| | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**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/Searcher.html)   [**NEXT CLASS**](http://docs.google.com/ShapeComponent.MyMouseAdapter.html) | [**FRAMES**](http://docs.google.com/index.html?ShapeComponent.html)    [**NO FRAMES**](http://docs.google.com/ShapeComponent.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: [NESTED](#3znysh7) | [FIELD](#4d34og8) | [CONSTR](#3rdcrjn) | [METHOD](#26in1rg) | DETAIL: FIELD | [CONSTR](#2jxsxqh) | [METHOD](#4i7ojhp) |

## Class ShapeComponent

[java.lang.Object](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true)  
 [java.awt.Component](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true)  
 [java.awt.Container](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true)  
 [javax.swing.JComponent](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true)  
 **ShapeComponent**

**All Implemented Interfaces:** [ImageObserver](http://java.sun.com/javase/6/docs/api/java/awt/image/ImageObserver.html?is-external=true), [MenuContainer](http://java.sun.com/javase/6/docs/api/java/awt/MenuContainer.html?is-external=true), [Serializable](http://java.sun.com/javase/6/docs/api/java/io/Serializable.html?is-external=true), [RegionInterface](http://docs.google.com/RegionInterface.html)

public class **ShapeComponent**extends [JComponent](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true)implements [RegionInterface](http://docs.google.com/RegionInterface.html)

Class ShapeCanvas: holds shapes in a custom drawn area and handles a region selection Copyright Georgia Institute of Technology 2007

**Author:** Barb Ericson ericson@cc.gatech.edu **See Also:**[Serialized Form](http://docs.google.com/serialized-form.html#ShapeComponent)

| **Nested Class Summary** | |
| --- | --- |
| (package private)  class | [**ShapeComponent.MyMouseAdapter**](http://docs.google.com/ShapeComponent.MyMouseAdapter.html)            An inner class for handling the mouse listener interface |
| (package private)  class | [**ShapeComponent.MyMouseMotionAdapter**](http://docs.google.com/ShapeComponent.MyMouseMotionAdapter.html)            Inner class for handling the mouse motion listener |

| **Nested classes/interfaces inherited from class javax.swing.**[**JComponent**](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true) |
| --- |
| [JComponent.AccessibleJComponent](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.AccessibleJComponent.html?is-external=true) |

| **Nested classes/interfaces inherited from class java.awt.**[**Container**](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true) |
| --- |
| [Container.AccessibleAWTContainer](http://java.sun.com/javase/6/docs/api/java/awt/Container.AccessibleAWTContainer.html?is-external=true) |

| **Nested classes/interfaces inherited from class java.awt.**[**Component**](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true) |
| --- |
| [Component.AccessibleAWTComponent](http://java.sun.com/javase/6/docs/api/java/awt/Component.AccessibleAWTComponent.html?is-external=true), [Component.BaselineResizeBehavior](http://java.sun.com/javase/6/docs/api/java/awt/Component.BaselineResizeBehavior.html?is-external=true), [Component.BltBufferStrategy](http://java.sun.com/javase/6/docs/api/java/awt/Component.BltBufferStrategy.html?is-external=true), [Component.FlipBufferStrategy](http://java.sun.com/javase/6/docs/api/java/awt/Component.FlipBufferStrategy.html?is-external=true) |

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

| **Fields inherited from class javax.swing.**[**JComponent**](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true) |
| --- |
| [accessibleContext](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#accessibleContext), [listenerList](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#listenerList), [TOOL\_TIP\_TEXT\_KEY](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#TOOL_TIP_TEXT_KEY), [ui](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#ui), [UNDEFINED\_CONDITION](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#UNDEFINED_CONDITION), [WHEN\_ANCESTOR\_OF\_FOCUSED\_COMPONENT](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#WHEN_ANCESTOR_OF_FOCUSED_COMPONENT), [WHEN\_FOCUSED](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#WHEN_FOCUSED), [WHEN\_IN\_FOCUSED\_WINDOW](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#WHEN_IN_FOCUSED_WINDOW) |

| **Fields inherited from class java.awt.**[**Component**](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true) |
| --- |
| [BOTTOM\_ALIGNMENT](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#BOTTOM_ALIGNMENT), [CENTER\_ALIGNMENT](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#CENTER_ALIGNMENT), [LEFT\_ALIGNMENT](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#LEFT_ALIGNMENT), [RIGHT\_ALIGNMENT](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#RIGHT_ALIGNMENT), [TOP\_ALIGNMENT](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#TOP_ALIGNMENT) |

