| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/JCheckBox.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/javax/swing/JButton.AccessibleJButton.html)   [**NEXT CLASS**](http://docs.google.com/javax/swing/JCheckBox.AccessibleJCheckBox.html) | [**FRAMES**](http://docs.google.com/index.html?javax/swing/JCheckBox.html)    [**NO FRAMES**](http://docs.google.com/JCheckBox.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: [NESTED](#3znysh7) | [FIELD](#2s8eyo1) | [CONSTR](#1ksv4uv) | [METHOD](#44sinio) | DETAIL: [FIELD](#2xcytpi) | [CONSTR](#3whwml4) | [METHOD](#23ckvvd) |

## **javax.swing**

Class JCheckBox

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 [java.awt.Component](http://docs.google.com/java/awt/Component.html)  
 [java.awt.Container](http://docs.google.com/java/awt/Container.html)  
 [javax.swing.JComponent](http://docs.google.com/javax/swing/JComponent.html)  
 [javax.swing.AbstractButton](http://docs.google.com/javax/swing/AbstractButton.html)  
 [javax.swing.JToggleButton](http://docs.google.com/javax/swing/JToggleButton.html)  
 **javax.swing.JCheckBox**

**All Implemented Interfaces:** [ImageObserver](http://docs.google.com/java/awt/image/ImageObserver.html), [ItemSelectable](http://docs.google.com/java/awt/ItemSelectable.html), [MenuContainer](http://docs.google.com/java/awt/MenuContainer.html), [Serializable](http://docs.google.com/java/io/Serializable.html), [Accessible](http://docs.google.com/javax/accessibility/Accessible.html), [SwingConstants](http://docs.google.com/javax/swing/SwingConstants.html)

public class **JCheckBox**extends [JToggleButton](http://docs.google.com/javax/swing/JToggleButton.html)implements [Accessible](http://docs.google.com/javax/accessibility/Accessible.html)

An implementation of a check box -- an item that can be selected or deselected, and which displays its state to the user. By convention, any number of check boxes in a group can be selected. See [How to Use Buttons, Check Boxes, and Radio Buttons](http://java.sun.com/docs/books/tutorial/uiswing/components/button.html) in *The Java Tutorial* for examples and information on using check boxes.

Buttons can be configured, and to some degree controlled, by [Action](http://docs.google.com/Action.html)s. Using an Action with a button has many benefits beyond directly configuring a button. Refer to  [Swing Components Supporting Action](http://docs.google.com/Action.html#buttonActions) for more details, and you can find more information in [How to Use Actions](http://java.sun.com/docs/books/tutorial/uiswing/misc/action.html), a section in *The Java Tutorial*.

**Warning:** Swing is not thread safe. For more information see [Swing's Threading Policy](http://docs.google.com/package-summary.html#threading).

**Warning:** Serialized objects of this class will not be compatible with future Swing releases. The current serialization support is appropriate for short term storage or RMI between applications running the same version of Swing. As of 1.4, support for long term storage of all JavaBeansTM has been added to the java.beans package. Please see [XMLEncoder](http://docs.google.com/java/beans/XMLEncoder.html).

**See Also:**[JRadioButton](http://docs.google.com/javax/swing/JRadioButton.html)

| **Nested Class Summary** | |
| --- | --- |
| protected  class | [**JCheckBox.AccessibleJCheckBox**](http://docs.google.com/javax/swing/JCheckBox.AccessibleJCheckBox.html)            This class implements accessibility support for the JCheckBox class. |

| **Nested classes/interfaces inherited from class javax.swing.**[**JToggleButton**](http://docs.google.com/javax/swing/JToggleButton.html) |
| --- |
| [JToggleButton.AccessibleJToggleButton](http://docs.google.com/javax/swing/JToggleButton.AccessibleJToggleButton.html), [JToggleButton.ToggleButtonModel](http://docs.google.com/javax/swing/JToggleButton.ToggleButtonModel.html) |

