| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | [**Class**](http://docs.google.com/java/util/SortedMap.html) | **Use** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PREV   NEXT | [**FRAMES**](http://docs.google.com/index.html?java/util//class-useSortedMap.html)    [**NO FRAMES**](http://docs.google.com/SortedMap.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

**Uses of Interface**

**java.util.SortedMap**

| Packages that use [SortedMap](http://docs.google.com/java/util/SortedMap.html) | |
| --- | --- |
| [**java.nio.charset**](#3znysh7) | Defines charsets, decoders, and encoders, for translating between bytes and Unicode characters. |
| [**java.util**](#2et92p0) | Contains the collections framework, legacy collection classes, event model, date and time facilities, internationalization, and miscellaneous utility classes (a string tokenizer, a random-number generator, and a bit array). |
| [**java.util.concurrent**](#tyjcwt) | Utility classes commonly useful in concurrent programming. |
| [**java.util.jar**](#3dy6vkm) | Provides classes for reading and writing the JAR (Java ARchive) file format, which is based on the standard ZIP file format with an optional manifest file. |

| Uses of [SortedMap](http://docs.google.com/java/util/SortedMap.html) in [java.nio.charset](http://docs.google.com/java/nio/charset/package-summary.html) | |
| --- | --- |

| Methods in [java.nio.charset](http://docs.google.com/java/nio/charset/package-summary.html) that return [SortedMap](http://docs.google.com/java/util/SortedMap.html) | |
| --- | --- |
| static [SortedMap](http://docs.google.com/java/util/SortedMap.html)<[String](http://docs.google.com/java/lang/String.html),[Charset](http://docs.google.com/java/nio/charset/Charset.html)> | **Charset.**[**availableCharsets**](http://docs.google.com/java/nio/charset/Charset.html#availableCharsets())()            Constructs a sorted map from canonical charset names to charset objects. |

| Uses of [SortedMap](http://docs.google.com/java/util/SortedMap.html) in [java.util](http://docs.google.com/java/util/package-summary.html) | |
| --- | --- |

| Subinterfaces of [SortedMap](http://docs.google.com/java/util/SortedMap.html) in [java.util](http://docs.google.com/java/util/package-summary.html) | |
| --- | --- |
| interface | [**NavigableMap<K,V>**](http://docs.google.com/java/util/NavigableMap.html)            A [SortedMap](http://docs.google.com/java/util/SortedMap.html) extended with navigation methods returning the closest matches for given search targets. |

| Classes in [java.util](http://docs.google.com/java/util/package-summary.html) that implement [SortedMap](http://docs.google.com/java/util/SortedMap.html) | |
| --- | --- |
| class | [**TreeMap<K,V>**](http://docs.google.com/java/util/TreeMap.html)            A Red-Black tree based [NavigableMap](http://docs.google.com/java/util/NavigableMap.html) implementation. |

