,n=t.length;r<n;++r)e[r]=t[r].slice(0);return
e},r.compareCells=a,r.normalize=s,r.unique=l,r.findCell=c,r.incidence=u,r.dual=function(t,e){if(!e)return
u(l(f(t,0)),t);for(var r=new Array(e),n=0;n<e;++n)r[n]=[];n=0;for(var i=t.length;n<i;++n)for(var
a=t[n],o=0,s=a.length;o<s;++o)r[a[o]].push(n);return r},r.explode=function(t){for(var
e=[],r=0,n=t.length;r<n;++r)for(var i=t[r],a=0|i.length,o=1,l=1<<a;o<l;++o){for(var
c=[],u=0;u<a;++u)o>>>u&1&&c.push(i[u]);e.push(c)}return s(e)},r.skeleton=f,r.boundary=function(t){for(var
e=[],r=0,n=t.length;r<n;++r)for(var i=t[r],a=0,o=i.length;a<o;++a){for(var l=new Array(i.length-
1),c=0,u=0;c<o;++c)c!==a&&(l[u++]=i[c]);e.push(l)}return s(e)},r.connectedComponents=function(t,e){return
e?function(t,e){for(var r=new i(e),n=0;n<t.length;++n)for(var a=t[n],o=0;o<a.length;++o)for(var
s=o+1;s<a.length;++s)r.link(a[o],a[s]);var l=[],c=r.ranks;for(n=0;n<c.length;++n)c[n]=-
1;for(n=0;n<t.length;++n){var
u=r.find(t[n][0]);c[u]<0?(c[u]=l.length,l.push([t[n].slice(0)])):l[c[u]].push(t[n].slice(0))}return
l}(t,e):function(t){for(var e=l(s(f(t,0))),r=new i(e.length),n=0;n<t.length;++n)for(var
a=t[n],o=0;o<a.length;++o)for(var u=c(e,[a[o]]),h=o+1;h<a.length;++h)r.link(u,c(e,[a[h]]));var
p=[],d=r.ranks;for(n=0;n<d.length;++n)d[n]=-1;for(n=0;n<t.length;++n){var
g=r.find(c(e,[t[n][0]]));d[g]<0?(d[g]=p.length,p.push([t[n].slice(0)])):p[d[g]].push(t[n].slice(0))}return p}(t)}},{"bit-
twiddle":32,"union-
find":309}],294:[function(t,e,r){arguments[4][32][0].apply(r,arguments)},{dup:32}],295:[function(t,e,r){arguments[
4][293][0].apply(r,arguments)},{"bit-twiddle":294,dup:293,"union-find":296}],296:[function(t,e,r){"use
strict";function n(t){this.roots=new Array(t),this.ranks=new Array(t);for(var

e=0;e<t;++e)this.roots[e]=e,this.ranks[e]=0}e.exports=n,n.prototype.length=function(){return this.roots.length},n.prototype.makeSet=function(){var t=this.roots.length;return this.roots.push(t),this.ranks.push(0),t},n.prototype.find=function(t){for(var e=this.roots;e[t]!==t;){var r=e[t];e[t]=e[r],t=r}return t},n.prototype.link=function(t,e){var r=this.find(t),n=this.find(e);if(r!==n){var i=this.ranks,a=this.roots,o=i[r],s=i[n];o<s?a[r]=n:s<o?a[n]=r:(a[n]=r,++i[r])}},{}],297:[function(t,e,r){"use strict";e.exports=function(t,e,r){for(var a=e.length,o=t.length,s=new Array(a),l=new Array(a),c=new Array(a),u=new Array(a),f=0;f<a;++f)s[f]=l[f]=-1,c[f]=1/0,u[f]=!1;for(f=0;f<o;++f){var h=t[f];if(2!==h.length)throw new Error("Input must be a graph");var p=h[1],d=h[0];-1!==l[d]?l[d]=-2:l[d]=p,-1!==s[p]?s[p]=-2:s[p]=d}function g(t){if(u[t])return 1/0;var r,i,a,o=s[t],c=l[t];return o<0||c<0?1/0:(r=e[t],i=e[o],a=e[c],Math.abs(n(r,i,a))/Math.sqrt(Math.pow(i[0]-a[0],2)+Math.pow(i[1]-a[1],2)))}function v(t,e){var r=k[t],n=k[e];k[t]=n,k[e]=r,A[r]=e,A[n]=t}function m(t){return c[k[t]]}function y(t){return 1&t?t-1>>1:(t>>1)-1}function x(t){for(var e=m(t);;){var r=e,n=2*t+1,i=2*(t+1),a=t;if(n<M){var o=m(n);o<r&&(a=n,r=o)}if(i<M&&m(i)<r&&(a=i),a===t)return t;v(t,a),t=a}}function b(t){for(var e=m(t);t>0;){var r=y(t);if(!(r>=0&&e<m(r)))return t;v(t,r),t=r}}function _(){if(M>0){var t=k[0];return v(0,M-1),M-=1,x(0),t}return-1}function w(t,e){var r=k[t];return c[r]===e?t:(c[r]=-1/0,b(t),_(),c[r]=e,b((M+=1)-1))}function T(t){if(!u[t]){u[t]=!0;var e=s[t],r=l[t];s[r]>=0&&(s[r]=e),l[e]>=0&&(l[e]=r),A[e]>=0&&w(A[e],g(e)),A[r]>=0&&w(A[r],g(r))}}var k=[],A=new Array(a);for(f=0;f<a;++f)(c[f]=g(f))<1/0?(A[f]=k.length,k.push(f)):A[f]=-1;var M=k.length;for(f=M>>1;f>=0;--f)x(f);for(;;){var S=_();if(S<0||c[S]>r)break;T(S)}var E=[];for(f=0;f<a;++f)u[f]||(A[f]=E.length,E.push(e[f].slice()));function L(t,e){if(t[e]<0)return e;var r=e,n=e;do{var i=t[n];if(!u[n]||i<0||i===n)break;if(i=t[n=i],!u[n]||i<0||i===n)break;n=i,r=t[r]}while(r!==n);for(var a=e;a!==n;a=t[a])t[a]=n;return n}E.length;var C=[];return t.forEach((function(t){var e=L(s,t[0]),r=L(l,t[1]);if(e>=0&&r>=0&&e!==r){var n=A[e],i=A[r];n!==i&&C.push([n,i])}})),i.unique(i.normalize(C)),{positions:E,edges:C}};var n=t("robust-orientation"),i=t("simplicial-complex")},{"robust-orientation":284,"simplicial-complex":295}],298:[function(t,e,r){"use strict";e.exports=function(t,e){var r,a,o,s;if(e[0][0]<e[1][0])r=e[0],a=e[1];else{if(!(e[0][0]>e[1][0]))return i(e,t);r=e[1],a=e[0]}if(t[0][0]<t[1][0])o=t[0],s=t[1];else{if(!(t[0][0]>t[1][0]))return-i(t,e);o=t[1],s=t[0]}var l=n(r,a,s),c=n(r,a,o);if(l<0){if(c<=0)return l}else if(l>0){if(c>=0)return l}else if(c)return c;if(l=n(s,o,a),c=n(s,o,r),l<0){if(c<=0)return l}else if(l>0){if(c>=0)return l}else if(c)return c;return a[0]-s[0]};var n=t("robust-orientation");function i(t,e){var r,i,a,o;if(e[0][0]<e[1][0])r=e[0],i=e[1];else{if(!(e[0][0]>e[1][0])){var s=Math.min(t[0][1],t[1][1]),l=Math.max(t[0][1],t[1][1]),c=Math.min(e[0][1],e[1][1]),u=Math.max(e[0][1],e[1][1]);return l<c?l-c:s>u?s-u:l-u}r=e[1],i=e[0]}t[0][1]<t[1][1]?(a=t[0],o=t[1]):(a=t[1],o=t[0]);var f=n(i,r,a);return f||(f=n(i,r,o))||o-i}},{"robust-orientation":284}],299:[function(t,e,r){"use strict";e.exports=function(t){for(var e=t.length,r=2*e,n=new Array(r),a=0;a<e;++a){var l=t[a],c=l[0][0]<l[1][0];n[2*a]=new f(l[0][0],l,c,a),n[2*a+1]=new f(l[1][0],l,!c,a)}n.sort((function(t,e){var r=t.x-e.x;return r||(r=t.create-e.create)||Math.min(t.segment[0][1],t.segment[1][1])-Math.min(e.segment[0][1],e.segment[1][1])}));var h=i(o),p=[],d=[],g=[];for(a=0;a<r;){for(var v=n[a].x,m=[];a<r;){var y=n[a];if(y.x!==v)break;a+=1,y.segment[0][0]===y.x&&y.segment[1][0]===y.x?y.create&&(y.segment[0][1]<y.segment[1][1]?(m.push(new u(y.segment[0][1],y.index,!0,!0)),m.push(new u(y.segment[1][1],y.index,!1,!1))):(m.push(new u(y.segment[1][1],y.index,!0,!1)),m.push(new u(y.segment[0][1],y.index,!1,!0)))):h=y.create?h.insert(y.segment,y.index):h.remove(y.segment)}p.push(h.root),d.push(v),g.push(m)}return new s(p,d,g)};var n=t("binary-search-bounds"),i=t("functional-red-black-tree"),a=t("robust-orientation"),o=t("./lib/order-segments");function s(t,e,r){this.slabs=t,this.coordinates=e,this.horizontal=r}function l(t,e){return t.y-e}function c(t,e){for(var r=null;t;){var n,i,o=t.key;o[0][0]<o[1][0]?(n=o[0],i=o[1]):(n=o[1],i=o[0]);var s=a(n,i,e);if(s<0)t=t.left;else if(s>0)if(e[0]!==o[1][0])r=t,t=t.right;else{if(l=c(t.right,e))return l;t=t.left}else{if(e[0]!==o[1][0])return t;var l;if(l=c(t.right,e))return l;t=t.left}}return r}function

