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Chapter 1

Package controller

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1.1 Classes

1.1.1 CLASS *CloseListener*

Shows an "Are you sure?" dialog before exiting.

DECLARATION

```
public class CloseListener
extends java.lang.Object
implements java.awt.event.WindowListener,
java.awt.event.ActionListener
```

CONSTRUCTORS

- *CloseListener*
`public CloseListener()`

METHODS

- *actionPerformed*
`public void actionPerformed(java.awt.event.ActionEvent
arg0)`
 - **Usage**
 - * Checks whether or not the user is sure before closing the window.

- *windowActivated*
`public void windowActivated(java.awt.event.WindowEvent
e)`
 - **Usage**
 - * Doesn't need to do anything special.

- *windowClosed*
`public void windowClosed(java.awt.event.WindowEvent e
)`
 - **Usage**
 - * Doesn't need to do anything special.

- *windowClosing*

```
public void windowClosing( java.awt.event.WindowEvent e )
```

- **Usage**

- * Checks whether or not the user is sure before closing the window.
-

- *windowDeactivated*

```
public void windowDeactivated(  
java.awt.event.WindowEvent e )
```

- **Usage**

- * Doesn't need to do anything special.
-

- *windowDeiconified*

```
public void windowDeiconified(  
java.awt.event.WindowEvent e )
```

- **Usage**

- * Doesn't need to do anything special.
-

- *windowIconified*

```
public void windowIconified( java.awt.event.WindowEvent  
e )
```

- **Usage**

- * Doesn't need to do anything special.
-

- *windowOpened*

```
public void windowOpened( java.awt.event.WindowEvent e  
)
```

- **Usage**

- * Doesn't need to do anything special.

1.1.2 CLASS **DifficultyAction**

Takes care of showing a New Game-dialog to the user and start a new game based on their difficultychoice.

DECLARATION

```
public class DifficultyAction
extends javax.swing.AbstractAction
```

SERIALIZABLE FIELDS

- private MainInterface component
-

CONSTRUCTORS

- *DifficultyAction*
public **DifficultyAction**(view.MainInterface component,
model.Game game, java.lang.Boolean firstScreen)
 - **Usage**
 - * Creates a DifficultyAction associated with the component and based on the game.
The firstScreen-flag determines if there should be an "Are you sure?"-dialog before showing the difficultyselection.
 - **Parameters**
 - * **component** - The MainInterface to associate the action with
 - * **game** - The game to reset if the user wants to start a new game
 - * **firstScreen** - Enables the "Are you sure"-dialog if firstScreen is false

METHODS

- *actionPerformed*
public void **actionPerformed**(java.awt.event.ActionEvent e)

METHODS INHERITED FROM CLASS javax.swing.AbstractAction

- *addPropertyChangeListener*
public synchronized void **addPropertyChangeListener**(
java.beans.PropertyChangeListener arg0)

- *getKeys*
public Object **getKeys**()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners()
- *getValue*
public Object **getValue**(java.lang.String arg0)
- *isEnabled*
public boolean **isEnabled**()
- *putValue*
public void **putValue**(java.lang.String arg0, java.lang.Object
arg1)
- *removePropertyChangeListener*
public synchronized void **removePropertyChangeListener**(
java.beans.PropertyChangeListener arg0)
- *setEnabled*
public void **setEnabled**(boolean arg0)

1.1.3 CLASS DifficultySelectionAction

Starts a new game based on the user's selection

DECLARATION

<pre>public class DifficultySelectionAction extends javax.swing.AbstractAction</pre>

SERIALIZABLE FIELDS

- private Game game
—
- private Component frame
—

CONSTRUCTORS

- *DifficultySelectionAction*
public **DifficultySelectionAction**(model.Game game,
java.awt.Component frame)

METHODS

• *actionPerformed*

```
public void actionPerformed( java.awt.event.ActionEvent  
arg0 )
```

– Usage

- * Starts a new game based on the ActionCommand sent when the user clicked one of the difficulty buttons.

METHODS INHERITED FROM CLASS javax.swing.AbstractAction

• *addPropertyChangeListener*

```
public synchronized void addPropertyChangeListener(  
java.beans.PropertyChangeListener arg0 )
```

• *getKeys*

```
public Object getKeys( )
```

• *getPropertyChangeListeners*

```
public synchronized PropertyChangeListener  
getPropertyChangeListeners( )
```

• *getValue*

```
public Object getValue( java.lang.String arg0 )
```

• *isEnabled*

```
public boolean isEnabled( )
```

• *putValue*

```
public void putValue( java.lang.String arg0, java.lang.Object  
arg1 )
```

• *removePropertyChangeListener*

```
public synchronized void removePropertyChangeListener(  
java.beans.PropertyChangeListener arg0 )
```

• *setEnabled*

```
public void setEnabled( boolean arg0 )
```

1.1.4 CLASS *HelpAction*

Takes care of finding and showing help to the user.

DECLARATION

<pre>public class HelpAction extends javax.swing.AbstractAction</pre>
--

SERIALIZABLE FIELDS

- private MainInterface frame
–
- private Game game
–

CONSTRUCTORS

- *HelpAction*
public **HelpAction**(view.MainInterface frame, model.Game game)

METHODS

- *actionPerformed*
public void **actionPerformed**(java.awt.event.ActionEvent e)
– **Usage**
 - * If there are mistakes on the board, these gets marked.
Otherwise it finds a solvable field (if any) and marks it on the board.

METHODS INHERITED FROM CLASS javax.swing.AbstractAction

- *addPropertyChangeListener*
public synchronized void **addPropertyChangeListener**(
java.beans.PropertyChangeListener arg0)
- *getKeys*
public Object **getKeys**()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners()
- *getValue*
public Object **getValue**(java.lang.String arg0)
- *isEnabled*
public boolean **isEnabled**()

- *putValue*
`public void putValue(java.lang.String arg0, java.lang.Object arg1)`

- *removePropertyChangeListener*
`public synchronized void removePropertyChangeListener(java.beans.PropertyChangeListener arg0)`

- *setEnabled*
`public void setEnabled(boolean arg0)`

1.1.5 CLASS NumberAction

Changes the number on the board based on a user's selection.

DECLARATION

```
public class NumberAction
extends javax.swing.AbstractAction
```

SERIALIZABLE FIELDS

- private Game game
—
- private Board board
—
- private int fieldId
—
- private MainInterface main
—

CONSTRUCTORS

- *NumberAction*
`public NumberAction(view.MainInterface main, int fieldId, java.awt.Component frame)`

METHODS

- *actionPerformed*

```
public void actionPerformed( java.awt.event.ActionEvent  

e )
```

– Usage

- * Shows a dialog and changes the numbervalue and the sheep’s text based on the user’s selection.

METHODS INHERITED FROM CLASS javax.swing.AbstractAction

- *addPropertyChangeListener*

```
public synchronized void addPropertyChangeListener(  

java.beans.PropertyChangeListener arg0 )
```
- *getKeys*

```
public Object getKeys( )
```
- *getPropertyChangeListeners*

```
public synchronized PropertyChangeListener  

getPropertyChangeListeners( )
```
- *getValue*

```
public Object getValue( java.lang.String arg0 )
```
- *isEnabled*

```
public boolean isEnabled( )
```
- *putValue*

```
public void putValue( java.lang.String arg0, java.lang.Object  

arg1 )
```
- *removePropertyChangeListener*

```
public synchronized void removePropertyChangeListener(  

java.beans.PropertyChangeListener arg0 )
```
- *setEnabled*

```
public void setEnabled( boolean arg0 )
```

1.1.6 CLASS SudokuApplet

The main initiation point for the Applet-version of our game.

DECLARATION

```
public class SudokuApplet  

extends javax.swing.JApplet
```

CONSTRUCTORS

- *SudokuApplet*
public **SudokuApplet**()

METHODS

- *init*
public void **init**()

– **Usage**
* Gets run when the applet gets loaded into the browser.

METHODS INHERITED FROM CLASS javax.swing.JApplet

- *getAccessibleContext*
public AccessibleContext **getAccessibleContext**()
- *getContentPane*
public Container **getContentPane**()
- *getGlassPane*
public Component **getGlassPane**()
- *getJMenuBar*
public JMenuBar **getJMenuBar**()
- *getLayeredPane*
public JLayeredPane **getLayeredPane**()
- *getRootPane*
public JRootPane **getRootPane**()
- *remove*
public void **remove**(java.awt.Component arg0)
- *setContentPane*
public void **setContentPane**(java.awt.Container arg0)
- *setGlassPane*
public void **setGlassPane**(java.awt.Component arg0)
- *setJMenuBar*
public void **setJMenuBar**(javax.swing.JMenuBar arg0)
- *setLayeredPane*
public void **setLayeredPane**(javax.swing.JLayeredPane arg0)
- *setLayout*
public void **setLayout**(java.awt.LayoutManager arg0)
- *update*
public void **update**(java.awt.Graphics arg0)

METHODS INHERITED FROM CLASS `java.applet.Applet`

- *destroy*
`public void destroy()`
- *getAccessibleContext*
`public AccessibleContext getAccessibleContext()`
- *getAppletContext*
`public AppletContext getAppletContext()`
- *getAppletInfo*
`public String getAppletInfo()`
- *getAudioClip*
`public AudioClip getAudioClip(java.net.URL arg0)`
- *getAudioClip*
`public AudioClip getAudioClip(java.net.URL arg0,
java.lang.String arg1)`
- *getCodeBase*
`public URL getCodeBase()`
- *getDocumentBase*
`public URL getDocumentBase()`
- *getImage*
`public Image getImage(java.net.URL arg0)`
- *getImage*
`public Image getImage(java.net.URL arg0, java.lang.String
arg1)`
- *getLocale*
`public Locale getLocale()`
- *getParameter*
`public String getParameter(java.lang.String arg0)`
- *getParameterInfo*
`public String getParameterInfo()`
- *init*
`public void init()`
- *isActive*
`public boolean isActive()`
- *newAudioClip*
`public static final AudioClip newAudioClip(java.net.URL
arg0)`
- *play*
`public void play(java.net.URL arg0)`
- *play*
`public void play(java.net.URL arg0, java.lang.String arg1)`
- *resize*
`public void resize(java.awt.Dimension arg0)`

- *resize*
public void resize(int arg0, int arg1)
- *setStub*
public final void setStub(java.applet.AppletStub arg0)
- *showStatus*
public void showStatus(java.lang.String arg0)
- *start*
public void start()
- *stop*
public void stop()

METHODS INHERITED FROM CLASS java.awt.Panel

-
- *addNotify*
public void addNotify()
 - *getAccessibleContext*
public AccessibleContext getAccessibleContext()

METHODS INHERITED FROM CLASS java.awt.Container

-
- *add*
public Component add(java.awt.Component arg0)
 - *add*
public Component add(java.awt.Component arg0, int arg1)
 - *add*
public void add(java.awt.Component arg0, java.lang.Object arg1)
 - *add*
public void add(java.awt.Component arg0, java.lang.Object arg1, int arg2)
 - *add*
public Component add(java.lang.String arg0, java.awt.Component arg1)
 - *addContainerListener*
public synchronized void addContainerListener(java.awt.event.ContainerListener arg0)
 - *addNotify*
public void addNotify()
 - *addPropertyChangeListener*
public void addPropertyChangeListener(java.beans.PropertyChangeListener arg0)
 - *addPropertyChangeListener*
public void addPropertyChangeListener(java.lang.String arg0, java.beans.PropertyChangeListener arg1)

- *applyComponentOrientation*
public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *countComponents*
public int countComponents()
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *doLayout*
public void doLayout()
- *findComponentAt*
public Component findComponentAt(int arg0, int arg1)
- *findComponentAt*
public Component findComponentAt(java.awt.Point arg0)
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getComponent*
public Component getComponent(int arg0)
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentCount*
public int getComponentCount()
- *getComponents*
public Component getComponents()
- *getComponentZOrder*
public final int getComponentZOrder(java.awt.Component
arg0)
- *getContainerListeners*
public synchronized ContainerListener getContainerListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
- *getFocusTraversalPolicy*
public FocusTraversalPolicy getFocusTraversalPolicy()
- *getInsets*
public Insets getInsets()
- *getLayout*
public LayoutManager getLayout()
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)

- *getMaximumSize*
public Dimension getMaximumSize()
- *getMinimumSize*
public Dimension getMinimumSize()
- *getMousePosition*
public Point getMousePosition(boolean arg0)
- *getPreferredSize*
public Dimension getPreferredSize()
- *insets*
public Insets insets()
- *invalidate*
public void invalidate()
- *isAncestorOf*
public boolean isAncestorOf(java.awt.Component arg0)
- *isFocusCycleRoot*
public boolean isFocusCycleRoot()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusTraversalPolicyProvider*
public final boolean isFocusTraversalPolicyProvider()
- *isFocusTraversalPolicySet*
public boolean isFocusTraversalPolicySet()
- *layout*
public void layout()
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *minimumSize*
public Dimension minimumSize()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintComponents*
public void paintComponents(java.awt.Graphics arg0)
- *preferredSize*
public Dimension preferredSize()
- *print*
public void print(java.awt.Graphics arg0)
- *printComponents*
public void printComponents(java.awt.Graphics arg0)
- *remove*
public void remove(java.awt.Component arg0)

- *remove*
public void remove(int arg0)
- *removeAll*
public void removeAll()
- *removeContainerListener*
public synchronized void removeContainerListener(java.awt.event.ContainerListener arg0)
- *removeNotify*
public void removeNotify()
- *setComponentZOrder*
public final void setComponentZOrder(java.awt.Component arg0, int arg1)
- *setFocusCycleRoot*
public void setFocusCycleRoot(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalPolicy*
public void setFocusTraversalPolicy(java.awt.FocusTraversalPolicy arg0)
- *setFocusTraversalPolicyProvider*
public final void setFocusTraversalPolicyProvider(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setLayout*
public void setLayout(java.awt.LayoutManager arg0)
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusDownCycle*
public void transferFocusDownCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

METHODS INHERITED FROM CLASS java.awt.Component

- *action*
public boolean action(java.awt.Event arg0, java.lang.Object arg1)
- *add*
public synchronized void add(java.awt.PopupMenu arg0)

- *addComponentListener*
public synchronized void addComponentListener(
java.awt.event.ComponentListener arg0)
- *addFocusListener*
public synchronized void addFocusListener(
java.awt.event.FocusListener arg0)
- *addHierarchyBoundsListener*
public void addHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)
- *addHierarchyListener*
public void addHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *addInputMethodListener*
public synchronized void addInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *addKeyListener*
public synchronized void addKeyListener(
java.awt.event.KeyListener arg0)
- *addMouseListener*
public synchronized void addMouseListener(
java.awt.event.MouseListener arg0)
- *addMouseMotionListener*
public synchronized void addMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *addMouseWheelListener*
public synchronized void addMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *addNotify*
public void addNotify()
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *applyComponentOrientation*
public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *bounds*
public Rectangle bounds()
- *checkImage*
public int checkImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)

- *checkImage*
public int checkImage(java.awt.Image arg0, int arg1, int
arg2, java.awt.image.ImageObserver arg3)
- *contains*
public boolean contains(int arg0, int arg1)
- *contains*
public boolean contains(java.awt.Point arg0)
- *createImage*
public Image createImage(java.awt.image.ImageProducer arg0)
- *createImage*
public Image createImage(int arg0, int arg1)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1
)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1,
java.awt.ImageCapabilities arg2)
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *disable*
public void disable()
- *dispatchEvent*
public final void dispatchEvent(java.awt.AWTEvent arg0)
- *doLayout*
public void doLayout()
- *enable*
public void enable()
- *enable*
public void enable(boolean arg0)
- *enableInputMethods*
public void enableInputMethods(boolean arg0)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, byte
arg1, byte arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, char
arg1, char arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, double
arg1, double arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, float
arg1, float arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, long
arg1, long arg2)

- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, short arg1, short arg2)
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getBackground*
public Color getBackground()
- *getBounds*
public Rectangle getBounds()
- *getBounds*
public Rectangle getBounds(java.awt.Rectangle arg0)
- *getColorModel*
public ColorModel getColorModel()
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentListeners*
public synchronized ComponentListener getComponentListeners()
- *getComponentOrientation*
public ComponentOrientation getComponentOrientation()
- *getCursor*
public Cursor getCursor()
- *getDropTarget*
public synchronized DropTarget getDropTarget()
- *getFocusCycleRootAncestor*
public Container getFocusCycleRootAncestor()
- *getFocusListeners*
public synchronized FocusListener getFocusListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
- *getFocusTraversalKeysEnabled*
public boolean getFocusTraversalKeysEnabled()
- *getFont*
public Font getFont()
- *getFontMetrics*
public FontMetrics getFontMetrics(java.awt.Font arg0)
- *getForeground*
public Color getForeground()

- *getGraphics*
public Graphics **getGraphics**()
- *getGraphicsConfiguration*
public GraphicsConfiguration **getGraphicsConfiguration**()
- *getHeight*
public int **getHeight**()
- *getHierarchyBoundsListeners*
public synchronized HierarchyBoundsListener
getHierarchyBoundsListeners()
- *getHierarchyListeners*
public synchronized HierarchyListener **getHierarchyListeners**()
- *getIgnoreRepaint*
public boolean **getIgnoreRepaint**()
- *getInputContext*
public InputContext **getInputContext**()
- *getInputMethodListeners*
public synchronized InputMethodListener
getInputMethodListeners()
- *getInputMethodRequests*
public InputMethodRequests **getInputMethodRequests**()
- *getKeyListeners*
public synchronized KeyListener **getKeyListeners**()
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getLocale*
public Locale **getLocale**()
- *getLocation*
public Point **getLocation**()
- *getLocation*
public Point **getLocation**(java.awt.Point arg0)
- *getLocationOnScreen*
public Point **getLocationOnScreen**()
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()
- *getMouseListeners*
public synchronized MouseListener **getMouseListeners**()
- *getMouseMotionListeners*
public synchronized MouseMotionListener
getMouseMotionListeners()
- *getMousePosition*
public Point **getMousePosition**()

- *getMouseWheelListeners*
 public synchronized MouseWheelListener
getMouseWheelListeners()
- *getName*
 public String getName()
- *getParent*
 public Container getParent()
- *getPeer*
 public ComponentPeer getPeer()
- *getPreferredSize*
 public Dimension getPreferredSize()
- *getPropertyChangeListeners*
 public synchronized PropertyChangeListener
getPropertyChangeListeners()
- *getPropertyChangeListeners*
 public synchronized PropertyChangeListener
getPropertyChangeListeners(java.lang.String arg0)
- *getSize*
 public Dimension getSize()
- *getSize*
 public Dimension getSize(java.awt.Dimension arg0)
- *getToolkit*
 public Toolkit getToolkit()
- *getTreeLock*
 public final Object getTreeLock()
- *getWidth*
 public int getWidth()
- *getX*
 public int getX()
- *getY*
 public int getY()
- *gotFocus*
 public boolean gotFocus(java.awt.Event arg0,
 java.lang.Object arg1)
- *handleEvent*
 public boolean handleEvent(java.awt.Event arg0)
- *hasFocus*
 public boolean hasFocus()
- *hide*
 public void hide()
- *imageUpdate*
 public boolean imageUpdate(java.awt.Image arg0, int arg1,
 int arg2, int arg3, int arg4, int arg5)
- *inside*
 public boolean inside(int arg0, int arg1)

- *invalidate*
public void invalidate()
- *isBackgroundSet*
public boolean isBackgroundSet()
- *isCursorSet*
public boolean isCursorSet()
- *isDisplayable*
public boolean isDisplayable()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isEnabled*
public boolean isEnabled()
- *isFocusable*
public boolean isFocusable()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusOwner*
public boolean isFocusOwner()
- *isFocusTraversable*
public boolean isFocusTraversable()
- *isFontSet*
public boolean isFontSet()
- *isForegroundSet*
public boolean isForegroundSet()
- *isLightweight*
public boolean isLightweight()
- *isMaximumSizeSet*
public boolean isMaximumSizeSet()
- *isMinimumSizeSet*
public boolean isMinimumSizeSet()
- *isOpaque*
public boolean isOpaque()
- *isPreferredSizeSet*
public boolean isPreferredSizeSet()
- *isShowing*
public boolean isShowing()
- *isValid*
public boolean isValid()
- *isVisible*
public boolean isVisible()
- *keyDown*
public boolean keyDown(java.awt.Event arg0, int arg1)
- *keyUp*
public boolean keyUp(java.awt.Event arg0, int arg1)

- *layout*
public void layout()
- *list*
public void list()
- *list*
public void list(java.io.PrintStream arg0)
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *location*
public Point location()
- *lostFocus*
public boolean lostFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *minimumSize*
public Dimension minimumSize()
- *mouseDown*
public boolean mouseDown(java.awt.Event arg0, int arg1,
int arg2)
- *mouseDrag*
public boolean mouseDrag(java.awt.Event arg0, int arg1,
int arg2)
- *mouseEnter*
public boolean mouseEnter(java.awt.Event arg0, int arg1,
int arg2)
- *mouseExit*
public boolean mouseExit(java.awt.Event arg0, int arg1,
int arg2)
- *mouseMove*
public boolean mouseMove(java.awt.Event arg0, int arg1,
int arg2)
- *mouseUp*
public boolean mouseUp(java.awt.Event arg0, int arg1, int
arg2)
- *move*
public void move(int arg0, int arg1)
- *nextFocus*
public void nextFocus()
- *paint*
public void paint(java.awt.Graphics arg0)

- *paintAll*
public void paintAll(java.awt.Graphics arg0)
- *postEvent*
public boolean postEvent(java.awt.Event arg0)
- *preferredSize*
public Dimension preferredSize()
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, int arg1,
int arg2, java.awt.image.ImageObserver arg3)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *remove*
public synchronized void remove(java.awt.MenuComponent arg0
)
- *removeComponentListener*
public synchronized void removeComponentListener(
java.awt.event.ComponentListener arg0)
- *removeFocusListener*
public synchronized void removeFocusListener(
java.awt.event.FocusListener arg0)
- *removeHierarchyBoundsListener*
public void removeHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)
- *removeHierarchyListener*
public void removeHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *removeInputMethodListener*
public synchronized void removeInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *removeKeyListener*
public synchronized void removeKeyListener(
java.awt.event.KeyListener arg0)
- *removeMouseListener*
public synchronized void removeMouseListener(
java.awt.event.MouseListener arg0)
- *removeMouseMotionListener*
public synchronized void removeMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *removeMouseWheelListener*
public synchronized void removeMouseWheelListener(
java.awt.event.MouseWheelListener arg0)

- *removeNotify*
public void removeNotify()
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *repaint*
public void repaint()
- *repaint*
public void repaint(int arg0, int arg1, int arg2, int
arg3)
- *repaint*
public void repaint(long arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int
arg3, int arg4)
- *requestFocus*
public void requestFocus()
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int
arg3)
- *resize*
public void resize(java.awt.Dimension arg0)
- *resize*
public void resize(int arg0, int arg1)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBounds*
public void setBounds(int arg0, int arg1, int arg2, int
arg3)
- *setBounds*
public void setBounds(java.awt.Rectangle arg0)
- *setComponentOrientation*
public void setComponentOrientation(
java.awt.ComponentOrientation arg0)
- *setCursor*
public void setCursor(java.awt.Cursor arg0)
- *setDropTarget*
public synchronized void setDropTarget(
java.awt.dnd.DropTarget arg0)

- *setEnabled*
public void **setEnabled**(boolean arg0)
- *setFocusable*
public void **setFocusable**(boolean arg0)
- *setFocusTraversalKeys*
public void **setFocusTraversalKeys**(int arg0, java.util.Set arg1)
- *setFocusTraversalKeysEnabled*
public void **setFocusTraversalKeysEnabled**(boolean arg0)
- *setFont*
public void **setFont**(java.awt.Font arg0)
- *setForeground*
public void **setForeground**(java.awt.Color arg0)
- *setIgnoreRepaint*
public void **setIgnoreRepaint**(boolean arg0)
- *setLocale*
public void **setLocale**(java.util.Locale arg0)
- *setLocation*
public void **setLocation**(int arg0, int arg1)
- *setLocation*
public void **setLocation**(java.awt.Point arg0)
- *setMaximumSize*
public void **setMaximumSize**(java.awt.Dimension arg0)
- *setMinimumSize*
public void **setMinimumSize**(java.awt.Dimension arg0)
- *setName*
public void **setName**(java.lang.String arg0)
- *setPreferredSize*
public void **setPreferredSize**(java.awt.Dimension arg0)
- *setSize*
public void **setSize**(java.awt.Dimension arg0)
- *setSize*
public void **setSize**(int arg0, int arg1)
- *setVisible*
public void **setVisible**(boolean arg0)
- *show*
public void **show**()
- *show*
public void **show**(boolean arg0)
- *size*
public Dimension **size**()
- *toString*
public String **toString**()
- *transferFocus*
public void **transferFocus**()

- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusUpCycle*
public void transferFocusUpCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

1.1.7 CLASS SudokuGame

The main initiation point for the Application-version of our game.

DECLARATION

```
public class SudokuGame
extends java.lang.Object
```

CONSTRUCTORS

- *SudokuGame*
public **SudokuGame**()

METHODS

- *main*
public static void **main**(java.lang.String [] args)

Chapter 2

Package view

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Creates buttons based on images.

SudokuMenu 250

A menubar containing the proper menuitems.

ViewSettings 273

Abstract class containing the various settings used in the GUI.

2.1 Interfaces

2.1.1 INTERFACE *MainInterface*

Interface for the two different kinds of windows our program contains.

DECLARATION

<pre>public interface MainInterface</pre>

METHODS

- *add*

```
public Component add( java.awt.Component component,  
int zIndex, int x, int y )
```

 - **Usage**
 - * Adds a component to the window.
 - **Parameters**
 - * **component** - The component to add.
 - * **zindex** - The Z-Index of the position.
 - * **x** - The X-coordinate.
 - * **y** - The Y-coordinate.
 - **Returns** - The added component.

- *createBackgroundPanel*

```
public void createBackgroundPanel( java.lang.String  
backgroundImage )
```

 - **Usage**
 - * Creates a new background with the supplied image.
 - **Parameters**
 - * **backgroundImage** - The image to use as a background.

- *createBoard*

```
public void createBoard( )
```

 - **Usage**
 - * Creates a new board. `setGame()` must have been called before.

- *createHeader*
public void **createHeader**()
 - **Usage**
 - * Creates and adds the header to the frame.

- *createIngameControls*
public void **createIngameControls**(
controller.DifficultyAction **difficultyAction**,
controller.HelpAction **helpAction**)
 - **Usage**
 - * Creates the ingamecontrols.
 - **Parameters**
 - * **difficultyAction** - The action to perform when the "New game" button is pressed.
 - * **helpAction** - The action to perform when the "Help" button is pressed.

- *createSheepSpeak*
public void **createSheepSpeak**()
 - **Usage**
 - * Creates and adds the SheepSpeak-object.

- *getBackgroundPanel*
public Background **getBackgroundPanel**()
 - **Usage**
 - * Gets the background contained in the frame.
 - **Returns** - The background.

- *getBoard*
public Board **getBoard**()
 - **Usage**
 - * Gets the graphical representation of the board.
 - **Returns** - The board.

- *getBoardDimension*
public Dimension **getBoardDimension**()
 - **Usage**
 - * Gets the current dimensions of the board.

- **Returns** - The dimensions of the board.
-

- *getControls*

public IngameControls **getControls**()

- **Usage**

* Gets the IngameControls contained in the frame.

- **Returns** - The IngameControls
-

- *getGame*

public Game **getGame**()

- **Usage**

* Gets the current instance of the game used.

- **Returns** - The game.
-

- *getSheepSpeak*

public SheepSpeak **getSheepSpeak**()

- **Usage**

* Gets the current SheepSpeak - the box in which the wise words of the sheep are.

- **Returns** - The SheepSpeak-object.
-

- *hideElements*

public void **hideElements**()

- **Usage**

* Hides all interfaceelements.

- *setGame*

public void **setGame**(model.Game game)

- **Usage**

* Sets the current game instance. Must be called before createBoard().

- **Parameters**

* game - The game to set.

- *setGlassPane*

public void **setGlassPane**(java.awt.Component glassPane)

- **Usage**

* Set the glasspane of the frame to the specified glasspane.

– **Parameters**

* **glassPane** - The glassPane to set as glasspane.

• *setMenu*

public void setMenu()

– **Usage**

* Creates and adds the menu to the frame.

• *setup*

public void setup()

– **Usage**

* Performs some standard operations on the window.

• *showElements*

public void showElements()

– **Usage**

* Shows all interfacelements.

2.2 Classes

2.2.1 CLASS Background

Handles the drawing of the backgroundimage.

DECLARATION

<pre>public class Background extends javax.swing.JPanel</pre>
--

SERIALIZABLE FIELDS

-
- private Image backgroundImage
 - The backgroundimage which gets drawn.

CONSTRUCTORS

- *Background*

```
public Background( java.lang.String  imageFile )
```

- **Usage**

- * Creates a new backgroundimage from the supplied image.

- **Parameters**

- * *imageFile* - The image to load

- *Background*

```
public Background( java.lang.String  imageFile,  
java.awt.Dimension  dim )
```

- **Usage**

- * Creates a new backgroundimage from the supplied image
with the specified dimension.

- **Parameters**

- * *imageFile* - The image to load
 - * *dim* - The dimension of the image

METHODS

- *paint*

```
public void paint( java.awt.Graphics  g )
```

- **Usage**

- * Overrides the extended JPanel's paint-method so the image
actually gets drawn.

