JavaScript is disabled on your browser.

[Skip navigation links](#1fob9te)

* [Overview](http://docs.google.com/overview-summary.html)
* [Package](http://docs.google.com/package-summary.html)
* Class
* [Use](http://docs.google.com/class-use/IndexedCollection.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/collection/CompositeCollection.CollectionMutator.html)
* [Next Class](http://docs.google.com/org/apache/commons/collections4/collection/PredicatedCollection.html)
* [Frames](http://docs.google.com/index.html?org/apache/commons/collections4/collection/IndexedCollection.html)
* [No Frames](http://docs.google.com/IndexedCollection.html)
* [All Classes](http://docs.google.com/allclasses-noframe.html)
* Summary:
* Nested |
* Field |
* [Constr](#3znysh7) |
* [Method](#2et92p0)
* Detail:
* Field |
* [Constr](#2s8eyo1) |
* [Method](#3rdcrjn)

org.apache.commons.collections4.collection

## Class IndexedCollection<K,C>

* [java.lang.Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)
  + [org.apache.commons.collections4.collection.AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)<C>
    - org.apache.commons.collections4.collection.IndexedCollection<K,C>
* Type Parameters: K - the type of object in the index. C - the type of object in the collection. All Implemented Interfaces: [Serializable](https://docs.oracle.com/javase/7/docs/api/java/io/Serializable.html?is-external=true), [Iterable](https://docs.oracle.com/javase/7/docs/api/java/lang/Iterable.html?is-external=true)<C>, [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<C>  
    
  public class IndexedCollection<K,C>  
  extends [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)<C>  
  An IndexedCollection is a Map-like view onto a Collection. It accepts a keyTransformer to define how the keys are converted from the values.  
  Modifications made to this decorator modify the index as well as the decorated [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true). However, modifications to the underlying [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true) will not update the index and it will get out of sync.  
  If modification of the decorated [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true) is unavoidable, then a call to [reindex()](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#reindex--) will update the index to the current contents of the [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true).Since: 4.0 See Also: [Serialized Form](http://docs.google.com/serialized-form.html#org.apache.commons.collections4.collection.IndexedCollection)

### Constructor SummaryConstructors

|  |
| --- |
| * + Constructor and Description |
| * + [IndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#IndexedCollection-java.util.Collection-org.apache.commons.collections4.Transformer-org.apache.commons.collections4.MultiMap-boolean-)([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> coll, [Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html),[K](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> keyTransformer, [MultiMap](http://docs.google.com/org/apache/commons/collections4/MultiMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html),[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> map, boolean uniqueIndex) Create a [IndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html). |

### Method SummaryAll Methods Static Methods Instance Methods Concrete Methods

|  |  |
| --- | --- |
| * + Modifier and Type | * + Method and Description |
| * + boolean | * + [add](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#add-C-)([C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html) object) |
| * + boolean | * + [addAll](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#addAll-java.util.Collection-)([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<? extends [C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> coll) |
| * + void | * + [clear](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#clear--)() |
| * + boolean | * + [contains](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#contains-java.lang.Object-)([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) object) |
| * + boolean | * + [containsAll](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#containsAll-java.util.Collection-)([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<?> coll) |
| * + [C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html) | * + [get](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#get-K-)([K](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html) key) Get the element associated with the given key. |
| * + static <K,C> [IndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)<K,C> | * + [nonUniqueIndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#nonUniqueIndexedCollection-java.util.Collection-org.apache.commons.collections4.Transformer-)([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<C> coll, [Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html)<C,K> keyTransformer) Create an [IndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html) for a non-unique index. |
| * + void | * + [reindex](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#reindex--)() Clears the index and re-indexes the entire decorated [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true). |
| * + boolean | * + [remove](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#remove-java.lang.Object-)([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) object) |
| * + boolean | * + [removeAll](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#removeAll-java.util.Collection-)([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<?> coll) |
| * + boolean | * + [removeIf](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#removeIf-java.util.function.Predicate-)([Predicate](https://docs.oracle.com/javase/8/docs/api/java/util/function/Predicate.html?is-external=true)<? super [C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> filter) |
| * + boolean | * + [retainAll](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#retainAll-java.util.Collection-)([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<?> coll) |
| * + static <K,C> [IndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)<K,C> | * + [uniqueIndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#uniqueIndexedCollection-java.util.Collection-org.apache.commons.collections4.Transformer-)([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<C> coll, [Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html)<C,K> keyTransformer) Create an [IndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html) for a unique index. |
| * + [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> | * + [values](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#values-K-)([K](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html) key) Get all elements associated with the given key. |

### Methods inherited from class org.apache.commons.collections4.collection.[**AbstractCollectionDecorator**](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)[decorated](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#decorated--), [isEmpty](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#isEmpty--), [iterator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#iterator--), [setCollection](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#setCollection-java.util.Collection-), [size](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#size--), [toArray](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#toArray--), [toArray](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#toArray-T:A-), [toString](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#toString--)

### 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--), [equals](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#equals-java.lang.Object-), [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--), [hashCode](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#hashCode--), [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.[**Collection**](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)[equals](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#equals-java.lang.Object-), [hashCode](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#hashCode--), [parallelStream](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#parallelStream--), [spliterator](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#spliterator--), [stream](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#stream--)