u(t,e,r,n){this.y=t,this.index=e,this.start=r,this.closed=n}function f(t,e,r,n){this.x=t,this.segment=e,this.create=r,this.index=n}s.prototype.castUp=function(t){var e=n.le(this.coordinates,t[0]);if(e<0)return-1;this.slabs[e];var r=c(this.slabs[e],t),i=-1;if(r&&(i=r.value),this.coordinates[e]===t[0]){var s=null;if(r&&(s=r.key),e>0){var u=c(this.slabs[e-1],t);u&&(s?o(u.key,s)>0&&(s=u.key,i=u.value):(i=u.value,s=u.key))}var f=this.horizontal[e];if(f.length>0){var h=n.ge(f,t[1],l);if(h<f.length){var p=f[h];if(t[1]===p.y){if(p.closed)return p.index;for(;h<f.length-1&&f[h+1].y===t[1];)if((p=f[h+=1]).closed)return p.index;if(p.y===t[1]&&!p.start){if((h+=1)>=f.length)return i;p=f[h]}}if(p.start)if(s){var d=a(s[0],s[1],[t[0],p.y]);s[0][0]>s[1][0]&&(d=-d),d>0&&(i=p.index)}else i=p.index;else p.y!==t[1]&&(i=p.index)}}}return i}},{"./lib/order-segments":298,"binary-search-bounds":31,"functional-red-black-tree":69,"robust-orientation":284}],300:[function(t,e,r){"use strict";var n=t("robust-dot-product"),i=t("robust-sum");function a(t,e){var r=i(n(t,e),[e[e.length-1]]);return r[r.length-1]}function o(t,e,r,n){var i=-e/(n-e);i<0?i=0:i>1&&(i=1);for(var a=1-i,o=t.length,s=new Array(o),l=0;l<o;++l)s[l]=i*t[l]+a*r[l];return s}e.exports=function(t,e){for(var r=[],n=[],i=a(t[t.length-1],e),s=t[t.length-1],l=t[0],c=0;c<t.length;++c,s=l){var u=a(l=t[c],e);if(i<0&&u>0||i>0&&u<0){var f=o(s,u,l,i);r.push(f),n.push(f.slice())}u<0?n.push(l.slice()):u>0?r.push(l.slice()):(r.push(l.slice()),n.push(l.slice())),i=u}return{positive:r,negative:n}},e.exports.positive=function(t,e){for(var r=[],n=a(t[t.length-1],e),i=t[t.length-1],s=t[0],l=0;l<t.length;++l,i=s){var c=a(s=t[l],e);(n<0&&c>0||n>0&&c<0)&&r.push(o(i,c,s,n)),c>=0&&r.push(s.slice()),n=c}return r},e.exports.negative=function(t,e){for(var r=[],n=a(t[t.length-1],e),i=t[t.length-1],s=t[0],l=0;l<t.length;++l,i=s){var c=a(s=t[l],e);(n<0&&c>0||n>0&&c<0)&&r.push(o(i,c,s,n)),c<=0&&r.push(s.slice()),n=c}return r}},{"robust-dot-product":281,"robust-sum":289}],301:[function(t,e,r){!function(){"use strict";var t={not_string:/[^s]/,not_bool:/[^t]/,not_type:/[^T]/,not_primitive:/[^v]/,number:/[diefg]/,numeric_arg:/[bcdiefguxX]/,json:/[j]/,not_json:/[^j]/,text:/^[^\x25]+/,modulo:/^\x25{2}/,placeholder:/^\x25(?:([1-9]\d*)\$|\(([^)]+)\))?(\+)?(0|'[^$])?(-)?(\d+)?(?:\.(\d+))?([b-gijostTuvxX])/,key:/^([a-z_][a-z_\d]*)/i,key_access:/^\.([a-z_][a-z_\d]*)/i,index_access:/^\[(\d+)\]/,sign:/^[+-]/};function e(t){return i(o(t),arguments)}function n(t,r){return e.apply(null,[t].concat(r||[]))}function i(r,n){var i,a,o,s,l,c,u,f,h,p=1,d=r.length,g="";for(a=0;a<d;a++)if("string"==typeof r[a])g+=r[a];else if("object"==typeof r[a]){if((s=r[a]).keys)for(i=n[p],o=0;o<s.keys.length;o++){if(null==i)throw new Error(e('[sprintf] Cannot access property "%s" of undefined value "%s"',s.keys[o],s.keys[o-1]));i=i[s.keys[o]]}else i=s.param_no?n[s.param_no]:n[p++];if(t.not_type.test(s.type)&&t.not_primitive.test(s.type)&&i instanceof Function&&(i=i()),t.numeric_arg.test(s.type)&&"number"!=typeof i&&isNaN(i))throw new TypeError(e("[sprintf] expecting number but found %T",i));switch(t.number.test(s.type)&&(f=i>=0),s.type){case"b":i=parseInt(i,10).toString(2);break;case"c":i=String.fromCharCode(parseInt(i,10));break;case"d":case"i":i=parseInt(i,10);break;case"j":i=JSON.stringify(i,null,s.width?parseInt(s.width):0);break;case"e":i=s.precision?parseFloat(i).toExponential(s.precision):parseFloat(i).toExponential();break;case"f":i=s.precision?parseFloat(i).toFixed(s.precision):parseFloat(i);break;case"g":i=s.precision?String(Number(i.toPrecision(s.precision))):parseFloat(i);break;case"o":i=(parseInt(i,10)>>>0).toString(8);break;case"s":i=String(i),i=s.precision?i.substring(0,s.precision):i;break;case"t":i=String(!!i),i=s.precision?i.substring(0,s.precision):i;break;case"T":i=Object.prototype.toString.call(i).slice(8,-1).toLowerCase(),i=s.precision?i.substring(0,s.precision):i;break;case"u":i=parseInt(i,10)>>>0;break;case"v":i=i.valueOf(),i=s.precision?i.substring(0,s.precision):i;break;case"x":i=(parseInt(i,10)>>>0).toString(16);break;case"X":i=(parseInt(i,10)>>>0).toString(16).toUpperCase()}t.json.test(s.type)?g+=i:(!t.number.test(s.type)||f&&!s.sign?h="":(h=f?"+":"-",i=i.toString().replace(t.sign,"")),c=s.pad_char?"0"===s.pad_char?"0":s.pad_char.charAt(1):" ",u=s.width-(h+i).length,l=s.width&&u>0?c.repeat(u):"",g+=s.align?h+i+l:"0"===c?h+l+i:l+h+i)}return g}var a=Object.create(null);function o(e){if(a[e])return a[e];for(var r,n=e,i=[],o=0;n;){if(null!==(r=t.text.exec(n)))i.push(r[0]);else if(null!==(r=t.modulo.exec(n)))i.push("%");else{if(null===(r=t.placeholder.exec(n)))throw new SyntaxError("[sprintf] unexpected placeholder");if(r[2]){o|=1;var s=[],l=r[2],c=[];if(null===(c=t.key.exec(l)))throw