| **Fields inherited from interface java.awt.image.**[**ImageObserver**](http://java.sun.com/javase/6/docs/api/java/awt/image/ImageObserver.html?is-external=true) |
| --- |
| [ABORT](http://java.sun.com/javase/6/docs/api/java/awt/image/ImageObserver.html?is-external=true#ABORT), [ALLBITS](http://java.sun.com/javase/6/docs/api/java/awt/image/ImageObserver.html?is-external=true#ALLBITS), [ERROR](http://java.sun.com/javase/6/docs/api/java/awt/image/ImageObserver.html?is-external=true#ERROR), [FRAMEBITS](http://java.sun.com/javase/6/docs/api/java/awt/image/ImageObserver.html?is-external=true#FRAMEBITS), [HEIGHT](http://java.sun.com/javase/6/docs/api/java/awt/image/ImageObserver.html?is-external=true#HEIGHT), [PROPERTIES](http://java.sun.com/javase/6/docs/api/java/awt/image/ImageObserver.html?is-external=true#PROPERTIES), [SOMEBITS](http://java.sun.com/javase/6/docs/api/java/awt/image/ImageObserver.html?is-external=true#SOMEBITS), [WIDTH](http://java.sun.com/javase/6/docs/api/java/awt/image/ImageObserver.html?is-external=true#WIDTH) |

| **Constructor Summary** | |
| --- | --- |
| [**ShapeComponent**](http://docs.google.com/ShapeComponent.html#ShapeComponent())()            A constructor that uses the default size |
| [**ShapeComponent**](http://docs.google.com/ShapeComponent.html#ShapeComponent(java.awt.image.BufferedImage))([BufferedImage](http://java.sun.com/javase/6/docs/api/java/awt/image/BufferedImage.html?is-external=true) image)            A constructor that takes a buffered image for the background |
| [**ShapeComponent**](http://docs.google.com/ShapeComponent.html#ShapeComponent(int,%20int))(int width, int height)            A constructor that takes the width and height |

| **Method Summary** | |
| --- | --- |
| void | [**add**](http://docs.google.com/ShapeComponent.html#add(AbstractShape))([AbstractShape](http://docs.google.com/AbstractShape.html) shape)            Method to add a shape to the shape vector |
| void | [**clearShapes**](http://docs.google.com/ShapeComponent.html#clearShapes())()            Clear all shapes out of the shape vector |
| static void | [**main**](http://docs.google.com/ShapeComponent.html#main(java.lang.String%5B%5D))([String](http://java.sun.com/javase/6/docs/api/java/lang/String.html?is-external=true)[] argv) |
| void | [**paintComponent**](http://docs.google.com/ShapeComponent.html#paintComponent(java.awt.Graphics))([Graphics](http://java.sun.com/javase/6/docs/api/java/awt/Graphics.html?is-external=true) g)            Method to paint the shape canvas and all objects in it |
| void | [**remove**](http://docs.google.com/ShapeComponent.html#remove(int))(int index)            Method to remove a shape given the index |
| void | [**remove**](http://docs.google.com/ShapeComponent.html#remove(java.awt.Shape))([Shape](http://java.sun.com/javase/6/docs/api/java/awt/Shape.html?is-external=true) shape)            Method to remove a shape from the shape vector |
| void | [**setBackgroundImage**](http://docs.google.com/ShapeComponent.html#setBackgroundImage(java.awt.image.BufferedImage))([BufferedImage](http://java.sun.com/javase/6/docs/api/java/awt/image/BufferedImage.html?is-external=true) image)            Method to set the background image to select the region from |
| void | [**setShape**](http://docs.google.com/ShapeComponent.html#setShape(java.lang.String))([String](http://java.sun.com/javase/6/docs/api/java/lang/String.html?is-external=true) shapeType)            Set the type of the shape that will be created when the user clicks in the shape canvas. |
| void | [**setVideoCapture**](http://docs.google.com/ShapeComponent.html#setVideoCapture(VideoCapturer))([VideoCapturer](http://docs.google.com/VideoCapturer.html) handler) |
| void | [**update**](http://docs.google.com/ShapeComponent.html#update(java.awt.Graphics))([Graphics](http://java.sun.com/javase/6/docs/api/java/awt/Graphics.html?is-external=true) g)            Update normally clears the background and calls paint override it here to just call paint |

