| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/ShapeGraphicAttribute.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/font/OpenType.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/font/TextAttribute.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/font/ShapeGraphicAttribute.html)    [**NO FRAMES**](http://docs.google.com/ShapeGraphicAttribute.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#tyjcwt) | [METHOD](#3dy6vkm) | DETAIL: [FIELD](#2s8eyo1) | [CONSTR](#26in1rg) | [METHOD](#35nkun2) |

## **java.awt.font**

Class ShapeGraphicAttribute

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 [java.awt.font.GraphicAttribute](http://docs.google.com/java/awt/font/GraphicAttribute.html)  
 **java.awt.font.ShapeGraphicAttribute**

public final class **ShapeGraphicAttribute**extends [GraphicAttribute](http://docs.google.com/java/awt/font/GraphicAttribute.html)

The ShapeGraphicAttribute class is an implementation of [GraphicAttribute](http://docs.google.com/java/awt/font/GraphicAttribute.html) that draws shapes in a [TextLayout](http://docs.google.com/java/awt/font/TextLayout.html).

**See Also:**[GraphicAttribute](http://docs.google.com/java/awt/font/GraphicAttribute.html)

| **Field Summary** | |
| --- | --- |
| static boolean | [**FILL**](http://docs.google.com/java/awt/font/ShapeGraphicAttribute.html#FILL)            A key indicating the shape should be filled. |
| static boolean | [**STROKE**](http://docs.google.com/java/awt/font/ShapeGraphicAttribute.html#STROKE)            A key indicating the shape should be stroked with a 1-pixel wide stroke. |

| **Fields inherited from class java.awt.font.**[**GraphicAttribute**](http://docs.google.com/java/awt/font/GraphicAttribute.html) |
| --- |
| [BOTTOM\_ALIGNMENT](http://docs.google.com/java/awt/font/GraphicAttribute.html#BOTTOM_ALIGNMENT), [CENTER\_BASELINE](http://docs.google.com/java/awt/font/GraphicAttribute.html#CENTER_BASELINE), [HANGING\_BASELINE](http://docs.google.com/java/awt/font/GraphicAttribute.html#HANGING_BASELINE), [ROMAN\_BASELINE](http://docs.google.com/java/awt/font/GraphicAttribute.html#ROMAN_BASELINE), [TOP\_ALIGNMENT](http://docs.google.com/java/awt/font/GraphicAttribute.html#TOP_ALIGNMENT) |

| **Constructor Summary** | |
| --- | --- |
| [**ShapeGraphicAttribute**](http://docs.google.com/java/awt/font/ShapeGraphicAttribute.html#ShapeGraphicAttribute(java.awt.Shape,%20int,%20boolean))([Shape](http://docs.google.com/java/awt/Shape.html) shape, int alignment, boolean stroke)            Constructs a ShapeGraphicAttribute for the specified [Shape](http://docs.google.com/java/awt/Shape.html). |

| **Method Summary** | |
| --- | --- |
| void | [**draw**](http://docs.google.com/java/awt/font/ShapeGraphicAttribute.html#draw(java.awt.Graphics2D,%20float,%20float))([Graphics2D](http://docs.google.com/java/awt/Graphics2D.html) graphics, float x, float y)            Renders this GraphicAttribute at the specified location. |
| boolean | [**equals**](http://docs.google.com/java/awt/font/ShapeGraphicAttribute.html#equals(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) rhs)            Compares this ShapeGraphicAttribute to the specified Object. |
| boolean | [**equals**](http://docs.google.com/java/awt/font/ShapeGraphicAttribute.html#equals(java.awt.font.ShapeGraphicAttribute))([ShapeGraphicAttribute](http://docs.google.com/java/awt/font/ShapeGraphicAttribute.html) rhs)            Compares this ShapeGraphicAttribute to the specified ShapeGraphicAttribute. |
| float | [**getAdvance**](http://docs.google.com/java/awt/font/ShapeGraphicAttribute.html#getAdvance())()            Returns the advance of this ShapeGraphicAttribute. |
| float | [**getAscent**](http://docs.google.com/java/awt/font/ShapeGraphicAttribute.html#getAscent())()            Returns the ascent of this ShapeGraphicAttribute. |
| [Rectangle2D](http://docs.google.com/java/awt/geom/Rectangle2D.html) | [**getBounds**](http://docs.google.com/java/awt/font/ShapeGraphicAttribute.html#getBounds())()            Returns a [Rectangle2D](http://docs.google.com/java/awt/geom/Rectangle2D.html) that encloses all of the bits drawn by this ShapeGraphicAttribute relative to the rendering position. |
| float | [**getDescent**](http://docs.google.com/java/awt/font/ShapeGraphicAttribute.html#getDescent())()            Returns the descent of this ShapeGraphicAttribute. |
| [Shape](http://docs.google.com/java/awt/Shape.html) | [**getOutline**](http://docs.google.com/java/awt/font/ShapeGraphicAttribute.html#getOutline(java.awt.geom.AffineTransform))([AffineTransform](http://docs.google.com/java/awt/geom/AffineTransform.html) tx)            Return a [Shape](http://docs.google.com/java/awt/Shape.html) that represents the region that this ShapeGraphicAttribute renders. |
| int | [**hashCode**](http://docs.google.com/java/awt/font/ShapeGraphicAttribute.html#hashCode())()            Returns a hashcode for this ShapeGraphicAttribute. |