new SyntaxError("[sprintf] failed to parse named argument key");for(s.push(c[1]);""!==(l=l.substring(c[0].length));)if(null!==(c=t.key_access.exec(l)))s.push(c[1]);else{if(null===(c=t.index_access.exec(l)))throw new SyntaxError("[sprintf] failed to parse named argument key");s.push(c[1])}r[2]=s}else o|=2;if(3===o)throw new Error("[sprintf] mixing positional and named placeholders is not (yet) supported");i.push({placeholder:r[0],param_no:r[1],keys:r[2],sign:r[3],pad_char:r[4],align:r[5],width:r[6],precision:r[7],type:r[8]})}n=n.substring(r[0].length)}return a[e]=i}void 0!==r&&(r.sprintf=e,r.vsprintf=n),"undefined"!=typeof window&&(window.sprintf=e,window.vsprintf=n)}()},{}],302:[function(t,e,r){"use strict";e.exports=function(t,e){if(t.dimension<=0)return{positions:[],cells:[]};if(1===t.dimension)return function(t,e){for(var r=i(t,e),n=r.length,a=new Array(n),o=new Array(n),s=0;s<n;++s)a[s]=[r[s]],o[s]=[s];return{positions:a,cells:o}}(t,e);var r=t.order.join()+"-"+t.dtype,s=o[r];return e=+e||0,s||(s=o[r]=function(t,e){var r=t.length+"d",i=a[r];if(i)return i(n,t,e)}(t.order,t.dtype)),s(t,e)};var n=t("ndarray-extract-contour"),i=t("zero-crossings"),a={"2d":function(t,e,r){var n=t({order:e,scalarArguments:3,getters:"generic"===r?[0]:void 0,phase:function(t,e,r,n){return t>n|0},vertex:function(t,e,r,n,i,a,o,s,l,c,u,f,h){var p=(o<<0)+(s<<1)+(l<<2)+(c<<3)|0;if(0!==p&&15!==p)switch(p){case 0:u.push([t-.5,e-.5]);break;case 1:u.push([t-.25-.25*(n+r-2*h)/(r-n),e-.25-.25*(i+r-2*h)/(r-i)]);break;case 2:u.push([t-.75-.25*(-n-r+2*h)/(n-r),e-.25-.25*(a+n-2*h)/(n-a)]);break;case 3:u.push([t-.5,e-.5-.5*(i+r+a+n-4*h)/(r-i+n-a)]);break;case 4:u.push([t-.25-.25*(a+i-2*h)/(i-a),e-.75-.25*(-i-r+2*h)/(i-r)]);break;case 5:u.push([t-.5-.5*(n+r+a+i-4*h)/(r-n+i-a),e-.5]);break;case 6:u.push([t-.5-.25*(-n-r+a+i)/(n-r+i-a),e-.5-.25*(-i-r+a+n)/(i-r+n-a)]);break;case 7:u.push([t-.75-.25*(a+i-2*h)/(i-a),e-.75-.25*(a+n-2*h)/(n-a)]);break;case 8:u.push([t-.75-.25*(-a-i+2*h)/(a-i),e-.75-.25*(-a-n+2*h)/(a-n)]);break;case 9:u.push([t-.5-.25*(n+r+-a-i)/(r-n+a-i),e-.5-.25*(i+r+-a-n)/(r-i+a-n)]);break;case 10:u.push([t-.5-.5*(-n-r-a-i+4*h)/(n-r+a-i),e-.5]);break;case 11:u.push([t-.25-.25*(-a-i+2*h)/(a-i),e-.75-.25*(i+r-2*h)/(r-i)]);break;case 12:u.push([t-.5,e-.5-.5*(-i-r-a-n+4*h)/(i-r+a-n)]);break;case 13:u.push([t-.75-.25*(n+r-2*h)/(r-n),e-.25-.25*(-a-n+2*h)/(a-n)]);break;case 14:u.push([t-.25-.25*(-n-r+2*h)/(n-r),e-.25-.25*(-i-r+2*h)/(i-r)]);break;case 15:u.push([t-.5,e-.5])}},cell:function(t,e,r,n,i,a,o,s,l){i?s.push([t,e]):s.push([e,t])}});return function(t,e){var r=[],i=[];return n(t,r,i,e),{positions:r,cells:i}}}},o={},{"ndarray-extract-contour":251,"zero-crossings":318}],303:[function(t,e,r){(function(r){(function(){"use strict";e.exports=function t(e,r,i){i=i||{};var o=a[e];o||(o=a[e]={" ":{data:new Float32Array(0),shape:.2}});var s=o[r];if(!s)if(r.length<=1||!/\d/.test(r))s=o[r]=function(t){for(var e=t.cells,r=t.positions,n=new Float32Array(6*e.length),i=0,a=0,o=0;o<e.length;++o)for(var s=e[o],l=0;l<3;++l){var c=r[s[l]];n[i++]=c[0],n[i++]=c[1]+1.4,a=Math.max(c[0],a)}return{data:n,shape:a}}(n(r,{triangles:!0,font:e,textAlign:i.textAlign||"left",textBaseline:"alphabetic",styletags:{breaklines:!0,bolds:!0,italics:!0,subscripts:!0,superscripts:!0}}));else{for(var l=r.split(/(\d|\s)/),c=new Array(l.length),u=0,f=0,h=0;h<l.length;++h)c[h]=t(e,l[h]),u+=c[h].data.length,f+=c[h].shape,h>0&&(f+=.02);var p=new Float32Array(u),d=0,g=-.5*f;for(h=0;h<c.length;++h){for(var v=c[h].data,m=0;m<v.length;m+=2)p[d++]=v[m]+g,p[d++]=v[m+1];g+=c[h].shape+.02}s=o[r]={data:p,shape:f}}return s};var n=t("vectorize-text"),i=window||r.global||{},a=i.__TEXT_CACHE||{};i.__TEXT_CACHE={}}).call(this)}).call(this,t("_process"))},{_process:5,"vectorize-text":311}],304:[function(t,e,r){"use strict";var n=t("parse-unit");function i(t,e){var r=n(getComputedStyle(t).getPropertyValue(e));return r[0]*a(r[1],t)}function a(t,e){switch(e=e||document.body,t=(t||"px").trim().toLowerCase(),e!==window&&e!==document||(e=document.body),t){case"%":return e.clientHeight/100;case"ch":case"ex":return function(t,e){var r=document.createElement("div");r.style["font-size"]="128"+t,e.appendChild(r);var n=i(r,"font-size")/128;return e.removeChild(r),n}(t,e);case"em":return i(e,"font-size");case"rem":return i(document.body,"font-size");case"vw":return window.innerWidth/100;case"vh":return window.innerHeight/100;case"vmin":return Math.min(window.innerWidth,window.innerHeight)/100;case"vmax":return

Math.max(window.innerWidth,window.innerHeight)/100;case"in":return 96;case"cm":return 96/2.54;case"mm":return 96/25.4;case"pt":return 96/72;case"pc":return 16}return 1}e.exports=a},{"parse-unit":265}],305:[function(t,e,r){"use strict";e.exports=function(t){var e=(t=t||{}).center||[0,0,0],r=t.up||[0,1,0],n=t.right||f(r),i=t.radius||1,a=t.theta||0,u=t.phi||0;if(e=[].slice.call(e,0,3),r=[].slice.call(r,0,3),s(r,r),n=[].slice.call(n,0,3),s(n,n),"eye"in t){var p=t.eye,d=[p[0]-e[0],p[1]-e[1],p[2]-e[2]];o(n,d,r),c(n[0],n[1],n[2])<1e-6?n=f(r):s(n,n),i=c(d[0],d[1],d[2]);var g=l(r,d)/i,v=l(n,d)/i;u=Math.acos(g),a=Math.acos(v)}return i=Math.log(i),new h(t.zoomMin,t.zoomMax,e,r,n,i,a,u)};var n=t("filtered-vector"),i=t("gl-mat4/invert"),a=t("gl-mat4/rotate"),o=t("gl-vec3/cross"),s=t("gl-vec3/normalize"),l=t("gl-vec3/dot");function c(t,e,r){return Math.sqrt(Math.pow(t,2)+Math.pow(e,2)+Math.pow(r,2))}function u(t){return Math.min(1,Math.max(-1,t))}function f(t){var e=Math.abs(t[0]),r=Math.abs(t[1]),n=Math.abs(t[2]),i=[0,0,0];e>Math.max(r,n)?i[2]=1:r>Math.max(e,n)?i[0]=1:i[1]=1;for(var a=0,o=0,l=0;l<3;++l)a+=t[l]*t[l],o+=i[l]*t[l];for(l=0;l<3;++l)i[l]-=o/a*t[l];return s(i,i),i}function h(t,e,r,i,a,o,s,l){this.center=n(r),this.up=n(i),this.right=n(a),this.radius=n([o]),this.angle=n([s,l]),this.angle.bounds=[[-1/0,-Math.PI/2],[1/0,Math.PI/2]],this.setDistanceLimits(t,e),this.computedCenter=this.center.curve(0),this.computedUp=this.up.curve(0),this.computedRight=this.right.curve(0),this.computedRadius=this.radius.curve(0),this.computedAngle=this.angle.curve(0),this.computedToward=[0,0,0],this.computedEye=[0,0,0],this.computedMatrix=new Array(16);for(var c=0;c<16;++c)this.computedMatrix[c]=.5;this.recalcMatrix(0)}var p=h.prototype;p.setDistanceLimits=function(t,e){t=t>0?Math.log(t):-1/0,e=e>0?Math.log(e):1/0,e=Math.max(e,t),this.radius.bounds[0][0]=t,this.radius.bounds[1][0]=e},p.getDistanceLimits=function(t){var e=this.radius.bounds[0];return t?(t[0]=Math.exp(e[0][0]),t[1]=Math.exp(e[1][0]),t):[Math.exp(e[0][0]),Math.exp(e[1][0])]},p.recalcMatrix=function(t){this.center.curve(t),this.up.curve(t),this.right.curve(t),this.radius.curve(t),this.angle.curve(t);for(var e=this.computedUp,r=this.computedRight,n=0,i=0,a=0;a<3;++a)i+=e[a]*r[a],n+=e[a]*e[a];var l=Math.sqrt(n),u=0;for(a=0;a<3;++a)r[a]-=e[a]*i/n,u+=r[a]*r[a],e[a]/=l;var f=Math.sqrt(u);for(a=0;a<3;++a)r[a]/=f;var h=this.computedToward;o(h,e,r),s(h,h);var p=Math.exp(this.computedRadius[0]),d=this.computedAngle[0],g=this.computedAngle[1],v=Math.cos(d),m=Math.sin(d),y=Math.cos(g),x=Math.sin(g),b=this.computedCenter,_=v*y,w=m*y,T=x,k=-v*x,A=-m*x,M=y,S=this.computedEye,E=this.computedMatrix;for(a=0;a<3;++a){var L=_*r[a]+w*h[a]+T*e[a];E[4*a+1]=k*r[a]+A*h[a]+M*e[a],E[4*a+2]=L,E[4*a+3]=0}var C=E[1],P=E[5],I=E[9],O=E[2],z=E[6],D=E[10],R=P*D-I*z,F=I*O-C*D,B=C*z-P*O,N=c(R,F,B);for(R/=N,F/=N,B/=N,E[0]=R,E[4]=F,E[8]=B,a=0;a<3;++a)S[a]=b[a]+E[2+4*a]*p;for(a=0;a<3;++a){u=0;for(var j=0;j<3;++j)u+=E[a+4*j]*S[j];E[12+a]=-u}E[15]=1},p.getMatrix=function(t,e){this.recalcMatrix(t);var r=this.computedMatrix;if(e){for(var n=0;n<16;++n)e[n]=r[n];return e}return r};var d=[0,0,0];p.rotate=function(t,e,r,n){if(this.angle.move(t,e,r),n){this.recalcMatrix(t);var i=this.computedMatrix;d[0]=i[2],d[1]=i[6],d[2]=i[10];for(var o=this.computedUp,s=this.computedRight,l=this.computedToward,c=0;c<3;++c)i[4*c]=o[c],i[4*c+1]=s[c],i[4*c+2]=l[c];for(a(i,i,n,d),c=0;c<3;++c)o[c]=i[4*c],s[c]=i[4*c+1];this.up.set(t,o[0],o[1],o[2]),this.right.set(t,s[0],s[1],s[2])}},p.pan=function(t,e,r,n){e=e||0,r=r||0,n=n||0,this.recalcMatrix(t);var i=this.computedMatrix,a=(Math.exp(this.computedRadius[0]),i[1]),o=i[5],s=i[9],l=c(a,o,s);a/=l,o/=l,s/=l;var u=i[0],f=i[4],h=i[8],p=u*a+f*o+h*s,d=c(u-=a*p,f-=o*p,h-=s*p),g=(u/=d)*e+a*r,v=(f/=d)*e+o*r,m=(h/=d)*e+s*r;this.center.move(t,g,v,m);var y=Math.exp(this.computedRadius[0]);y=Math.max(1e-4,y+n),this.radius.set(t,Math.log(y))},p.translate=function(t,e,r,n){this.center.move(t,e||0,r||0,n||0)},p.setMatrix=function(t,e,r,n){var a=1;"number"==typeof r&&(a=0|r),(a<0||a>3)&&(a=1);var o=(a+2)%3;e||(this.recalcMatrix(t),e=this.computedMatrix);var s=e[a],l=e[a+4],f=e[a+8];if(n){var