| **Nested classes/interfaces inherited from class javax.swing.**[**AbstractButton**](http://docs.google.com/javax/swing/AbstractButton.html) |
| --- |
| [AbstractButton.AccessibleAbstractButton](http://docs.google.com/javax/swing/AbstractButton.AccessibleAbstractButton.html), [AbstractButton.ButtonChangeListener](http://docs.google.com/javax/swing/AbstractButton.ButtonChangeListener.html) |

| **Nested classes/interfaces inherited from class javax.swing.**[**JComponent**](http://docs.google.com/javax/swing/JComponent.html) |
| --- |
| [JComponent.AccessibleJComponent](http://docs.google.com/javax/swing/JComponent.AccessibleJComponent.html) |

| **Nested classes/interfaces inherited from class java.awt.**[**Container**](http://docs.google.com/java/awt/Container.html) |
| --- |
| [Container.AccessibleAWTContainer](http://docs.google.com/java/awt/Container.AccessibleAWTContainer.html) |

| **Nested classes/interfaces inherited from class java.awt.**[**Component**](http://docs.google.com/java/awt/Component.html) |
| --- |
| [Component.AccessibleAWTComponent](http://docs.google.com/java/awt/Component.AccessibleAWTComponent.html), [Component.BaselineResizeBehavior](http://docs.google.com/java/awt/Component.BaselineResizeBehavior.html), [Component.BltBufferStrategy](http://docs.google.com/java/awt/Component.BltBufferStrategy.html), [Component.FlipBufferStrategy](http://docs.google.com/java/awt/Component.FlipBufferStrategy.html) |

| **Field Summary** | |
| --- | --- |
| static [String](http://docs.google.com/java/lang/String.html) | [**BORDER\_PAINTED\_FLAT\_CHANGED\_PROPERTY**](http://docs.google.com/javax/swing/JCheckBox.html#BORDER_PAINTED_FLAT_CHANGED_PROPERTY)            Identifies a change to the flat property. |

| **Fields inherited from class javax.swing.**[**AbstractButton**](http://docs.google.com/javax/swing/AbstractButton.html) |
| --- |
| [actionListener](http://docs.google.com/javax/swing/AbstractButton.html#actionListener), [BORDER\_PAINTED\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#BORDER_PAINTED_CHANGED_PROPERTY), [changeEvent](http://docs.google.com/javax/swing/AbstractButton.html#changeEvent), [changeListener](http://docs.google.com/javax/swing/AbstractButton.html#changeListener), [CONTENT\_AREA\_FILLED\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#CONTENT_AREA_FILLED_CHANGED_PROPERTY), [DISABLED\_ICON\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#DISABLED_ICON_CHANGED_PROPERTY), [DISABLED\_SELECTED\_ICON\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#DISABLED_SELECTED_ICON_CHANGED_PROPERTY), [FOCUS\_PAINTED\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#FOCUS_PAINTED_CHANGED_PROPERTY), [HORIZONTAL\_ALIGNMENT\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#HORIZONTAL_ALIGNMENT_CHANGED_PROPERTY), [HORIZONTAL\_TEXT\_POSITION\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#HORIZONTAL_TEXT_POSITION_CHANGED_PROPERTY), [ICON\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#ICON_CHANGED_PROPERTY), [itemListener](http://docs.google.com/javax/swing/AbstractButton.html#itemListener), [MARGIN\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#MARGIN_CHANGED_PROPERTY), [MNEMONIC\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#MNEMONIC_CHANGED_PROPERTY), [model](http://docs.google.com/javax/swing/AbstractButton.html#model), [MODEL\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#MODEL_CHANGED_PROPERTY), [PRESSED\_ICON\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#PRESSED_ICON_CHANGED_PROPERTY), [ROLLOVER\_ENABLED\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#ROLLOVER_ENABLED_CHANGED_PROPERTY), [ROLLOVER\_ICON\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#ROLLOVER_ICON_CHANGED_PROPERTY), [ROLLOVER\_SELECTED\_ICON\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#ROLLOVER_SELECTED_ICON_CHANGED_PROPERTY), [SELECTED\_ICON\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#SELECTED_ICON_CHANGED_PROPERTY), [TEXT\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#TEXT_CHANGED_PROPERTY), [VERTICAL\_ALIGNMENT\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#VERTICAL_ALIGNMENT_CHANGED_PROPERTY), [VERTICAL\_TEXT\_POSITION\_CHANGED\_PROPERTY](http://docs.google.com/javax/swing/AbstractButton.html#VERTICAL_TEXT_POSITION_CHANGED_PROPERTY) |