| **Methods inherited from class javax.swing.**[**JComponent**](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true) |
| --- |
| [addAncestorListener](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#addAncestorListener(javax.swing.event.AncestorListener)), [addNotify](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#addNotify()), [addVetoableChangeListener](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#addVetoableChangeListener(java.beans.VetoableChangeListener)), [computeVisibleRect](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#computeVisibleRect(java.awt.Rectangle)), [contains](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#contains(int,%20int)), [createToolTip](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#createToolTip()), [disable](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#disable()), [enable](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#enable()), [firePropertyChange](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#firePropertyChange(java.lang.String,%20boolean,%20boolean)), [firePropertyChange](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#firePropertyChange(java.lang.String,%20char,%20char)), [firePropertyChange](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#firePropertyChange(java.lang.String,%20int,%20int)), [fireVetoableChange](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#fireVetoableChange(java.lang.String,%20java.lang.Object,%20java.lang.Object)), [getAccessibleContext](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getAccessibleContext()), [getActionForKeyStroke](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getActionForKeyStroke(javax.swing.KeyStroke)), [getActionMap](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getActionMap()), [getAlignmentX](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getAlignmentX()), [getAlignmentY](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getAlignmentY()), [getAncestorListeners](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getAncestorListeners()), [getAutoscrolls](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getAutoscrolls()), [getBaseline](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getBaseline(int,%20int)), [getBaselineResizeBehavior](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getBaselineResizeBehavior()), [getBorder](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getBorder()), [getBounds](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getBounds(java.awt.Rectangle)), [getClientProperty](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getClientProperty(java.lang.Object)), [getComponentGraphics](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getComponentGraphics(java.awt.Graphics)), [getComponentPopupMenu](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getComponentPopupMenu()), [getConditionForKeyStroke](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getConditionForKeyStroke(javax.swing.KeyStroke)), [getDebugGraphicsOptions](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getDebugGraphicsOptions()), [getDefaultLocale](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getDefaultLocale()), [getFontMetrics](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getFontMetrics(java.awt.Font)), [getGraphics](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getGraphics()), [getHeight](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getHeight()), [getInheritsPopupMenu](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getInheritsPopupMenu()), [getInputMap](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getInputMap()), [getInputMap](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getInputMap(int)), [getInputVerifier](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getInputVerifier()), [getInsets](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getInsets()), [getInsets](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getInsets(java.awt.Insets)), [getListeners](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getListeners(java.lang.Class)), [getLocation](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getLocation(java.awt.Point)), [getMaximumSize](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getMaximumSize()), [getMinimumSize](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getMinimumSize()), [getNextFocusableComponent](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getNextFocusableComponent()), [getPopupLocation](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getPopupLocation(java.awt.event.MouseEvent)), [getPreferredSize](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getPreferredSize()), [getRegisteredKeyStrokes](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getRegisteredKeyStrokes()), [getRootPane](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getRootPane()), [getSize](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getSize(java.awt.Dimension)), [getToolTipLocation](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getToolTipLocation(java.awt.event.MouseEvent)), [getToolTipText](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getToolTipText()), [getToolTipText](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getToolTipText(java.awt.event.MouseEvent)), [getTopLevelAncestor](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getTopLevelAncestor()), [getTransferHandler](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getTransferHandler()), [getUIClassID](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getUIClassID()), [getVerifyInputWhenFocusTarget](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getVerifyInputWhenFocusTarget()), [getVetoableChangeListeners](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getVetoableChangeListeners()), [getVisibleRect](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getVisibleRect()), [getWidth](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getWidth()), [getX](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getX()), [getY](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#getY()), [grabFocus](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#grabFocus()), [isDoubleBuffered](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#isDoubleBuffered()), [isLightweightComponent](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#isLightweightComponent(java.awt.Component)), [isManagingFocus](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#isManagingFocus()), [isOpaque](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#isOpaque()), [isOptimizedDrawingEnabled](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#isOptimizedDrawingEnabled()), [isPaintingForPrint](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#isPaintingForPrint()), [isPaintingTile](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#isPaintingTile()), [isRequestFocusEnabled](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#isRequestFocusEnabled()), [