h=Math.abs(s),p=Math.abs(l),d=Math.abs(f),g=Math.max(h,p,d);h===g?(s=s<0?-1:1,l=f=0):d===g?(f=f<0?-1:1,s=l=0):(l=l<0?-1:1,s=f=0)}else{var v=c(s,l,f);s/=v,l/=v,f/=v}var m,y,x=e[o],b=e[o+4],_=e[o+8],w=x*s+b*l+_*f,T=c(x-=s*w,b-=l*w,_-=f*w),k=l*(_/=T)-f*(b/=T),A=f*(x/=T)-s*_,M=s*b-l*x,S=c(k,A,M);if(k/=S,A/=S,M/=S,this.center.jump(t,H,G,Y),this.radius.idle(t),this.up.jump(t,s,l,f),this.right.jump(t,x,b,_),2===a){var E=e[1],L=e[5],C=e[9],P=E*x+L*b+C*_,I=E*k+L*A+C*M;m=R<0?-Math.PI/2:Math.PI/2,y=Math.atan2(I,P)}else{var O=e[2],z=e[6],D=e[10],R=O*s+z*l+D*f,F=O*x+z*b+D*_,B=O*k+z*A+D*M;m=Math.asin(u(R)),y=Math.atan2(B,F)}this.angle.jump(t,y,m),this.recalcMatrix(t);var N=e[2],j=e[6],U=e[10],V=this.computedMatrix;i(V,e);var q=V[15],H=V[12]/q,G=V[13]/q,Y=V[14]/q,W=Math.exp(this.computedRadius[0]);this.center.jump(t,H-N*W,G-j*W,Y-U*W)},p.lastT=function(){return Math.max(this.center.lastT(),this.up.lastT(),this.right.lastT(),this.radius.lastT(),this.angle.lastT())},p.idle=function(t){this.center.idle(t),this.up.idle(t),this.right.idle(t),this.radius.idle(t),this.angle.idle(t)},p.flush=function(t){this.center.flush(t),this.up.flush(t),this.right.flush(t),this.radius.flush(t),this.angle.flush(t)},p.setDistance=function(t,e){e>0&&this.radius.set(t,Math.log(e))},p.lookAt=function(t,e,r,n){this.recalcMatrix(t),e=e||this.computedEye,r=r||this.computedCenter;var i=(n=n||this.computedUp)[0],a=n[1],o=n[2],s=c(i,a,o);if(!(s<1e-6)){i/=s,a/=s,o/=s;var l=e[0]-r[0],f=e[1]-r[1],h=e[2]-r[2],p=c(l,f,h);if(!(p<1e-6)){l/=p,f/=p,h/=p;var d=this.computedRight,g=d[0],v=d[1],m=d[2],y=i*g+a*v+o*m,x=c(g-=y*i,v-=y*a,m-=y*o);if(!(x<.01&&(x=c(g=a*h-o*f,v=o*l-i*h,m=i*f-a*l))<1e-6)){g/=x,v/=x,m/=x,this.up.set(t,i,a,o),this.right.set(t,g,v,m),this.center.set(t,r[0],r[1],r[2]),this.radius.set(t,Math.log(p));var b=a*m-o*v,_=o*g-i*m,w=i*v-a*g,T=c(b,_,w),k=i*l+a*f+o*h,A=g*l+v*f+m*h,M=(b/=T)*l+(_/=T)*f+(w/=T)*h,S=Math.asin(u(k)),E=Math.atan2(M,A),L=this.angle._state,C=L[L.length-1],P=L[L.length-2];C%=2*Math.PI;var I=Math.abs(C+2*Math.PI-E),O=Math.abs(C-E),z=Math.abs(C-2*Math.PI-E);I<O&&(C+=2*Math.PI),z<O&&(C-=2*Math.PI),this.angle.jump(this.angle.lastT(),C,P),this.angle.set(t,E,S)}}}}},{"filtered-vector":68,"gl-mat4/invert":98,"gl-mat4/rotate":103,"gl-vec3/cross":157,"gl-vec3/dot":162,"gl-vec3/normalize":179}],306:[function(t,e,r){"use strict";e.exports=function(t,e,r){var i=t*e,a=n*t,o=a-(a-t),s=t-o,l=n*e,c=l-(l-e),u=e-c,f=s*u-(i-o*c-s*c-o*u);return r?(r[0]=f,r[1]=i,r):[f,i]};var n=+(Math.pow(2,27)+1)},{}],307:[function(t,e,r){"use strict";e.exports=function(t,e,r){var n=t+e,i=n-t,a=e-i,o=t-(n-i);return r?(r[0]=o+a,r[1]=n,r):[o+a,n]}},{}],308:[function(t,e,n){(function(e){(function(){"use strict";var r=t("bit-twiddle"),i=t("dup"),a=t("buffer").Buffer;e.__TYPEDARRAY_POOL||(e.__TYPEDARRAY_POOL={UINT8:i([32,0]),UINT16:i([32,0]),UINT32:i([32,0]),BIGUINT64:i([32,0]),INT8:i([32,0]),INT16:i([32,0]),INT32:i([32,0]),BIGINT64:i([32,0]),FLOAT:i([32,0]),DOUBLE:i([32,0]),DATA:i([32,0]),UINT8C:i([32,0]),BUFFER:i([32,0])});var o="undefined"!=typeof Uint8ClampedArray,s="undefined"!=typeof BigUint64Array,l="undefined"!=typeof BigInt64Array,c=e.__TYPEDARRAY_POOL;c.UINT8C||(c.UINT8C=i([32,0])),c.BIGUINT64||(c.BIGUINT64=i([32,0])),c.BIGINT64||(c.BIGINT64=i([32,0])),c.BUFFER||(c.BUFFER=i([32,0]));var u=c.DATA,f=c.BUFFER;function h(t){if(t){var e=t.length||t.byteLength,n=r.log2(e);u[n].push(t)}}function p(t){t=r.nextPow2(t);var e=r.log2(t),n=u[e];return n.length>0?n.pop():new ArrayBuffer(t)}function d(t){return new Uint8Array(p(t),0,t)}function g(t){return new Uint16Array(p(2*t),0,t)}function v(t){return new Uint32Array(p(4*t),0,t)}function m(t){return new Int8Array(p(t),0,t)}function y(t){return new Int16Array(p(2*t),0,t)}function x(t){return new Int32Array(p(4*t),0,t)}function b(t){return new Float32Array(p(4*t),0,t)}function _(t){return new Float64Array(p(8*t),0,t)}function w(t){return o?new Uint8ClampedArray(p(t),0,t):d(t)}function T(t){return s?new BigUint64Array(p(8*t),0,t):null}function k(t){return l?new BigInt64Array(p(8*t),0,t):null}function A(t){return new DataView(p(t),0,t)}function M(t){t=r.nextPow2(t);var e=r.log2(t),n=f[e];return n.length>0?n.pop():new a(t)}n.free=function(t){if(a.isBuffer(t))f[r.log2(t.length)].push(t);else{if("[object ArrayBuffer]"!==Object.prototype.toString.call(t)&&(t=t.buffer),!t)return;var e=t.length||t.byteLength,n=0|r.log2(e);u[n].push(t)}},n.freeUint8=n.freeUint16=n.freeUint32=n.freeBigUint64=n.fre

