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* [Overview](http://docs.google.com/overview-summary.html)
* [Package](http://docs.google.com/package-summary.html)
* Class
* [Use](http://docs.google.com/class-use/AbstractSortedMapDecorator.html)
* [Tree](http://docs.google.com/package-tree.html)
* [Deprecated](http://docs.google.com/deprecated-list.html)
* [Index](http://docs.google.com/index-all.html)
* [Help](http://docs.google.com/help-doc.html)
* [Prev Class](http://docs.google.com/org/apache/commons/collections4/map/AbstractReferenceMap.ReferenceStrength.html)
* [Next Class](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.SortedMapIterator.html)
* [Frames](http://docs.google.com/index.html?org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)
* [No Frames](http://docs.google.com/AbstractSortedMapDecorator.html)
* [All Classes](http://docs.google.com/allclasses-noframe.html)
* Summary:
* [Nested](#3znysh7) |
* Field |
* [Constr](#tyjcwt) |
* [Method](#3dy6vkm)
* Detail:
* Field |
* [Constr](#lnxbz9) |
* [Method](#44sinio)

org.apache.commons.collections4.map

## Class AbstractSortedMapDecorator<K,V>

* [java.lang.Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)
  + [org.apache.commons.collections4.map.AbstractIterableMap](http://docs.google.com/org/apache/commons/collections4/map/AbstractIterableMap.html)<K,V>
    - [org.apache.commons.collections4.map.AbstractMapDecorator](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)<K,V>
      * org.apache.commons.collections4.map.AbstractSortedMapDecorator<K,V>
* Type Parameters: K - the type of the keys in the map V - the type of the values in the map All Implemented Interfaces: [Map](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)<K,V>, [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<K,V>, [Get](http://docs.google.com/org/apache/commons/collections4/Get.html)<K,V>, [IterableGet](http://docs.google.com/org/apache/commons/collections4/IterableGet.html)<K,V>, [IterableMap](http://docs.google.com/org/apache/commons/collections4/IterableMap.html)<K,V>, [IterableSortedMap](http://docs.google.com/org/apache/commons/collections4/IterableSortedMap.html)<K,V>, [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<K,V>, [Put](http://docs.google.com/org/apache/commons/collections4/Put.html)<K,V> Direct Known Subclasses: [DualTreeBidiMap.ViewMap](http://docs.google.com/org/apache/commons/collections4/bidimap/DualTreeBidiMap.ViewMap.html), [FixedSizeSortedMap](http://docs.google.com/org/apache/commons/collections4/map/FixedSizeSortedMap.html), [UnmodifiableSortedMap](http://docs.google.com/org/apache/commons/collections4/map/UnmodifiableSortedMap.html)  
    
  public abstract class AbstractSortedMapDecorator<K,V>  
  extends [AbstractMapDecorator](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)<K,V>  
  implements [IterableSortedMap](http://docs.google.com/org/apache/commons/collections4/IterableSortedMap.html)<K,V>  
  Provides a base decorator that enables additional functionality to be added to a Map via decoration.  
  Methods are forwarded directly to the decorated map.  
  This implementation does not perform any special processing with the map views. Instead it simply returns the set/collection from the wrapped map. This may be undesirable, for example if you are trying to write a validating implementation it would provide a loophole around the validation. But, you might want that loophole, so this class is kept simple.Since: 3.0

### Nested Class SummaryNested Classes

|  |  |
| --- | --- |
| * + Modifier and Type | * + Class and Description |
| * + protected static class | * + [AbstractSortedMapDecorator.SortedMapIterator](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.SortedMapIterator.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.SortedMapIterator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.SortedMapIterator.html)> OrderedMapIterator implementation. |

### Nested classes/interfaces inherited from interface java.util.[**Map**](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)[Map.Entry](https://docs.oracle.com/javase/7/docs/api/java/util/Map.Entry.html?is-external=true)<[K](https://docs.oracle.com/javase/7/docs/api/java/util/Map.Entry.html?is-external=true),[V](https://docs.oracle.com/javase/7/docs/api/java/util/Map.Entry.html?is-external=true)>

### Constructor SummaryConstructors

|  |  |
| --- | --- |
| * + Modifier | * + Constructor and Description |
| * + protected | * + [AbstractSortedMapDecorator](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html#AbstractSortedMapDecorator--)() Constructor only used in deserialization, do not use otherwise. |
|  | * + [AbstractSortedMapDecorator](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html#AbstractSortedMapDecorator-java.util.SortedMap-)([SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> map) Constructor that wraps (not copies). |