isValidateRoot](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#isValidateRoot()), [paint](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#paint(java.awt.Graphics)), [paintBorder](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#paintBorder(java.awt.Graphics)), [paintChildren](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#paintChildren(java.awt.Graphics)), [paintImmediately](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#paintImmediately(int,%20int,%20int,%20int)), [paintImmediately](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#paintImmediately(java.awt.Rectangle)), [paramString](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#paramString()), [print](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#print(java.awt.Graphics)), [printAll](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#printAll(java.awt.Graphics)), [printBorder](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#printBorder(java.awt.Graphics)), [printChildren](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#printChildren(java.awt.Graphics)), [printComponent](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#printComponent(java.awt.Graphics)), [processComponentKeyEvent](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#processComponentKeyEvent(java.awt.event.KeyEvent)), [processKeyBinding](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#processKeyBinding(javax.swing.KeyStroke,%20java.awt.event.KeyEvent,%20int,%20boolean)), [processKeyEvent](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#processKeyEvent(java.awt.event.KeyEvent)), [processMouseEvent](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#processMouseEvent(java.awt.event.MouseEvent)), [processMouseMotionEvent](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#processMouseMotionEvent(java.awt.event.MouseEvent)), [putClientProperty](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#putClientProperty(java.lang.Object,%20java.lang.Object)), [registerKeyboardAction](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#registerKeyboardAction(java.awt.event.ActionListener,%20javax.swing.KeyStroke,%20int)), [registerKeyboardAction](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#registerKeyboardAction(java.awt.event.ActionListener,%20java.lang.String,%20javax.swing.KeyStroke,%20int)), [removeAncestorListener](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#removeAncestorListener(javax.swing.event.AncestorListener)), [removeNotify](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#removeNotify()), [removeVetoableChangeListener](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#removeVetoableChangeListener(java.beans.VetoableChangeListener)), [repaint](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#repaint(long,%20int,%20int,%20int,%20int)), [repaint](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#repaint(java.awt.Rectangle)), [requestDefaultFocus](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#requestDefaultFocus()), [requestFocus](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#requestFocus()), [requestFocus](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#requestFocus(boolean)), [requestFocusInWindow](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#requestFocusInWindow()), [requestFocusInWindow](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#requestFocusInWindow(boolean)), [resetKeyboardActions](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#resetKeyboardActions()), [reshape](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#reshape(int,%20int,%20int,%20int)), [revalidate](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#revalidate()), [scrollRectToVisible](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#scrollRectToVisible(java.awt.Rectangle)), [setActionMap](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setActionMap(javax.swing.ActionMap)), [setAlignmentX](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setAlignmentX(float)), [setAlignmentY](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setAlignmentY(float)), [setAutoscrolls](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setAutoscrolls(boolean)), [setBackground](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setBackground(java.awt.Color)), [setBorder](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setBorder(javax.swing.border.Border)), [setComponentPopupMenu](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setComponentPopupMenu(javax.swing.JPopupMenu)), [setDebugGraphicsOptions](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setDebugGraphicsOptions(int)), [setDefaultLocale](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setDefaultLocale(java.util.Locale)), [setDoubleBuffered](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setDoubleBuffered(boolean)), [setEnabled](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setEnabled(boolean)), [setFocusTraversalKeys](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setFocusTraversalKeys(int,%20java.util.Set)), [setFont](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setFont(java.awt.Font)), [setForeground](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setForeground(java.awt.Color)), [setInheritsPopupMenu](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setInheritsPopupMenu(boolean)), [setInputMap](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setInputMap(int,%20javax.swing.InputMap)), [setInputVerifier](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setInputVerifier(javax.swing.InputVerifier)), [setMaximumSize](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setMaximumSize(java.awt.Dimension)), [setMinimumSize](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setMinimumSize(java.awt.Dimension)), [setNextFocusableComponent](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setNextFocusableComponent(java.awt.Component)), [setOpaque](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setOpaque(boolean)), [setPreferredSize](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setPreferredSize(java.awt.Dimension)), [setRequestFocusEnabled](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setRequestFocusEnabled(boolean)), [setToolTipText](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setToolTipText(java.lang.String)), [setTransferHandler](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setTransferHandler(javax.swing.TransferHandler)), [setUI](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setUI(javax.swing.plaf.ComponentUI)), [setVerifyInputWhenFocusTarget](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setVerifyInputWhenFocusTarget(boolean)), [setVisible](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#setVisible(boolean)), [unregisterKeyboardAction](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#unregisterKeyboardAction(javax.swing.KeyStroke)), [updateUI](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#updateUI()) |