METHODS INHERITED FROM CLASS javax.swing.JPanel

- *getAccessibleContext*

```
public AccessibleContext getAccessibleContext( )
```

- *getUI*

```
public PanelUI getUI( )
```

- *getUIClassID*

```
public String getUIClassID( )
```

- *setUI*

```
public void setUI( javax.swing.plaf.PanelUI  arg0 )
```

- *updateUI*

```
public void updateUI( )
```

METHODS INHERITED FROM CLASS `javax.swing.JComponent`

-
- *addAncestorListener*
public void addAncestorListener(javax.swing.event.AncestorListener arg0)
 - *addNotify*
public void addNotify()
 - *addVetoableChangeListener*
public synchronized void addVetoableChangeListener(java.beans.VetoableChangeListener arg0)
 - *computeVisibleRect*
public void computeVisibleRect(java.awt.Rectangle arg0)
 - *contains*
public boolean contains(int arg0, int arg1)
 - *createToolTip*
public JToolTip createToolTip()
 - *disable*
public void disable()
 - *enable*
public void enable()
 - *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, boolean arg1, boolean arg2)
 - *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, char arg1, char arg2)
 - *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, int arg1, int arg2)
 - *getAccessibleContext*
public AccessibleContext getAccessibleContext()
 - *getActionForKeyStroke*
public ActionListener getActionForKeyStroke(javax.swing.KeyStroke arg0)
 - *getActionMap*
public final ActionMap getActionMap()
 - *getAlignmentX*
public float getAlignmentX()
 - *getAlignmentY*
public float getAlignmentY()
 - *getAncestorListeners*
public AncestorListener getAncestorListeners()
 - *getAutoscrolls*
public boolean getAutoscrolls()

- *getBorder*
public Border **getBorder**()
- *getBounds*
public Rectangle **getBounds**(java.awt.Rectangle arg0)
- *getClientProperty*
public final Object **getClientProperty**(java.lang.Object arg0)
- *getComponentPopupMenu*
public JPopupMenu **getComponentPopupMenu**()
- *getConditionForKeyStroke*
public int **getConditionForKeyStroke**(javax.swing.KeyStroke arg0)
- *getDebugGraphicsOptions*
public int **getDebugGraphicsOptions**()
- *getDefaultLocale*
public static Locale **getDefaultLocale**()
- *getFontMetrics*
public FontMetrics **getFontMetrics**(java.awt.Font arg0)
- *getGraphics*
public Graphics **getGraphics**()
- *getHeight*
public int **getHeight**()
- *getInheritsPopupMenu*
public boolean **getInheritsPopupMenu**()
- *getInputMap*
public final InputMap **getInputMap**()
- *getInputMap*
public final InputMap **getInputMap**(int arg0)
- *getInputVerifier*
public InputVerifier **getInputVerifier**()
- *getInsets*
public Insets **getInsets**()
- *getInsets*
public Insets **getInsets**(java.awt.Insets arg0)
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getLocation*
public Point **getLocation**(java.awt.Point arg0)
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()
- *getNextFocusableComponent*
public Component **getNextFocusableComponent**()

- *getPopupLocation*
public Point getPopupLocation(java.awt.event.MouseEvent
arg0)
- *getPreferredSize*
public Dimension getPreferredSize()
- *getRegisteredKeyStrokes*
public KeyStroke getRegisteredKeyStrokes()
- *getRootPane*
public JRootPane getRootPane()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)
- *getToolTipLocation*
public Point getToolTipLocation(java.awt.event.MouseEvent
arg0)
- *getToolTipText*
public String getToolTipText()
- *getToolTipText*
public String getToolTipText(java.awt.event.MouseEvent arg0
)
- *getTopLevelAncestor*
public Container getTopLevelAncestor()
- *getTransferHandler*
public TransferHandler getTransferHandler()
- *getUIClassID*
public String getUIClassID()
- *getVerifyInputWhenFocusTarget*
public boolean getVerifyInputWhenFocusTarget()
- *getVetoableChangeListeners*
public synchronized VetoableChangeListener
getVetoableChangeListeners()
- *getVisibleRect*
public Rectangle getVisibleRect()
- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *grabFocus*
public void grabFocus()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isLightweightComponent*
public static boolean isLightweightComponent(
java.awt.Component arg0)

- *isManagingFocus*
public boolean isManagingFocus()
- *isOpaque*
public boolean isOpaque()
- *isOptimizedDrawingEnabled*
public boolean isOptimizedDrawingEnabled()
- *isPaintingTile*
public boolean isPaintingTile()
- *isRequestFocusEnabled*
public boolean isRequestFocusEnabled()
- *isValidateRoot*
public boolean isValidateRoot()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintImmediately*
public void paintImmediately(int arg0, int arg1, int arg2, int arg3)
- *paintImmediately*
public void paintImmediately(java.awt.Rectangle arg0)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *putClientProperty*
public final void putClientProperty(java.lang.Object arg0, java.lang.Object arg1)
- *registerKeyboardAction*
public void registerKeyboardAction(java.awt.event.ActionListener arg0, javax.swing.KeyStroke arg1, int arg2)
- *registerKeyboardAction*
public void registerKeyboardAction(java.awt.event.ActionListener arg0, java.lang.String arg1, javax.swing.KeyStroke arg2, int arg3)
- *removeAncestorListener*
public void removeAncestorListener(javax.swing.event.AncestorListener arg0)
- *removeNotify*
public void removeNotify()
- *removeVetoableChangeListener*
public synchronized void removeVetoableChangeListener(java.beans.VetoableChangeListener arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int arg3, int arg4)

- *repaint*
public void repaint(java.awt.Rectangle arg0)
- *requestDefaultFocus*
public boolean requestDefaultFocus()
- *requestFocus*
public void requestFocus()
- *requestFocus*
public boolean requestFocus(boolean arg0)
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *resetKeyboardActions*
public void resetKeyboardActions()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int arg3)
- *revalidate*
public void revalidate()
- *scrollRectToVisible*
public void scrollRectToVisible(java.awt.Rectangle arg0)
- *setActionMap*
public final void setActionMap(javax.swing.ActionMap arg0)
- *setAlignmentX*
public void setAlignmentX(float arg0)
- *setAlignmentY*
public void setAlignmentY(float arg0)
- *setAutoscrolls*
public void setAutoscrolls(boolean arg0)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBorder*
public void setBorder(javax.swing.border.Border arg0)
- *setComponentPopupMenu*
public void setComponentPopupMenu(javax.swing.JPopupMenu arg0)
- *setDebugGraphicsOptions*
public void setDebugGraphicsOptions(int arg0)
- *setDefaultLocale*
public static void setDefaultLocale(java.util.Locale arg0)
- *setDoubleBuffered*
public void setDoubleBuffered(boolean arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)

- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setInheritsPopupMenu*
public void setInheritsPopupMenu(boolean arg0)
- *setInputMap*
public final void setInputMap(int arg0,
javax.swing.InputMap arg1)
- *setInputVerifier*
public void setInputVerifier(javax.swing.InputVerifier arg0)
- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setNextFocusableComponent*
public void setNextFocusableComponent(java.awt.Component
arg0)
- *setOpaque*
public void setOpaque(boolean arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setRequestFocusEnabled*
public void setRequestFocusEnabled(boolean arg0)
- *setToolTipText*
public void setToolTipText(java.lang.String arg0)
- *setTransferHandler*
public void setTransferHandler(javax.swing.TransferHandler
arg0)
- *setVerifyInputWhenFocusTarget*
public void setVerifyInputWhenFocusTarget(boolean arg0)
- *setVisible*
public void setVisible(boolean arg0)
- *unregisterKeyboardAction*
public void unregisterKeyboardAction(javax.swing.KeyStroke
arg0)
- *update*
public void update(java.awt.Graphics arg0)
- *updateUI*
public void updateUI()

METHODS INHERITED FROM CLASS `java.awt.Container`

-
- *add*
public Component add(java.awt.Component arg0)
 - *add*
public Component add(java.awt.Component arg0, int arg1)
 - *add*
public void add(java.awt.Component arg0, java.lang.Object arg1)
 - *add*
public void add(java.awt.Component arg0, java.lang.Object arg1, int arg2)
 - *add*
public Component add(java.lang.String arg0, java.awt.Component arg1)
 - *addContainerListener*
public synchronized void addContainerListener(java.awt.event.ContainerListener arg0)
 - *addNotify*
public void addNotify()
 - *addPropertyChangeListener*
public void addPropertyChangeListener(java.beans.PropertyChangeListener arg0)
 - *addPropertyChangeListener*
public void addPropertyChangeListener(java.lang.String arg0, java.beans.PropertyChangeListener arg1)
 - *applyComponentOrientation*
public void applyComponentOrientation(java.awt.ComponentOrientation arg0)
 - *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
 - *countComponents*
public int countComponents()
 - *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
 - *doLayout*
public void doLayout()
 - *findComponentAt*
public Component findComponentAt(int arg0, int arg1)
 - *findComponentAt*
public Component findComponentAt(java.awt.Point arg0)
 - *getAlignmentX*
public float getAlignmentX()
 - *getAlignmentY*
public float getAlignmentY()

- *getComponent*
public Component **getComponent**(int arg0)
- *getComponentAt*
public Component **getComponentAt**(int arg0, int arg1)
- *getComponentAt*
public Component **getComponentAt**(java.awt.Point arg0)
- *getComponentCount*
public int **getComponentCount**()
- *getComponents*
public Component **getComponents**()
- *getComponentZOrder*
public final int **getComponentZOrder**(java.awt.Component arg0)
- *getContainerListeners*
public synchronized ContainerListener **getContainerListeners**()
- *getFocusTraversalKeys*
public Set **getFocusTraversalKeys**(int arg0)
- *getFocusTraversalPolicy*
public FocusTraversalPolicy **getFocusTraversalPolicy**()
- *getInsets*
public Insets **getInsets**()
- *getLayout*
public LayoutManager **getLayout**()
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()
- *getMousePosition*
public Point **getMousePosition**(boolean arg0)
- *getPreferredSize*
public Dimension **getPreferredSize**()
- *insets*
public Insets **insets**()
- *invalidate*
public void **invalidate**()
- *isAncestorOf*
public boolean **isAncestorOf**(java.awt.Component arg0)
- *isFocusCycleRoot*
public boolean **isFocusCycleRoot**()
- *isFocusCycleRoot*
public boolean **isFocusCycleRoot**(java.awt.Container arg0)
- *isFocusTraversalPolicyProvider*
public final boolean **isFocusTraversalPolicyProvider**()

- *isFocusTraversalPolicySet*
public boolean isFocusTraversalPolicySet()
- *layout*
public void layout()
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *minimumSize*
public Dimension minimumSize()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintComponents*
public void paintComponents(java.awt.Graphics arg0)
- *preferredSize*
public Dimension preferredSize()
- *print*
public void print(java.awt.Graphics arg0)
- *printComponents*
public void printComponents(java.awt.Graphics arg0)
- *remove*
public void remove(java.awt.Component arg0)
- *remove*
public void remove(int arg0)
- *removeAll*
public void removeAll()
- *removeContainerListener*
public synchronized void removeContainerListener(java.awt.event.ContainerListener arg0)
- *removeNotify*
public void removeNotify()
- *setComponentZOrder*
public final void setComponentZOrder(java.awt.Component arg0, int arg1)
- *setFocusCycleRoot*
public void setFocusCycleRoot(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalPolicy*
public void setFocusTraversalPolicy(java.awt.FocusTraversalPolicy arg0)

- *setFocusTraversalPolicyProvider*
public final void setFocusTraversalPolicyProvider(boolean
arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setLayout*
public void setLayout(java.awt.LayoutManager arg0)
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusDownCycle*
public void transferFocusDownCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

METHODS INHERITED FROM CLASS java.awt.Component

- *action*
public boolean action(java.awt.Event arg0, java.lang.Object
arg1)
- *add*
public synchronized void add(java.awt.PopupMenu arg0)
- *addComponentListener*
public synchronized void addComponentListener(
java.awt.event.ComponentListener arg0)
- *addFocusListener*
public synchronized void addFocusListener(
java.awt.event.FocusListener arg0)
- *addHierarchyBoundsListener*
public void addHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)
- *addHierarchyListener*
public void addHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *addInputMethodListener*
public synchronized void addInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *addKeyListener*
public synchronized void addKeyListener(
java.awt.event.KeyListener arg0)
- *addMouseListener*
public synchronized void addMouseListener(
java.awt.event.MouseListener arg0)

- *addMouseMotionListener*
public synchronized void addMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *addMouseWheelListener*
public synchronized void addMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *addNotify*
public void addNotify()
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *applyComponentOrientation*
public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *bounds*
public Rectangle bounds()
- *checkImage*
public int checkImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *checkImage*
public int checkImage(java.awt.Image arg0, int arg1, int
arg2, java.awt.image.ImageObserver arg3)
- *contains*
public boolean contains(int arg0, int arg1)
- *contains*
public boolean contains(java.awt.Point arg0)
- *createImage*
public Image createImage(java.awt.image.ImageProducer arg0)
- *createImage*
public Image createImage(int arg0, int arg1)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1
)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1,
java.awt.ImageCapabilities arg2)
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *disable*
public void disable()

- *dispatchEvent*
public final void **dispatchEvent**(java.awt.AWTEvent arg0)
- *doLayout*
public void **doLayout**()
- *enable*
public void **enable**()
- *enable*
public void **enable**(boolean arg0)
- *enableInputMethods*
public void **enableInputMethods**(boolean arg0)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, byte arg1, byte arg2)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, char arg1, char arg2)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, double arg1, double arg2)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, float arg1, float arg2)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, long arg1, long arg2)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, short arg1, short arg2)
- *getAccessibleContext*
public AccessibleContext **getAccessibleContext**()
- *getAlignmentX*
public float **getAlignmentX**()
- *getAlignmentY*
public float **getAlignmentY**()
- *getBackground*
public Color **getBackground**()
- *getBounds*
public Rectangle **getBounds**()
- *getBounds*
public Rectangle **getBounds**(java.awt.Rectangle arg0)
- *getColorModel*
public ColorModel **getColorModel**()
- *getComponentAt*
public Component **getComponentAt**(int arg0, int arg1)

- *getComponentAt*
public Component **getComponentAt**(java.awt.Point arg0)
- *getComponentListeners*
public synchronized ComponentListener **getComponentListeners**()
- *getComponentOrientation*
public ComponentOrientation **getComponentOrientation**()
- *getCursor*
public Cursor **getCursor**()
- *getDropTarget*
public synchronized DropTarget **getDropTarget**()
- *getFocusCycleRootAncestor*
public Container **getFocusCycleRootAncestor**()
- *getFocusListeners*
public synchronized FocusListener **getFocusListeners**()
- *getFocusTraversalKeys*
public Set **getFocusTraversalKeys**(int arg0)
- *getFocusTraversalKeysEnabled*
public boolean **getFocusTraversalKeysEnabled**()
- *getFont*
public Font **getFont**()
- *getFontMetrics*
public FontMetrics **getFontMetrics**(java.awt.Font arg0)
- *getForeground*
public Color **getForeground**()
- *getGraphics*
public Graphics **getGraphics**()
- *getGraphicsConfiguration*
public GraphicsConfiguration **getGraphicsConfiguration**()
- *getHeight*
public int **getHeight**()
- *getHierarchyBoundsListeners*
public synchronized HierarchyBoundsListener **getHierarchyBoundsListeners**()
- *getHierarchyListeners*
public synchronized HierarchyListener **getHierarchyListeners**()
- *getIgnoreRepaint*
public boolean **getIgnoreRepaint**()
- *getInputContext*
public InputContext **getInputContext**()
- *getInputMethodListeners*
public synchronized InputMethodListener **getInputMethodListeners**()
- *getInputMethodRequests*
public InputMethodRequests **getInputMethodRequests**()

- *getKeyListeners*
public synchronized KeyListener getKeyListeners()
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)
- *getLocale*
public Locale getLocale()
- *getLocation*
public Point getLocation()
- *getLocation*
public Point getLocation(java.awt.Point arg0)
- *getLocationOnScreen*
public Point getLocationOnScreen()
- *getMaximumSize*
public Dimension getMaximumSize()
- *getMinimumSize*
public Dimension getMinimumSize()
- *getMouseListeners*
public synchronized MouseListener getMouseListeners()
- *getMouseMotionListeners*
public synchronized MouseMotionListener getMouseMotionListeners()
- *getMousePosition*
public Point getMousePosition()
- *getMouseWheelListeners*
public synchronized MouseWheelListener getMouseWheelListeners()
- *getName*
public String getName()
- *getParent*
public Container getParent()
- *getPeer*
public ComponentPeer getPeer()
- *getPreferredSize*
public Dimension getPreferredSize()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener getPropertyChangeListeners()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener getPropertyChangeListeners(java.lang.String arg0)
- *getSize*
public Dimension getSize()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)