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

| **Fields inherited from class java.awt.**[**Component**](http://docs.google.com/java/awt/Component.html) |
| --- |
| [BOTTOM\_ALIGNMENT](http://docs.google.com/java/awt/Component.html#BOTTOM_ALIGNMENT), [CENTER\_ALIGNMENT](http://docs.google.com/java/awt/Component.html#CENTER_ALIGNMENT), [LEFT\_ALIGNMENT](http://docs.google.com/java/awt/Component.html#LEFT_ALIGNMENT), [RIGHT\_ALIGNMENT](http://docs.google.com/java/awt/Component.html#RIGHT_ALIGNMENT), [TOP\_ALIGNMENT](http://docs.google.com/java/awt/Component.html#TOP_ALIGNMENT) |

| **Fields inherited from interface javax.swing.**[**SwingConstants**](http://docs.google.com/javax/swing/SwingConstants.html) |
| --- |
| [BOTTOM](http://docs.google.com/javax/swing/SwingConstants.html#BOTTOM), [CENTER](http://docs.google.com/javax/swing/SwingConstants.html#CENTER), [EAST](http://docs.google.com/javax/swing/SwingConstants.html#EAST), [HORIZONTAL](http://docs.google.com/javax/swing/SwingConstants.html#HORIZONTAL), [LEADING](http://docs.google.com/javax/swing/SwingConstants.html#LEADING), [LEFT](http://docs.google.com/javax/swing/SwingConstants.html#LEFT), [NEXT](http://docs.google.com/javax/swing/SwingConstants.html#NEXT), [NORTH](http://docs.google.com/javax/swing/SwingConstants.html#NORTH), [NORTH\_EAST](http://docs.google.com/javax/swing/SwingConstants.html#NORTH_EAST), [NORTH\_WEST](http://docs.google.com/javax/swing/SwingConstants.html#NORTH_WEST), [PREVIOUS](http://docs.google.com/javax/swing/SwingConstants.html#PREVIOUS), [RIGHT](http://docs.google.com/javax/swing/SwingConstants.html#RIGHT), [SOUTH](http://docs.google.com/javax/swing/SwingConstants.html#SOUTH), [SOUTH\_EAST](http://docs.google.com/javax/swing/SwingConstants.html#SOUTH_EAST), [SOUTH\_WEST](http://docs.google.com/javax/swing/SwingConstants.html#SOUTH_WEST), [TOP](http://docs.google.com/javax/swing/SwingConstants.html#TOP), [TRAILING](http://docs.google.com/javax/swing/SwingConstants.html#TRAILING), [VERTICAL](http://docs.google.com/javax/swing/SwingConstants.html#VERTICAL), [WEST](http://docs.google.com/javax/swing/SwingConstants.html#WEST) |

| **Fields inherited from interface java.awt.image.**[**ImageObserver**](http://docs.google.com/java/awt/image/ImageObserver.html) |
| --- |
| [ABORT](http://docs.google.com/java/awt/image/ImageObserver.html#ABORT), [ALLBITS](http://docs.google.com/java/awt/image/ImageObserver.html#ALLBITS), [ERROR](http://docs.google.com/java/awt/image/ImageObserver.html#ERROR), [FRAMEBITS](http://docs.google.com/java/awt/image/ImageObserver.html#FRAMEBITS), [HEIGHT](http://docs.google.com/java/awt/image/ImageObserver.html#HEIGHT), [PROPERTIES](http://docs.google.com/java/awt/image/ImageObserver.html#PROPERTIES), [SOMEBITS](http://docs.google.com/java/awt/image/ImageObserver.html#SOMEBITS), [WIDTH](http://docs.google.com/java/awt/image/ImageObserver.html#WIDTH) |