eInt8=n.freeInt16=n.freeInt32=n.freeBigInt64=n.freeFloat32=n.freeFloat=n.freeFloat64=n.freeDouble=n.freeUint8Clamped=n.freeDataView=function(t){h(t.buffer)},n.freeArrayBuffer=h,n.freeBuffer=function(t){f[r.log2(t.length)].push(t)},n.malloc=function(t,e){if(void 0===e||"arraybuffer"===e)return p(t);switch(e){case"uint8":return d(t);case"uint16":return g(t);case"uint32":return v(t);case"int8":return m(t);case"int16":return y(t);case"int32":return x(t);case"float":case"float32":return b(t);case"double":case"float64":return _(t);case"uint8_clamped":return w(t);case"bigint64":return k(t);case"biguint64":return T(t);case"buffer":return M(t);case"data":case"dataview":return A(t);default:return null}return null},n.mallocArrayBuffer=p,n.mallocUint8=d,n.mallocUint16=g,n.mallocUint32=v,n.mallocInt8=m,n.mallocInt16=y,n.mallocInt32=x,n.mallocFloat32=n.mallocFloat=b,n.mallocFloat64=n.mallocDouble=_,n.mallocUint8Clamped=w,n.mallocBigUint64=T,n.mallocBigInt64=k,n.mallocDataView=A,n.mallocBuffer=M,n.clearCache=function(){for(var t=0;t<32;++t)c.UINT8[t].length=0,c.UINT16[t].length=0,c.UINT32[t].length=0,c.INT8[t].length=0,c.INT16[t].length=0,c.INT32[t].length=0,c.FLOAT[t].length=0,c.DOUBLE[t].length=0,c.BIGUINT64[t].length=0,c.BIGINT64[t].length=0,c.UINT8C[t].length=0,u[t].length=0,f[t].length=0}}).call(this)}).call(this,void 0!==r?r:"undefined"!=typeof self?self:"undefined"!=typeof window?window:{})},{"bit-twiddle":32,buffer:3,dup:65}],309:[function(t,e,r){"use strict";function n(t){this.roots=new Array(t),this.ranks=new Array(t);for(var e=0;e<t;++e)this.roots[e]=e,this.ranks[e]=0}e.exports=n;var i=n.prototype;Object.defineProperty(i,"length",{get:function(){return this.roots.length}}),i.makeSet=function(){var t=this.roots.length;return this.roots.push(t),this.ranks.push(0),t},i.find=function(t){for(var e=t,r=this.roots;r[t]!==t;)t=r[t];for(;r[e]!==t;){var n=r[e];r[e]=t,e=n}return t},i.link=function(t,e){var r=this.find(t),n=this.find(e);if(r!==n){var i=this.ranks,a=this.roots,o=i[r],s=i[n];o<s?a[r]=n:s<o?a[n]=r:(a[n]=r,++i[r])}},{}],310:[function(t,e,r){"use strict";e.exports=function(t,e,r){return 0===t.length?t:e?(r||t.sort(e),function(t,e){for(var r=1,n=t.length,i=t[0],a=t[0],o=1;o<n;++o)if(a=i,e(i=t[o],a)){if(o===r){r++;continue}t[r++]=i}return t.length=r,t}(t,e)):(r||t.sort(),function(t){for(var e=1,r=t.length,n=t[0],i=t[0],a=1;a<r;++a,i=n)if(i=n,(n=t[a])!==i){if(a===e){e++;continue}t[e++]=n}return t.length=e,t}(t))}},{}],311:[function(t,e,r){"use strict";e.exports=function(t,e){return"object"==typeof e&&null!==e||(e={}),n(t,e.canvas||i,e.context||a,e)};var n=t("./lib/vtext"),i=null,a=null;"undefined"!=typeof document&&((i=document.createElement("canvas")).width=8192,i.height=1024,a=i.getContext("2d"))},{"./lib/vtext":312}],312:[function(t,e,r){e.exports=function(t,e,r,n){var a=64,o=1.25,s={breaklines:!1,bolds:!1,italics:!1,subscripts:!1,superscripts:!1};return n&&(n.size&&n.size>0&&(a=n.size),n.lineSpacing&&n.lineSpacing>0&&(o=n.lineSpacing),n.styletags&&n.styletags.breaklines&&(s.breaklines=!!n.styletags.breaklines),n.styletags&&n.styletags.bolds&&(s.bolds=!!n.styletags.bolds),n.styletags&&n.styletags.italics&&(s.italics=!!n.styletags.italics),n.styletags&&n.styletags.subscripts&&(s.subscripts=!!n.styletags.subscripts),n.styletags&&n.styletags.superscripts&&(s.superscripts=!!n.styletags.superscripts)),r.font=[n.fontStyle,n.fontVariant,n.fontWeight,a+"px",n.font].filter((function(t){return t})).join(" "),r.textAlign="start",r.textBaseline="alphabetic",r.direction="ltr",v(function(t,e,r,n,a,o){r=r.replace(/\n/g,""),r=!0===o.breaklines?r.replace(/\<br\>/g,"\n"):r.replace(/\<br\>/g," ");var s="",l=[];for(m=0;m<r.length;++m)l[m]=s;!0===o.bolds&&(l=p("b",c,r,l)),!0===o.italics&&(l=p("i",u,r,l)),!0===o.superscripts&&(l=p("sup","+1",r,l)),!0===o.subscripts&&(l=p("sub","-1",r,l));var d=[],g="";for(m=0;m<r.length;++m)null!==l[m]&&(g+=r[m],d.push(l[m]));var v,m,y,x,b,_=g.split("\n"),w=_.length,T=Math.round(a*n),k=n,A=2*n,M=0,S=w*T+A;t.height<S&&(t.height=S),e.fillStyle="#000",e.fillRect(0,0,t.width,t.height),e.fillStyle="#fff";var E=0,L="";function C(){if(""!==L){var t=e.measureText(L).width;e.fillText(L,k+y,A+x),y+=t}}function P(){return Math.round(b)+"px "}function I(t,r){var n=""+e.font;if(!0===o.subscripts){var i=t.indexOf(h),a=r.indexOf(h),s=i>-1?parseInt(t[1+i]):0,l=a>-1?parseInt(r[1+a]):0;s!==l&&(n=n.replace(P(),"?px "),b*=Math.pow(.75,l-s),n=n.replace("?px ",P())),x+=.25*T*(l-s)}if(!0===o.superscripts){var p=t.indexOf(f),d=r.indexOf(f),g=p>-1?parseInt(t[1+p]):0,v=d>-1?parseInt(r[1+d]):0;g!==v&&(n=n.replace(P(),"?px "),b*=Math.pow(.75,v-g),n=n.replace("?px ",P())),x-

