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org.apache.commons.collections4.comparators

## Class TransformingComparator<I,O>

* [java.lang.Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)
  + org.apache.commons.collections4.comparators.TransformingComparator<I,O>
* Type Parameters: I - the input type to the transformer O - the output type from the transformer All Implemented Interfaces: [Serializable](https://docs.oracle.com/javase/7/docs/api/java/io/Serializable.html?is-external=true), [Comparator](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true)<I>  
    
  public class TransformingComparator<I,O>  
  extends [Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)  
  implements [Comparator](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true)<I>, [Serializable](https://docs.oracle.com/javase/7/docs/api/java/io/Serializable.html?is-external=true)  
  Decorates another Comparator with transformation behavior. That is, the return value from the transform operation will be passed to the decorated [compare](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#compare-T-T-) method.  
  This class is Serializable from Commons Collections 4.0.Since: 2.1 See Also: [Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html), [ComparableComparator](http://docs.google.com/org/apache/commons/collections4/comparators/ComparableComparator.html), [Serialized Form](http://docs.google.com/serialized-form.html#org.apache.commons.collections4.comparators.TransformingComparator)

### Constructor SummaryConstructors

|  |
| --- |
| * + Constructor and Description |
| * + [TransformingComparator](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html#TransformingComparator-org.apache.commons.collections4.Transformer-)([Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html)<? super [I](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html),? extends [O](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html)> transformer) Constructs an instance with the given Transformer and a [ComparableComparator](http://docs.google.com/org/apache/commons/collections4/comparators/ComparableComparator.html). |
| * + [TransformingComparator](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html#TransformingComparator-org.apache.commons.collections4.Transformer-java.util.Comparator-)([Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html)<? super [I](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html),? extends [O](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html)> transformer, [Comparator](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true)<[O](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html)> decorated) Constructs an instance with the given Transformer and Comparator. |

### Method SummaryAll Methods Instance Methods Concrete Methods

|  |  |
| --- | --- |
| * + Modifier and Type | * + Method and Description |
| * + int | * + [compare](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html#compare-I-I-)([I](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html) obj1, [I](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html) obj2) Returns the result of comparing the values from the transform operation. |
| * + boolean | * + [equals](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html#equals-java.lang.Object-)([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) object) Returns true iff *that* Object is is a [Comparator](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true) whose ordering is known to be equivalent to mine. |
| * + int | * + [hashCode](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html#hashCode--)() Implement a hash code for this comparator that is consistent with [equals](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html#equals-java.lang.Object-). |

### 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--), [toString](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#toString--), [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.[**Comparator**](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true)[comparing](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#comparing-java.util.function.Function-), [comparing](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#comparing-java.util.function.Function-java.util.Comparator-), [comparingDouble](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#comparingDouble-java.util.function.ToDoubleFunction-), [comparingInt](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#comparingInt-java.util.function.ToIntFunction-), [comparingLong](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#comparingLong-java.util.function.ToLongFunction-), [naturalOrder](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#naturalOrder--), [nullsFirst](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#nullsFirst-java.util.Comparator-), [nullsLast](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#nullsLast-java.util.Comparator-), [reversed](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#reversed--), [reverseOrder](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#reverseOrder--), [thenComparing](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#thenComparing-java.util.Comparator-), [thenComparing](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#thenComparing-java.util.function.Function-), [thenComparing](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#thenComparing-java.util.function.Function-java.util.Comparator-), [thenComparingDouble](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#thenComparingDouble-java.util.function.ToDoubleFunction-), [thenComparingInt](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#thenComparingInt-java.util.function.ToIntFunction-), [thenComparingLong](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#thenComparingLong-java.util.function.ToLongFunction-)

### Constructor Detail

#### TransformingComparator public TransformingComparator([Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html)<? super [I](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html),? extends [O](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html)> transformer) Constructs an instance with the given Transformer and a [ComparableComparator](http://docs.google.com/org/apache/commons/collections4/comparators/ComparableComparator.html).Parameters: transformer - what will transform the arguments to compare

#### TransformingComparator public TransformingComparator([Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html)<? super [I](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html),? extends [O](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html)> transformer, [Comparator](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true)<[O](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html)> decorated) Constructs an instance with the given Transformer and Comparator.Parameters: transformer - what will transform the arguments to compare decorated - the decorated Comparator

### Method Detail

#### compare public int compare([I](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html) obj1, [I](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html) obj2) Returns the result of comparing the values from the transform operation.Specified by: [compare](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#compare-T-T-) in interface [Comparator](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true)<[I](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html)> Parameters: obj1 - the first object to transform then compare obj2 - the second object to transform then compare Returns: negative if obj1 is less, positive if greater, zero if equal

#### hashCode public int hashCode() Implement a hash code for this comparator that is consistent with [equals](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html#equals-java.lang.Object-).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) Returns: a hash code for this comparator.

#### equals public boolean equals([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) object) Returns true iff *that* Object is is a [Comparator](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true) whose ordering is known to be equivalent to mine. This implementation returns true iff *that* is a [TransformingComparator](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.html) whose attributes are equal to mine.Specified by: [equals](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true#equals-java.lang.Object-) in interface [Comparator](https://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html?is-external=true)<[I](http://docs.google.com/org/apache/commons/collections4/comparators/TransformingComparator.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) Parameters: object - the object to compare to Returns: true if equal

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