| **Constructor Summary** | |
| --- | --- |
| [**JCheckBox**](http://docs.google.com/javax/swing/JCheckBox.html#JCheckBox())()            Creates an initially unselected check box button with no text, no icon. |
| [**JCheckBox**](http://docs.google.com/javax/swing/JCheckBox.html#JCheckBox(javax.swing.Action))([Action](http://docs.google.com/javax/swing/Action.html) a)            Creates a check box where properties are taken from the Action supplied. |
| [**JCheckBox**](http://docs.google.com/javax/swing/JCheckBox.html#JCheckBox(javax.swing.Icon))([Icon](http://docs.google.com/javax/swing/Icon.html) icon)            Creates an initially unselected check box with an icon. |
| [**JCheckBox**](http://docs.google.com/javax/swing/JCheckBox.html#JCheckBox(javax.swing.Icon,%20boolean))([Icon](http://docs.google.com/javax/swing/Icon.html) icon, boolean selected)            Creates a check box with an icon and specifies whether or not it is initially selected. |
| [**JCheckBox**](http://docs.google.com/javax/swing/JCheckBox.html#JCheckBox(java.lang.String))([String](http://docs.google.com/java/lang/String.html) text)            Creates an initially unselected check box with text. |
| [**JCheckBox**](http://docs.google.com/javax/swing/JCheckBox.html#JCheckBox(java.lang.String,%20boolean))([String](http://docs.google.com/java/lang/String.html) text, boolean selected)            Creates a check box with text and specifies whether or not it is initially selected. |
| [**JCheckBox**](http://docs.google.com/javax/swing/JCheckBox.html#JCheckBox(java.lang.String,%20javax.swing.Icon))([String](http://docs.google.com/java/lang/String.html) text, [Icon](http://docs.google.com/javax/swing/Icon.html) icon)            Creates an initially unselected check box with the specified text and icon. |
| [**JCheckBox**](http://docs.google.com/javax/swing/JCheckBox.html#JCheckBox(java.lang.String,%20javax.swing.Icon,%20boolean))([String](http://docs.google.com/java/lang/String.html) text, [Icon](http://docs.google.com/javax/swing/Icon.html) icon, boolean selected)            Creates a check box with text and icon, and specifies whether or not it is initially selected. |

| **Method Summary** | |
| --- | --- |
| [AccessibleContext](http://docs.google.com/javax/accessibility/AccessibleContext.html) | [**getAccessibleContext**](http://docs.google.com/javax/swing/JCheckBox.html#getAccessibleContext())()            Gets the AccessibleContext associated with this JCheckBox. |
| [String](http://docs.google.com/java/lang/String.html) | [**getUIClassID**](http://docs.google.com/javax/swing/JCheckBox.html#getUIClassID())()            Returns a string that specifies the name of the L&F class that renders this component. |
| boolean | [**isBorderPaintedFlat**](http://docs.google.com/javax/swing/JCheckBox.html#isBorderPaintedFlat())()            Gets the value of the borderPaintedFlat property. |
| protected  [String](http://docs.google.com/java/lang/String.html) | [**paramString**](http://docs.google.com/javax/swing/JCheckBox.html#paramString())()            Returns a string representation of this JCheckBox. |
| void | [**setBorderPaintedFlat**](http://docs.google.com/javax/swing/JCheckBox.html#setBorderPaintedFlat(boolean))(boolean b)            Sets the borderPaintedFlat property, which gives a hint to the look and feel as to the appearance of the check box border. |
| void | [**updateUI**](http://docs.google.com/javax/swing/JCheckBox.html#updateUI())()            Resets the UI property to a value from the current look and feel. |