### Method SummaryAll Methods Instance Methods Concrete Methods

|  |  |
| --- | --- |
| * + Modifier and Type | * + Method and Description |
| * + [Comparator](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true)<? super [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> | * + [comparator](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html#comparator--)() |
| * + protected [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> | * + [decorated](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html#decorated--)() Gets the map being decorated. |
| * + [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) | * + [firstKey](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html#firstKey--)() Gets the first key currently in this map. |
| * + [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> | * + [headMap](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html#headMap-K-)([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) toKey) |
| * + [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) | * + [lastKey](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html#lastKey--)() Gets the last key currently in this map. |
| * + [OrderedMapIterator](http://docs.google.com/org/apache/commons/collections4/OrderedMapIterator.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> | * + [mapIterator](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html#mapIterator--)() Obtains a MapIterator over the map. |
| * + [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) | * + [nextKey](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html#nextKey-K-)([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) key) Gets the next key after the one specified. |
| * + [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) | * + [previousKey](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html#previousKey-K-)([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) key) Gets the previous key before the one specified. |
| * + [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> | * + [subMap](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html#subMap-K-K-)([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) fromKey, [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) toKey) |
| * + [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> | * + [tailMap](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html#tailMap-K-)([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) fromKey) |

### Methods inherited from class org.apache.commons.collections4.map.[**AbstractMapDecorator**](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)[clear](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#clear--), [containsKey](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#containsKey-java.lang.Object-), [containsValue](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#containsValue-java.lang.Object-), [entrySet](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#entrySet--), [equals](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#equals-java.lang.Object-), [get](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#get-java.lang.Object-), [hashCode](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#hashCode--), [isEmpty](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#isEmpty--), [keySet](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#keySet--), [put](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#put-K-V-), [putAll](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#putAll-java.util.Map-), [remove](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#remove-java.lang.Object-), [size](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#size--), [toString](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#toString--), [values](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#values--)

### Methods inherited from class java.lang.[**Object**](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)[clone](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#clone--), [finalize](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#finalize--), [getClass](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#getClass--), [notify](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#notify--), [notifyAll](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#notifyAll--), [wait](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#wait--), [wait](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#wait-long-), [wait](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#wait-long-int-)

### Methods inherited from interface java.util.[**SortedMap**](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)[entrySet](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true#entrySet--), [keySet](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true#keySet--), [values](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true#values--)

### Methods inherited from interface java.util.[**Map**](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)[clear](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#clear--), [compute](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#compute-K-java.util.function.BiFunction-), [computeIfAbsent](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#computeIfAbsent-K-java.util.function.Function-), [computeIfPresent](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#computeIfPresent-K-java.util.function.BiFunction-), [containsKey](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#containsKey-java.lang.Object-), [containsValue](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#containsValue-java.lang.Object-), [equals](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#equals-java.lang.Object-), [forEach](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#forEach-java.util.function.BiConsumer-), [get](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#get-java.lang.Object-), [getOrDefault](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#getOrDefault-java.lang.Object-V-), [hashCode](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#hashCode--), [isEmpty](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#isEmpty--), [merge](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#merge-K-V-java.util.function.BiFunction-), [put](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#put-K-V-), [putAll](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#putAll-java.util.Map-), [putIfAbsent](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#putIfAbsent-K-V-), [remove](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#remove-java.lang.Object-), [remove](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#remove-java.lang.Object-java.lang.Object-), [replace](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#replace-K-V-), [replace](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#replace-K-V-V-), [replaceAll](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#replaceAll-java.util.function.BiFunction-), [size](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#size--)

### Methods inherited from interface org.apache.commons.collections4.[**Put**](http://docs.google.com/org/apache/commons/collections4/Put.html)[clear](http://docs.google.com/org/apache/commons/collections4/Put.html#clear--), [put](http://docs.google.com/org/apache/commons/collections4/Put.html#put-K-V-), [putAll](http://docs.google.com/org/apache/commons/collections4/Put.html#putAll-java.util.Map-)

### Methods inherited from interface org.apache.commons.collections4.[**Get**](http://docs.google.com/org/apache/commons/collections4/Get.html)[containsKey](http://docs.google.com/org/apache/commons/collections4/Get.html#containsKey-java.lang.Object-), [containsValue](http://docs.google.com/org/apache/commons/collections4/Get.html#containsValue-java.lang.Object-), [entrySet](http://docs.google.com/org/apache/commons/collections4/Get.html#entrySet--), [get](http://docs.google.com/org/apache/commons/collections4/Get.html#get-java.lang.Object-), [isEmpty](http://docs.google.com/org/apache/commons/collections4/Get.html#isEmpty--), [keySet](http://docs.google.com/org/apache/commons/collections4/Get.html#keySet--), [remove](http://docs.google.com/org/apache/commons/collections4/Get.html#remove-java.lang.Object-), [size](http://docs.google.com/org/apache/commons/collections4/Get.html#size--), [values](http://docs.google.com/org/apache/commons/collections4/Get.html#values--)