- *getToolkit*
public Toolkit getToolkit()
- *getTreeLock*
public final Object getTreeLock()
- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *gotFocus*
public boolean gotFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *handleEvent*
public boolean handleEvent(java.awt.Event arg0)
- *hasFocus*
public boolean hasFocus()
- *hide*
public void hide()
- *imageUpdate*
public boolean imageUpdate(java.awt.Image arg0, int arg1,
int arg2, int arg3, int arg4, int arg5)
- *inside*
public boolean inside(int arg0, int arg1)
- *invalidate*
public void invalidate()
- *isBackgroundSet*
public boolean isBackgroundSet()
- *isCursorSet*
public boolean isCursorSet()
- *isDisplayable*
public boolean isDisplayable()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isEnabled*
public boolean isEnabled()
- *isFocusable*
public boolean isFocusable()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusOwner*
public boolean isFocusOwner()
- *isFocusTraversable*
public boolean isFocusTraversable()

- *isFontSet*
public boolean isFontSet()
- *isForegroundSet*
public boolean isForegroundSet()
- *isLightweight*
public boolean isLightweight()
- *isMaximumSizeSet*
public boolean isMaximumSizeSet()
- *isMinimumSizeSet*
public boolean isMinimumSizeSet()
- *isOpaque*
public boolean isOpaque()
- *isPreferredSizeSet*
public boolean isPreferredSizeSet()
- *isShowing*
public boolean isShowing()
- *isValid*
public boolean isValid()
- *isVisible*
public boolean isVisible()
- *keyDown*
public boolean keyDown(java.awt.Event arg0, int arg1)
- *keyUp*
public boolean keyUp(java.awt.Event arg0, int arg1)
- *layout*
public void layout()
- *list*
public void list()
- *list*
public void list(java.io.PrintStream arg0)
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *location*
public Point location()
- *lostFocus*
public boolean lostFocus(java.awt.Event arg0, java.lang.Object arg1)
- *minimumSize*
public Dimension minimumSize()

- *mouseDown*
public boolean mouseDown(java.awt.Event arg0, int arg1,
int arg2)
- *mouseDrag*
public boolean mouseDrag(java.awt.Event arg0, int arg1,
int arg2)
- *mouseEnter*
public boolean mouseEnter(java.awt.Event arg0, int arg1,
int arg2)
- *mouseExit*
public boolean mouseExit(java.awt.Event arg0, int arg1,
int arg2)
- *mouseMove*
public boolean mouseMove(java.awt.Event arg0, int arg1,
int arg2)
- *mouseUp*
public boolean mouseUp(java.awt.Event arg0, int arg1, int
arg2)
- *move*
public void move(int arg0, int arg1)
- *nextFocus*
public void nextFocus()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintAll*
public void paintAll(java.awt.Graphics arg0)
- *postEvent*
public boolean postEvent(java.awt.Event arg0)
- *preferredSize*
public Dimension preferredSize()
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, int arg1,
int arg2, java.awt.image.ImageObserver arg3)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *remove*
public synchronized void remove(java.awt.MenuComponent arg0
)
- *removeComponentListener*
public synchronized void removeComponentListener(
java.awt.event.ComponentListener arg0)

- *removeFocusListener*
public synchronized void removeFocusListener(
java.awt.event.FocusListener arg0)
- *removeHierarchyBoundsListener*
public void removeHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)
- *removeHierarchyListener*
public void removeHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *removeInputMethodListener*
public synchronized void removeInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *removeKeyListener*
public synchronized void removeKeyListener(
java.awt.event.KeyListener arg0)
- *removeMouseListener*
public synchronized void removeMouseListener(
java.awt.event.MouseListener arg0)
- *removeMouseMotionListener*
public synchronized void removeMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *removeMouseWheelListener*
public synchronized void removeMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *removeNotify*
public void removeNotify()
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *repaint*
public void repaint()
- *repaint*
public void repaint(int arg0, int arg1, int arg2, int
arg3)
- *repaint*
public void repaint(long arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int
arg3, int arg4)
- *requestFocus*
public void requestFocus()

- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int arg3)
- *resize*
public void resize(java.awt.Dimension arg0)
- *resize*
public void resize(int arg0, int arg1)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBounds*
public void setBounds(int arg0, int arg1, int arg2, int arg3)
- *setBounds*
public void setBounds(java.awt.Rectangle arg0)
- *setComponentOrientation*
public void setComponentOrientation(java.awt.ComponentOrientation arg0)
- *setCursor*
public void setCursor(java.awt.Cursor arg0)
- *setDropTarget*
public synchronized void setDropTarget(java.awt.dnd.DropTarget arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusable*
public void setFocusable(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalKeysEnabled*
public void setFocusTraversalKeysEnabled(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setIgnoreRepaint*
public void setIgnoreRepaint(boolean arg0)
- *setLocale*
public void setLocale(java.util.Locale arg0)
- *setLocation*
public void setLocation(int arg0, int arg1)
- *setLocation*
public void setLocation(java.awt.Point arg0)

- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setName*
public void setName(java.lang.String arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(int arg0, int arg1)
- *setVisible*
public void setVisible(boolean arg0)
- *show*
public void show()
- *show*
public void show(boolean arg0)
- *size*
public Dimension size()
- *toString*
public String toString()
- *transferFocus*
public void transferFocus()
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusUpCycle*
public void transferFocusUpCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

2.2.2 CLASS Board

The graphical representation of our Sudokuboard.

DECLARATION

```
public class Board
extends javax.swing.JPanel
implements java.util.Observer
```

SERIALIZABLE FIELDS

- private Board board
—
- private Game game
—
- private MainInterface main
—
- private JButton buttons
—
- private JPanel quadrants
—
- private Font font
—
- private int quadDim
—

CONSTRUCTORS

- *Board*
`public Board(view.MainInterface main)`
 - **Usage**
 - * Creates a new Board where the dimensions are extracted from the MainInterface-object.
 - **Parameters**
 - * **main** - The object containing the board to base the view on.
- *Board*
`public Board(view.MainInterface main,
java.awt.Dimension dimension)`
 - **Usage**
 - * Creates a new Board with a specified dimension.
 - **Parameters**
 - * **main** - The object containing the board to base the view on.
 - * **dimension** - The dimension the board should get.

METHODS

• *clearHintNotices*

```
public void clearHintNotices( )
```

– Usage

* Removes all hintnotices from the board.

• *clearNotice*

```
public void clearNotice( int fieldId )
```

– Usage

* Removes a single notice from the board.

– Parameters

* **fieldId** - The Id of the field whose backgroundcolor should be reset.

• *clearNotices*

```
public void clearNotices( )
```

– Usage

* Removes all colornotices from the board.

• *getViewBoardDimensions*

```
public Dimension getViewBoardDimensions( )
```

– Usage

* Calculates the visual width of the current gameboard.

– Returns - The width of the board.

• *getViewBoardDimensions*

```
public static Dimension getViewBoardDimensions(  
model.Board board )
```

– Usage

* Calculates the visual width of the supplied gameboard.

– Parameters

* **board** - The board to calculate the width of

– Returns - The width of the board.

• *setNotice*

```
public void setNotice( int fieldId, java.awt.Color color  
)
```

- **Usage**

- * Sets a single notice on the board.

- **Parameters**

- * **fieldId** - The Id of the field whose backgroundcolor should be set.
 - * **color** - The color the field should get.

- *setNotices*

```
public void setNotices( int [] fieldIds, java.awt.Color
color )
```

- **Usage**

- * Set notices on multiple fields.

- **Parameters**

- * **fieldIds** - An int-array containing the fieldIds of all the field who should have their backgroundcolor set.
 - * **color** - The color to set.

- *setValue*

```
public void setValue( int fieldId, int value )
```

- **Usage**

- * Change the value of a button / field.

- **Parameters**

- * **fieldId** - The fieldId of the button / field whose value should be changed.
 - * **value** - The value to change to.

- *update*

```
public void update( java.util.Observable arg0,
java.lang.Object arg1 )
```

- **Usage**

- * When a new game gets created, this updates the board with the new values

- **See Also**

- * `java.util.Observer.update(java.util.Observable, java.lang.Object)`

METHODS INHERITED FROM CLASS `javax.swing.JPanel`

-
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
 - *getUI*
public PanelUI getUI()
 - *getUIClassID*
public String getUIClassID()
 - *setUI*
public void setUI(javax.swing.plaf.PanelUI arg0)
 - *updateUI*
public void updateUI()

METHODS INHERITED FROM CLASS `javax.swing.JComponent`

-
- *addAncestorListener*
public void addAncestorListener(javax.swing.event.AncestorListener arg0)
 - *addNotify*
public void addNotify()
 - *addVetoableChangeListener*
public synchronized void addVetoableChangeListener(java.beans.VetoableChangeListener arg0)
 - *computeVisibleRect*
public void computeVisibleRect(java.awt.Rectangle arg0)
 - *contains*
public boolean contains(int arg0, int arg1)
 - *createToolTip*
public JToolTip createToolTip()
 - *disable*
public void disable()
 - *enable*
public void enable()
 - *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, boolean arg1, boolean arg2)
 - *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, char arg1, char arg2)
 - *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, int arg1, int arg2)
 - *getAccessibleContext*
public AccessibleContext getAccessibleContext()

- *getActionForKeyStroke*
public ActionListener getActionForKeyStroke(javax.swing.KeyStroke arg0)
- *getActionMap*
public final ActionMap getActionMap()
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getAncestorListeners*
public AncestorListener getAncestorListeners()
- *getAutoscrolls*
public boolean getAutoscrolls()
- *getBorder*
public Border getBorder()
- *getBounds*
public Rectangle getBounds(java.awt.Rectangle arg0)
- *getClientProperty*
public final Object getClientProperty(java.lang.Object arg0)
- *getComponentPopupMenu*
public JPopupMenu getComponentPopupMenu()
- *getConditionForKeyStroke*
public int getConditionForKeyStroke(javax.swing.KeyStroke arg0)
- *getDebugGraphicsOptions*
public int getDebugGraphicsOptions()
- *getDefaultLocale*
public static Locale getDefaultLocale()
- *getFontMetrics*
public FontMetrics getFontMetrics(java.awt.Font arg0)
- *getGraphics*
public Graphics getGraphics()
- *getHeight*
public int getHeight()
- *getInheritsPopupMenu*
public boolean getInheritsPopupMenu()
- *getInputMap*
public final InputMap getInputMap()
- *getInputMap*
public final InputMap getInputMap(int arg0)
- *getInputVerifier*
public InputVerifier getInputVerifier()
- *getInsets*
public Insets getInsets()

- *getInsets*
public Insets getInsets(java.awt.Insets arg0)
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)
- *getLocation*
public Point getLocation(java.awt.Point arg0)
- *getMaximumSize*
public Dimension getMaximumSize()
- *getMinimumSize*
public Dimension getMinimumSize()
- *getNextFocusableComponent*
public Component getNextFocusableComponent()
- *getPopupLocation*
public Point getPopupLocation(java.awt.event.MouseEvent arg0)
- *getPreferredSize*
public Dimension getPreferredSize()
- *getRegisteredKeyStrokes*
public KeyStroke getRegisteredKeyStrokes()
- *getRootPane*
public JRootPane getRootPane()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)
- *getToolTipLocation*
public Point getToolTipLocation(java.awt.event.MouseEvent arg0)
- *getToolTipText*
public String getToolTipText()
- *getToolTipText*
public String getToolTipText(java.awt.event.MouseEvent arg0)
- *getTopLevelAncestor*
public Container getTopLevelAncestor()
- *getTransferHandler*
public TransferHandler getTransferHandler()
- *getUIClassID*
public String getUIClassID()
- *getVerifyInputWhenFocusTarget*
public boolean getVerifyInputWhenFocusTarget()
- *getVetoableChangeListeners*
public synchronized VetoableChangeListener
getVetoableChangeListeners()
- *getVisibleRect*
public Rectangle getVisibleRect()

- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *grabFocus*
public void grabFocus()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isLightweightComponent*
public static boolean isLightweightComponent(
java.awt.Component arg0)
- *isManagingFocus*
public boolean isManagingFocus()
- *isOpaque*
public boolean isOpaque()
- *isOptimizedDrawingEnabled*
public boolean isOptimizedDrawingEnabled()
- *isPaintingTile*
public boolean isPaintingTile()
- *isRequestFocusEnabled*
public boolean isRequestFocusEnabled()
- *isValidateRoot*
public boolean isValidateRoot()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintImmediately*
public void paintImmediately(int arg0, int arg1, int
arg2, int arg3)
- *paintImmediately*
public void paintImmediately(java.awt.Rectangle arg0)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *putClientProperty*
public final void putClientProperty(java.lang.Object arg0,
java.lang.Object arg1)
- *registerKeyboardAction*
public void registerKeyboardAction(
java.awt.event.ActionListener arg0, javax.swing.KeyStroke
arg1, int arg2)

- *registerKeyboardAction*
public void registerKeyboardAction(
java.awt.event.ActionListener arg0, java.lang.String arg1,
javax.swing.KeyStroke arg2, int arg3)
- *removeAncestorListener*
public void removeAncestorListener(
javax.swing.event.AncestorListener arg0)
- *removeNotify*
public void removeNotify()
- *removeVetoableChangeListener*
public synchronized void removeVetoableChangeListener(
java.beans.VetoableChangeListener arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int
arg3, int arg4)
- *repaint*
public void repaint(java.awt.Rectangle arg0)
- *requestDefaultFocus*
public boolean requestDefaultFocus()
- *requestFocus*
public void requestFocus()
- *requestFocus*
public boolean requestFocus(boolean arg0)
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *resetKeyboardActions*
public void resetKeyboardActions()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int
arg3)
- *revalidate*
public void revalidate()
- *scrollRectToVisible*
public void scrollRectToVisible(java.awt.Rectangle arg0)
- *setActionMap*
public final void setActionMap(javax.swing.ActionMap arg0)
- *setAlignmentX*
public void setAlignmentX(float arg0)
- *setAlignmentY*
public void setAlignmentY(float arg0)
- *setAutoscrolls*
public void setAutoscrolls(boolean arg0)
- *setBackground*
public void setBackground(java.awt.Color arg0)

- *setBorder*
public void setBorder(javax.swing.border.Border arg0)
- *setComponentPopupMenu*
public void setComponentPopupMenu(javax.swing.JPopupMenu arg0)
- *setDebugGraphicsOptions*
public void setDebugGraphicsOptions(int arg0)
- *setDefaultLocale*
public static void setDefaultLocale(java.util.Locale arg0)
- *setDoubleBuffered*
public void setDoubleBuffered(boolean arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setInheritsPopupMenu*
public void setInheritsPopupMenu(boolean arg0)
- *setInputMap*
public final void setInputMap(int arg0, javax.swing.InputMap arg1)
- *setInputVerifier*
public void setInputVerifier(javax.swing.InputVerifier arg0)
- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setNextFocusableComponent*
public void setNextFocusableComponent(java.awt.Component arg0)
- *setOpaque*
public void setOpaque(boolean arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setRequestFocusEnabled*
public void setRequestFocusEnabled(boolean arg0)
- *setToolTipText*
public void setToolTipText(java.lang.String arg0)
- *setTransferHandler*
public void setTransferHandler(javax.swing.TransferHandler arg0)