| **Methods inherited from class javax.swing.**[**AbstractButton**](http://docs.google.com/javax/swing/AbstractButton.html) |
| --- |
| [actionPropertyChanged](http://docs.google.com/javax/swing/AbstractButton.html#actionPropertyChanged(javax.swing.Action,%20java.lang.String)), [addActionListener](http://docs.google.com/javax/swing/AbstractButton.html#addActionListener(java.awt.event.ActionListener)), [addChangeListener](http://docs.google.com/javax/swing/AbstractButton.html#addChangeListener(javax.swing.event.ChangeListener)), [addImpl](http://docs.google.com/javax/swing/AbstractButton.html#addImpl(java.awt.Component,%20java.lang.Object,%20int)), [addItemListener](http://docs.google.com/javax/swing/AbstractButton.html#addItemListener(java.awt.event.ItemListener)), [checkHorizontalKey](http://docs.google.com/javax/swing/AbstractButton.html#checkHorizontalKey(int,%20java.lang.String)), [checkVerticalKey](http://docs.google.com/javax/swing/AbstractButton.html#checkVerticalKey(int,%20java.lang.String)), [configurePropertiesFromAction](http://docs.google.com/javax/swing/AbstractButton.html#configurePropertiesFromAction(javax.swing.Action)), [createActionListener](http://docs.google.com/javax/swing/AbstractButton.html#createActionListener()), [createActionPropertyChangeListener](http://docs.google.com/javax/swing/AbstractButton.html#createActionPropertyChangeListener(javax.swing.Action)), [createChangeListener](http://docs.google.com/javax/swing/AbstractButton.html#createChangeListener()), [createItemListener](http://docs.google.com/javax/swing/AbstractButton.html#createItemListener()), [doClick](http://docs.google.com/javax/swing/AbstractButton.html#doClick()), [doClick](http://docs.google.com/javax/swing/AbstractButton.html#doClick(int)), [fireActionPerformed](http://docs.google.com/javax/swing/AbstractButton.html#fireActionPerformed(java.awt.event.ActionEvent)), [fireItemStateChanged](http://docs.google.com/javax/swing/AbstractButton.html#fireItemStateChanged(java.awt.event.ItemEvent)), [fireStateChanged](http://docs.google.com/javax/swing/AbstractButton.html#fireStateChanged()), [getAction](http://docs.google.com/javax/swing/AbstractButton.html#getAction()), [getActionCommand](http://docs.google.com/javax/swing/AbstractButton.html#getActionCommand()), [getActionListeners](http://docs.google.com/javax/swing/AbstractButton.html#getActionListeners()), [getChangeListeners](http://docs.google.com/javax/swing/AbstractButton.html#getChangeListeners()), [getDisabledIcon](http://docs.google.com/javax/swing/AbstractButton.html#getDisabledIcon()), [getDisabledSelectedIcon](http://docs.google.com/javax/swing/AbstractButton.html#getDisabledSelectedIcon()), [getDisplayedMnemonicIndex](http://docs.google.com/javax/swing/AbstractButton.html#getDisplayedMnemonicIndex()), [getHideActionText](http://docs.google.com/javax/swing/AbstractButton.html#getHideActionText()), [getHorizontalAlignment](http://docs.google.com/javax/swing/AbstractButton.html#getHorizontalAlignment()), [getHorizontalTextPosition](http://docs.google.com/javax/swing/AbstractButton.html#getHorizontalTextPosition()), [getIcon](http://docs.google.com/javax/swing/AbstractButton.html#getIcon()), [getIconTextGap](http://docs.google.com/javax/swing/AbstractButton.html#getIconTextGap()), [getItemListeners](http://docs.google.com/javax/swing/AbstractButton.html#getItemListeners()), [getLabel](http://docs.google.com/javax/swing/AbstractButton.html#getLabel()), [getMargin](http://docs.google.com/javax/swing/AbstractButton.html#getMargin()), [getMnemonic](http://docs.google.com/javax/swing/AbstractButton.html#getMnemonic()), [getModel](http://docs.google.com/javax/swing/AbstractButton.html#getModel()), [getMultiClickThreshhold](http://docs.google.com/javax/swing/AbstractButton.html#getMultiClickThreshhold()), [getPressedIcon](http://docs.google.com/javax/swing/AbstractButton.html#getPressedIcon()), [getRolloverIcon](http://docs.google.com/javax/swing/AbstractButton.html#getRolloverIcon()), [getRolloverSelectedIcon](http://docs.google.com/javax/swing/AbstractButton.html#getRolloverSelectedIcon()), [getSelectedIcon](http://docs.google.com/javax/swing/AbstractButton.html#getSelectedIcon()), [getSelectedObjects](http://docs.google.com/javax/swing/AbstractButton.html#getSelectedObjects()), [getText](http://docs.google.com/javax/swing/AbstractButton.html#getText()), [getUI](http://docs.google.com/javax/swing/AbstractButton.html#getUI()), [getVerticalAlignment](http://docs.google.com/javax/swing/AbstractButton.html#getVerticalAlignment()), [getVerticalTextPosition](http://