### Constructor Detail

#### AbstractSortedMapDecorator protected AbstractSortedMapDecorator() Constructor only used in deserialization, do not use otherwise.Since: 3.1

#### AbstractSortedMapDecorator public AbstractSortedMapDecorator([SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> map) Constructor that wraps (not copies).Parameters: map - the map to decorate, must not be null Throws: [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if the map is null

### Method Detail

#### decorated protected [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> decorated() Gets the map being decorated.Overrides: [decorated](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#decorated--) in class [AbstractMapDecorator](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> Returns: the decorated map

#### comparator public [Comparator](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true)<? super [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> comparator()Specified by: [comparator](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true#comparator--) in interface [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)>

#### firstKey public [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) firstKey() Description copied from interface: [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#firstKey--) Gets the first key currently in this map.Specified by: [firstKey](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true#firstKey--) in interface [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> Specified by: [firstKey](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#firstKey--) in interface [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> Returns: the first key currently in this map

#### lastKey public [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) lastKey() Description copied from interface: [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#lastKey--) Gets the last key currently in this map.Specified by: [lastKey](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true#lastKey--) in interface [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> Specified by: [lastKey](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#lastKey--) in interface [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> Returns: the last key currently in this map

#### subMap public [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> subMap([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) fromKey, [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) toKey)Specified by: [subMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true#subMap-K-K-) in interface [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)>

#### headMap public [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> headMap([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) toKey)Specified by: [headMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true#headMap-K-) in interface [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)>

#### tailMap public [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> tailMap([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) fromKey)Specified by: [tailMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true#tailMap-K-) in interface [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)>

#### previousKey public [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) previousKey([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) key) Description copied from interface: [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#previousKey-K-) Gets the previous key before the one specified.Specified by: [previousKey](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#previousKey-K-) in interface [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> Parameters: key - the key to search for previous from Returns: the previous key, null if no match or at start

#### nextKey public [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) nextKey([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html) key) Description copied from interface: [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#nextKey-K-) Gets the next key after the one specified.Specified by: [nextKey](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#nextKey-K-) in interface [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> Parameters: key - the key to search for next from Returns: the next key, null if no match or at end

#### mapIterator public [OrderedMapIterator](http://docs.google.com/org/apache/commons/collections4/OrderedMapIterator.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> mapIterator() Obtains a MapIterator over the map. A map iterator is an efficient way of iterating over maps. There is no need to access the entry set or use Map Entry objects. IterableMap<String,Integer> map = new HashedMap<String,Integer>(); MapIterator<String,Integer> it = map.mapIterator(); while (it.hasNext()) { String key = it.next(); Integer value = it.getValue(); it.setValue(value + 1); } Specified by: [mapIterator](http://docs.google.com/org/apache/commons/collections4/IterableGet.html#mapIterator--) in interface [IterableGet](http://docs.google.com/org/apache/commons/collections4/IterableGet.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> Specified by: [mapIterator](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#mapIterator--) in interface [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> Overrides: [mapIterator](http://docs.google.com/org/apache/commons/collections4/map/AbstractIterableMap.html#mapIterator--) in class [AbstractIterableMap](http://docs.google.com/org/apache/commons/collections4/map/AbstractIterableMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)> Returns: a map iterator

[Skip navigation links](#ihv636)

* [Overview](http://docs.google.com/overview-summary.html)
* [Package](http://docs.google.com/package-summary.html)
* Class
* [Use](http://docs.google.com/class-use/AbstractSortedMapDecorator.html)
* [Tree](http://docs.google.com/package-tree.html)
* [Deprecated](http://docs.google.com/deprecated-list.html)
* [Index](http://docs.google.com/index-all.html)
* [Help](http://docs.google.com/help-doc.html)
* [Prev Class](http://docs.google.com/org/apache/commons/collections4/map/AbstractReferenceMap.ReferenceStrength.html)
* [Next Class](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.SortedMapIterator.html)
* [Frames](http://docs.google.com/index.html?org/apache/commons/collections4/map/AbstractSortedMapDecorator.html)
* [No Frames](http://docs.google.com/AbstractSortedMapDecorator.html)
* [All Classes](http://docs.google.com/allclasses-noframe.html)
* Summary:
* [Nested](#3znysh7) |
* Field |
* [Constr](#tyjcwt) |
* [Method](#3dy6vkm)
* Detail:
* Field |
* [Constr](#lnxbz9) |
* [Method](#44sinio)

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