| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Iterator.html) | [**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 CLASS**](http://docs.google.com/java/util/InvalidPropertiesFormatException.html)   [**NEXT CLASS**](http://docs.google.com/java/util/LinkedHashMap.html) | [**FRAMES**](http://docs.google.com/index.html?java/util/Iterator.html)    [**NO FRAMES**](http://docs.google.com/Iterator.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#3znysh7) | DETAIL: FIELD | CONSTR | [METHOD](#2et92p0) |

## **java.util**

Interface Iterator<E>

**All Known Subinterfaces:** [ListIterator](http://docs.google.com/java/util/ListIterator.html)<E>, [XMLEventReader](http://docs.google.com/javax/xml/stream/XMLEventReader.html) **All Known Implementing Classes:** [BeanContextSupport.BCSIterator](http://docs.google.com/java/beans/beancontext/BeanContextSupport.BCSIterator.html), [EventReaderDelegate](http://docs.google.com/javax/xml/stream/util/EventReaderDelegate.html), [Scanner](http://docs.google.com/java/util/Scanner.html)

public interface **Iterator<E>**

An iterator over a collection. Iterator takes the place of Enumeration in the Java collections framework. Iterators differ from enumerations in two ways:

* Iterators allow the caller to remove elements from the underlying collection during the iteration with well-defined semantics.
* Method names have been improved.

This interface is a member of the  [Java Collections Framework](http://docs.google.com/technotes/guides/collections/index.html).

**Since:** 1.2 **See Also:**[Collection](http://docs.google.com/java/util/Collection.html), [ListIterator](http://docs.google.com/java/util/ListIterator.html), [Enumeration](http://docs.google.com/java/util/Enumeration.html)

| **Method Summary** | |
| --- | --- |
| boolean | [**hasNext**](http://docs.google.com/java/util/Iterator.html#hasNext())()            Returns true if the iteration has more elements. |
| [E](http://docs.google.com/java/util/Iterator.html) | [**next**](http://docs.google.com/java/util/Iterator.html#next())()            Returns the next element in the iteration. |
| void | [**remove**](http://docs.google.com/java/util/Iterator.html#remove())()            Removes from the underlying collection the last element returned by the iterator (optional operation). |

| **Method Detail** |
| --- |

### hasNext

boolean **hasNext**()

Returns true if the iteration has more elements. (In other words, returns true if next would return an element rather than throwing an exception.)

**Returns:**true if the iterator has more elements.

### next

[E](http://docs.google.com/java/util/Iterator.html) **next**()

Returns the next element in the iteration.

**Returns:**the next element in the iteration. **Throws:** [NoSuchElementException](http://docs.google.com/java/util/NoSuchElementException.html) - iteration has no more elements.

### remove

void **remove**()

Removes from the underlying collection the last element returned by the iterator (optional operation). This method can be called only once per call to next. The behavior of an iterator is unspecified if the underlying collection is modified while the iteration is in progress in any way other than by calling this method.

**Throws:** [UnsupportedOperationException](http://docs.google.com/java/lang/UnsupportedOperationException.html) - if the remove operation is not supported by this Iterator. [IllegalStateException](http://docs.google.com/java/lang/IllegalStateException.html) - if the next method has not yet been called, or the remove method has already been called after the last call to the next method.

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Iterator.html) | [**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 CLASS**](http://docs.google.com/java/util/InvalidPropertiesFormatException.html)   [**NEXT CLASS**](http://docs.google.com/java/util/LinkedHashMap.html) | [**FRAMES**](http://docs.google.com/index.html?java/util/Iterator.html)    [**NO FRAMES**](http://docs.google.com/Iterator.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#3znysh7) | DETAIL: FIELD | CONSTR | [METHOD](#2et92p0) |

[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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