| **Methods inherited from class java.awt.**[**Container**](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true) |
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| [add](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#add(java.awt.Component)), [add](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#add(java.awt.Component,%20int)), [add](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#add(java.awt.Component,%20java.lang.Object)), [add](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#add(java.awt.Component,%20java.lang.Object,%20int)), [add](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#add(java.lang.String,%20java.awt.Component)), [addContainerListener](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#addContainerListener(java.awt.event.ContainerListener)), [addImpl](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#addImpl(java.awt.Component,%20java.lang.Object,%20int)), [addPropertyChangeListener](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#addPropertyChangeListener(java.beans.PropertyChangeListener)), [addPropertyChangeListener](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#addPropertyChangeListener(java.lang.String,%20java.beans.PropertyChangeListener)), [applyComponentOrientation](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#applyComponentOrientation(java.awt.ComponentOrientation)), [areFocusTraversalKeysSet](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#areFocusTraversalKeysSet(int)), [countComponents](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#countComponents()), [deliverEvent](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#deliverEvent(java.awt.Event)), [doLayout](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#doLayout()), [findComponentAt](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#findComponentAt(int,%20int)), [findComponentAt](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#findComponentAt(java.awt.Point)), [getComponent](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#getComponent(int)), [getComponentAt](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#getComponentAt(int,%20int)), [getComponentAt](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#getComponentAt(java.awt.Point)), [getComponentCount](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#getComponentCount()), [getComponents](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#getComponents()), [getComponentZOrder](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#getComponentZOrder(java.awt.Component)), [getContainerListeners](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#getContainerListeners()), [getFocusTraversalKeys](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#getFocusTraversalKeys(int)), [getFocusTraversalPolicy](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#getFocusTraversalPolicy()), [getLayout](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#getLayout()), [getMousePosition](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#getMousePosition(boolean)), [insets](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#insets()), [invalidate](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#invalidate()), [isAncestorOf](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#isAncestorOf(java.awt.Component)), [isFocusCycleRoot](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#isFocusCycleRoot()), [isFocusCycleRoot](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#isFocusCycleRoot(java.awt.Container)), [isFocusTraversalPolicyProvider](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#isFocusTraversalPolicyProvider()), [isFocusTraversalPolicySet](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#isFocusTraversalPolicySet()), [layout](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#layout()), [list](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#list(java.io.PrintStream,%20int)), [list](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#list(java.io.PrintWriter,%20int)), [locate](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#locate(int,%20int)), [minimumSize](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#minimumSize()), [paintComponents](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#paintComponents(java.awt.Graphics)), [preferredSize](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#preferredSize()), [printComponents](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#printComponents(java.awt.Graphics)), [processContainerEvent](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#processContainerEvent(java.awt.event.ContainerEvent)), [processEvent](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#processEvent(java.awt.AWTEvent)), [remove](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#remove(java.awt.Component)), [removeAll](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#removeAll()), [removeContainerListener](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#removeContainerListener(java.awt.event.ContainerListener)), [setComponentZOrder](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#setComponentZOrder(java.awt.Component,%20int)), [setFocusCycleRoot](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#setFocusCycleRoot(boolean)), [setFocusTraversalPolicy](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#setFocusTraversalPolicy(java.awt.FocusTraversalPolicy)), [setFocusTraversalPolicyProvider](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#setFocusTraversalPolicyProvider(boolean)), [setLayout](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#setLayout(java.awt.LayoutManager)), [transferFocusBackward](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#transferFocusBackward()), [transferFocusDownCycle](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#transferFocusDownCycle()), [validate](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#validate()), [validateTree](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#validateTree()) |