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=.25*T*(v-g)}if(!0===o.bolds){var m=t.indexOf(c)>-1,y=r.indexOf(c)>-1;!m&&y&&(n=_?n.replace("italic
","italic bold "):"bold "+n),m&&!y&&(n=n.replace("bold ",""))}if(!0===o.italics){var _=t.indexOf(u)>-
1,w=r.indexOf(u)>-1;!_&&w&&(n="italic "+n),_&&!w&&(n=n.replace("italic
",""))}e.font=n}for(v=0;v<w;++v){var O=_[v]+"\n";for(y=0,x=v*T,b=n,L="",m=0;m<O.length;++m){var
z=m+E<d.length?d[m+E]:d[d.length-1];s===z?L+=O[m]:(C(),L=O[m],void
0!==z&&(I(s,z),s=z))}C(),E+=O.length;var D=0|Math.round(y+2*k);M<D&&(M=D)}var R=M,F=A+T*w;return
i(e.getImageData(0,0,R,F).data,[F,R,4]).pick(-1,-1,0).transpose(1,0)}(e,r,t,a,o,s),n,a)},e.exports.processPixels=v;var
n=t("surface-nets"),i=t("ndarray"),a=t("simplify-planar-graph"),o=t("clean-pslg"),s=t("cdt2d"),l=t("planar-graph-to-
polyline"),c="b|",u="i|",f="+",h="-";function p(t,e,r,n){for(var
i="<"+t+">",a="</"+t+">",o=i.length,s=a.length,l=e[0]===f||e[0]===h,c=0,u=-s;c>-1&&-
1!==(c=r.indexOf(i,c))&&-1!==(u=r.indexOf(a,c+o))&&!(u<=c);){for(var
p=c;p<u+s;++p)if(p<c+o||p>=u)n[p]=null,r=r.substr(0,p)+" "+r.substr(p+1);else if(null!==n[p]){var
d=n[p].indexOf(e[0]);-1===d?n[p]+=e:l&&(n[p]=n[p].substr(0,d+1)+(1+parseInt(n[p][d+1]))+n[p].substr(d+2))}var
g=c+o,v=r.substr(g,u-g).indexOf(i);c=-1!==v?v:u+s}return n}function d(t,e){var r=n(t,128);return
e?a(r.cells,r.positions,.25):{edges:r.cells,positions:r.positions}}function g(t,e,r,n){var
i=d(t,n),a=function(t,e,r){for(var
n=e.textAlign||"start",i=e.textBaseline||"alphabetic",a=[1<<30,1<<30],o=[0,0],s=t.length,l=0;l<s;++l)for(var
c=t[l],u=0;u<2;++u)a[u]=0|Math.min(a[u],c[u]),o[u]=0|Math.max(o[u],c[u]);var f=0;switch(n){case"center":f=-
.5*(a[0]+o[0]);break;case"right":case"end":f=-o[0];break;case"left":case"start":f=-a[0];break;default:throw new
Error("vectorize-text: Unrecognized textAlign: '"+n+"')}var h=0;switch(i){case"hanging":case"top":h=-
a[1];break;case"middle":h=-.5*(a[1]+o[1]);break;case"alphabetic":case"ideographic":h=-
3*r;break;case"bottom":h=-o[1];break;default:throw new Error("vectorize-text: Unrecoginized textBaseline:
'"+i+"')}var p=1/r;return"lineHeight"in e?p*=+e.lineHeight:"width"in e?p=e.width/(o[0]-a[0]):"height"in
e&&(p=e.height/(o[1]-
a[1])),t.map((function(t){return[p*(t[0]+f),p*(t[1]+h)]}))}(i.positions,e,r),c=i.edges,u="ccw"===e.orientation;if(o(a,
c),e.polygons||e.polygon||e.polyline){for(var f=l(c,a),h=new Array(f.length),p=0;p<f.length;++p){for(var
g=f[p],v=new Array(g.length),m=0;m<g.length;++m){for(var y=g[m],x=new
Array(y.length),b=0;b<y.length;++b)x[b]=a[y[b]].slice();u&&x.reverse(),v[m]=x}h[p]=v}return h}return
e.triangles||e.triangulate||e.triangle?{cells:s(a,c,{delaunay:!1,exterior:!1,interior:!0}),positions:a}:{edges:c,positions:
a}}function v(t,e,r){try{return g(t,e,r,!0)}catch(t){}try{return g(t,e,r,!1)}catch(t){}return
e.polygons||e.polyline||e.polygon?[]:e.triangles||e.triangulate||e.triangle?{cells:[],positions:[]}:{edges:[],positions:[]}
}},{cdt2d:42,"clean-pslg":50,ndarray:259,"planar-graph-to-polyline":268,"simplify-planar-graph":297,"surface-
nets":302}],313:[function(t,e,r){!function(){"use strict";if("undefined"==typeof
ses||!ses.ok||ses.ok()){"undefined"!=typeof ses&&(ses.weakMapPermitHostObjects=v);var
t=!1;if("function"==typeof WeakMap){var r=WeakMap;if("undefined"!=typeof
navigator&&/Firefox/.test(navigator.userAgent));else{var n=new
r,i=Object.freeze({});if(n.set(i,1),1===n.get(i))return
void(e.exports=WeakMap);t=!0}}Object.prototype.hasOwnProperty;var
a=Object.getOwnPropertyNames,o=Object.defineProperty,s=Object.isExtensible,l="weakmap:",c=l+"ident:"+Math.
random()+"___";if("undefined"!=typeof crypto&&"function"==typeof
crypto.getRandomValues&&"function"==typeof ArrayBuffer&&"function"==typeof Uint8Array){var u=new
ArrayBuffer(25),f=new
Uint8Array(u);crypto.getRandomValues(f),c=l+"rand:"+Array.prototype.map.call(f,(function(t){return(t%36).toStri
ng(36)})).join("")+"___"}if(o(Object,"getOwnPropertyNames",{value:function(t){return
a(t).filter(m)}}),"getPropertyNames"in Object){var
h=Object.getPropertyNames;o(Object,"getPropertyNames",{value:function(t){return
h(t).filter(m)}})}!function(){var t=Object.freeze;o(Object,"freeze",{value:function(e){return y(e),t(e)}});var
e=Object.seal;o(Object,"seal",{value:function(t){return y(t),e(t)}});var
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r=Object.preventExtensions;o(Object,"preventExtensions",{value:function(t){return y(t),r(t)}})}();var p=!1,d=0,g=function(){this instanceof g||b();var t=[],e=[],r=d++;return Object.create(g.prototype,{get___:{value:x((function(n,i){var a,o=y(n);return o?r in o?o[r]:i:(a=t.indexOf(n))>=0?e[a]:i}))},has___:{value:x((function(e){var n=y(e);return n?r in n:t.indexOf(e)>=0}))},set___:{value:x((function(n,i){var a,o=y(n);return o?o[r]=i:(a=t.indexOf(n))>=0?e[a]=i:(a=t.length,e[a]=i,t[a]=n),this}))},delete___:{value:x((function(n){var i,a,o=y(n);return o?r in o&&delete o[r]:!((i=t.indexOf(n))<0||(a=t.length-1,t[i]=void 0,e[i]=e[a],t[i]=t[a],t.length=a,e.length=a,0))}))}});g.prototype=Object.create(Object.prototype,{get:{value:function(t,e){return this.get___(t,e)},writable:!0,configurable:!0},has:{value:function(t){return this.has___(t)},writable:!0,configurable:!0},set:{value:function(t,e){return this.set___(t,e)},writable:!0,configurable:!0},delete:{value:function(t){return this.delete___(t)},writable:!0,configurable:!0}}),"function"==typeof r?function(){function n(){this instanceof g||b();var e,n=new r,i=void 0,a=!1;return e=t?function(t,e){return n.set(t,e),n.has(t)||(i||(i=new g),i.set(t,e)),this}:function(t,e){if(a)try{n.set(t,e)}catch(r){i||(i=new g),i.set___(t,e)}else n.set(t,e);return this},Object.create(g.prototype,{get___:{value:x((function(t,e){return i?n.has(t)?n.get(t):i.get___(t,e):n.get(t,e)}))},has___:{value:x((function(t){return n.has(t)||!!i&&i.has___(t)}))},set___:{value:x(e)},delete___:{value:x((function(t){var e=!!n.delete(t);return i&&i.delete___(t)||e}))},permitHostObjects___:{value:x((function(t){if(t!==v)throw new Error("bogus call to permitHostObjects___");a=!0}))}})}t&&"undefined"!=typeof Proxy&&(Proxy=void 0),n.prototype=g.prototype,e.exports=n,Object.defineProperty(WeakMap.prototype,"constructor",{value:WeakMap,enumerable:!1,configurable:!0,writable:!0})}():("undefined"!=typeof Proxy&&(Proxy=void 0),e.exports=g)}function v(t){t.permitHostObjects___&&t.permitHostObjects___(v)}function m(t){return!(t.substr(0,l.length)==l&&"___"===t.substr(t.length-3))}function y(t){if(t!==Object(t))throw new TypeError("Not an object: "+t);var e=t[c];if(e&&e.key===t)return e;if(s(t)){e={key:t};try{return o(t,c,{value:e,writable:!1,enumerable:!1,configurable:!1}),e}catch(t){return}}}function x(t){return t.prototype=null,Object.freeze(t)}function b(){p||"undefined"==typeof console||(p=!0,console.warn("WeakMap should be invoked as new WeakMap(), not WeakMap(). This will be an error in the future."))}})()},{}],314:[function(t,e,r){var n=t("./hidden-store.js");e.exports=function(){var t={};return function(e){if(("object"!=typeof e||null===e)&&"function"!=typeof e)throw new Error("Weakmap-shim: Key must be object");var r=e.valueOf(t);return r&&r.identity===t?r:n(e,t)}}},{"./hidden-store.js":315}],315:[function(t,e,r){e.exports=function(t,e){var r={identity:e},n=t.valueOf;return Object.defineProperty(t,"valueOf",{value:function(t){return t!==e?n.apply(this,arguments):r},writable:!0}),r}},{}],316:[function(t,e,r){var n=t("./create-store.js");e.exports=function(){var t=n();return{get:function(e,r){var n=t(e);return n.hasOwnProperty("value")?n.value:r},set:function(e,r){return t(e).value=r,this},has:function(e){return"value"in t(e)},delete:function(e){return delete t(e).value}}}},{"./create-store.js":314}],317:[function(t,e,r){"use strict";var n,i=function(){return function(t,e,r,n,i,a){var o=t[0],s=r[0],l=[0],c=s;n|=0;var u=0,f=s;for(u=0;u<o;++u){var h=e[n]-a,p=e[n+c]-a;h>=0!=p>=0&&i.push(l[0]+.5+.5*(h+p)/(h-p)),n+=f,++l[0]}}};e.exports=(n={funcName:"zeroCrossings"},function(t){var e={};return function(r,n,i){var a=r.dtype,o=r.order,s=[a,o.join()].join(),l=e[s];return l||(e[s]=l=t([a,o])),l(r.shape.slice(0),r.data,r.stride,0|r.offset,n,i)}}(i.bind(void 0,n)))},{}],318:[function(t,e,r){"use strict";e.exports=function(t,e){var r=[];return e=+e||0,n(t.hi(t.shape[0]-1),r,e),r};var n=t("./lib/zc-core")},{"./lib/zc-core":317}]},{},[6])(6)})})}).call(this)}).call(this,void 0!==r.g?r.g:"undefined"!=typeof self?self:"undefined"!=typeof window?window:{})},{}]},{},[27])(27)},306:t=>{"use strict";t.exports=JSON.parse('{"name":"jupyterlab-plotly","version":"5.8.0","description":"The plotly Jupyter extension","author":"The plotly.py team","license":"MIT","main":"lib/index.js","repository":{"type":"git","url":"https://github.com/plotly/plotly.py"},"keywords":["jupyter","widgets","ipython","ipywidgets","plotly"],"files":["lib/**/*.js","dist/*.js","style/*.*"],"scripts

":{"build:dev":"npm run build:lib && npm run build:nbextension && npm run build:labextension:dev","build:prod":"npm run build:lib && npm run build:nbextension && npm run build:labextension","build:labextension":"jupyter labextension build .","build:labextension:dev":"jupyter labextension build --development True .","build:lib":"tsc","build:nbextension":"webpack --mode=production","clean":"npm run clean:lib && npm run clean:nbextension && npm run clean:labextension","clean:lib":"rimraf lib","clean:labextension":"rimraf ../../python/plotly/jupyterlab_plotly/labextension","clean:nbextension":"rimraf ../../python/plotly/jupyterlab_plotly/nbextension/index.js*","lint":"eslint . --ext .ts,.tsx --fix","lint:check":"eslint . --ext .ts,.tsx","prepack":"npm run build:lib","test":"echo \\"Error: no test specified\\" && exit 1","watch":"npm-run-all -p watch:*","watch:lib":"tsc -w","watch:nbextension":"webpack --watch"},"devDependencies":{"@jupyterlab/builder":"^3.0.0","@lumino/application":"^1.6.0","@types/plotly.js":"^1.54.10","@types/webpack-env":"^1.13.6","acorn":"^7.2.0","css-loader":"^5.2.6","fs-extra":"^7.0.0","mkdirp":"^0.5.1","npm-run-all":"^4.1.3","prettier":"^2.0.5","rimraf":"^2.6.2","source-map-loader":"^1.1.3","style-loader":"^1.0.0","ts-loader":"^8.0.0","typescript":"~4.1.3","webpack":"^5.0.0","webpack-cli":"^4.0.0"},"dependencies":{"@jupyter-widgets/base":"^2.0.0 || ^3.0.0 || ^4.0.0","@jupyterlab/rendermime-interfaces":"^1.3.0 || ^2.0.0 || ^3.0.0","@lumino/messaging":"^1.2.3","@lumino/widgets":"^1.8.1","lodash":"^4.17.4","plotly.js":"^2.12.1"},"jupyterlab":{"extension":"lib/jupyterlab-plugin","mimeExtension":"lib/plotly-renderer","outputDir":"../../python/plotly/jupyterlab_plotly/labextension","sharedPackages":{"@jupyter-widgets/base":{"bundled":false,"singleton":true}}}}')},612:e=>{"use strict";e.exports=t}},r={};function n(t){var i=r[t];if(void 0!==i)return i.exports;var a=r[t]={id:t,loaded:!1,exports:{}};return e[t].call(a.exports,a,a.exports,n),a.loaded=!0,a.exports}n.n=t=>{var e=t&&t.__esModule?()=>t.default:()=>t;return n.d(e,{a:e}),e},n.d=(t,e)=>{for(var r in e)n.o(e,r)&&!n.o(t,r)&&Object.defineProperty(t,r,{enumerable:!0,get:e[r]})},n.g=function(){if("object"==typeof globalThis)return globalThis;try{return this||new Function("return this")()}catch(t){if("object"==typeof window)return window}}(),n.o=(t,e)=>Object.prototype.hasOwnProperty.call(t,e),n.r=t=>{"undefined"!=typeof Symbol&&Symbol.toStringTag&&Object.defineProperty(t,Symbol.toStringTag,{value:"Module"}),Object.defineProperty(t,"__esModule",{value:!0})},n.nmd=t=>(t.paths=[],t.children||(t.children=[]),t);var i={};return(()=>{"use strict";n.r(i),n.d(i,{FigureModel:()=>f,FigureView:()=>h,MODULE_NAME:()=>c,MODULE_VERSION:()=>l});var t=n(612),e=n(486),r=n.n(e),a=n(478),o=n.n(a);const s=n(306),l=s.version,c=s.name;window.PlotlyConfig={MathJaxConfig:"local"};const u="^"+l;class f extends t.DOMWidgetModel{defaults(){return Object.assign(Object.assign({},super.defaults()),{_model_name:f.model_name,_model_module:f.model_module,_model_module_version:f.model_module_version,_view_name:f.view_name,_view_module:f.view_module,_view_module_version:f.view_module_version,_data:[],_layout:{},_config:{},_py2js_addTraces:null,_py2js_deleteTraces:null,_py2js_moveTraces:null,_py2js_restyle:null,_py2js_relayout:null,_py2js_update:null,_py2js_animate:null,_py2js_removeLayoutProps:null,_py2js_removeTraceProps:null,_js2py_restyle:null,_js2py_relayout:null,_js2py_update:null,_js2py_layoutDelta:null,_js2py_traceDeltas:null,_js2py_pointsCallback:null,_last_layout_edit_id:0,_last_trace_edit_id:0})}initialize(){super.initialize.apply(this,arguments),this.on("change:_data",this.do_data,this),this.on("change:_layout",this.do_layout,this),this.on("change:_py2js_addTraces",this.do_addTraces,this),this.on("change:_py2js_deleteTraces",this.do_deleteTraces,this),this.on("change:_py2js_moveTraces",this.do_moveTraces,this),this.on("change:_py2js_restyle",this.do_restyle,this),this.on("change:_py2js_relayout",this.do_relayout,this),this.on("change:_py2js_update",this.do_update,this),this.on("change:_py2js_animate",this.do_animate,this),this.on("change:_py2js_removeLayoutProps",this.do_removeLayoutProps,this),this.on("change:_py2js_removeTraceProps",this.do_removeTraceProps,this)}_normalize_trace_indexes(t){if(null==t){var e=this.get("_data").length;t=r().range(e)}return Array.isArray(t)||(t=[t]),t}do_data(){}do_layout(){}do_addTraces(){var t=this.get("_py2js_addTraces");if(null!==t){var e=this.get("_data"),n=t.trace_data;r().forEach(n,(function(t){e.push(t)}))}}do_deleteTraces(){var