| **Methods inherited from class java.awt.font.**[**GraphicAttribute**](http://docs.google.com/java/awt/font/GraphicAttribute.html) |
| --- |
| [getAlignment](http://docs.google.com/java/awt/font/GraphicAttribute.html#getAlignment()), [getJustificationInfo](http://docs.google.com/java/awt/font/GraphicAttribute.html#getJustificationInfo()) |

| **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()), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [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)) |

| **Field Detail** |
| --- |

### STROKE

public static final boolean **STROKE**

A key indicating the shape should be stroked with a 1-pixel wide stroke.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.awt.font.ShapeGraphicAttribute.STROKE)

### FILL

public static final boolean **FILL**

A key indicating the shape should be filled.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#java.awt.font.ShapeGraphicAttribute.FILL)

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

### ShapeGraphicAttribute

public **ShapeGraphicAttribute**([Shape](http://docs.google.com/java/awt/Shape.html) shape,  
 int alignment,  
 boolean stroke)

Constructs a ShapeGraphicAttribute for the specified [Shape](http://docs.google.com/java/awt/Shape.html).

**Parameters:**shape - the Shape to render. The Shape is rendered with its origin at the origin of this ShapeGraphicAttribute in the host TextLayout. This object maintains a reference to shape.alignment - one of the alignments from this ShapeGraphicAttribute.stroke - true if the Shape should be stroked; false if the Shape should be filled.

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

### getAscent

public float **getAscent**()

Returns the ascent of this ShapeGraphicAttribute. The ascent of a ShapeGraphicAttribute is the positive distance from the origin of its Shape to the top of bounds of its Shape.

**Specified by:**[getAscent](http://docs.google.com/java/awt/font/GraphicAttribute.html#getAscent()) in class [GraphicAttribute](http://docs.google.com/java/awt/font/GraphicAttribute.html) **Returns:**the ascent of this ShapeGraphicAttribute.**See Also:**[GraphicAttribute.getBounds()](http://docs.google.com/java/awt/font/GraphicAttribute.html#getBounds())

### getDescent

public float **getDescent**()

Returns the descent of this ShapeGraphicAttribute. The descent of a ShapeGraphicAttribute is the distance from the origin of its Shape to the bottom of the bounds of its Shape.

**Specified by:**[getDescent](http://docs.google.com/java/awt/font/GraphicAttribute.html#getDescent()) in class [GraphicAttribute](http://docs.google.com/java/awt/font/GraphicAttribute.html) **Returns:**the descent of this ShapeGraphicAttribute.**See Also:**[GraphicAttribute.getBounds()](http://docs.google.com/java/awt/font/GraphicAttribute.html#getBounds())

### getAdvance

public float **getAdvance**()

Returns the advance of this ShapeGraphicAttribute. The advance of a ShapeGraphicAttribute is the distance from the origin of its Shape to the right side of the bounds of its Shape.

