| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/FlatteningPathIterator.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/awt/geom/Ellipse2D.Float.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/geom/GeneralPath.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/geom/FlatteningPathIterator.html)    [**NO FRAMES**](http://docs.google.com/FlatteningPathIterator.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#tyjcwt) | [METHOD](#3dy6vkm) | DETAIL: FIELD | [CONSTR](#4d34og8) | [METHOD](#3rdcrjn) |

## **java.awt.geom**

Class FlatteningPathIterator

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **java.awt.geom.FlatteningPathIterator**

**All Implemented Interfaces:** [PathIterator](http://docs.google.com/java/awt/geom/PathIterator.html)

public class **FlatteningPathIterator**extends [Object](http://docs.google.com/java/lang/Object.html)implements [PathIterator](http://docs.google.com/java/awt/geom/PathIterator.html)

The FlatteningPathIterator class returns a flattened view of another [PathIterator](http://docs.google.com/java/awt/geom/PathIterator.html) object. Other [Shape](http://docs.google.com/java/awt/Shape.html) classes can use this class to provide flattening behavior for their paths without having to perform the interpolation calculations themselves.

| **Field Summary** | |
| --- | --- |

| **Fields inherited from interface java.awt.geom.**[**PathIterator**](http://docs.google.com/java/awt/geom/PathIterator.html) |
| --- |
| [SEG\_CLOSE](http://docs.google.com/java/awt/geom/PathIterator.html#SEG_CLOSE), [SEG\_CUBICTO](http://docs.google.com/java/awt/geom/PathIterator.html#SEG_CUBICTO), [SEG\_LINETO](http://docs.google.com/java/awt/geom/PathIterator.html#SEG_LINETO), [SEG\_MOVETO](http://docs.google.com/java/awt/geom/PathIterator.html#SEG_MOVETO), [SEG\_QUADTO](http://docs.google.com/java/awt/geom/PathIterator.html#SEG_QUADTO), [WIND\_EVEN\_ODD](http://docs.google.com/java/awt/geom/PathIterator.html#WIND_EVEN_ODD), [WIND\_NON\_ZERO](http://docs.google.com/java/awt/geom/PathIterator.html#WIND_NON_ZERO) |

| **Constructor Summary** | |
| --- | --- |
| [**FlatteningPathIterator**](http://docs.google.com/java/awt/geom/FlatteningPathIterator.html#FlatteningPathIterator(java.awt.geom.PathIterator,%20double))([PathIterator](http://docs.google.com/java/awt/geom/PathIterator.html) src, double flatness)            Constructs a new FlatteningPathIterator object that flattens a path as it iterates over it. |
| [**FlatteningPathIterator**](http://docs.google.com/java/awt/geom/FlatteningPathIterator.html#FlatteningPathIterator(java.awt.geom.PathIterator,%20double,%20int))([PathIterator](http://docs.google.com/java/awt/geom/PathIterator.html) src, double flatness, int limit)            Constructs a new FlatteningPathIterator object that flattens a path as it iterates over it. |

| **Method Summary** | |
| --- | --- |
| int | [**currentSegment**](http://docs.google.com/java/awt/geom/FlatteningPathIterator.html#currentSegment(double%5B%5D))(double[] coords)            Returns the coordinates and type of the current path segment in the iteration. |
| int | [**currentSegment**](http://docs.google.com/java/awt/geom/FlatteningPathIterator.html#currentSegment(float%5B%5D))(float[] coords)            Returns the coordinates and type of the current path segment in the iteration. |
| double | [**getFlatness**](http://docs.google.com/java/awt/geom/FlatteningPathIterator.html#getFlatness())()            Returns the flatness of this iterator. |
| int | [**getRecursionLimit**](http://docs.google.com/java/awt/geom/FlatteningPathIterator.html#getRecursionLimit())()            Returns the recursion limit of this iterator. |
| int | [**getWindingRule**](http://docs.google.com/java/awt/geom/FlatteningPathIterator.html#getWindingRule())()            Returns the winding rule for determining the interior of the path. |
| boolean | [**isDone**](http://docs.google.com/java/awt/geom/FlatteningPathIterator.html#isDone())()            Tests if the iteration is complete. |
| void | [**next**](http://docs.google.com/java/awt/geom/FlatteningPathIterator.html#next())()            Moves the iterator to the next segment of the path forwards along the primary direction of traversal as long as there are more points in that direction. |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [clone](http://docs.google.com/java/lang/Object.html#clone()), [equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [hashCode](http://docs.google.com/java/lang/Object.html#hashCode()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [toString](http://docs.google.com/java/lang/Object.html#toString()), [wait](http://docs.google.com/java/lang/Object.html#wait()), [wait](http://docs.google.com/java/lang/Object.html#wait(long)), [wait](http://docs.google.com/java/lang/Object.html#wait(long,%20int)) |

| **Constructor Detail** |
| --- |

### FlatteningPathIterator

public **FlatteningPathIterator**([PathIterator](http://docs.google.com/java/awt/geom/PathIterator.html) src,  
 double flatness)

Constructs a new FlatteningPathIterator object that flattens a path as it iterates over it. The iterator does not subdivide any curve read from the source iterator to more than 10 levels of subdivision which yields a maximum of 1024 line segments per curve.