t=this.get("_py2js_deleteTraces");if(null!==t){var
e=t.delete_inds,r=this.get("_data");e.slice().reverse().forEach((function(t){r.splice(t,1)}))}}do_moveTraces(){var
t=this.get("_py2js_moveTraces");null!==t&&function(t,e,n){for(var i=[],a=e.length-1;a>=0;a--
)i.splice(0,0,t[e[a]]),t.splice(e[a],1);var o=r()(n).zip(i).sortBy(0).unzip().value();n=o[0],i=o[1];for(var
s=0;s<n.length;s++)t.splice(n[s],0,i[s])}(this.get("_data"),t.current_trace_inds,t.new_trace_inds)}do_restyle(){var
t=this.get("_py2js_restyle");if(null!==t){var
e=t.restyle_data,r=this._normalize_trace_indexes(t.restyle_traces);y(this.get("_data"),e,r)}}do_relayout(){var
t=this.get("_py2js_relayout");null!==t&&m(this.get("_layout"),t.relayout_data)}do_update(){var
t=this.get("_py2js_update");if(null!==t){var
e=t.style_data,r=t.layout_data,n=this._normalize_trace_indexes(t.style_traces);y(this.get("_data"),e,n),m(this.get("_l
ayout"),r)}}do_animate(){var t=this.get("_py2js_animate");if(null!==t){for(var
e=t.style_data,r=t.layout_data,n=this._normalize_trace_indexes(t.style_traces),i=0;i<e.length;i++){var
a=e[i],o=n[i];m(this.get("_data")[o],a)}m(this.get("_layout"),r)}}do_removeLayoutProps(){var
t=this.get("_py2js_removeLayoutProps");if(null!==t){var
e=t.remove_props;x(this.get("_layout"),e)}}do_removeTraceProps(){var
t=this.get("_py2js_removeTraceProps");if(null!==t){var
e=t.remove_props,r=t.remove_trace;x(this.get("_data")[r],e)}}}f.serializers=Object.assign(Object.assign({},t.DOM
WidgetModel.serializers),{_data:{deserialize:g,serialize:d},_layout:{deserialize:g,serialize:d},_py2js_addTraces:{d
eserialize:g,serialize:d},_py2js_deleteTraces:{deserialize:g,serialize:d},_py2js_moveTraces:{deserialize:g,serialize:
d},_py2js_restyle:{deserialize:g,serialize:d},_py2js_relayout:{deserialize:g,serialize:d},_py2js_update:{deserialize:
g,serialize:d},_py2js_animate:{deserialize:g,serialize:d},_py2js_removeLayoutProps:{deserialize:g,serialize:d},_py
2js_removeTraceProps:{deserialize:g,serialize:d},_js2py_restyle:{deserialize:g,serialize:d},_js2py_relayout:{deseri
alize:g,serialize:d},_js2py_update:{deserialize:g,serialize:d},_js2py_layoutDelta:{deserialize:g,serialize:d},_js2py_t
raceDeltas:{deserialize:g,serialize:d},_js2py_pointsCallback:{deserialize:g,serialize:d}}),f.model_name="FigureMo
del",f.model_module=c,f.model_module_version=u,f.view_name="FigureView",f.view_module=c,f.view_module_
version=u;class h extends t.DOMWidgetView{perform_render(){var
t,e,n,i,a=this;this.model.on("change:_py2js_addTraces",this.do_addTraces,this),this.model.on("change:_py2js_delet
eTraces",this.do_deleteTraces,this),this.model.on("change:_py2js_moveTraces",this.do_moveTraces,this),this.mode
l.on("change:_py2js_restyle",this.do_restyle,this),this.model.on("change:_py2js_relayout",this.do_relayout,this),this
.model.on("change:_py2js_update",this.do_update,this),this.model.on("change:_py2js_animate",this.do_animate,thi
s),null===(i=null===(n=null===(e=null===(t=window)||void 0===t?void 0:t.MathJax)||void 0===e?void
0:e.Hub)||void 0===n?void 0:n.Config)||void 0===i||i.call(n,{SVG:{font:"STIX-Web"}});var
s=this.model.get("_last_layout_edit_id"),l=this.model.get("_last_trace_edit_id");this.viewID=_();var
c=r().cloneDeep(this.model.get("_data")),u=r().cloneDeep(this.model.get("_layout")),f=this.model.get("_config");o(
).newPlot(a.el,c,u,f).then((function(){a._sendTraceDeltas(l),a._sendLayoutDelta(s),a.el.on("plotly_restyle",(function
(t){a.handle_plotly_restyle(t)})),a.el.on("plotly_relayout",(function(t){a.handle_plotly_relayout(t)})),a.el.on("plotly
_update",(function(t){a.handle_plotly_update(t)})),a.el.on("plotly_click",(function(t){a.handle_plotly_click(t)})),a.e
l.on("plotly_hover",(function(t){a.handle_plotly_hover(t)})),a.el.on("plotly_unhover",(function(t){a.handle_plotly_
unhover(t)})),a.el.on("plotly_selected",(function(t){a.handle_plotly_selected(t)})),a.el.on("plotly_deselect",(functio
n(t){a.handle_plotly_deselect(t)})),a.el.on("plotly_doubleclick",(function(t){a.handle_plotly_doubleclick(t)}));var
t=new CustomEvent("plotlywidget-after-
render",{detail:{element:a.el,viewID:a.viewID}});document.dispatchEvent(t)}))}processPhosphorMessage(t){super
.processPhosphorMessage.apply(this,arguments);var e=this;switch(t.type){case"before-attach":var
r={showgrid:!1,showline:!1,tickvals:[]};o().newPlot(e.el,[],{xaxis:r,yaxis:r}),window.addEventListener("resize",(fu
nction(){e.autosizeFigure()}));break;case"after-attach":this.perform_render();break;case"after-
show":case"resize":this.autosizeFigure()}}autosizeFigure(){var
t=this,e=t.model.get("_layout");(r().isNil(e)||r().isNil(e.width))&&o().Plots.resize(t.el).then((function(){var
e=t.model.get("_last_layout_edit_id");t._sendLayoutDelta(e)}))}destroy(){o().purge(this.el)}getFullData(){return