docs.google.com/javax/swing/AbstractButton.html#getVerticalTextPosition()), [imageUpdate](http://docs.google.com/javax/swing/AbstractButton.html#imageUpdate(java.awt.Image,%20int,%20int,%20int,%20int,%20int)), [init](http://docs.google.com/javax/swing/AbstractButton.html#init(java.lang.String,%20javax.swing.Icon)), [isBorderPainted](http://docs.google.com/javax/swing/AbstractButton.html#isBorderPainted()), [isContentAreaFilled](http://docs.google.com/javax/swing/AbstractButton.html#isContentAreaFilled()), [isFocusPainted](http://docs.google.com/javax/swing/AbstractButton.html#isFocusPainted()), [isRolloverEnabled](http://docs.google.com/javax/swing/AbstractButton.html#isRolloverEnabled()), [isSelected](http://docs.google.com/javax/swing/AbstractButton.html#isSelected()), [paintBorder](http://docs.google.com/javax/swing/AbstractButton.html#paintBorder(java.awt.Graphics)), [removeActionListener](http://docs.google.com/javax/swing/AbstractButton.html#removeActionListener(java.awt.event.ActionListener)), [removeChangeListener](http://docs.google.com/javax/swing/AbstractButton.html#removeChangeListener(javax.swing.event.ChangeListener)), [removeItemListener](http://docs.google.com/javax/swing/AbstractButton.html#removeItemListener(java.awt.event.ItemListener)), [removeNotify](http://docs.google.com/javax/swing/AbstractButton.html#removeNotify()), [setAction](http://docs.google.com/javax/swing/AbstractButton.html#setAction(javax.swing.Action)), [setActionCommand](http://docs.google.com/javax/swing/AbstractButton.html#setActionCommand(java.lang.String)), [setBorderPainted](http://docs.google.com/javax/swing/AbstractButton.html#setBorderPainted(boolean)), [setContentAreaFilled](http://docs.google.com/javax/swing/AbstractButton.html#setContentAreaFilled(boolean)), [setDisabledIcon](http://docs.google.com/javax/swing/AbstractButton.html#setDisabledIcon(javax.swing.Icon)), [setDisabledSelectedIcon](http://docs.google.com/javax/swing/AbstractButton.html#setDisabledSelectedIcon(javax.swing.Icon)), [setDisplayedMnemonicIndex](http://docs.google.com/javax/swing/AbstractButton.html#setDisplayedMnemonicIndex(int)), [setEnabled](http://docs.google.com/javax/swing/AbstractButton.html#setEnabled(boolean)), [setFocusPainted](http://docs.google.com/javax/swing/AbstractButton.html#setFocusPainted(boolean)), [setHideActionText](http://docs.google.com/javax/swing/AbstractButton.html#setHideActionText(boolean)), [setHorizontalAlignment](http://docs.google.com/javax/swing/AbstractButton.html#setHorizontalAlignment(int)), [setHorizontalTextPosition](http://docs.google.com/javax/swing/AbstractButton.html#setHorizontalTextPosition(int)), [setIcon](http://docs.google.com/javax/swing/AbstractButton.html#setIcon(javax.swing.Icon)), [setIconTextGap](http://docs.google.com/javax/swing/AbstractButton.html#setIconTextGap(int)), [setLabel](http://docs.google.com/javax/swing/AbstractButton.html#setLabel(java.lang.String)), [setLayout](http://docs.google.com/javax/swing/AbstractButton.html#setLayout(java.awt.LayoutManager)), [setMargin](http://docs.google.com/javax/swing/AbstractButton.html#setMargin(java.awt.Insets)), [setMnemonic](http://docs.google.com/javax/swing/AbstractButton.html#setMnemonic(char)), [setMnemonic](http://docs.google.com/javax/swing/AbstractButton.html#setMnemonic(int)), [setModel](http://docs.google.com/javax/swing/AbstractButton.html#setModel(javax.swing.ButtonModel)), [setMultiClickThreshhold](http://docs.google.com/javax/swing/AbstractButton.html#setMultiClickThreshhold(long)), [setPressedIcon](http://docs.google.com/javax/swing/AbstractButton.html#setPressedIcon(javax.swing.Icon)), [setRolloverEnabled](http://docs.google.com/javax/swing/AbstractButton.html#setRolloverEnabled(boolean)), [setRolloverIcon](http://docs.google.com/javax/swing/AbstractButton.html#setRolloverIcon(javax.swing.Icon)), [setRolloverSelectedIcon](http://docs.google.com/javax/swing/AbstractButton.html#setRolloverSelectedIcon(javax.swing.Icon)), [setSelected](http://docs.google.com/javax/swing/AbstractButton.html#setSelected(boolean)), [setSelectedIcon](http://docs.google.com/javax/swing/AbstractButton.html#setSelectedIcon(javax.swing.Icon)), [setText](http://docs.google.com/javax/swing/AbstractButton.html#setText(java.lang.String)), [setUI](http://docs.google.com/javax/swing/AbstractButton.html#setUI(javax.swing.plaf.ButtonUI)), [setVerticalAlignment](http://docs.google.com/javax/swing/AbstractButton.html#setVerticalAlignment(int)), [setVerticalTextPosition](http://docs.google.com/javax/swing/AbstractButton.html#setVerticalTextPosition(int)) |