| **Methods inherited from class java.awt.**[**Component**](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true) |
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| [action](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#action(java.awt.Event,%20java.lang.Object)), [add](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#add(java.awt.PopupMenu)), [addComponentListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#addComponentListener(java.awt.event.ComponentListener)), [addFocusListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#addFocusListener(java.awt.event.FocusListener)), [addHierarchyBoundsListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#addHierarchyBoundsListener(java.awt.event.HierarchyBoundsListener)), [addHierarchyListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#addHierarchyListener(java.awt.event.HierarchyListener)), [addInputMethodListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#addInputMethodListener(java.awt.event.InputMethodListener)), [addKeyListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#addKeyListener(java.awt.event.KeyListener)), [addMouseListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#addMouseListener(java.awt.event.MouseListener)), [addMouseMotionListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#addMouseMotionListener(java.awt.event.MouseMotionListener)), [addMouseWheelListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#addMouseWheelListener(java.awt.event.MouseWheelListener)), [bounds](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#bounds()), [checkImage](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#checkImage(java.awt.Image,%20java.awt.image.ImageObserver)), [checkImage](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#checkImage(java.awt.Image,%20int,%20int,%20java.awt.image.ImageObserver)), [coalesceEvents](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#coalesceEvents(java.awt.AWTEvent,%20java.awt.AWTEvent)), [contains](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#contains(java.awt.Point)), [createImage](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#createImage(java.awt.image.ImageProducer)), [createImage](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#createImage(int,%20int)), [createVolatileImage](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#createVolatileImage(int,%20int)), [createVolatileImage](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#createVolatileImage(int,%20int,%20java.awt.ImageCapabilities)), [disableEvents](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#disableEvents(long)), [dispatchEvent](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#dispatchEvent(java.awt.AWTEvent)), [enable](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#enable(boolean)), [enableEvents](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#enableEvents(long)), [enableInputMethods](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#enableInputMethods(boolean)), [firePropertyChange](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#firePropertyChange(java.lang.String,%20byte,%20byte)), [firePropertyChange](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#firePropertyChange(java.lang.String,%20double,%20double)), [firePropertyChange](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#firePropertyChange(java.lang.String,%20float,%20float)), [firePropertyChange](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#firePropertyChange(java.lang.String,%20long,%20long)), [firePropertyChange](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#firePropertyChange(java.lang.String,%20java.lang.Object,%20java.lang.Object)), [firePropertyChange](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#firePropertyChange(java.lang.String,%20short,%20short)), [getBackground](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getBackground()), [getBounds](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getBounds()), [getColorModel](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getColorModel()), [getComponentListeners](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getComponentListeners()), [getComponentOrientation](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getComponentOrientation()), [getCursor](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getCursor()), [getDropTarget](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getDropTarget()), [getFocusCycleRootAncestor](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getFocusCycleRootAncestor()), [getFocusListeners](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getFocusListeners()), [getFocusTraversalKeysEnabled](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getFocusTraversalKeysEnabled()), [getFont](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getFont()), [getForeground](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getForeground()), [getGraphicsConfiguration](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getGraphicsConfiguration()), [getHierarchyBoundsListeners](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getHierarchyBoundsListeners()), [getHierarchyListeners](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getHierarchyListeners()), [getIgnoreRepaint](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getIgnoreRepaint()), [getInputContext](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getInputContext()), [getInputMethodListeners](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getInputMethodListeners()), [getInputMethodRequests](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getInputMethodRequests()), [getKeyListeners](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getKeyListeners()), [getLocale](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getLocale()), [getLocation](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getLocation()), [getLocationOnScreen](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getLocationOnScreen()), [getMouseListeners](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getMouseListeners()), [getMouseMotionListeners](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getMouseMotionListeners()), [getMousePosition](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getMousePosition()), [getMouseWheelListeners](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getMouseWheelListeners()), [getName](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getName()), [getParent](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getParent()), [getPeer](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getPeer()), [getPropertyChangeListeners](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getPropertyChangeListeners()), [getPropertyChangeListeners](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getPropertyChangeListeners(java.lang.String)), [getSize](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getSize()), [getToolkit](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getToolkit()), [getTreeLock](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#getTreeLock()), [gotFocus](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#gotFocus(java.awt.Event,%20java.lang.Object)), [handleEvent](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#handleEvent(java.awt.Event)), [hasFocus](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#hasFocus()), [hide](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#hide()), [imageUpdate](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#imageUpdate(java.awt.Image,%20int,%20int,%20int,%20int,%20int)), [inside](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#inside(int,%20int)), [isBackgroundSet](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isBackgroundSet()), [isCursorSet](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isCursorSet()), [isDisplayable