| Methods in [java.util](http://docs.google.com/java/util/package-summary.html) that return [SortedMap](http://docs.google.com/java/util/SortedMap.html) | |
| --- | --- |
| static   | <K,V> [SortedMap](http://docs.google.com/java/util/SortedMap.html)<K,V> | | --- | | **Collections.**[**checkedSortedMap**](http://docs.google.com/java/util/Collections.html#checkedSortedMap(java.util.SortedMap,%20java.lang.Class,%20java.lang.Class))([SortedMap](http://docs.google.com/java/util/SortedMap.html)<K,V> m, [Class](http://docs.google.com/java/lang/Class.html)<K> keyType, [Class](http://docs.google.com/java/lang/Class.html)<V> valueType)            Returns a dynamically typesafe view of the specified sorted map. |
| [SortedMap](http://docs.google.com/java/util/SortedMap.html)<[K](http://docs.google.com/java/util/TreeMap.html),[V](http://docs.google.com/java/util/TreeMap.html)> | **TreeMap.**[**headMap**](http://docs.google.com/java/util/TreeMap.html#headMap(K))([K](http://docs.google.com/java/util/TreeMap.html) toKey) |
| [SortedMap](http://docs.google.com/java/util/SortedMap.html)<[K](http://docs.google.com/java/util/NavigableMap.html),[V](http://docs.google.com/java/util/NavigableMap.html)> | **NavigableMap.**[**headMap**](http://docs.google.com/java/util/NavigableMap.html#headMap(K))([K](http://docs.google.com/java/util/NavigableMap.html) toKey)            Returns a view of the portion of this map whose keys are strictly less than toKey. |
| [SortedMap](http://docs.google.com/java/util/SortedMap.html)<[K](http://docs.google.com/java/util/SortedMap.html),[V](http://docs.google.com/java/util/SortedMap.html)> | **SortedMap.**[**headMap**](http://docs.google.com/java/util/SortedMap.html#headMap(K))([K](http://docs.google.com/java/util/SortedMap.html) toKey)            Returns a view of the portion of this map whose keys are strictly less than toKey. |
| [SortedMap](http://docs.google.com/java/util/SortedMap.html)<[K](http://docs.google.com/java/util/TreeMap.html),[V](http://docs.google.com/java/util/TreeMap.html)> | **TreeMap.**[**subMap**](http://docs.google.com/java/util/TreeMap.html#subMap(K,%20K))([K](http://docs.google.com/java/util/TreeMap.html) fromKey, [K](http://docs.google.com/java/util/TreeMap.html) toKey) |
| [SortedMap](http://docs.google.com/java/util/SortedMap.html)<[K](http://docs.google.com/java/util/NavigableMap.html),[V](http://docs.google.com/java/util/NavigableMap.html)> | **NavigableMap.**[**subMap**](http://docs.google.com/java/util/NavigableMap.html#subMap(K,%20K))([K](http://docs.google.com/java/util/NavigableMap.html) fromKey, [K](http://docs.google.com/java/util/NavigableMap.html) toKey)            Returns a view of the portion of this map whose keys range from fromKey, inclusive, to toKey, exclusive. |
| [SortedMap](http://docs.google.com/java/util/SortedMap.html)<[K](http://docs.google.com/java/util/SortedMap.html),[V](http://docs.google.com/java/util/SortedMap.html)> | **SortedMap.**[**subMap**](http://docs.google.com/java/util/SortedMap.html#subMap(K,%20K))([K](http://docs.google.com/java/util/SortedMap.html) fromKey, [K](http://docs.google.com/java/util/SortedMap.html) toKey)            Returns a view of the portion of this map whose keys range from fromKey, inclusive, to toKey, exclusive. |
| static   | <K,V> [SortedMap](http://docs.google.com/java/util/SortedMap.html)<K,V> | | --- | | **Collections.**[**synchronizedSortedMap**](http://docs.google.com/java/util/Collections.html#synchronizedSortedMap(java.util.SortedMap))([SortedMap](http://docs.google.com/java/util/SortedMap.html)<K,V> m)            Returns a synchronized (thread-safe) sorted map backed by the specified sorted map. |
| [SortedMap](http://docs.google.com/java/util/SortedMap.html)<[K](http://docs.google.com/java/util/TreeMap.html),[V](http://docs.google.com/java/util/TreeMap.html)> | **TreeMap.**[**tailMap**](http://docs.google.com/java/util/TreeMap.html#tailMap(K))([K](http://docs.google.com/java/util/TreeMap.html) fromKey) |
| [SortedMap](http://docs.google.com/java/util/SortedMap.html)<[K](http://docs.google.com/java/util/NavigableMap.html),[V](http://docs.google.com/java/util/NavigableMap.html)> | **NavigableMap.**[**tailMap**](http://docs.google.com/java/util/NavigableMap.html#tailMap(K))([K](http://docs.google.com/java/util/NavigableMap.html) fromKey)            Returns a view of the portion of this map whose keys are greater than or equal to fromKey. |
| [SortedMap](http://docs.google.com/java/util/SortedMap.html)<[K](http://docs.google.com/java/util/SortedMap.html),[V](http://docs.google.com/java/util/SortedMap.html)> | **SortedMap.**[**tailMap**](http://docs.google.com/java/util/SortedMap.html#tailMap(K))([K](http://docs.google.com/java/util/SortedMap.html) fromKey)            Returns a view of the portion of this map whose keys are greater than or equal to fromKey. |
| static   | <K,V> [SortedMap](http://docs.google.com/java/util/SortedMap.html)<K,V> | | --- | | **Collections.**[**unmodifiableSortedMap**](http://docs.google.com/java/util/Collections.html#unmodifiableSortedMap(java.util.SortedMap))([SortedMap](http://docs.google.com/java/util/SortedMap.html)<K,? extends V> m)            Returns an unmodifiable view of the specified sorted map. |

| Methods in [java.util](http://docs.google.com/java/util/package-summary.html) with parameters of type [SortedMap](http://docs.google.com/java/util/SortedMap.html) | |
| --- | --- |
| static   | <K,V> [SortedMap](http://docs.google.com/java/util/SortedMap.html)<K,V> | | --- | | **Collections.**[**checkedSortedMap**](http://docs.google.com/java/util/Collections.html#checkedSortedMap(java.util.SortedMap,%20java.lang.Class,%20java.lang.Class))([SortedMap](http://docs.google.com/java/util/SortedMap.html)<K,V> m, [Class](http://docs.google.com/java/lang/Class.html)<K> keyType, [Class](http://docs.google.com/java/lang/Class.html)<V> valueType)            Returns a dynamically typesafe view of the specified sorted map. |
| static   | <K,V> [SortedMap](http://docs.google.com/java/util/SortedMap.html)<K,V> | | --- | | **Collections.**[**synchronizedSortedMap**](http://docs.google.com/java/util/Collections.html#synchronizedSortedMap(java.util.SortedMap))([SortedMap](http://docs.google.com/java/util/SortedMap.html)<K,V> m)            Returns a synchronized (thread-safe) sorted map backed by the specified sorted map. |
| static   | <K,V> [SortedMap](http://docs.google.com/java/util/SortedMap.html)<K,V> | | --- | | **Collections.**[**unmodifiableSortedMap**](http://docs.google.com/java/util/Collections.html#unmodifiableSortedMap(java.util.SortedMap))([SortedMap](http://docs.google.com/java/util/SortedMap.html)<K,? extends V> m)            Returns an unmodifiable view of the specified sorted map. |

