

## Guava Release 12.0: Release Notes

Release 12.0 was released on April 30, 2012. Release 12.0.1 was released on July 10, 2012. (See [ReleaseHistory](#).)

[Full API Documentation](#)

### Using Guava in your project

This release will be identified in the Maven Central repository as `com.google.guava:guava:12.0.1` and `com.google.guava:guava-gwt:12.0.1`

See [UseGuavaInYourBuild](#) for help integrating Guava into your build environment.

If you don't use managed dependencies, you can also just manually download JARs of the classes, sources and documentation from:

- `guava-12.0.1.jar`
- `guava-gwt-12.0.1.jar` (for GWT users)
- `guava-12.0.1-javadoc.jar` (Javadoc)
- `guava-12.0.1-sources.jar` (Source)

### Issues resolved

43 issues are resolved in this release (a record, among somewhat on-time releases).

Notably, `FinalizableReferenceQueue` no longer keeps unused `ClassLoader` alive, an OGSi bundle is included, and `CacheBuilder` users must opt in to stats collection.

### Changes between 12.0 and 12.0.1

Resolved a major performance regression in `LoadingCache`.

### API Changes

Full JDiff Report of changes since release 11.0.2

To build a combined report of the API changes between release 12.0 and any older release, check out our docs tree and run `jdiff/jdiff.sh` with the previous release number as argument (example: `jdiff.sh 5.0`).

### CacheBuilder Cache stats

`CacheBuilder` users who use the `Cache stats()` method must now opt in by calling `recordStats()` (as of 12.0-rc2).

## **JDK6 APIs**

Guava 12.0 is the first release to require JDK6. Users requiring JDK5 compatibility may continue to use Guava 11.0.2 – or contact us about maintaining a backport.

Here are the new APIs introduced along with our JDK6 dependency:

ImmutableSortedSet implements NavigableSet; ImmutableSortedMap implements NavigableMap.

Added forwarding classes for Deque, NavigableMap, NavigableSet.

Added type-inferring factory methods: newArrayDeque, newLinkedBlockingDeque, newCopyOnWriteArrayList, newCopyOnWriteArraySet.

Added Maps.unmodifiableNavigableMap, Sets.unmodifiableNavigableSet.

## **Other significant API additions**

Introducing common.reflect, especially TypeToken, a better java.lang.Class.

Introducing MediaType (which may be split into MediaType+MediaRange someday).

Introducing FluentIterable.

Introducing CacheBuilderSpec; see CacheBuilder.from(CacheBuilderSpec) and CacheBuilder.from(String) to make use of it.

Introducing ImmutableSortedMultiset.

Added Enums.getField, getIfPresent.

Added HashCodes.

Added BloomFilter.copy, equals, hashCode; plus, put now returns boolean.

Added Optional.transform.

Added ToStringHelper.omitNullValues.

Added Collections2.permutations, orderedPermutations.

Added ForwardingSet.standardRemoveAll.

Added Cache.putAll.

Added JdkFutureAdapters.listenInPoolThread with custom executor.

## **Other significant API changes**

Sink is renamed to PrimitiveSink. Implementations of Funnel will need to be updated.

`AbstractLinkedIterator` has been deprecated in favor of the identical `AbstractSequentialIterator`.

`ByteStreams` and `Files` `getDigest` methods have been deprecated in favor of new hash methods.

`ComparisonChain.compare(boolean, boolean)` has been deprecated in favor new `compareFalseFirst/compareTrueFirst` methods.

### **OSGi support**

As of 12.0-rc2, Guava contains OSGi metadata.