**Parameters:**src - the original unflattened path being iterated overflatness - the maximum allowable distance between the control points and the flattened curve

### FlatteningPathIterator

public **FlatteningPathIterator**([PathIterator](http://docs.google.com/java/awt/geom/PathIterator.html) src,  
 double flatness,  
 int limit)

Constructs a new FlatteningPathIterator object that flattens a path as it iterates over it. The limit parameter allows you to control the maximum number of recursive subdivisions that the iterator can make before it assumes that the curve is flat enough without measuring against the flatness parameter. The flattened iteration therefore never generates more than a maximum of (2^limit) line segments per curve.

**Parameters:**src - the original unflattened path being iterated overflatness - the maximum allowable distance between the control points and the flattened curvelimit - the maximum number of recursive subdivisions allowed for any curved segment **Throws:** IllegalArgumentException - if flatness or limit is less than zero

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

### getFlatness

public double **getFlatness**()

Returns the flatness of this iterator.

**Returns:**the flatness of this FlatteningPathIterator.

### getRecursionLimit

public int **getRecursionLimit**()

Returns the recursion limit of this iterator.

**Returns:**the recursion limit of this FlatteningPathIterator.

### getWindingRule

public int **getWindingRule**()

Returns the winding rule for determining the interior of the path.

**Specified by:**[getWindingRule](http://docs.google.com/java/awt/geom/PathIterator.html#getWindingRule()) in interface [PathIterator](http://docs.google.com/java/awt/geom/PathIterator.html) **Returns:**the winding rule of the original unflattened path being iterated over.**See Also:**[PathIterator.WIND\_EVEN\_ODD](http://docs.google.com/java/awt/geom/PathIterator.html#WIND_EVEN_ODD), [PathIterator.WIND\_NON\_ZERO](http://docs.google.com/java/awt/geom/PathIterator.html#WIND_NON_ZERO)

### isDone

public boolean **isDone**()

Tests if the iteration is complete.

**Specified by:**[isDone](http://docs.google.com/java/awt/geom/PathIterator.html#isDone()) in interface [PathIterator](http://docs.google.com/java/awt/geom/PathIterator.html) **Returns:**true if all the segments have been read; false otherwise.

### next

public void **next**()

Moves the iterator to the next segment of the path forwards along the primary direction of traversal as long as there are more points in that direction.

**Specified by:**[next](http://docs.google.com/java/awt/geom/PathIterator.html#next()) in interface [PathIterator](http://docs.google.com/java/awt/geom/PathIterator.html)

### currentSegment

public int **currentSegment**(float[] coords)

Returns the coordinates and type of the current path segment in the iteration. The return value is the path segment type: SEG\_MOVETO, SEG\_LINETO, or SEG\_CLOSE. A float array of length 6 must be passed in and can be used to store the coordinates of the point(s). Each point is stored as a pair of float x,y coordinates. SEG\_MOVETO and SEG\_LINETO types return one point, and SEG\_CLOSE does not return any points.

**Specified by:**[currentSegment](http://docs.google.com/java/awt/geom/PathIterator.html#currentSegment(float%5B%5D)) in interface [PathIterator](http://docs.google.com/java/awt/geom/PathIterator.html) **Parameters:**coords - an array that holds the data returned from this method **Returns:**the path segment type of the current path segment. **Throws:** NoSuchElementException - if there are no more elements in the flattening path to be returned.**See Also:**[PathIterator.SEG\_MOVETO](http://docs.google.com/java/awt/geom/PathIterator.html#SEG_MOVETO), [PathIterator.SEG\_LINETO](http://docs.google.com/java/awt/geom/PathIterator.html#SEG_LINETO), [PathIterator.SEG\_CLOSE](http://docs.google.com/java/awt/geom/PathIterator.html#SEG_CLOSE)

### currentSegment

public int **currentSegment**(double[] coords)

Returns the coordinates and type of the current path segment in the iteration. The return value is the path segment type: SEG\_MOVETO, SEG\_LINETO, or SEG\_CLOSE. A double array of length 6 must be passed in and can be used to store the coordinates of the point(s). Each point is stored as a pair of double x,y coordinates. SEG\_MOVETO and SEG\_LINETO types return one point, and SEG\_CLOSE does not return any points.

**Specified by:**[currentSegment](http://docs.google.com/java/awt/geom/PathIterator.html#currentSegment(double%5B%5D)) in interface [PathIterator](http://docs.google.com/java/awt/geom/PathIterator.html) **Parameters:**coords - an array that holds the data returned from this method **Returns:**the path segment type of the current path segment. **Throws:** NoSuchElementException - if there are no more elements in the flattening path to be returned.**See Also:**[PathIterator.SEG\_MOVETO](http://docs.google.com/java/awt/geom/PathIterator.html#SEG_MOVETO), [PathIterator.SEG\_LINETO](http://docs.google.com/java/awt/geom/PathIterator.html#SEG_LINETO), [PathIterator.SEG\_CLOSE](http://docs.google.com/java/awt/geom/PathIterator.html#SEG_CLOSE)

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/FlatteningPathIterator.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/awt/geom/Ellipse2D.Float.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/geom/GeneralPath.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/geom/FlatteningPathIterator.html)    [**NO FRAMES**](http://docs.google.com/FlatteningPathIterator.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#tyjcwt) | [METHOD](#3dy6vkm) | DETAIL: FIELD | [CONSTR](#4d34og8) | [METHOD](#3rdcrjn) |

[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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