

Package src.game

Class SButton

```
java.lang.Object
  java.awt.Component
    java.awt.Container
      javax.swing.JComponent
        javax.swing.AbstractButton
          javax.swing.JButton
            src.game.SButton
```

All Implemented Interfaces:

ImageObserver , ItemSelectable , MenuContainer , Serializable , Accessible , SwingConstants

```
public class SButton
extends JButton
```

Custom button class representing a single cell in the Sudoku grid or a button in the number selection pad.

See Also:

Serialized Form

Nested Class Summary

Nested classes/interfaces inherited from class javax.swing.JButton

JButton.AccessibleJButton

Nested classes/interfaces inherited from class javax.swing.AbstractButton

AbstractButton.AccessibleAbstractButton , AbstractButton.ButtonChangeListener

Nested classes/interfaces inherited from class javax.swing.JComponent

JComponent.AccessibleJComponent

Nested classes/interfaces inherited from class java.awt.Container

Container.AccessibleAWTContainer

Nested classes/interfaces inherited from class java.awt.Component

Component.AccessibleAWTComponent , Component.BaselineResizeBehavior ,
Component.BltBufferStrategy , Component.FlipBufferStrategy

Field Summary

Fields inherited from class `javax.swing.AbstractButton`

`actionListener` , `BORDER_PAINTED_CHANGED_PROPERTY` , `changeEvent` , `changeListener` , `CONTENT_AREA_FILLED_CHANGED_PROPERTY` , `DISABLED_ICON_CHANGED_PROPERTY` , `DISABLED_SELECTED_ICON_CHANGED_PROPERTY` , `FOCUS_PAINTED_CHANGED_PROPERTY` , `HORIZONTAL_ALIGNMENT_CHANGED_PROPERTY` , `HORIZONTAL_TEXT_POSITION_CHANGED_PROPERTY` , `ICON_CHANGED_PROPERTY` , `itemListener` , `MARGIN_CHANGED_PROPERTY` , `MNEMONIC_CHANGED_PROPERTY` , `model` , `MODEL_CHANGED_PROPERTY` , `PRESSED_ICON_CHANGED_PROPERTY` , `ROLLOVER_ENABLED_CHANGED_PROPERTY` , `ROLLOVER_ICON_CHANGED_PROPERTY` , `ROLLOVER_SELECTED_ICON_CHANGED_PROPERTY` , `SELECTED_ICON_CHANGED_PROPERTY` , `TEXT_CHANGED_PROPERTY` , `VERTICAL_ALIGNMENT_CHANGED_PROPERTY` , `VERTICAL_TEXT_POSITION_CHANGED_PROPERTY`

Fields inherited from class `javax.swing.JComponent`

`listenerList` , `TOOL_TIP_TEXT_KEY` , `ui` , `UNDEFINED_CONDITION` , `WHEN_ANCESTOR_OF_FOCUSED_COMPONENT` , `WHEN_FOCUSED` , `WHEN_IN_FOCUSED_WINDOW`

Fields inherited from class `java.awt.Component`

`accessibleContext` , `BOTTOM_ALIGNMENT` , `CENTER_ALIGNMENT` , `LEFT_ALIGNMENT` , `RIGHT_ALIGNMENT` , `TOP_ALIGNMENT`

Fields inherited from interface `java.awt.image.ImageObserver`

`ABORT` , `ALLBITS` , `ERROR` , `FRAMEBITS` , `HEIGHT` , `PROPERTIES` , `SOMEBITS` , `WIDTH`

Fields inherited from interface `javax.swing.SwingConstants`

`BOTTOM` , `CENTER` , `EAST` , `HORIZONTAL` , `LEADING` , `LEFT` , `NEXT` , `NORTH` , `NORTH_EAST` , `NORTH_WEST` , `PREVIOUS` , `RIGHT` , `SOUTH` , `SOUTH_EAST` , `SOUTH_WEST` , `TOP` , `TRAILING` , `VERTICAL` , `WEST`

Constructor Summary

Constructors

Constructor	Description
<code>SButton(int num, boolean boolFlag, int row, int col)</code>	Constructs a Sudoku grid cell button.

Method Summary

All Methods	Instance Methods	Concrete Methods
Modifier and Type	Method	Description
int	<code>getCellNum()</code>	Gets the correct solution number for this cell.
int	<code>getCol()</code>	Gets the column index of this button in the grid.
int	<code>getRow()</code>	Gets the row index of this button in the grid.
void	<code>setDisplayValue(int value)</code>	Updates the value displayed on this cell.
void	<code>setSelectedVisual (boolean selected)</code>	Sets the visual style to indicate whether this cell is selected.