| Constructors in [java.util](http://docs.google.com/java/util/package-summary.html) with parameters of type [SortedMap](http://docs.google.com/java/util/SortedMap.html) | |
| --- | --- |
| [**TreeMap**](http://docs.google.com/java/util/TreeMap.html#TreeMap(java.util.SortedMap))([SortedMap](http://docs.google.com/java/util/SortedMap.html)<[K](http://docs.google.com/java/util/TreeMap.html),? extends [V](http://docs.google.com/java/util/TreeMap.html)> m)            Constructs a new tree map containing the same mappings and using the same ordering as the specified sorted map. |

| Uses of [SortedMap](http://docs.google.com/java/util/SortedMap.html) in [java.util.concurrent](http://docs.google.com/java/util/concurrent/package-summary.html) | |
| --- | --- |

| Subinterfaces of [SortedMap](http://docs.google.com/java/util/SortedMap.html) in [java.util.concurrent](http://docs.google.com/java/util/concurrent/package-summary.html) | |
| --- | --- |
| interface | [**ConcurrentNavigableMap<K,V>**](http://docs.google.com/java/util/concurrent/ConcurrentNavigableMap.html)            A [ConcurrentMap](http://docs.google.com/java/util/concurrent/ConcurrentMap.html) supporting [NavigableMap](http://docs.google.com/java/util/NavigableMap.html) operations, and recursively so for its navigable sub-maps. |

| Classes in [java.util.concurrent](http://docs.google.com/java/util/concurrent/package-summary.html) that implement [SortedMap](http://docs.google.com/java/util/SortedMap.html) | |
| --- | --- |
| class | [**ConcurrentSkipListMap<K,V>**](http://docs.google.com/java/util/concurrent/ConcurrentSkipListMap.html)            A scalable concurrent [ConcurrentNavigableMap](http://docs.google.com/java/util/concurrent/ConcurrentNavigableMap.html) implementation. |

| Constructors in [java.util.concurrent](http://docs.google.com/java/util/concurrent/package-summary.html) with parameters of type [SortedMap](http://docs.google.com/java/util/SortedMap.html) | |
| --- | --- |
| [**ConcurrentSkipListMap**](http://docs.google.com/java/util/concurrent/ConcurrentSkipListMap.html#ConcurrentSkipListMap(java.util.SortedMap))([SortedMap](http://docs.google.com/java/util/SortedMap.html)<[K](http://docs.google.com/java/util/concurrent/ConcurrentSkipListMap.html),? extends [V](http://docs.google.com/java/util/concurrent/ConcurrentSkipListMap.html)> m)            Constructs a new map containing the same mappings and using the same ordering as the specified sorted map. |

| Uses of [SortedMap](http://docs.google.com/java/util/SortedMap.html) in [java.util.jar](http://docs.google.com/java/util/jar/package-summary.html) | |
| --- | --- |

| Methods in [java.util.jar](http://docs.google.com/java/util/jar/package-summary.html) that return [SortedMap](http://docs.google.com/java/util/SortedMap.html) | |
| --- | --- |
| [SortedMap](http://docs.google.com/java/util/SortedMap.html)<[String](http://docs.google.com/java/lang/String.html),[String](http://docs.google.com/java/lang/String.html)> | **Pack200.Packer.**[**properties**](http://docs.google.com/java/util/jar/Pack200.Packer.html#properties())()            Get the set of this engine's properties. |
| [SortedMap](http://docs.google.com/java/util/SortedMap.html)<[String](http://docs.google.com/java/lang/String.html),[String](http://docs.google.com/java/lang/String.html)> | **Pack200.Unpacker.**[**properties**](http://docs.google.com/java/util/jar/Pack200.Unpacker.html#properties())()            Get the set of this engine's properties. |

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | [**Class**](http://docs.google.com/java/util/SortedMap.html) | **Use** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PREV   NEXT | [**FRAMES**](http://docs.google.com/index.html?java/util//class-useSortedMap.html)    [**NO FRAMES**](http://docs.google.com/SortedMap.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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