- *setVerifyInputWhenFocusTarget*
public void setVerifyInputWhenFocusTarget(boolean arg0)
- *setVisible*
public void setVisible(boolean arg0)
- *unregisterKeyboardAction*
public void unregisterKeyboardAction(javax.swing.KeyStroke arg0)
- *update*
public void update(java.awt.Graphics arg0)
- *updateUI*
public void updateUI()

METHODS INHERITED FROM CLASS java.awt.Container

- *add*
public Component add(java.awt.Component arg0)
- *add*
public Component add(java.awt.Component arg0, int arg1)
- *add*
public void add(java.awt.Component arg0, java.lang.Object arg1)
- *add*
public void add(java.awt.Component arg0, java.lang.Object arg1, int arg2)
- *add*
public Component add(java.lang.String arg0, java.awt.Component arg1)
- *addContainerListener*
public synchronized void addContainerListener(java.awt.event.ContainerListener arg0)
- *addNotify*
public void addNotify()
- *addPropertyChangeListener*
public void addPropertyChangeListener(java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public void addPropertyChangeListener(java.lang.String arg0, java.beans.PropertyChangeListener arg1)
- *applyComponentOrientation*
public void applyComponentOrientation(java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *countComponents*
public int countComponents()

- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *doLayout*
public void doLayout()
- *findComponentAt*
public Component findComponentAt(int arg0, int arg1)
- *findComponentAt*
public Component findComponentAt(java.awt.Point arg0)
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getComponent*
public Component getComponent(int arg0)
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentCount*
public int getComponentCount()
- *getComponents*
public Component getComponents()
- *getComponentZOrder*
public final int getComponentZOrder(java.awt.Component arg0)
- *getContainerListeners*
public synchronized ContainerListener getContainerListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
- *getFocusTraversalPolicy*
public FocusTraversalPolicy getFocusTraversalPolicy()
- *getInsets*
public Insets getInsets()
- *getLayout*
public LayoutManager getLayout()
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)
- *getMaximumSize*
public Dimension getMaximumSize()
- *getMinimumSize*
public Dimension getMinimumSize()
- *getMousePosition*
public Point getMousePosition(boolean arg0)
- *getPreferredSize*
public Dimension getPreferredSize()

- *insets*
public Insets insets()
- *invalidate*
public void invalidate()
- *isAncestorOf*
public boolean isAncestorOf(java.awt.Component arg0)
- *isFocusCycleRoot*
public boolean isFocusCycleRoot()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusTraversalPolicyProvider*
public final boolean isFocusTraversalPolicyProvider()
- *isFocusTraversalPolicySet*
public boolean isFocusTraversalPolicySet()
- *layout*
public void layout()
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *minimumSize*
public Dimension minimumSize()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintComponents*
public void paintComponents(java.awt.Graphics arg0)
- *preferredSize*
public Dimension preferredSize()
- *print*
public void print(java.awt.Graphics arg0)
- *printComponents*
public void printComponents(java.awt.Graphics arg0)
- *remove*
public void remove(java.awt.Component arg0)
- *remove*
public void remove(int arg0)
- *removeAll*
public void removeAll()
- *removeContainerListener*
public synchronized void removeContainerListener(java.awt.event.ContainerListener arg0)
- *removeNotify*
public void removeNotify()

- *setComponentZOrder*
public final void setComponentZOrder(java.awt.Component
arg0, int arg1)
- *setFocusCycleRoot*
public void setFocusCycleRoot(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set
arg1)
- *setFocusTraversalPolicy*
public void setFocusTraversalPolicy(
java.awt.FocusTraversalPolicy arg0)
- *setFocusTraversalPolicyProvider*
public final void setFocusTraversalPolicyProvider(boolean
arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setLayout*
public void setLayout(java.awt.LayoutManager arg0)
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusDownCycle*
public void transferFocusDownCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

METHODS INHERITED FROM CLASS java.awt.Component

- *action*
public boolean action(java.awt.Event arg0, java.lang.Object
arg1)
- *add*
public synchronized void add(java.awt.PopupMenu arg0)
- *addComponentListener*
public synchronized void addComponentListener(
java.awt.event.ComponentListener arg0)
- *addFocusListener*
public synchronized void addFocusListener(
java.awt.event.FocusListener arg0)
- *addHierarchyBoundsListener*
public void addHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)

- *addHierarchyListener*
public void addHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *addInputMethodListener*
public synchronized void addInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *addKeyListener*
public synchronized void addKeyListener(
java.awt.event.KeyListener arg0)
- *addMouseListener*
public synchronized void addMouseListener(
java.awt.event.MouseListener arg0)
- *addMouseMotionListener*
public synchronized void addMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *addMouseWheelListener*
public synchronized void addMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *addNotify*
public void addNotify()
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *applyComponentOrientation*
public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *bounds*
public Rectangle bounds()
- *checkImage*
public int checkImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *checkImage*
public int checkImage(java.awt.Image arg0, int arg1, int
arg2, java.awt.image.ImageObserver arg3)
- *contains*
public boolean contains(int arg0, int arg1)
- *contains*
public boolean contains(java.awt.Point arg0)
- *createImage*
public Image createImage(java.awt.image.ImageProducer arg0)

- *createImage*
public Image createImage(int arg0, int arg1)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1, java.awt.ImageCapabilities arg2)
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *disable*
public void disable()
- *dispatchEvent*
public final void dispatchEvent(java.awt.AWTEvent arg0)
- *doLayout*
public void doLayout()
- *enable*
public void enable()
- *enable*
public void enable(boolean arg0)
- *enableInputMethods*
public void enableInputMethods(boolean arg0)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, byte arg1, byte arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, char arg1, char arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, double arg1, double arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, float arg1, float arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, long arg1, long arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, short arg1, short arg2)
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getAlignmentX*
public float getAlignmentX()

- *getAlignmentY*
public float getAlignmentY()
- *getBackground*
public Color getBackground()
- *getBounds*
public Rectangle getBounds()
- *getBounds*
public Rectangle getBounds(java.awt.Rectangle arg0)
- *getColorModel*
public ColorModel getColorModel()
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentListeners*
public synchronized ComponentListener getComponentListeners()
- *getComponentOrientation*
public ComponentOrientation getComponentOrientation()
- *getCursor*
public Cursor getCursor()
- *getDropTarget*
public synchronized DropTarget getDropTarget()
- *getFocusCycleRootAncestor*
public Container getFocusCycleRootAncestor()
- *getFocusListeners*
public synchronized FocusListener getFocusListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
- *getFocusTraversalKeysEnabled*
public boolean getFocusTraversalKeysEnabled()
- *getFont*
public Font getFont()
- *getFontMetrics*
public FontMetrics getFontMetrics(java.awt.Font arg0)
- *getForeground*
public Color getForeground()
- *getGraphics*
public Graphics getGraphics()
- *getGraphicsConfiguration*
public GraphicsConfiguration getGraphicsConfiguration()
- *getHeight*
public int getHeight()

- *getHierarchyBoundsListeners*
`public synchronized HierarchyBoundsListener`
`getHierarchyBoundsListeners()`
- *getHierarchyListeners*
`public synchronized HierarchyListener` `getHierarchyListeners()`
- *getIgnoreRepaint*
`public boolean` `getIgnoreRepaint()`
- *getInputContext*
`public InputContext` `getInputContext()`
- *getInputMethodListeners*
`public synchronized InputMethodListener`
`getInputMethodListeners()`
- *getInputMethodRequests*
`public InputMethodRequests` `getInputMethodRequests()`
- *getKeyListeners*
`public synchronized KeyListener` `getKeyListeners()`
- *getListeners*
`public EventListener` `getListeners(java.lang.Class arg0)`
- *getLocale*
`public Locale` `getLocale()`
- *getLocation*
`public Point` `getLocation()`
- *getLocation*
`public Point` `getLocation(java.awt.Point arg0)`
- *getLocationOnScreen*
`public Point` `getLocationOnScreen()`
- *getMaximumSize*
`public Dimension` `getMaximumSize()`
- *getMinimumSize*
`public Dimension` `getMinimumSize()`
- *getMouseListeners*
`public synchronized MouseListener` `getMouseListeners()`
- *getMouseMotionListeners*
`public synchronized MouseMotionListener`
`getMouseMotionListeners()`
- *getMousePosition*
`public Point` `getMousePosition()`
- *getMouseWheelListeners*
`public synchronized MouseWheelListener`
`getMouseWheelListeners()`
- *getName*
`public String` `getName()`
- *getParent*
`public Container` `getParent()`

- *getPeer*
public ComponentPeer getPeer()
- *getPreferredSize*
public Dimension getPreferredSize()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners(java.lang.String arg0)
- *getSize*
public Dimension getSize()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)
- *getToolkit*
public Toolkit getToolkit()
- *getTreeLock*
public final Object getTreeLock()
- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *gotFocus*
public boolean gotFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *handleEvent*
public boolean handleEvent(java.awt.Event arg0)
- *hasFocus*
public boolean hasFocus()
- *hide*
public void hide()
- *imageUpdate*
public boolean imageUpdate(java.awt.Image arg0, int arg1,
int arg2, int arg3, int arg4, int arg5)
- *inside*
public boolean inside(int arg0, int arg1)
- *invalidate*
public void invalidate()
- *isBackgroundSet*
public boolean isBackgroundSet()
- *isCursorSet*
public boolean isCursorSet()

- *isDisplayable*
public boolean isDisplayable()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isEnabled*
public boolean isEnabled()
- *isFocusable*
public boolean isFocusable()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusOwner*
public boolean isFocusOwner()
- *isFocusTraversable*
public boolean isFocusTraversable()
- *isFontSet*
public boolean isFontSet()
- *isForegroundSet*
public boolean isForegroundSet()
- *isLightweight*
public boolean isLightweight()
- *isMaximumSizeSet*
public boolean isMaximumSizeSet()
- *isMinimumSizeSet*
public boolean isMinimumSizeSet()
- *isOpaque*
public boolean isOpaque()
- *isPreferredSizeSet*
public boolean isPreferredSizeSet()
- *isShowing*
public boolean isShowing()
- *isValid*
public boolean isValid()
- *isVisible*
public boolean isVisible()
- *keyDown*
public boolean keyDown(java.awt.Event arg0, int arg1)
- *keyUp*
public boolean keyUp(java.awt.Event arg0, int arg1)
- *layout*
public void layout()
- *list*
public void list()
- *list*
public void list(java.io.PrintStream arg0)

- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *location*
public Point location()
- *lostFocus*
public boolean lostFocus(java.awt.Event arg0, java.lang.Object arg1)
- *minimumSize*
public Dimension minimumSize()
- *mouseDown*
public boolean mouseDown(java.awt.Event arg0, int arg1, int arg2)
- *mouseDrag*
public boolean mouseDrag(java.awt.Event arg0, int arg1, int arg2)
- *mouseEnter*
public boolean mouseEnter(java.awt.Event arg0, int arg1, int arg2)
- *mouseExit*
public boolean mouseExit(java.awt.Event arg0, int arg1, int arg2)
- *mouseMove*
public boolean mouseMove(java.awt.Event arg0, int arg1, int arg2)
- *mouseUp*
public boolean mouseUp(java.awt.Event arg0, int arg1, int arg2)
- *move*
public void move(int arg0, int arg1)
- *nextFocus*
public void nextFocus()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintAll*
public void paintAll(java.awt.Graphics arg0)
- *postEvent*
public boolean postEvent(java.awt.Event arg0)
- *preferredSize*
public Dimension preferredSize()

- *prepareImage*
public boolean prepareImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, int arg1,
int arg2, java.awt.image.ImageObserver arg3)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *remove*
public synchronized void remove(java.awt.MenuComponent arg0
)
- *removeComponentListener*
public synchronized void removeComponentListener(
java.awt.event.ComponentListener arg0)
- *removeFocusListener*
public synchronized void removeFocusListener(
java.awt.event.FocusListener arg0)
- *removeHierarchyBoundsListener*
public void removeHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)
- *removeHierarchyListener*
public void removeHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *removeInputMethodListener*
public synchronized void removeInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *removeKeyListener*
public synchronized void removeKeyListener(
java.awt.event.KeyListener arg0)
- *removeMouseListener*
public synchronized void removeMouseListener(
java.awt.event.MouseListener arg0)
- *removeMouseMotionListener*
public synchronized void removeMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *removeMouseWheelListener*
public synchronized void removeMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *removeNotify*
public void removeNotify()
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.beans.PropertyChangeListener arg0)

- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *repaint*
public void repaint()
- *repaint*
public void repaint(int arg0, int arg1, int arg2, int
arg3)
- *repaint*
public void repaint(long arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int
arg3, int arg4)
- *requestFocus*
public void requestFocus()
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int
arg3)
- *resize*
public void resize(java.awt.Dimension arg0)
- *resize*
public void resize(int arg0, int arg1)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBounds*
public void setBounds(int arg0, int arg1, int arg2, int
arg3)
- *setBounds*
public void setBounds(java.awt.Rectangle arg0)
- *setComponentOrientation*
public void setComponentOrientation(
java.awt.ComponentOrientation arg0)
- *setCursor*
public void setCursor(java.awt.Cursor arg0)
- *setDropTarget*
public synchronized void setDropTarget(
java.awt.dnd.DropTarget arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusable*
public void setFocusable(boolean arg0)

- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalKeysEnabled*
public void setFocusTraversalKeysEnabled(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setIgnoreRepaint*
public void setIgnoreRepaint(boolean arg0)
- *setLocale*
public void setLocale(java.util.Locale arg0)
- *setLocation*
public void setLocation(int arg0, int arg1)
- *setLocation*
public void setLocation(java.awt.Point arg0)
- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setName*
public void setName(java.lang.String arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(int arg0, int arg1)
- *setVisible*
public void setVisible(boolean arg0)
- *show*
public void show()
- *show*
public void show(boolean arg0)
- *size*
public Dimension size()
- *toString*
public String toString()
- *transferFocus*
public void transferFocus()
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusUpCycle*
public void transferFocusUpCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

2.2.3 CLASS *CongratulationScreen*

A congratulationscreen used to congratulate the user when they have completed a Sudokupuzzle.

Also shows the statistics.

DECLARATION

```
public class CongratulationScreen  
extends java.lang.Object
```

CONSTRUCTORS

- *CongratulationScreen*
public *CongratulationScreen*()

METHODS

- *show*
public void *show*(*view.MainInterface* **frame**, *model.Game* **game**)
 - **Usage**
 - * Shows a congratulationscreen
 - **Parameters**
 - * **frame** - The *MainInterface* to show the congratulationscreen on
 - * **game** - The game to get the statistics from

2.2.4 CLASS *DifficultySelection*

A screen used to let the user select between the different difficulties.

DECLARATION

```
public class DifficultySelection  
extends java.lang.Object
```

CONSTRUCTORS

- *DifficultySelection*
`public DifficultySelection(model.Game game)`

METHODS

- *show*
`public void show(view.MainInterface frame)`
 - **Usage**
 - * Shows the screen.
 - **Parameters**
 - * **frame** - The frame to show the screen on.

2.2.5 CLASS Header

The headerimage (the "title").

