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org.apache.commons.collections4.map

## Class AbstractMapDecorator<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<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>, [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>, [Put](http://docs.google.com/org/apache/commons/collections4/Put.html)<K,V> Direct Known Subclasses: [AbstractBidiMapDecorator](http://docs.google.com/org/apache/commons/collections4/bidimap/AbstractBidiMapDecorator.html), [AbstractOrderedMapDecorator](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html), [AbstractSortedMapDecorator](http://docs.google.com/org/apache/commons/collections4/map/AbstractSortedMapDecorator.html), [DefaultedMap](http://docs.google.com/org/apache/commons/collections4/map/DefaultedMap.html), [FixedSizeMap](http://docs.google.com/org/apache/commons/collections4/map/FixedSizeMap.html), [LazyMap](http://docs.google.com/org/apache/commons/collections4/map/LazyMap.html), [ListOrderedMap](http://docs.google.com/org/apache/commons/collections4/map/ListOrderedMap.html), [MultiKeyMap](http://docs.google.com/org/apache/commons/collections4/map/MultiKeyMap.html), [MultiValueMap](http://docs.google.com/org/apache/commons/collections4/map/MultiValueMap.html), [PassiveExpiringMap](http://docs.google.com/org/apache/commons/collections4/map/PassiveExpiringMap.html), [PredicatedMap](http://docs.google.com/org/apache/commons/collections4/map/PredicatedMap.html), [TransformedMap](http://docs.google.com/org/apache/commons/collections4/map/TransformedMap.html), [UnmodifiableMap](http://docs.google.com/org/apache/commons/collections4/map/UnmodifiableMap.html)  
    
  public abstract class AbstractMapDecorator<K,V>  
  extends [AbstractIterableMap](http://docs.google.com/org/apache/commons/collections4/map/AbstractIterableMap.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 [entrySet()](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#entrySet--), [keySet()](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#keySet--) or [values()](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#values--). 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 Summary

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

### Method SummaryAll Methods Instance Methods Concrete Methods

|  |  |
| --- | --- |
| * + Modifier and Type | * + Method and Description |
| * + void | * + [clear](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#clear--)() |
| * + boolean | * + [containsKey](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#containsKey-java.lang.Object-)([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) key) |
| * + boolean | * + [containsValue](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#containsValue-java.lang.Object-)([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) value) |
| * + protected [Map](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)> | * + [decorated](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#decorated--)() Gets the map being decorated. |
| * + [Set](https://docs.oracle.com/javase/7/docs/api/java/util/Set.html?is-external=true)<[Map.Entry](https://docs.oracle.com/javase/7/docs/api/java/util/Map.Entry.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)>> | * + [entrySet](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#entrySet--)() |
| * + boolean | * + [equals](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#equals-java.lang.Object-)([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) object) |
| * + [V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html) | * + [get](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#get-java.lang.Object-)([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) key) |
| * + int | * + [hashCode](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#hashCode--)() |
| * + boolean | * + [isEmpty](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#isEmpty--)() |
| * + [Set](https://docs.oracle.com/javase/7/docs/api/java/util/Set.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)> | * + [keySet](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#keySet--)() |
| * + [V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html) | * + [put](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#put-K-V-)([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html) key, [V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html) value) Note that the return type is Object, rather than V as in the Map interface. |
| * + void | * + [putAll](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#putAll-java.util.Map-)([Map](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)<? extends [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html),? extends [V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)> mapToCopy) |
| * + [V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html) | * + [remove](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#remove-java.lang.Object-)([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) key) |
| * + int | * + [size](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#size--)() |
| * + [String](https://docs.oracle.com/javase/7/docs/api/java/lang/String.html?is-external=true) | * + [toString](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#toString--)() |
| * + [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)> | * + [values](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#values--)() |

### Methods inherited from class org.apache.commons.collections4.map.[**AbstractIterableMap**](http://docs.google.com/org/apache/commons/collections4/map/AbstractIterableMap.html)[mapIterator](http://docs.google.com/org/apache/commons/collections4/map/AbstractIterableMap.html#mapIterator--)

### 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.[**Map**](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)[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-), [forEach](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#forEach-java.util.function.BiConsumer-), [getOrDefault](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#getOrDefault-java.lang.Object-V-), [merge](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#merge-K-V-java.util.function.BiFunction-), [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-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-)

### Constructor Detail

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

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

#### clear public void clear()See Also: [Map.clear()](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#clear--)

#### containsKey public boolean containsKey([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) key)Parameters: key - key whose presence in this map is to be tested Returns: true if this map contains a mapping for the specified key See Also: [Map.containsKey(Object)](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#containsKey-java.lang.Object-)

#### containsValue public boolean containsValue([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) value)Parameters: value - value whose presence in this map is to be tested Returns: true if this map maps one or more keys to the specified value See Also: [Map.containsValue(Object)](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#containsValue-java.lang.Object-)

#### entrySet public [Set](https://docs.oracle.com/javase/7/docs/api/java/util/Set.html?is-external=true)<[Map.Entry](https://docs.oracle.com/javase/7/docs/api/java/util/Map.Entry.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)>> entrySet()Returns: a set view of the mappings contained in this map See Also: [Map.entrySet()](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#entrySet--)

#### get public [V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html) get([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) key)Parameters: key - the key whose associated value is to be returned Returns: the value to which the specified key is mapped, or null if this map contains no mapping for the key See Also: [Map.get(Object)](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#get-java.lang.Object-)

#### isEmpty public boolean isEmpty()Returns: true if this map contains no key-value mappings See Also: [Map.isEmpty()](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#isEmpty--)

#### keySet public [Set](https://docs.oracle.com/javase/7/docs/api/java/util/Set.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)> keySet()Returns: a set view of the keys contained in this map See Also: [Map.keySet()](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#keySet--)

#### put public [V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html) put([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html) key, [V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html) value) Description copied from interface: [Put](http://docs.google.com/org/apache/commons/collections4/Put.html#put-K-V-) Note that the return type is Object, rather than V as in the Map interface. See the class Javadoc for further info.Parameters: key - key with which the specified value is to be associated value - value to be associated with the specified key Returns: the previous value associated with key, or null if there was no mapping for key. (A null return can also indicate that the map previously associated null with key, if the implementation supports null values.) See Also: [Map.put(Object, Object)](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#put-K-V-)

#### putAll public void putAll([Map](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)<? extends [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html),? extends [V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)> mapToCopy)Parameters: mapToCopy - mappings to be stored in this map See Also: [Map.putAll(Map)](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#putAll-java.util.Map-)

#### remove public [V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html) remove([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) key)Parameters: key - key whose mapping is to be removed from the map Returns: the previous value associated with key, or null if there was no mapping for key. See Also: [Map.remove(Object)](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#remove-java.lang.Object-)

#### size public int size()Returns: the number of key-value mappings in this map See Also: [Map.size()](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#size--)

#### values public [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)> values()Returns: a collection view of the values contained in this map See Also: [Map.values()](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#values--)

#### equals public boolean equals([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) object)Specified by: [equals](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#equals-java.lang.Object-) in interface [Map](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)> Overrides: [equals](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#equals-java.lang.Object-) in class [Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)

#### hashCode public int hashCode()Specified by: [hashCode](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#hashCode--) in interface [Map](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)> Overrides: [hashCode](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#hashCode--) in class [Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)

#### toString public [String](https://docs.oracle.com/javase/7/docs/api/java/lang/String.html?is-external=true) toString()Overrides: [toString](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#toString--) in class [Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)

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