Methods inherited from class `javax.swing.JButton`

`getAccessibleContext` , `getUIClassID` , `isDefaultButton` , `isDefaultCapable` , `paramString` , `removeNotify` , `setDefaultCapable` , `updateUI`

Methods inherited from class `javax.swing.AbstractButton`

`actionPropertyChanged` , `addActionListener` , `addChangeListener` , `addImpl` , `addItemListener` , `checkHorizontalKey` , `checkVerticalKey` , `configurePropertiesFromAction` , `createActionListener` , `createActionPropertyChangeListener` , `createChangeListener` , `createItemListener` , `doClick` , `doClick` , `fireActionPerformed` , `fireItemStateChanged` , `fireStateChanged` , `getAction` , `getActionCommand` , `getActionListeners` , `getChangeListeners` , `getDisabledIcon` , `getDisabledSelectedIcon` , `getDisplayedMnemonicIndex` , `getHideActionText` , `getHorizontalAlignment` , `getHorizontalTextPosition` , `getIcon` , `getIconTextGap` , `getItemListeners` , `getLabel` , `getMargin` , `getMnemonic` , `getModel` , `getMultiClickThreshold` , `getPressedIcon` , `getRolloverIcon` , `getRolloverSelectedIcon` , `getSelectedIcon` , `getSelectedObjects` , `getText` , `getUI` , `getVerticalAlignment` , `getVerticalTextPosition` , `imageUpdate` , `init` , `isBorderPainted` , `isContentAreaFilled` , `isFocusPainted` , `isRolloverEnabled` , `isSelected` , `paintBorder` , `removeActionListener` , `removeChangeListener` , `removeItemListener` , `setAction` , `setActionCommand` , `setBorderPainted` , `setContentAreaFilled` , `setDisabledIcon` , `setDisabledSelectedIcon` , `setDisplayedMnemonicIndex` , `setEnabled` , `setFocusPainted` , `setHideActionText` , `setHorizontalAlignment` , `setHorizontalTextPosition` , `setIcon` , `setIconTextGap` , `setLabel` , `setLayout` , `setMargin` , `setMnemonic` , `setMnemonic` , `setModel` , `setMultiClickThreshold` , `setPressedIcon` , `setRolloverEnabled` , `setRolloverIcon` , `setRolloverSelectedIcon` , `setSelected` , `setSelectedIcon` , `setText` , `setUI` , `setVerticalAlignment` , `setVerticalTextPosition`

Methods inherited from class `javax.swing.JComponent`

addAncestorListener , addNotify , addVetoableChangeListener , computeVisibleRect , contains , createToolTip , disable , enable , firePropertyChange , firePropertyChange , firePropertyChange , fireVetoableChange , getActionForKeyStroke , getActionMap , getAlignmentX , getAlignmentY , getAncestorListeners , getAutoscrolls , getBaseline , getBaselineResizeBehavior , getBorder , getBounds , getClientProperty , getComponentGraphics , getComponentPopupMenu , getConditionForKeyStroke , getDebugGraphicsOptions , getDefaultLocale , getFontMetrics , getGraphics , getHeight , getInheritsPopupMenu , getInputMap , getInputMap , getInputVerifier , getInsets , getInsets , getListeners , getLocation , getMaximumSize , getMinimumSize , getNextFocusableComponent , getPopupLocation , getPreferredSize , getRegisteredKeyStrokes , getRootPane , getSize , getToolTipLocation , getToolTipText , getToolTipText , getTopLevelAncestor , getTransferHandler , getVerifyInputWhenFocusTarget , getVetoableChangeListeners , getVisibleRect , getWidth , getX , getY , grabFocus , hide , isDoubleBuffered , isLightweightComponent , isManagingFocus , isOpaque , isOptimizedDrawingEnabled , isPaintingForPrint , isPaintingOrigin , isPaintingTile , isRequestFocusEnabled , isValidRoot , paint , paintChildren , paintComponent , paintImmediately , paintImmediately , print , printAll , printBorder , printChildren , printComponent , processComponentKeyEvent , processKeyBinding , processKeyEvent , processMouseEvent , processMouseMotionEvent , putClientProperty , registerKeyboardAction , registerKeyboardAction , removeAncestorListener , removeVetoableChangeListener , repaint , repaint , requestDefaultFocus , requestFocus , requestFocus , requestFocusInWindow , requestFocusInWindow , resetKeyboardActions , reshape , revalidate , scrollRectToVisible , setActionMap , setAlignmentX , setAlignmentY , setAutoscrolls , setBackground , setBorder , setComponentPopupMenu , setDebugGraphicsOptions , setDefaultLocale , setDoubleBuffered , setFocusTraversalKeys , setFont , setForeground , setInheritsPopupMenu , setInputMap , setInputVerifier , setMaximumSize , setMinimumSize , setNextFocusableComponent , setOpaque , setPreferredSize , setRequestFocusEnabled , setToolTipText , setTransferHandler , setUI , setVerifyInputWhenFocusTarget , setVisible , unregisterKeyboardAction , update