DECLARATION

```
public class Header
extends javax.swing.JPanel
```

SERIALIZABLE FIELDS

- private Image backgroundImage
 -

CONSTRUCTORS

- *Header*
`public Header()`
 - **Usage**
 - * Creates the header based on the headerimage.

METHODS

- *paint*
`public void paint(java.awt.Graphics g)`
- **Usage**
 - * Overrides the paint-method to make sure that the image actually gets painted.

METHODS INHERITED FROM CLASS `javax.swing.JPanel`

- *getAccessibleContext*
`public AccessibleContext getAccessibleContext()`
- *getUI*
`public PanelUI getUI()`
- *getUIClassID*
`public String getUIClassID()`
- *setUI*
`public void setUI(javax.swing.plaf.PanelUI arg0)`
- *updateUI*
`public void updateUI()`

METHODS INHERITED FROM CLASS `javax.swing.JComponent`

- *addAncestorListener*
`public void addAncestorListener(
javax.swing.event.AncestorListener arg0)`
- *addNotify*
`public void addNotify()`
- *addVetoableChangeListener*
`public synchronized void addVetoableChangeListener(
java.beans.VetoableChangeListener arg0)`
- *computeVisibleRect*
`public void computeVisibleRect(java.awt.Rectangle arg0)`
- *contains*
`public boolean contains(int arg0, int arg1)`
- *createToolTip*
`public JToolTip createToolTip()`
- *disable*
`public void disable()`
- *enable*
`public void enable()`

- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, boolean arg1, boolean arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, char arg1, char arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, int arg1, int arg2)
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getActionForKeyStroke*
public ActionListener getActionForKeyStroke(javax.swing.KeyStroke arg0)
- *getActionMap*
public final ActionMap getActionMap()
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getAncestorListeners*
public AncestorListener getAncestorListeners()
- *getAutoscrolls*
public boolean getAutoscrolls()
- *getBorder*
public Border getBorder()
- *getBounds*
public Rectangle getBounds(java.awt.Rectangle arg0)
- *getClientProperty*
public final Object getClientProperty(java.lang.Object arg0)
- *getComponentPopupMenu*
public JPopupMenu getComponentPopupMenu()
- *getConditionForKeyStroke*
public int getConditionForKeyStroke(javax.swing.KeyStroke arg0)
- *getDebugGraphicsOptions*
public int getDebugGraphicsOptions()
- *getDefaultLocale*
public static Locale getDefaultLocale()
- *getFontMetrics*
public FontMetrics getFontMetrics(java.awt.Font arg0)
- *getGraphics*
public Graphics getGraphics()

- *getHeight*
public int getHeight()
- *getInheritsPopupMenu*
public boolean getInheritsPopupMenu()
- *getInputMap*
public final InputMap getInputMap()
- *getInputMap*
public final InputMap getInputMap(int arg0)
- *getInputVerifier*
public InputVerifier getInputVerifier()
- *getInsets*
public Insets getInsets()
- *getInsets*
public Insets getInsets(java.awt.Insets arg0)
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)
- *getLocation*
public Point getLocation(java.awt.Point arg0)
- *getMaximumSize*
public Dimension getMaximumSize()
- *getMinimumSize*
public Dimension getMinimumSize()
- *getNextFocusableComponent*
public Component getNextFocusableComponent()
- *getPopupLocation*
public Point getPopupLocation(java.awt.event.MouseEvent arg0)
- *getPreferredSize*
public Dimension getPreferredSize()
- *getRegisteredKeyStrokes*
public KeyStroke getRegisteredKeyStrokes()
- *getRootPane*
public JRootPane getRootPane()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)
- *getToolTipLocation*
public Point getToolTipLocation(java.awt.event.MouseEvent arg0)
- *getToolTipText*
public String getToolTipText()
- *getToolTipText*
public String getToolTipText(java.awt.event.MouseEvent arg0)
- *getTopLevelAncestor*
public Container getTopLevelAncestor()

- *getTransferHandler*
public TransferHandler **getTransferHandler**()
- *getUIClassID*
public String **getUIClassID**()
- *getVerifyInputWhenFocusTarget*
public boolean **getVerifyInputWhenFocusTarget**()
- *getVetoableChangeListeners*
public synchronized VetoableChangeListener **getVetoableChangeListeners**()
- *getVisibleRect*
public Rectangle **getVisibleRect**()
- *getWidth*
public int **getWidth**()
- *getX*
public int **getX**()
- *getY*
public int **getY**()
- *grabFocus*
public void **grabFocus**()
- *isDoubleBuffered*
public boolean **isDoubleBuffered**()
- *isLightweightComponent*
public static boolean **isLightweightComponent**(
java.awt.Component arg0)
- *isManagingFocus*
public boolean **isManagingFocus**()
- *isOpaque*
public boolean **isOpaque**()
- *isOptimizedDrawingEnabled*
public boolean **isOptimizedDrawingEnabled**()
- *isPaintingTile*
public boolean **isPaintingTile**()
- *isRequestFocusEnabled*
public boolean **isRequestFocusEnabled**()
- *isValidateRoot*
public boolean **isValidateRoot**()
- *paint*
public void **paint**(java.awt.Graphics arg0)
- *paintImmediately*
public void **paintImmediately**(int arg0, int arg1, int
arg2, int arg3)
- *paintImmediately*
public void **paintImmediately**(java.awt.Rectangle arg0)
- *print*
public void **print**(java.awt.Graphics arg0)

- *printAll*
public void **printAll**(java.awt.Graphics arg0)
- *putClientProperty*
public final void **putClientProperty**(java.lang.Object arg0, java.lang.Object arg1)
- *registerKeyboardAction*
public void **registerKeyboardAction**(java.awt.event.ActionListener arg0, javax.swing.KeyStroke arg1, int arg2)
- *registerKeyboardAction*
public void **registerKeyboardAction**(java.awt.event.ActionListener arg0, java.lang.String arg1, javax.swing.KeyStroke arg2, int arg3)
- *removeAncestorListener*
public void **removeAncestorListener**(javax.swing.event.AncestorListener arg0)
- *removeNotify*
public void **removeNotify**()
- *removeVetoableChangeListener*
public synchronized void **removeVetoableChangeListener**(java.beans.VetoableChangeListener arg0)
- *repaint*
public void **repaint**(long arg0, int arg1, int arg2, int arg3, int arg4)
- *repaint*
public void **repaint**(java.awt.Rectangle arg0)
- *requestDefaultFocus*
public boolean **requestDefaultFocus**()
- *requestFocus*
public void **requestFocus**()
- *requestFocus*
public boolean **requestFocus**(boolean arg0)
- *requestFocusInWindow*
public boolean **requestFocusInWindow**()
- *resetKeyboardActions*
public void **resetKeyboardActions**()
- *reshape*
public void **reshape**(int arg0, int arg1, int arg2, int arg3)
- *revalidate*
public void **revalidate**()
- *scrollRectToVisible*
public void **scrollRectToVisible**(java.awt.Rectangle arg0)
- *setActionMap*
public final void **setActionMap**(javax.swing.ActionMap arg0)

- *setAlignmentX*
public void setAlignmentX(float arg0)
- *setAlignmentY*
public void setAlignmentY(float arg0)
- *setAutoscrolls*
public void setAutoscrolls(boolean arg0)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBorder*
public void setBorder(javax.swing.border.Border arg0)
- *setComponentPopupMenu*
public void setComponentPopupMenu(javax.swing.JPopupMenu arg0)
- *setDebugGraphicsOptions*
public void setDebugGraphicsOptions(int arg0)
- *setDefaultLocale*
public static void setDefaultLocale(java.util.Locale arg0)
- *setDoubleBuffered*
public void setDoubleBuffered(boolean arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setInheritsPopupMenu*
public void setInheritsPopupMenu(boolean arg0)
- *setInputMap*
public final void setInputMap(int arg0, javax.swing.InputMap arg1)
- *setInputVerifier*
public void setInputVerifier(javax.swing.InputVerifier arg0)
- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setNextFocusableComponent*
public void setNextFocusableComponent(java.awt.Component arg0)
- *setOpaque*
public void setOpaque(boolean arg0)

- *setPreferredSize*
public void **setPreferredSize**(java.awt.Dimension arg0)
- *setRequestFocusEnabled*
public void **setRequestFocusEnabled**(boolean arg0)
- *setToolTipText*
public void **setToolTipText**(java.lang.String arg0)
- *setTransferHandler*
public void **setTransferHandler**(javax.swing.TransferHandler arg0)
- *setVerifyInputWhenFocusTarget*
public void **setVerifyInputWhenFocusTarget**(boolean arg0)
- *setVisible*
public void **setVisible**(boolean arg0)
- *unregisterKeyboardAction*
public void **unregisterKeyboardAction**(javax.swing.KeyStroke arg0)
- *update*
public void **update**(java.awt.Graphics arg0)
- *updateUI*
public void **updateUI**()

METHODS INHERITED FROM CLASS java.awt.Container

- *add*
public Component **add**(java.awt.Component arg0)
- *add*
public Component **add**(java.awt.Component arg0, int arg1)
- *add*
public void **add**(java.awt.Component arg0, java.lang.Object arg1)
- *add*
public void **add**(java.awt.Component arg0, java.lang.Object arg1, int arg2)
- *add*
public Component **add**(java.lang.String arg0, java.awt.Component arg1)
- *addContainerListener*
public synchronized void **addContainerListener**(java.awt.event.ContainerListener arg0)
- *addNotify*
public void **addNotify**()
- *addPropertyChangeListener*
public void **addPropertyChangeListener**(java.beans.PropertyChangeListener arg0)

- *addPropertyChangeListener*
public void addPropertyChangeListener(java.lang.String
arg0, java.beans.PropertyChangeListener arg1)
- *applyComponentOrientation*
public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *countComponents*
public int countComponents()
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *doLayout*
public void doLayout()
- *findComponentAt*
public Component findComponentAt(int arg0, int arg1)
- *findComponentAt*
public Component findComponentAt(java.awt.Point arg0)
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getComponent*
public Component getComponent(int arg0)
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentCount*
public int getComponentCount()
- *getComponents*
public Component getComponents()
- *getComponentZOrder*
public final int getComponentZOrder(java.awt.Component
arg0)
- *getContainerListeners*
public synchronized ContainerListener getContainerListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
- *getFocusTraversalPolicy*
public FocusTraversalPolicy getFocusTraversalPolicy()
- *getInsets*
public Insets getInsets()
- *getLayout*
public LayoutManager getLayout()

- *getListeners*
public EventListener getListeners(java.lang.Class arg0)
- *getMaximumSize*
public Dimension getMaximumSize()
- *getMinimumSize*
public Dimension getMinimumSize()
- *getMousePosition*
public Point getMousePosition(boolean arg0)
- *getPreferredSize*
public Dimension getPreferredSize()
- *insets*
public Insets insets()
- *invalidate*
public void invalidate()
- *isAncestorOf*
public boolean isAncestorOf(java.awt.Component arg0)
- *isFocusCycleRoot*
public boolean isFocusCycleRoot()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusTraversalPolicyProvider*
public final boolean isFocusTraversalPolicyProvider()
- *isFocusTraversalPolicySet*
public boolean isFocusTraversalPolicySet()
- *layout*
public void layout()
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *minimumSize*
public Dimension minimumSize()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintComponents*
public void paintComponents(java.awt.Graphics arg0)
- *preferredSize*
public Dimension preferredSize()
- *print*
public void print(java.awt.Graphics arg0)
- *printComponents*
public void printComponents(java.awt.Graphics arg0)

- *remove*
public void remove(java.awt.Component arg0)
- *remove*
public void remove(int arg0)
- *removeAll*
public void removeAll()
- *removeContainerListener*
public synchronized void removeContainerListener(java.awt.event.ContainerListener arg0)
- *removeNotify*
public void removeNotify()
- *setComponentZOrder*
public final void setComponentZOrder(java.awt.Component arg0, int arg1)
- *setFocusCycleRoot*
public void setFocusCycleRoot(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalPolicy*
public void setFocusTraversalPolicy(java.awt.FocusTraversalPolicy arg0)
- *setFocusTraversalPolicyProvider*
public final void setFocusTraversalPolicyProvider(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setLayout*
public void setLayout(java.awt.LayoutManager arg0)
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusDownCycle*
public void transferFocusDownCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

METHODS INHERITED FROM CLASS `java.awt.Component`

- *action*
`public boolean action(java.awt.Event arg0, java.lang.Object arg1)`
- *add*
`public synchronized void add(java.awt.PopupMenu arg0)`
- *addComponentListener*
`public synchronized void addComponentListener(java.awt.event.ComponentListener arg0)`
- *addFocusListener*
`public synchronized void addFocusListener(java.awt.event.FocusListener arg0)`
- *addHierarchyBoundsListener*
`public void addHierarchyBoundsListener(java.awt.event.HierarchyBoundsListener arg0)`
- *addHierarchyListener*
`public void addHierarchyListener(java.awt.event.HierarchyListener arg0)`
- *addInputMethodListener*
`public synchronized void addInputMethodListener(java.awt.event.InputMethodListener arg0)`
- *addKeyListener*
`public synchronized void addKeyListener(java.awt.event.KeyListener arg0)`
- *addMouseListener*
`public synchronized void addMouseListener(java.awt.event.MouseListener arg0)`
- *addMouseMotionListener*
`public synchronized void addMouseMotionListener(java.awt.event.MouseMotionListener arg0)`
- *addMouseWheelListener*
`public synchronized void addMouseWheelListener(java.awt.event.MouseWheelListener arg0)`
- *addNotify*
`public void addNotify()`
- *addPropertyChangeListener*
`public synchronized void addPropertyChangeListener(java.beans.PropertyChangeListener arg0)`
- *addPropertyChangeListener*
`public synchronized void addPropertyChangeListener(java.lang.String arg0, java.beans.PropertyChangeListener arg1)`
- *applyComponentOrientation*
`public void applyComponentOrientation(java.awt.ComponentOrientation arg0)`

- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *bounds*
public Rectangle bounds()
- *checkImage*
public int checkImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *checkImage*
public int checkImage(java.awt.Image arg0, int arg1, int
arg2, java.awt.image.ImageObserver arg3)
- *contains*
public boolean contains(int arg0, int arg1)
- *contains*
public boolean contains(java.awt.Point arg0)
- *createImage*
public Image createImage(java.awt.image.ImageProducer arg0)
- *createImage*
public Image createImage(int arg0, int arg1)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1
)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1,
java.awt.ImageCapabilities arg2)
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *disable*
public void disable()
- *dispatchEvent*
public final void dispatchEvent(java.awt.AWTEvent arg0)
- *doLayout*
public void doLayout()
- *enable*
public void enable()
- *enable*
public void enable(boolean arg0)
- *enableInputMethods*
public void enableInputMethods(boolean arg0)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, byte
arg1, byte arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, char
arg1, char arg2)

- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, double arg1, double arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, float arg1, float arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, long arg1, long arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, short arg1, short arg2)
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getBackground*
public Color getBackground()
- *getBounds*
public Rectangle getBounds()
- *getBounds*
public Rectangle getBounds(java.awt.Rectangle arg0)
- *getColorModel*
public ColorModel getColorModel()
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentListeners*
public synchronized ComponentListener getComponentListeners()
- *getComponentOrientation*
public ComponentOrientation getComponentOrientation()
- *getCursor*
public Cursor getCursor()
- *getDropTarget*
public synchronized DropTarget getDropTarget()
- *getFocusCycleRootAncestor*
public Container getFocusCycleRootAncestor()
- *getFocusListeners*
public synchronized FocusListener getFocusListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)