### Methods inherited from interface java.lang.[**Iterable**](https://docs.oracle.com/javase/7/docs/api/java/lang/Iterable.html?is-external=true)[forEach](https://docs.oracle.com/javase/7/docs/api/java/lang/Iterable.html?is-external=true#forEach-java.util.function.Consumer-)

### Constructor Detail

#### IndexedCollection public IndexedCollection([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> coll, [Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html),[K](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> keyTransformer, [MultiMap](http://docs.google.com/org/apache/commons/collections4/MultiMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html),[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> map, boolean uniqueIndex) Create a [IndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html).Parameters: coll - decorated [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true) keyTransformer - [Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html) for generating index keys map - map to use as index uniqueIndex - if the index shall enforce uniqueness of index keys

### Method Detail

#### uniqueIndexedCollection public static <K,C> [IndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)<K,C> uniqueIndexedCollection([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<C> coll, [Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html)<C,K> keyTransformer) Create an [IndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html) for a unique index. If an element is added, which maps to an existing key, an [IllegalArgumentException](https://docs.oracle.com/javase/7/docs/api/java/lang/IllegalArgumentException.html?is-external=true) will be thrown.Type Parameters: K - the index object type. C - the collection type. Parameters: coll - the decorated [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true). keyTransformer - the [Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html) for generating index keys. Returns: the created [IndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html).

#### nonUniqueIndexedCollection public static <K,C> [IndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)<K,C> nonUniqueIndexedCollection([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<C> coll, [Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html)<C,K> keyTransformer) Create an [IndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html) for a non-unique index.Type Parameters: K - the index object type. C - the collection type. Parameters: coll - the decorated [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true). keyTransformer - the [Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html) for generating index keys. Returns: the created [IndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html).

#### add public boolean add([C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html) object)Specified by: [add](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#add-E-) in interface [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> Overrides: [add](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#add-E-) in class [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> Throws: [IllegalArgumentException](https://docs.oracle.com/javase/7/docs/api/java/lang/IllegalArgumentException.html?is-external=true) - if the object maps to an existing key and the index enforces a uniqueness constraint

#### addAll public boolean addAll([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<? extends [C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> coll)Specified by: [addAll](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#addAll-java.util.Collection-) in interface [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> Overrides: [addAll](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#addAll-java.util.Collection-) in class [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)>

#### clear public void clear()Specified by: [clear](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#clear--) in interface [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> Overrides: [clear](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#clear--) in class [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)>

#### contains public boolean contains([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) object) Note: uses the index for fast lookupSpecified by: [contains](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#contains-java.lang.Object-) in interface [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> Overrides: [contains](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#contains-java.lang.Object-) in class [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)>

#### containsAll public boolean containsAll([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<?> coll) Note: uses the index for fast lookupSpecified by: [containsAll](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#containsAll-java.util.Collection-) in interface [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> Overrides: [containsAll](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#containsAll-java.util.Collection-) in class [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)>

#### get public [C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html) get([K](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html) key) Get the element associated with the given key. In case of a non-unique index, this method will return the first value associated with the given key. To retrieve all elements associated with a key, use [values(Object)](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#values-K-).Parameters: key - key to look up Returns: element found See Also: [values(Object)](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html#values-K-)

#### values public [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> values([K](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html) key) Get all elements associated with the given key.Parameters: key - key to look up Returns: a collection of elements found, or null if contains(key) == false

#### reindex public void reindex() Clears the index and re-indexes the entire decorated [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true).

#### remove public boolean remove([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) object)Specified by: [remove](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#remove-java.lang.Object-) in interface [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> Overrides: [remove](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#remove-java.lang.Object-) in class [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)>

#### removeIf public boolean removeIf([Predicate](https://docs.oracle.com/javase/8/docs/api/java/util/function/Predicate.html?is-external=true)<? super [C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> filter)Specified by: [removeIf](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#removeIf-java.util.function.Predicate-) in interface [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> Overrides: [removeIf](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#removeIf-java.util.function.Predicate-) in class [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> Since: 4.4

#### removeAll public boolean removeAll([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<?> coll)Specified by: [removeAll](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#removeAll-java.util.Collection-) in interface [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> Overrides: [removeAll](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#removeAll-java.util.Collection-) in class [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)>

#### retainAll public boolean retainAll([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<?> coll)Specified by: [retainAll](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#retainAll-java.util.Collection-) in interface [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)> Overrides: [retainAll](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#retainAll-java.util.Collection-) in class [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)<[C](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)>

[Skip navigation links](#147n2zr)

* [Overview](http://docs.google.com/overview-summary.html)
* [Package](http://docs.google.com/package-summary.html)
* Class
* [Use](http://docs.google.com/class-use/IndexedCollection.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/collection/CompositeCollection.CollectionMutator.html)
* [Next Class](http://docs.google.com/org/apache/commons/collections4/collection/PredicatedCollection.html)
* [Frames](http://docs.google.com/index.html?org/apache/commons/collections4/collection/IndexedCollection.html)
* [No Frames](http://docs.google.com/IndexedCollection.html)
* [All Classes](http://docs.google.com/allclasses-noframe.html)
* Summary:
* Nested |
* Field |
* [Constr](#3znysh7) |
* [Method](#2et92p0)
* Detail:
* Field |
* [Constr](#2s8eyo1) |
* [Method](#3rdcrjn)

Copyright © 2001–2019 [The Apache Software Foundation](https://www.apache.org/). All rights reserved.