Methods inherited from class java.awt.Container

add , add , add , add , add , addContainerListener , addPropertyChangeListener , addPropertyChangeListener , applyComponentOrientation , areFocusTraversalKeysSet , countComponents , deliverEvent , doLayout , findComponentAt , findComponentAt , getComponent , getComponentAt , getComponentAt , getComponentCount , getComponents , getComponentZOrder , getContainerListeners , getFocusTraversalKeys , getFocusTraversalPolicy , getLayout , getMousePosition , insets , invalidate , isAncestorOf , isFocusCycleRoot , isFocusCycleRoot , isFocusTraversalPolicyProvider , isFocusTraversalPolicySet , layout , list , list , locate , minimumSize , paintComponents , preferredSize , printComponents , processContainerEvent , processEvent , remove , remove , removeAll , removeContainerListener , setComponentZOrder , setFocusCycleRoot , setFocusTraversalPolicy , setFocusTraversalPolicyProvider , transferFocusDownCycle , validate , validateTree

Methods inherited from class java.awt.Component

action , add , addComponentListener , addFocusListener , addHierarchyBoundsListener , addHierarchyListener , addInputMethodListener , addKeyListener , addMouseListener , addMouseMotionListener , addMouseWheelListener , bounds , checkImage , checkImage , coalesceEvents , contains , createImage , createImage , createVolatileImage , createVolatileImage , disableEvents , dispatchEvent , enable , enableEvents , enableInputMethods , firePropertyChange , firePropertyChange , firePropertyChange , firePropertyChange , firePropertyChange , firePropertyChange , firePropertyChange , getBackground , getBounds , getColorModel , getComponentListeners , getComponentOrientation , getCursor , getDropTarget , getFocusCycleRootAncestor , getFocusListeners , getFocusTraversalKeysEnabled , getFont , getForeground , getGraphicsConfiguration , getHierarchyBoundsListeners , getHierarchyListeners , getIgnoreRepaint , getInputContext , getInputMethodListeners , getInputMethodRequests , getKeyListeners , getLocale , getLocation , getLocationOnScreen , getMouseListeners , getMouseMotionListeners , getMousePosition , getMouseWheelListeners , getName , getParent , getPropertyChangeListeners , getPropertyChangeListeners , getSize , getToolkit , getTreeLock , gotFocus , handleEvent , hasFocus , inside , isBackgroundSet , isCursorSet , isDisplayable , isEnabled , isFocusable , isFocusOwner , isFocusTraversable , isFontSet , isForegroundSet , isLightweight , isMaximumSizeSet , isMinimumSizeSet , isPreferredSizeSet , isShowing , isValid , isVisible , keyDown , keyUp , list , list , list , location , lostFocus , mouseDown , mouseDrag , mouseEnter , mouseExit , mouseMove , mouseUp , move , nextFocus , paintAll , postEvent , prepareImage , prepareImage , processComponentEvent , processFocusEvent , processHierarchyBoundsEvent , processHierarchyEvent , processInputMethodEvent , processMouseWheelEvent , remove , removeComponentListener , removeFocusListener , removeHierarchyBoundsListener , removeHierarchyListener , removeInputMethodListener , removeKeyListener , removeMouseListener , removeMouseMotionListener , removeMouseWheelListener , removePropertyChangeListener , removePropertyChangeListener , repaint , repaint , repaint , requestFocus , requestFocus , requestFocusInWindow , resize , resize , setBounds , setBounds , setComponentOrientation , setCursor , setDropTarget , setFocusable , setFocusTraversalKeysEnabled , setIgnoreRepaint , setLocale , setLocation , setLocation , setMixingCutoutShape , setName , setSize , setSize , show , show , size , toString , transferFocus , transferFocusBackward , transferFocusUpCycle

Methods inherited from class java.lang.Object

clone , equals , finalize , getClass , hashCode , notify , notifyAll , wait , wait , wait

Constructor Details

SButton

```
public SButton(int num,
               boolean boolFlag,
               int row,
               int col)
```

Constructs a Sudoku grid cell button.

Parameters:

num - the correct solution number for this cell

boolFlag - true if this is a pre-filled cell, false if user-editable

row - the row index (0-8) in the grid

col - the column index (0-8) in the grid

Method Details

setDisplayValue

```
public void setDisplayValue(int value)
```

Updates the value displayed on this cell. Only used for non-fixed cells; pre-filled cells cannot be modified.

Parameters:

value - the new value to display (0 to clear the cell)

setSelectedVisual

```
public void setSelectedVisual(boolean selected)
```

Sets the visual style to indicate whether this cell is selected. Selected cells display with a blue border; unselected with default border.

Parameters:

selected - true to show selected state, false to show normal state

getRow

```
public int getRow()
```

Gets the row index of this button in the grid.

Returns:

the row index (0-8)

getCol

```
public int getCol()
```

Gets the column index of this button in the grid.

Returns:

the column index (0-8)

getCellNum

```
public int getCellNum()
```

Gets the correct solution number for this cell.

Returns:

the cell's solution number