**Specified by:**[getAdvance](http://docs.google.com/java/awt/font/GraphicAttribute.html#getAdvance()) in class [GraphicAttribute](http://docs.google.com/java/awt/font/GraphicAttribute.html) **Returns:**the advance of this ShapeGraphicAttribute.**See Also:**[GraphicAttribute.getBounds()](http://docs.google.com/java/awt/font/GraphicAttribute.html#getBounds())

### draw

public void **draw**([Graphics2D](http://docs.google.com/java/awt/Graphics2D.html) graphics,  
 float x,  
 float y)

Renders this GraphicAttribute at the specified location.

**Specified by:**[draw](http://docs.google.com/java/awt/font/GraphicAttribute.html#draw(java.awt.Graphics2D,%20float,%20float)) in class [GraphicAttribute](http://docs.google.com/java/awt/font/GraphicAttribute.html) **Parameters:**graphics - the [Graphics2D](http://docs.google.com/java/awt/Graphics2D.html) into which to render the graphicx - the user-space X coordinate where the graphic is renderedy - the user-space Y coordinate where the graphic is rendered

### getBounds

public [Rectangle2D](http://docs.google.com/java/awt/geom/Rectangle2D.html) **getBounds**()

Returns a [Rectangle2D](http://docs.google.com/java/awt/geom/Rectangle2D.html) that encloses all of the bits drawn by this ShapeGraphicAttribute relative to the rendering position. A graphic can be rendered beyond its origin, ascent, descent, or advance; but if it does, this method's implementation should indicate where the graphic is rendered.

**Overrides:**[getBounds](http://docs.google.com/java/awt/font/GraphicAttribute.html#getBounds()) in class [GraphicAttribute](http://docs.google.com/java/awt/font/GraphicAttribute.html) **Returns:**a Rectangle2D that encloses all of the bits rendered by this ShapeGraphicAttribute.

### getOutline

public [Shape](http://docs.google.com/java/awt/Shape.html) **getOutline**([AffineTransform](http://docs.google.com/java/awt/geom/AffineTransform.html) tx)

Return a [Shape](http://docs.google.com/java/awt/Shape.html) that represents the region that this ShapeGraphicAttribute renders. This is used when a [TextLayout](http://docs.google.com/java/awt/font/TextLayout.html) is requested to return the outline of the text. The (untransformed) shape must not extend outside the rectangular bounds returned by getBounds.

**Overrides:**[getOutline](http://docs.google.com/java/awt/font/GraphicAttribute.html#getOutline(java.awt.geom.AffineTransform)) in class [GraphicAttribute](http://docs.google.com/java/awt/font/GraphicAttribute.html) **Parameters:**tx - an optional [AffineTransform](http://docs.google.com/java/awt/geom/AffineTransform.html) to apply to the this ShapeGraphicAttribute. This can be null. **Returns:**the Shape representing this graphic attribute, suitable for stroking or filling.**Since:** 1.6

### hashCode

public int **hashCode**()

Returns a hashcode for this ShapeGraphicAttribute.

**Overrides:**[hashCode](http://docs.google.com/java/lang/Object.html#hashCode()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a hash code value for this ShapeGraphicAttribute.**See Also:**[Object.equals(java.lang.Object)](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### equals

public boolean **equals**([Object](http://docs.google.com/java/lang/Object.html) rhs)

Compares this ShapeGraphicAttribute to the specified Object.

**Overrides:**[equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)) in class [Object](http://docs.google.com/java/lang/Object.html) **Parameters:**rhs - the Object to compare for equality **Returns:**true if this ShapeGraphicAttribute equals rhs; false otherwise.**See Also:**[Object.hashCode()](http://docs.google.com/java/lang/Object.html#hashCode()), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### equals

public boolean **equals**([ShapeGraphicAttribute](http://docs.google.com/java/awt/font/ShapeGraphicAttribute.html) rhs)

Compares this ShapeGraphicAttribute to the specified ShapeGraphicAttribute.

**Parameters:**rhs - the ShapeGraphicAttribute to compare for equality **Returns:**true if this ShapeGraphicAttribute equals rhs; false otherwise.

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/ShapeGraphicAttribute.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/font/OpenType.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/font/TextAttribute.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/font/ShapeGraphicAttribute.html)    [**NO FRAMES**](http://docs.google.com/ShapeGraphicAttribute.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#tyjcwt) | [METHOD](#3dy6vkm) | DETAIL: [FIELD](#2s8eyo1) | [CONSTR](#26in1rg) | [METHOD](#35nkun2) |

[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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