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

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

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

| **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()), [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** |
| --- |

### BORDER\_PAINTED\_FLAT\_CHANGED\_PROPERTY

public static final [String](http://docs.google.com/java/lang/String.html) **BORDER\_PAINTED\_FLAT\_CHANGED\_PROPERTY**

Identifies a change to the flat property.

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#javax.swing.JCheckBox.BORDER_PAINTED_FLAT_CHANGED_PROPERTY)

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

### JCheckBox

public **JCheckBox**()

Creates an initially unselected check box button with no text, no icon.

### JCheckBox

public **JCheckBox**([Icon](http://docs.google.com/javax/swing/Icon.html) icon)

Creates an initially unselected check box with an icon.

**Parameters:**icon - the Icon image to display

### JCheckBox

public **JCheckBox**([Icon](http://docs.google.com/javax/swing/Icon.html) icon,  
 boolean selected)

Creates a check box with an icon and specifies whether or not it is initially selected.

**Parameters:**icon - the Icon image to displayselected - a boolean value indicating the initial selection state. If true the check box is selected

### JCheckBox

public **JCheckBox**([String](http://docs.google.com/java/lang/String.html) text)

Creates an initially unselected check box with text.

**Parameters:**text - the text of the check box.

### JCheckBox

public **JCheckBox**([Action](http://docs.google.com/javax/swing/Action.html) a)

Creates a check box where properties are taken from the Action supplied.

**Since:** 1.3

### JCheckBox

public **JCheckBox**([String](http://docs.google.com/java/lang/String.html) text,  
 boolean selected)

Creates a check box with text and specifies whether or not it is initially selected.

**Parameters:**text - the text of the check box.selected - a boolean value indicating the initial selection state. If true the check box is selected

### JCheckBox

public **JCheckBox**([String](http://docs.google.com/java/lang/String.html) text,  
 [Icon](http://docs.google.com/javax/swing/Icon.html) icon)

Creates an initially unselected check box with the specified text and icon.

**Parameters:**text - the text of the check box.icon - the Icon image to display

### JCheckBox

public **JCheckBox**([String](http://docs.google.com/java/lang/String.html) text,  
 [Icon](http://docs.google.com/javax/swing/Icon.html) icon,  
 boolean selected)

Creates a check box with text and icon, and specifies whether or not it is initially selected.