](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isDisplayable()), [isEnabled](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isEnabled()), [isFocusable](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isFocusable()), [isFocusOwner](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isFocusOwner()), [isFocusTraversable](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isFocusTraversable()), [isFontSet](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isFontSet()), [isForegroundSet](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isForegroundSet()), [isLightweight](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isLightweight()), [isMaximumSizeSet](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isMaximumSizeSet()), [isMinimumSizeSet](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isMinimumSizeSet()), [isPreferredSizeSet](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isPreferredSizeSet()), [isShowing](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isShowing()), [isValid](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isValid()), [isVisible](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#isVisible()), [keyDown](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#keyDown(java.awt.Event,%20int)), [keyUp](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#keyUp(java.awt.Event,%20int)), [list](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#list()), [list](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#list(java.io.PrintStream)), [list](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#list(java.io.PrintWriter)), [location](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#location()), [lostFocus](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#lostFocus(java.awt.Event,%20java.lang.Object)), [mouseDown](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#mouseDown(java.awt.Event,%20int,%20int)), [mouseDrag](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#mouseDrag(java.awt.Event,%20int,%20int)), [mouseEnter](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#mouseEnter(java.awt.Event,%20int,%20int)), [mouseExit](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#mouseExit(java.awt.Event,%20int,%20int)), [mouseMove](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#mouseMove(java.awt.Event,%20int,%20int)), [mouseUp](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#mouseUp(java.awt.Event,%20int,%20int)), [move](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#move(int,%20int)), [nextFocus](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#nextFocus()), [paintAll](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#paintAll(java.awt.Graphics)), [postEvent](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#postEvent(java.awt.Event)), [prepareImage](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#prepareImage(java.awt.Image,%20java.awt.image.ImageObserver)), [prepareImage](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#prepareImage(java.awt.Image,%20int,%20int,%20java.awt.image.ImageObserver)), [processComponentEvent](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#processComponentEvent(java.awt.event.ComponentEvent)), [processFocusEvent](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#processFocusEvent(java.awt.event.FocusEvent)), [processHierarchyBoundsEvent](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#processHierarchyBoundsEvent(java.awt.event.HierarchyEvent)), [processHierarchyEvent](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#processHierarchyEvent(java.awt.event.HierarchyEvent)), [processInputMethodEvent](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#processInputMethodEvent(java.awt.event.InputMethodEvent)), [processMouseWheelEvent](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#processMouseWheelEvent(java.awt.event.MouseWheelEvent)), [remove](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#remove(java.awt.MenuComponent)), [removeComponentListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#removeComponentListener(java.awt.event.ComponentListener)), [removeFocusListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#removeFocusListener(java.awt.event.FocusListener)), [removeHierarchyBoundsListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#removeHierarchyBoundsListener(java.awt.event.HierarchyBoundsListener)), [removeHierarchyListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#removeHierarchyListener(java.awt.event.HierarchyListener)), [removeInputMethodListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#removeInputMethodListener(java.awt.event.InputMethodListener)), [removeKeyListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#removeKeyListener(java.awt.event.KeyListener)), [removeMouseListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#removeMouseListener(java.awt.event.MouseListener)), [removeMouseMotionListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#removeMouseMotionListener(java.awt.event.MouseMotionListener)), [removeMouseWheelListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#removeMouseWheelListener(java.awt.event.MouseWheelListener)), [removePropertyChangeListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#removePropertyChangeListener(java.beans.PropertyChangeListener)), [removePropertyChangeListener](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#removePropertyChangeListener(java.lang.String,%20java.beans.PropertyChangeListener)), [repaint](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#repaint()), [repaint](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#repaint(int,%20int,%20int,%20int)), [repaint](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#repaint(long)), [resize](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#resize(java.awt.Dimension)), [resize](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#resize(int,%20int)), [setBounds](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#setBounds(int,%20int,%20int,%20int)), [setBounds](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#setBounds(java.awt.Rectangle)), [setComponentOrientation](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#setComponentOrientation(java.awt.ComponentOrientation)), [setCursor](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#setCursor(java.awt.Cursor)), [setDropTarget](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#setDropTarget(java.awt.dnd.DropTarget)), [setFocusable](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#setFocusable(boolean)), [setFocusTraversalKeysEnabled](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#setFocusTraversalKeysEnabled(boolean)), [setIgnoreRepaint](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#setIgnoreRepaint(boolean)), [setLocale](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#setLocale(java.util.Locale)), [setLocation](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#setLocation(int,%20int)), [setLocation](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#setLocation(java.awt.Point)), [setName](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#setName(java.lang.String)), [setSize](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#setSize(java.awt.Dimension)), [setSize](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#setSize(int,%20int)), [show](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#show()), [show](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#show(boolean)), [size](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#size()), [toString](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#toString()), [transferFocus](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#transferFocus()), [transferFocusUpCycle](http://java.sun.com/javase/6/docs/api/java/awt/Component.html?is-external=true#transferFocusUpCycle()) |