r().mergeWith({},this.el._fullData,this.el.data,v)}getFullLayout(){return
r().mergeWith({},this.el._fullLayout,this.el.layout,v)}buildPointsObject(t){var e;if(t.hasOwnProperty("points")){var r=t.points,n=r.length,i=!0;for(let t=0;t<n&&(i=i&&r[t].hasOwnProperty("pointNumbers"));t++);var a=n;if(i){a=0;for(let t=0;t<n;t++)a+=r[t].pointNumbers.length}if(e={trace_indexes:new Array(a),point_indexes:new Array(a),xs:new Array(a),ys:new Array(a)},i){for(var o=0,s=0;s<n;s++)for(let t=0;t<r[s].pointNumbers.length;t++,o++)e.point_indexes[o]=r[s].pointNumbers[t],e.xs[o]=r[s].x,e.ys[o]=r[s].y,e.trace_indexes[o]=r[s].curveNumber;let t=!0;for(let r=1;r<a&&(t=t&&e.trace_indexes[r-1]===e.trace_indexes[r],t);r++);t&&e.point_indexes.sort((function(t,e){return t-e}))}else for(s=0;s<n;s++)e.trace_indexes[s]=r[s].curveNumber,e.point_indexes[s]=r[s].pointNumber,e.xs[s]=r[s].x,e.ys[s]=r[s].y;if(void 0!==r[0]&&r[0].hasOwnProperty("z"))for(e.zs=new Array(n),s=0;s<n;s++)e.zs[s]=r[s].z;return e}return null}buildInputDeviceStateObject(t){var e=t.event;return void 0===e?null:{alt:e.altKey,ctrl:e.ctrlKey,meta:e.metaKey,shift:e.shiftKey,button:e.button,buttons:e.buttons}}buildSelectorObject(t){return
t.hasOwnProperty("range")?{type:"box",selector_state:{xrange:t.range.x,yrange:t.range.y}}:t.hasOwnProperty("lassoPoints")?{type:"lasso",selector_state:{xs:t.lassoPoints.x,ys:t.lassoPoints.y}}:null}handle_plotly_restyle(t){if(!(null==t||t[0]&&t[0].hasOwnProperty("_doNotReportToPy"))){var e={style_data:t[0],style_traces:t[1],source_view_id:this.viewID};this.model.set("_js2py_restyle",e),this.touch()}}handle_plotly_relayout(t){if(null!=t&&!t.hasOwnProperty("_doNotReportToPy")){var e={relayout_data:t,source_view_id:this.viewID};this.model.set("_js2py_relayout",e),this.touch()}}handle_plotly_update(t){if(!(null==t||t.data&&t.data[0].hasOwnProperty("_doNotReportToPy"))){var e={style_data:t.data[0],style_traces:t.data[1],layout_data:t.layout,source_view_id:this.viewID};this.model.set("_js2py_update",e),this.touch()}}handle_plotly_click(t){this._send_points_callback_message(t,"plotly_click")}handle_plotly_hover(t){this._send_points_callback_message(t,"plotly_hover")}handle_plotly_unhover(t){this._send_points_callback_message(t,"plotly_unhover")}handle_plotly_selected(t){this._send_points_callback_message(t,"plotly_selected")}handle_plotly_deselect(t){t={points:[]},this._send_points_callback_message(t,"plotly_deselect")}_send_points_callback_message(t,e){if(null!=t){var r={event_type:e,points:this.buildPointsObject(t),device_state:this.buildInputDeviceStateObject(t),selector:this.buildSelectorObject(t)};null!=r.points&&(this.model.set("_js2py_pointsCallback",r),this.touch())}}handle_plotly_doubleclick(t){}do_addTraces(){var t=this.model.get("_py2js_addTraces");if(null!==t){var e=this;o().addTraces(this.el,t.trace_data).then((function(){e._sendTraceDeltas(t.trace_edit_id);var r=t.layout_edit_id;e._sendLayoutDelta(r)}))}}do_deleteTraces(){var t=this.model.get("_py2js_deleteTraces");if(null!==t){var e=t.delete_inds,r=this;o().deleteTraces(this.el,e).then((function(){var e=t.trace_edit_id;r._sendTraceDeltas(e);var n=t.layout_edit_id;r._sendLayoutDelta(n)}))}}do_moveTraces(){var t=this.model.get("_py2js_moveTraces");if(null!==t){var e=t.current_trace_inds,n=t.new_trace_inds;r().isEqual(e,n)||o().moveTraces(this.el,e,n)}}do_restyle(){var t=this.model.get("_py2js_restyle");if(null!==t){var e=t.restyle_data,r=this.model._normalize_trace_indexes(t.restyle_traces);e._doNotReportToPy=!0,o().restyle(this.el,e,r),this._sendTraceDeltas(t.trace_edit_id);var n=t.layout_edit_id;this._sendLayoutDelta(n)}}do_relayout(){var t=this.model.get("_py2js_relayout");if(null!==t){t.source_view_id!==this.viewID&&(t.relayout_data._doNotReportToPy=!0,o().relayout(this.el,t.relayout_data));var e=t.layout_edit_id;this._sendLayoutDelta(e)}}do_update(){var t=this.model.get("_py2js_update");if(null!==t){var e=t.style_data||{},r=t.layout_data||{},n=this.model._normalize_trace_indexes(t.style_traces);e._doNotReportToPy=!0,o().update(this.el,e,r,n),this._sendTraceDeltas(t.trace_edit_id);var i=t.layout_edit_id;this._sendLayoutDelta(i)}}do_animate(){var t=this.model.get("_py2js_animate");if(null!==t){var e=t.animation_opts,r={data:t.style_data,layout:t.layout_data,traces:this.model._normalize_trace_indexes(t.style_traces),_doNotReportToPy:!0},n=this;o().animate(this.el,r,e).then((function(){n._sendTraceDeltas(t.trace_edit_id);var e=t.layout_edit_id;n._sendLayoutDelta(e)}))}}_sendLayoutDelta(t){var

e={layout_delta:b(this.getFullLayout(),this.model.get("_layout")),layout_edit_id:t};this.model.set("_js2py_layoutDelta",e),this.touch()}_sendTraceDeltas(t){for(var e=this.model.get("_data"),n=r().range(e.length),i=new Array(n.length),a=this.getFullData(),o=0;o<n.length;o++){var s=n[o];i[o]=b(a[s],e[s])}var l={trace_deltas:i,trace_edit_id:t};this.model.set("_js2py_traceDeltas",l),this.touch()}}const p={int8:Int8Array,int16:Int16Array,int32:Int32Array,uint8:Uint8Array,uint16:Uint16Array,uint32:Uint32Array,float32:Float32Array,float64:Float64Array};function d(t,e){var n;if(r().isTypedArray(t))n=function(t){var e;if(t instanceof Int8Array)e="int8";else if(t instanceof Int16Array)e="int16";else if(t instanceof Int32Array)e="int32";else if(t instanceof Uint8Array)e="uint8";else if(t instanceof Uint16Array)e="uint16";else if(t instanceof Uint32Array)e="uint32";else if(t instanceof Float32Array)e="float32";else{if(!(t instanceof Float64Array))return t;e="float64"}return{dtype:e,shape:[t.length],value:t.buffer}}(t);else if(Array.isArray(t)){n=new Array(t.length);for(var i=0;i<t.length;i++)n[i]=d(t[i])}else if(r().isPlainObject(t))for(var a in n={},t)t.hasOwnProperty(a)&&(n[a]=d(t[a]));else n=void 0===t?"_undefined_":t;return n}function g(t,e){var n;if(Array.isArray(t)){n=new Array(t.length);for(var i=0;i<t.length;i++)n[i]=g(t[i])}else if(r().isPlainObject(t))if((r().has(t,"value")||r().has(t,"buffer"))&&r().has(t,"dtype")&&r().has(t,"shape"))n=new(0,p[t.dtype])(r().has(t,"value")?t.value.buffer:t.buffer.buffer);else for(var a in n={},t)t.hasOwnProperty(a)&&(n[a]=g(t[a]));else n="_undefined_"===t?void 0:t;return n}function v(t,e,r){return"_"===r[0]?null:(n=e,!ArrayBuffer.isView(n)||n instanceof DataView?void 0:e);var n}function m(t,e){for(var n in e)if(e.hasOwnProperty(n)){var i=e[n];null===i?r().unset(t,n):r().set(t,n,i)}}function y(t,e,n){for(var i in e)if(e.hasOwnProperty(i)){var a=e[i];Array.isArray(a)||(a=[a]);for(var o=0;o<n.length;o++){var s=t[n[o]],l=a[o%a.length];null===l?r().unset(s,i):void 0!==l&&r().set(s,i,l)}}}function x(t,e){for(var n=0;n<e.length;n++){var i=e[n];r().unset(t,i)}}function b(t,e){var n;for(var i in n=Array.isArray(t)?new Array(t.length):{},null==e&&(e={}),t)if("_"!==i[0]&&t.hasOwnProperty(i)&&null!==t[i]&&(!r().isEqual(t[i],e[i])||"uid"===i)){var a=t[i];if(e.hasOwnProperty(i)&&"object"==typeof a)if(Array.isArray(a))if(a.length>0&&"object"==typeof a[0]){n[i]=new Array(a.length);for(var o=0;o<a.length;o++)!Array.isArray(e[i])||e[i].length<=o?n[i][o]=a[o]:n[i][o]=b(a[o],e[i][o])}else n[i]=a;else{var s=b(a,e[i]);Object.keys(s).length>0&&(n[i]=s)}else"object"!=typeof a||Array.isArray(a)?void 0!==a&&"function"!=typeof a&&(n[i]=a):n[i]=b(a,{})}return n}function _(t,e,r,n){if(r||(r=16),void 0===e&&(e=24),e<=0)return"0";var i,a,o=Math.log(Math.pow(2,e))/Math.log(r),s="";for(i=2;o===1/0;i*=2)o=Math.log(Math.pow(2,e/i))/Math.log(r)*i;var l=o-Math.floor(o);for(i=0;i<Math.floor(o);i++)s=Math.floor(Math.random()*r).toString(r)+s;l&&(a=Math.pow(r,l),s=Math.floor(Math.random()*a).toString(r)+s);var c=parseInt(s,r);return t&&t[s]||c!==1/0&&c>=Math.pow(2,e)?n>10?(console.warn("randstr failed uniqueness"),s):_(t,e,r,(n||0)+1):s}})(),i})()));

Found in path(s):
* /opt/cola/permits/1366656986_1658150964.8596213/0/jupyterlab-plotly-5-8-0-tgz/package/dist/index.js
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1.495 lz4 1.9.2

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Format: http://www.debian.org/doc/packaging-manuals/copyright-format/1.0/
Upstream-Name: liblz4
Upstream-Contact: Yann Collet <Cyan4973@github.com>
Source: https://github.com/lz4/lz4

Files: *
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The full text of license: https://github.com/Cyan4973/lz4/blob/master/lib/LICENSE

1.496 psutil 5.9.2

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