**Parameters:**text - the text of the check box.icon - the Icon image to displayselected - a boolean value indicating the initial selection state. If true the check box is selected

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

### setBorderPaintedFlat

public void **setBorderPaintedFlat**(boolean b)

Sets the borderPaintedFlat property, which gives a hint to the look and feel as to the appearance of the check box border. This is usually set to true when a JCheckBox instance is used as a renderer in a component such as a JTable or JTree. The default value for the borderPaintedFlat property is false. This method fires a property changed event. Some look and feels might not implement flat borders; they will ignore this property.

**Parameters:**b - true requests that the border be painted flat; false requests normal borders**Since:** 1.3 **See Also:**[isBorderPaintedFlat()](http://docs.google.com/javax/swing/JCheckBox.html#isBorderPaintedFlat())

### isBorderPaintedFlat

public boolean **isBorderPaintedFlat**()

Gets the value of the borderPaintedFlat property.

**Returns:**the value of the borderPaintedFlat property**Since:** 1.3 **See Also:**[setBorderPaintedFlat(boolean)](http://docs.google.com/javax/swing/JCheckBox.html#setBorderPaintedFlat(boolean))

### updateUI

public void **updateUI**()

Resets the UI property to a value from the current look and feel.

**Overrides:**[updateUI](http://docs.google.com/javax/swing/JToggleButton.html#updateUI()) in class [JToggleButton](http://docs.google.com/javax/swing/JToggleButton.html) **See Also:**[JComponent.updateUI()](http://docs.google.com/javax/swing/JComponent.html#updateUI())

### getUIClassID

public [String](http://docs.google.com/java/lang/String.html) **getUIClassID**()

Returns a string that specifies the name of the L&F class that renders this component.

**Overrides:**[getUIClassID](http://docs.google.com/javax/swing/JToggleButton.html#getUIClassID()) in class [JToggleButton](http://docs.google.com/javax/swing/JToggleButton.html) **Returns:**the string "CheckBoxUI"**See Also:**[JComponent.getUIClassID()](http://docs.google.com/javax/swing/JComponent.html#getUIClassID()), [UIDefaults.getUI(javax.swing.JComponent)](http://docs.google.com/javax/swing/UIDefaults.html#getUI(javax.swing.JComponent))

### paramString

protected [String](http://docs.google.com/java/lang/String.html) **paramString**()

Returns a string representation of this JCheckBox. This method is intended to be used only for debugging purposes, and the content and format of the returned string may vary between implementations. The returned string may be empty but may not be null. specific new aspects of the JFC components.

**Overrides:**[paramString](http://docs.google.com/javax/swing/JToggleButton.html#paramString()) in class [JToggleButton](http://docs.google.com/javax/swing/JToggleButton.html) **Returns:**a string representation of this JCheckBox.

### getAccessibleContext

public [AccessibleContext](http://docs.google.com/javax/accessibility/AccessibleContext.html) **getAccessibleContext**()

Gets the AccessibleContext associated with this JCheckBox. For JCheckBoxes, the AccessibleContext takes the form of an AccessibleJCheckBox. A new AccessibleJCheckBox instance is created if necessary.

**Specified by:**[getAccessibleContext](http://docs.google.com/javax/accessibility/Accessible.html#getAccessibleContext()) in interface [Accessible](http://docs.google.com/javax/accessibility/Accessible.html)**Overrides:**[getAccessibleContext](http://docs.google.com/javax/swing/JToggleButton.html#getAccessibleContext()) in class [JToggleButton](http://docs.google.com/javax/swing/JToggleButton.html) **Returns:**an AccessibleJCheckBox that serves as the AccessibleContext of this JCheckBox

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/JCheckBox.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/javax/swing/JButton.AccessibleJButton.html)   [**NEXT CLASS**](http://docs.google.com/javax/swing/JCheckBox.AccessibleJCheckBox.html) | [**FRAMES**](http://docs.google.com/index.html?javax/swing/JCheckBox.html)    [**NO FRAMES**](http://docs.google.com/JCheckBox.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: [NESTED](#3znysh7) | [FIELD](#2s8eyo1) | [CONSTR](#1ksv4uv) | [METHOD](#44sinio) | DETAIL: [FIELD](#2xcytpi) | [CONSTR](#3whwml4) | [METHOD](#23ckvvd) |

[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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