| **Methods inherited from class java.lang.**[**Object**](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true) |
| --- |
| [clone](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#clone()), [equals](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#equals(java.lang.Object)), [finalize](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#finalize()), [getClass](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#getClass()), [hashCode](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#hashCode()), [notify](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#notify()), [notifyAll](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#notifyAll()), [wait](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#wait()), [wait](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#wait(long)), [wait](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#wait(long,%20int)) |

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

### ShapeComponent

public **ShapeComponent**()

A constructor that uses the default size

### ShapeComponent

public **ShapeComponent**(int width,  
 int height)

A constructor that takes the width and height

**Parameters:**width - the width of the canvasheight - the height of the canvas

### ShapeComponent

public **ShapeComponent**([BufferedImage](http://java.sun.com/javase/6/docs/api/java/awt/image/BufferedImage.html?is-external=true) image)

A constructor that takes a buffered image for the background

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

### setVideoCapture

public void **setVideoCapture**([VideoCapturer](http://docs.google.com/VideoCapturer.html) handler)

### setBackgroundImage

public void **setBackgroundImage**([BufferedImage](http://java.sun.com/javase/6/docs/api/java/awt/image/BufferedImage.html?is-external=true) image)

**Description copied from interface:** [**RegionInterface**](http://docs.google.com/RegionInterface.html#setBackgroundImage(java.awt.image.BufferedImage)) Method to set the background image to select the region from

**Specified by:**[setBackgroundImage](http://docs.google.com/RegionInterface.html#setBackgroundImage(java.awt.image.BufferedImage)) in interface [RegionInterface](http://docs.google.com/RegionInterface.html) **Parameters:**image - the image to use

### add

public void **add**([AbstractShape](http://docs.google.com/AbstractShape.html) shape)

Method to add a shape to the shape vector

**Parameters:**shape - the shape to add

### remove

public void **remove**([Shape](http://java.sun.com/javase/6/docs/api/java/awt/Shape.html?is-external=true) shape)

Method to remove a shape from the shape vector

**Parameters:**shape - the shape to remove

### remove

public void **remove**(int index)

Method to remove a shape given the index

**Overrides:**[remove](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true#remove(int)) in class [Container](http://java.sun.com/javase/6/docs/api/java/awt/Container.html?is-external=true) **Parameters:**index - the index of the shape in the shape vector that you wish to remove

### update

public void **update**([Graphics](http://java.sun.com/javase/6/docs/api/java/awt/Graphics.html?is-external=true) g)

Update normally clears the background and calls paint override it here to just call paint

**Overrides:**[update](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#update(java.awt.Graphics)) in class [JComponent](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true) **Parameters:**g - the graphics context on which to draw

### paintComponent

public void **paintComponent**([Graphics](http://java.sun.com/javase/6/docs/api/java/awt/Graphics.html?is-external=true) g)

Method to paint the shape canvas and all objects in it

**Overrides:**[paintComponent](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true#paintComponent(java.awt.Graphics)) in class [JComponent](http://java.sun.com/javase/6/docs/api/javax/swing/JComponent.html?is-external=true) **Parameters:**g - the graphic context on which to paint

### setShape

public void **setShape**([String](http://java.sun.com/javase/6/docs/api/java/lang/String.html?is-external=true) shapeType)

Set the type of the shape that will be created when the user clicks in the shape canvas.

**Parameters:**shapeType - the name of the shape

### clearShapes

public void **clearShapes**()

Clear all shapes out of the shape vector

**Specified by:**[clearShapes](http://docs.google.com/RegionInterface.html#clearShapes()) in interface [RegionInterface](http://docs.google.com/RegionInterface.html)

### main

public static void **main**([String](http://java.sun.com/javase/6/docs/api/java/lang/String.html?is-external=true)[] argv)

| | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**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/Searcher.html)   [**NEXT CLASS**](http://docs.google.com/ShapeComponent.MyMouseAdapter.html) | [**FRAMES**](http://docs.google.com/index.html?ShapeComponent.html)    [**NO FRAMES**](http://docs.google.com/ShapeComponent.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: [NESTED](#3znysh7) | [FIELD](#4d34og8) | [CONSTR](#3rdcrjn) | [METHOD](#26in1rg) | DETAIL: FIELD | [CONSTR](#2jxsxqh) | [METHOD](#4i7ojhp) |