- *getFocusTraversalKeysEnabled*
public boolean **getFocusTraversalKeysEnabled**()
- *getFont*
public Font **getFont**()
- *getFontMetrics*
public FontMetrics **getFontMetrics**(java.awt.Font arg0)
- *getForeground*
public Color **getForeground**()
- *getGraphics*
public Graphics **getGraphics**()
- *getGraphicsConfiguration*
public GraphicsConfiguration **getGraphicsConfiguration**()
- *getHeight*
public int **getHeight**()
- *getHierarchyBoundsListeners*
public synchronized HierarchyBoundsListener
getHierarchyBoundsListeners()
- *getHierarchyListeners*
public synchronized HierarchyListener **getHierarchyListeners**()
- *getIgnoreRepaint*
public boolean **getIgnoreRepaint**()
- *getInputContext*
public InputContext **getInputContext**()
- *getInputMethodListeners*
public synchronized InputMethodListener
getInputMethodListeners()
- *getInputMethodRequests*
public InputMethodRequests **getInputMethodRequests**()
- *getKeyListeners*
public synchronized KeyListener **getKeyListeners**()
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getLocale*
public Locale **getLocale**()
- *getLocation*
public Point **getLocation**()
- *getLocation*
public Point **getLocation**(java.awt.Point arg0)
- *getLocationOnScreen*
public Point **getLocationOnScreen**()
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()

- *getMouseListeners*
public synchronized MouseListener getMouseListeners()
- *getMouseMotionListeners*
public synchronized MouseMotionListener
getMouseMotionListeners()
- *getMousePosition*
public Point getMousePosition()
- *getMouseWheelListeners*
public synchronized MouseWheelListener
getMouseWheelListeners()
- *getName*
public String getName()
- *getParent*
public Container getParent()
- *getPeer*
public ComponentPeer getPeer()
- *getPreferredSize*
public Dimension getPreferredSize()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners(java.lang.String arg0)
- *getSize*
public Dimension getSize()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)
- *getToolkit*
public Toolkit getToolkit()
- *getTreeLock*
public final Object getTreeLock()
- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *gotFocus*
public boolean gotFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *handleEvent*
public boolean handleEvent(java.awt.Event arg0)
- *hasFocus*
public boolean hasFocus()

- *hide*
public void hide()
- *imageUpdate*
public boolean imageUpdate(java.awt.Image arg0, int arg1, int arg2, int arg3, int arg4, int arg5)
- *inside*
public boolean inside(int arg0, int arg1)
- *invalidate*
public void invalidate()
- *isBackgroundSet*
public boolean isBackgroundSet()
- *isCursorSet*
public boolean isCursorSet()
- *isDisplayable*
public boolean isDisplayable()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isEnabled*
public boolean isEnabled()
- *isFocusable*
public boolean isFocusable()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusOwner*
public boolean isFocusOwner()
- *isFocusTraversable*
public boolean isFocusTraversable()
- *isFontSet*
public boolean isFontSet()
- *isForegroundSet*
public boolean isForegroundSet()
- *isLightweight*
public boolean isLightweight()
- *isMaximumSizeSet*
public boolean isMaximumSizeSet()
- *isMinimumSizeSet*
public boolean isMinimumSizeSet()
- *isOpaque*
public boolean isOpaque()
- *isPreferredSizeSet*
public boolean isPreferredSizeSet()
- *isShowing*
public boolean isShowing()
- *isValid*
public boolean isValid()

- *isVisible*
public boolean isVisible()
- *keyDown*
public boolean keyDown(java.awt.Event arg0, int arg1)
- *keyUp*
public boolean keyUp(java.awt.Event arg0, int arg1)
- *layout*
public void layout()
- *list*
public void list()
- *list*
public void list(java.io.PrintStream arg0)
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *location*
public Point location()
- *lostFocus*
public boolean lostFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *minimumSize*
public Dimension minimumSize()
- *mouseDown*
public boolean mouseDown(java.awt.Event arg0, int arg1,
int arg2)
- *mouseDrag*
public boolean mouseDrag(java.awt.Event arg0, int arg1,
int arg2)
- *mouseEnter*
public boolean mouseEnter(java.awt.Event arg0, int arg1,
int arg2)
- *mouseExit*
public boolean mouseExit(java.awt.Event arg0, int arg1,
int arg2)
- *mouseMove*
public boolean mouseMove(java.awt.Event arg0, int arg1,
int arg2)
- *mouseUp*
public boolean mouseUp(java.awt.Event arg0, int arg1, int
arg2)

- *move*
public void move(int arg0, int arg1)
- *nextFocus*
public void nextFocus()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintAll*
public void paintAll(java.awt.Graphics arg0)
- *postEvent*
public boolean postEvent(java.awt.Event arg0)
- *preferredSize*
public Dimension preferredSize()
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, java.awt.image.ImageObserver arg1)
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, int arg1, int arg2, java.awt.image.ImageObserver arg3)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *remove*
public synchronized void remove(java.awt.MenuComponent arg0)
- *removeComponentListener*
public synchronized void removeComponentListener(java.awt.event.ComponentListener arg0)
- *removeFocusListener*
public synchronized void removeFocusListener(java.awt.event.FocusListener arg0)
- *removeHierarchyBoundsListener*
public void removeHierarchyBoundsListener(java.awt.event.HierarchyBoundsListener arg0)
- *removeHierarchyListener*
public void removeHierarchyListener(java.awt.event.HierarchyListener arg0)
- *removeInputMethodListener*
public synchronized void removeInputMethodListener(java.awt.event.InputMethodListener arg0)
- *removeKeyListener*
public synchronized void removeKeyListener(java.awt.event.KeyListener arg0)
- *removeMouseListener*
public synchronized void removeMouseListener(java.awt.event.MouseListener arg0)

- *removeMouseMotionListener*
public synchronized void removeMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *removeMouseWheelListener*
public synchronized void removeMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *removeNotify*
public void removeNotify()
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *repaint*
public void repaint()
- *repaint*
public void repaint(int arg0, int arg1, int arg2, int
arg3)
- *repaint*
public void repaint(long arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int
arg3, int arg4)
- *requestFocus*
public void requestFocus()
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int
arg3)
- *resize*
public void resize(java.awt.Dimension arg0)
- *resize*
public void resize(int arg0, int arg1)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBounds*
public void setBounds(int arg0, int arg1, int arg2, int
arg3)
- *setBounds*
public void setBounds(java.awt.Rectangle arg0)
- *setComponentOrientation*
public void setComponentOrientation(
java.awt.ComponentOrientation arg0)

- *setCursor*
public void setCursor(java.awt.Cursor arg0)
- *setDropTarget*
public synchronized void setDropTarget(java.awt.dnd.DropTarget arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusable*
public void setFocusable(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalKeysEnabled*
public void setFocusTraversalKeysEnabled(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setIgnoreRepaint*
public void setIgnoreRepaint(boolean arg0)
- *setLocale*
public void setLocale(java.util.Locale arg0)
- *setLocation*
public void setLocation(int arg0, int arg1)
- *setLocation*
public void setLocation(java.awt.Point arg0)
- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setName*
public void setName(java.lang.String arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(int arg0, int arg1)
- *setVisible*
public void setVisible(boolean arg0)
- *show*
public void show()
- *show*
public void show(boolean arg0)

- *size*
public Dimension size()
- *toString*
public String toString()
- *transferFocus*
public void transferFocus()
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusUpCycle*
public void transferFocusUpCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

2.2.6 CLASS *IngameControls*

The ingamecontrols (Help- and New Game-button)

DECLARATION

<pre>public class IngameControls extends javax.swing.JPanel</pre>
--

SERIALIZABLE FIELDS

- private DifficultyAction difficultyAction
—
- private HelpAction helpAction
—

CONSTRUCTORS

- *IngameControls*
public **IngameControls**(java.awt.Component frame,
controller.DifficultyAction difficultyAction,
controller.HelpAction helpAction)
— Usage

- * Creates the controls.

- **Parameters**

- * **frame** - The frame the screen should be added to.
- * **difficultyAction** - The DifficultyAction showing the New Game-screen.
- * **helpAction** - The HelpAction handling requests for help.

METHODS

- *getDifficultyAction*

public DifficultyAction getDifficultyAction()

- **Usage**

- * Gets the DifficultyAction associated with the controls.

- **Returns** - The DifficultyAction

- *getHelpAction*

public HelpAction getHelpAction()

- **Usage**

- * Gets the HelpAction associated with the controls.

- **Returns** - The HelpAction

METHODS INHERITED FROM CLASS `javax.swing.JPanel`

- *getAccessibleContext*

public AccessibleContext getAccessibleContext()

- *getUI*

public PanelUI getUI()

- *getUIClassID*

public String getUIClassID()

- *setUI*

public void setUI(javax.swing.plaf.PanelUI arg0)

- *updateUI*

public void updateUI()

METHODS INHERITED FROM CLASS `javax.swing.JComponent`

- *addAncestorListener*
`public void addAncestorListener(
javax.swing.event.AncestorListener arg0)`
- *addNotify*
`public void addNotify()`
- *addVetoableChangeListener*
`public synchronized void addVetoableChangeListener(
java.beans.VetoableChangeListener arg0)`
- *computeVisibleRect*
`public void computeVisibleRect(java.awt.Rectangle arg0)`
- *contains*
`public boolean contains(int arg0, int arg1)`
- *createToolTip*
`public JToolTip createToolTip()`
- *disable*
`public void disable()`
- *enable*
`public void enable()`
- *firePropertyChange*
`public void firePropertyChange(java.lang.String arg0,
boolean arg1, boolean arg2)`
- *firePropertyChange*
`public void firePropertyChange(java.lang.String arg0, char
arg1, char arg2)`
- *firePropertyChange*
`public void firePropertyChange(java.lang.String arg0, int
arg1, int arg2)`
- *getAccessibleContext*
`public AccessibleContext getAccessibleContext()`
- *getActionForKeyStroke*
`public ActionListener getActionForKeyStroke(
javax.swing.KeyStroke arg0)`
- *getActionMap*
`public final ActionMap getActionMap()`
- *getAlignmentX*
`public float getAlignmentX()`
- *getAlignmentY*
`public float getAlignmentY()`
- *getAncestorListeners*
`public AncestorListener getAncestorListeners()`
- *getAutoscrolls*
`public boolean getAutoscrolls()`

- *getBorder*
public Border **getBorder**()
- *getBounds*
public Rectangle **getBounds**(java.awt.Rectangle arg0)
- *getClientProperty*
public final Object **getClientProperty**(java.lang.Object arg0)
- *getComponentPopupMenu*
public JPopupMenu **getComponentPopupMenu**()
- *getConditionForKeyStroke*
public int **getConditionForKeyStroke**(javax.swing.KeyStroke arg0)
- *getDebugGraphicsOptions*
public int **getDebugGraphicsOptions**()
- *getDefaultLocale*
public static Locale **getDefaultLocale**()
- *getFontMetrics*
public FontMetrics **getFontMetrics**(java.awt.Font arg0)
- *getGraphics*
public Graphics **getGraphics**()
- *getHeight*
public int **getHeight**()
- *getInheritsPopupMenu*
public boolean **getInheritsPopupMenu**()
- *getInputMap*
public final InputMap **getInputMap**()
- *getInputMap*
public final InputMap **getInputMap**(int arg0)
- *getInputVerifier*
public InputVerifier **getInputVerifier**()
- *getInsets*
public Insets **getInsets**()
- *getInsets*
public Insets **getInsets**(java.awt.Insets arg0)
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getLocation*
public Point **getLocation**(java.awt.Point arg0)
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()
- *getNextFocusableComponent*
public Component **getNextFocusableComponent**()

- *getPopupLocation*
public Point getPopupLocation(java.awt.event.MouseEvent
arg0)
- *getPreferredSize*
public Dimension getPreferredSize()
- *getRegisteredKeyStrokes*
public KeyStroke getRegisteredKeyStrokes()
- *getRootPane*
public JRootPane getRootPane()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)
- *getToolTipLocation*
public Point getToolTipLocation(java.awt.event.MouseEvent
arg0)
- *getToolTipText*
public String getToolTipText()
- *getToolTipText*
public String getToolTipText(java.awt.event.MouseEvent arg0
)
- *getTopLevelAncestor*
public Container getTopLevelAncestor()
- *getTransferHandler*
public TransferHandler getTransferHandler()
- *getUIClassID*
public String getUIClassID()
- *getVerifyInputWhenFocusTarget*
public boolean getVerifyInputWhenFocusTarget()
- *getVetoableChangeListeners*
public synchronized VetoableChangeListener
getVetoableChangeListeners()
- *getVisibleRect*
public Rectangle getVisibleRect()
- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *grabFocus*
public void grabFocus()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isLightweightComponent*
public static boolean isLightweightComponent(
java.awt.Component arg0)

- *isManagingFocus*
public boolean isManagingFocus()
- *isOpaque*
public boolean isOpaque()
- *isOptimizedDrawingEnabled*
public boolean isOptimizedDrawingEnabled()
- *isPaintingTile*
public boolean isPaintingTile()
- *isRequestFocusEnabled*
public boolean isRequestFocusEnabled()
- *isValidateRoot*
public boolean isValidateRoot()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintImmediately*
public void paintImmediately(int arg0, int arg1, int arg2, int arg3)
- *paintImmediately*
public void paintImmediately(java.awt.Rectangle arg0)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *putClientProperty*
public final void putClientProperty(java.lang.Object arg0, java.lang.Object arg1)
- *registerKeyboardAction*
public void registerKeyboardAction(java.awt.event.ActionListener arg0, javax.swing.KeyStroke arg1, int arg2)
- *registerKeyboardAction*
public void registerKeyboardAction(java.awt.event.ActionListener arg0, java.lang.String arg1, javax.swing.KeyStroke arg2, int arg3)
- *removeAncestorListener*
public void removeAncestorListener(javax.swing.event.AncestorListener arg0)
- *removeNotify*
public void removeNotify()
- *removeVetoableChangeListener*
public synchronized void removeVetoableChangeListener(java.beans.VetoableChangeListener arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int arg3, int arg4)

- *repaint*
public void repaint(java.awt.Rectangle arg0)
- *requestDefaultFocus*
public boolean requestDefaultFocus()
- *requestFocus*
public void requestFocus()
- *requestFocus*
public boolean requestFocus(boolean arg0)
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *resetKeyboardActions*
public void resetKeyboardActions()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int arg3)
- *revalidate*
public void revalidate()
- *scrollRectToVisible*
public void scrollRectToVisible(java.awt.Rectangle arg0)
- *setActionMap*
public final void setActionMap(javax.swing.ActionMap arg0)
- *setAlignmentX*
public void setAlignmentX(float arg0)
- *setAlignmentY*
public void setAlignmentY(float arg0)
- *setAutoscrolls*
public void setAutoscrolls(boolean arg0)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBorder*
public void setBorder(javax.swing.border.Border arg0)
- *setComponentPopupMenu*
public void setComponentPopupMenu(javax.swing.JPopupMenu arg0)
- *setDebugGraphicsOptions*
public void setDebugGraphicsOptions(int arg0)
- *setDefaultLocale*
public static void setDefaultLocale(java.util.Locale arg0)
- *setDoubleBuffered*
public void setDoubleBuffered(boolean arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)

- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setInheritsPopupMenu*
public void setInheritsPopupMenu(boolean arg0)
- *setInputMap*
public final void setInputMap(int arg0,
javax.swing.InputMap arg1)
- *setInputVerifier*
public void setInputVerifier(javax.swing.InputVerifier arg0)
- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setNextFocusableComponent*
public void setNextFocusableComponent(java.awt.Component
arg0)
- *setOpaque*
public void setOpaque(boolean arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setRequestFocusEnabled*
public void setRequestFocusEnabled(boolean arg0)
- *setToolTipText*
public void setToolTipText(java.lang.String arg0)
- *setTransferHandler*
public void setTransferHandler(javax.swing.TransferHandler
arg0)
- *setVerifyInputWhenFocusTarget*
public void setVerifyInputWhenFocusTarget(boolean arg0)
- *setVisible*
public void setVisible(boolean arg0)
- *unregisterKeyboardAction*
public void unregisterKeyboardAction(javax.swing.KeyStroke
arg0)
- *update*
public void update(java.awt.Graphics arg0)
- *updateUI*
public void updateUI()

METHODS INHERITED FROM CLASS `java.awt.Container`

-
- *add*
public Component add(java.awt.Component arg0)
 - *add*
public Component add(java.awt.Component arg0, int arg1)
 - *add*
public void add(java.awt.Component arg0, java.lang.Object arg1)
 - *add*
public void add(java.awt.Component arg0, java.lang.Object arg1, int arg2)
 - *add*
public Component add(java.lang.String arg0, java.awt.Component arg1)
 - *addContainerListener*
public synchronized void addContainerListener(java.awt.event.ContainerListener arg0)
 - *addNotify*
public void addNotify()
 - *addPropertyChangeListener*
public void addPropertyChangeListener(java.beans.PropertyChangeListener arg0)
 - *addPropertyChangeListener*
public void addPropertyChangeListener(java.lang.String arg0, java.beans.PropertyChangeListener arg1)
 - *applyComponentOrientation*
public void applyComponentOrientation(java.awt.ComponentOrientation arg0)
 - *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
 - *countComponents*
public int countComponents()
 - *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
 - *doLayout*
public void doLayout()
 - *findComponentAt*
public Component findComponentAt(int arg0, int arg1)
 - *findComponentAt*
public Component findComponentAt(java.awt.Point arg0)
 - *getAlignmentX*
public float getAlignmentX()
 - *getAlignmentY*
public float getAlignmentY()

- *getComponent*
public Component **getComponent**(int arg0)
- *getComponentAt*
public Component **getComponentAt**(int arg0, int arg1)
- *getComponentAt*
public Component **getComponentAt**(java.awt.Point arg0)
- *getComponentCount*
public int **getComponentCount**()
- *getComponents*
public Component **getComponents**()
- *getComponentZOrder*
public final int **getComponentZOrder**(java.awt.Component arg0)
- *getContainerListeners*
public synchronized ContainerListener **getContainerListeners**()
- *getFocusTraversalKeys*
public Set **getFocusTraversalKeys**(int arg0)
- *getFocusTraversalPolicy*
public FocusTraversalPolicy **getFocusTraversalPolicy**()
- *getInsets*
public Insets **getInsets**()
- *getLayout*
public LayoutManager **getLayout**()
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()
- *getMousePosition*
public Point **getMousePosition**(boolean arg0)
- *getPreferredSize*
public Dimension **getPreferredSize**()
- *insets*
public Insets **insets**()
- *invalidate*
public void **invalidate**()
- *isAncestorOf*
public boolean **isAncestorOf**(java.awt.Component arg0)
- *isFocusCycleRoot*
public boolean **isFocusCycleRoot**()
- *isFocusCycleRoot*
public boolean **isFocusCycleRoot**(java.awt.Container arg0)
- *isFocusTraversalPolicyProvider*
public final boolean **isFocusTraversalPolicyProvider**()

- *isFocusTraversalPolicySet*
public boolean isFocusTraversalPolicySet()
- *layout*
public void layout()
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *minimumSize*
public Dimension minimumSize()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintComponents*
public void paintComponents(java.awt.Graphics arg0)
- *preferredSize*
public Dimension preferredSize()
- *print*
public void print(java.awt.Graphics arg0)
- *printComponents*
public void printComponents(java.awt.Graphics arg0)
- *remove*
public void remove(java.awt.Component arg0)
- *remove*
public void remove(int arg0)
- *removeAll*
public void removeAll()
- *removeContainerListener*
public synchronized void removeContainerListener(java.awt.event.ContainerListener arg0)
- *removeNotify*
public void removeNotify()
- *setComponentZOrder*
public final void setComponentZOrder(java.awt.Component arg0, int arg1)
- *setFocusCycleRoot*
public void setFocusCycleRoot(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalPolicy*
public void setFocusTraversalPolicy(java.awt.FocusTraversalPolicy arg0)

- *setFocusTraversalPolicyProvider*
public final void setFocusTraversalPolicyProvider(boolean
arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setLayout*
public void setLayout(java.awt.LayoutManager arg0)
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusDownCycle*
public void transferFocusDownCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

METHODS INHERITED FROM CLASS java.awt.Component

- *action*
public boolean action(java.awt.Event arg0, java.lang.Object
arg1)
- *add*
public synchronized void add(java.awt.PopupMenu arg0)
- *addComponentListener*
public synchronized void addComponentListener(
java.awt.event.ComponentListener arg0)
- *addFocusListener*
public synchronized void addFocusListener(
java.awt.event.FocusListener arg0)
- *addHierarchyBoundsListener*
public void addHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)
- *addHierarchyListener*
public void addHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *addInputMethodListener*
public synchronized void addInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *addKeyListener*
public synchronized void addKeyListener(
java.awt.event.KeyListener arg0)
- *addMouseListener*
public synchronized void addMouseListener(
java.awt.event.MouseListener arg0)

- *addMouseMotionListener*
public synchronized void addMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *addMouseWheelListener*
public synchronized void addMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *addNotify*
public void addNotify()
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *applyComponentOrientation*
public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *bounds*
public Rectangle bounds()
- *checkImage*
public int checkImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *checkImage*
public int checkImage(java.awt.Image arg0, int arg1, int
arg2, java.awt.image.ImageObserver arg3)
- *contains*
public boolean contains(int arg0, int arg1)
- *contains*
public boolean contains(java.awt.Point arg0)
- *createImage*
public Image createImage(java.awt.image.ImageProducer arg0)
- *createImage*
public Image createImage(int arg0, int arg1)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1
)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1,
java.awt.ImageCapabilities arg2)
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *disable*
public void disable()

- *dispatchEvent*
public final void **dispatchEvent**(java.awt.AWTEvent arg0)
- *doLayout*
public void **doLayout**()
- *enable*
public void **enable**()
- *enable*
public void **enable**(boolean arg0)
- *enableInputMethods*
public void **enableInputMethods**(boolean arg0)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, byte arg1, byte arg2)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, char arg1, char arg2)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, double arg1, double arg2)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, float arg1, float arg2)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, long arg1, long arg2)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, short arg1, short arg2)
- *getAccessibleContext*
public AccessibleContext **getAccessibleContext**()
- *getAlignmentX*
public float **getAlignmentX**()
- *getAlignmentY*
public float **getAlignmentY**()
- *getBackground*
public Color **getBackground**()
- *getBounds*
public Rectangle **getBounds**()
- *getBounds*
public Rectangle **getBounds**(java.awt.Rectangle arg0)
- *getColorModel*
public ColorModel **getColorModel**()
- *getComponentAt*
public Component **getComponentAt**(int arg0, int arg1)

- *getComponentAt*
public Component **getComponentAt**(java.awt.Point arg0)
- *getComponentListeners*
public synchronized ComponentListener **getComponentListeners**()
- *getComponentOrientation*
public ComponentOrientation **getComponentOrientation**()
- *getCursor*
public Cursor **getCursor**()
- *getDropTarget*
public synchronized DropTarget **getDropTarget**()
- *getFocusCycleRootAncestor*
public Container **getFocusCycleRootAncestor**()
- *getFocusListeners*
public synchronized FocusListener **getFocusListeners**()
- *getFocusTraversalKeys*
public Set **getFocusTraversalKeys**(int arg0)
- *getFocusTraversalKeysEnabled*
public boolean **getFocusTraversalKeysEnabled**()
- *getFont*
public Font **getFont**()
- *getFontMetrics*
public FontMetrics **getFontMetrics**(java.awt.Font arg0)
- *getForeground*
public Color **getForeground**()
- *getGraphics*
public Graphics **getGraphics**()
- *getGraphicsConfiguration*
public GraphicsConfiguration **getGraphicsConfiguration**()
- *getHeight*
public int **getHeight**()
- *getHierarchyBoundsListeners*
public synchronized HierarchyBoundsListener **getHierarchyBoundsListeners**()
- *getHierarchyListeners*
public synchronized HierarchyListener **getHierarchyListeners**()
- *getIgnoreRepaint*
public boolean **getIgnoreRepaint**()
- *getInputContext*
public InputContext **getInputContext**()
- *getInputMethodListeners*
public synchronized InputMethodListener **getInputMethodListeners**()
- *getInputMethodRequests*
public InputMethodRequests **getInputMethodRequests**()

- *getKeyListeners*
public synchronized KeyListener **getKeyListeners**()
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getLocale*
public Locale **getLocale**()
- *getLocation*
public Point **getLocation**()
- *getLocation*
public Point **getLocation**(java.awt.Point arg0)
- *getLocationOnScreen*
public Point **getLocationOnScreen**()
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()
- *getMouseListeners*
public synchronized MouseListener **getMouseListeners**()
- *getMouseMotionListeners*
public synchronized MouseMotionListener **getMouseMotionListeners**()
- *getMousePosition*
public Point **getMousePosition**()
- *getMouseWheelListeners*
public synchronized MouseWheelListener **getMouseWheelListeners**()
- *getName*
public String **getName**()
- *getParent*
public Container **getParent**()
- *getPeer*
public ComponentPeer **getPeer**()
- *getPreferredSize*
public Dimension **getPreferredSize**()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener **getPropertyChangeListeners**()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener **getPropertyChangeListeners**(java.lang.String arg0)
- *getSize*
public Dimension **getSize**()
- *getSize*
public Dimension **getSize**(java.awt.Dimension arg0)

- *getToolkit*
public Toolkit getToolkit()
- *getTreeLock*
public final Object getTreeLock()
- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *gotFocus*
public boolean gotFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *handleEvent*
public boolean handleEvent(java.awt.Event arg0)
- *hasFocus*
public boolean hasFocus()
- *hide*
public void hide()
- *imageUpdate*
public boolean imageUpdate(java.awt.Image arg0, int arg1,
int arg2, int arg3, int arg4, int arg5)
- *inside*
public boolean inside(int arg0, int arg1)
- *invalidate*
public void invalidate()
- *isBackgroundSet*
public boolean isBackgroundSet()
- *isCursorSet*
public boolean isCursorSet()
- *isDisplayable*
public boolean isDisplayable()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isEnabled*
public boolean isEnabled()
- *isFocusable*
public boolean isFocusable()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusOwner*
public boolean isFocusOwner()
- *isFocusTraversable*
public boolean isFocusTraversable()

- *isFontSet*
public boolean isFontSet()
- *isForegroundSet*
public boolean isForegroundSet()
- *isLightweight*
public boolean isLightweight()
- *isMaximumSizeSet*
public boolean isMaximumSizeSet()
- *isMinimumSizeSet*
public boolean isMinimumSizeSet()
- *isOpaque*
public boolean isOpaque()
- *isPreferredSizeSet*
public boolean isPreferredSizeSet()
- *isShowing*
public boolean isShowing()
- *isValid*
public boolean isValid()
- *isVisible*
public boolean isVisible()
- *keyDown*
public boolean keyDown(java.awt.Event arg0, int arg1)
- *keyUp*
public boolean keyUp(java.awt.Event arg0, int arg1)
- *layout*
public void layout()
- *list*
public void list()
- *list*
public void list(java.io.PrintStream arg0)
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *location*
public Point location()
- *lostFocus*
public boolean lostFocus(java.awt.Event arg0, java.lang.Object arg1)
- *minimumSize*
public Dimension minimumSize()

- *mouseDown*
public boolean mouseDown(java.awt.Event arg0, int arg1,
int arg2)
- *mouseDrag*
public boolean mouseDrag(java.awt.Event arg0, int arg1,
int arg2)
- *mouseEnter*
public boolean mouseEnter(java.awt.Event arg0, int arg1,
int arg2)
- *mouseExit*
public boolean mouseExit(java.awt.Event arg0, int arg1,
int arg2)
- *mouseMove*
public boolean mouseMove(java.awt.Event arg0, int arg1,
int arg2)
- *mouseUp*
public boolean mouseUp(java.awt.Event arg0, int arg1, int
arg2)
- *move*
public void move(int arg0, int arg1)
- *nextFocus*
public void nextFocus()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintAll*
public void paintAll(java.awt.Graphics arg0)
- *postEvent*
public boolean postEvent(java.awt.Event arg0)
- *preferredSize*
public Dimension preferredSize()
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, int arg1,
int arg2, java.awt.image.ImageObserver arg3)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *remove*
public synchronized void remove(java.awt.MenuComponent arg0
)
- *removeComponentListener*
public synchronized void removeComponentListener(
java.awt.event.ComponentListener arg0)

- *removeFocusListener*
public synchronized void removeFocusListener(
java.awt.event.FocusListener arg0)
- *removeHierarchyBoundsListener*
public void removeHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)
- *removeHierarchyListener*
public void removeHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *removeInputMethodListener*
public synchronized void removeInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *removeKeyListener*
public synchronized void removeKeyListener(
java.awt.event.KeyListener arg0)
- *removeMouseListener*
public synchronized void removeMouseListener(
java.awt.event.MouseListener arg0)
- *removeMouseMotionListener*
public synchronized void removeMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *removeMouseWheelListener*
public synchronized void removeMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *removeNotify*
public void removeNotify()
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *repaint*
public void repaint()
- *repaint*
public void repaint(int arg0, int arg1, int arg2, int
arg3)
- *repaint*
public void repaint(long arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int
arg3, int arg4)
- *requestFocus*
public void requestFocus()

- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int arg3)
- *resize*
public void resize(java.awt.Dimension arg0)
- *resize*
public void resize(int arg0, int arg1)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBounds*
public void setBounds(int arg0, int arg1, int arg2, int arg3)
- *setBounds*
public void setBounds(java.awt.Rectangle arg0)
- *setComponentOrientation*
public void setComponentOrientation(java.awt.ComponentOrientation arg0)
- *setCursor*
public void setCursor(java.awt.Cursor arg0)
- *setDropTarget*
public synchronized void setDropTarget(java.awt.dnd.DropTarget arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusable*
public void setFocusable(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalKeysEnabled*
public void setFocusTraversalKeysEnabled(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setIgnoreRepaint*
public void setIgnoreRepaint(boolean arg0)
- *setLocale*
public void setLocale(java.util.Locale arg0)
- *setLocation*
public void setLocation(int arg0, int arg1)
- *setLocation*
public void setLocation(java.awt.Point arg0)

- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setName*
public void setName(java.lang.String arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(int arg0, int arg1)
- *setVisible*
public void setVisible(boolean arg0)
- *show*
public void show()
- *show*
public void show(boolean arg0)
- *size*
public Dimension size()
- *toString*
public String toString()
- *transferFocus*
public void transferFocus()
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusUpCycle*
public void transferFocusUpCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

2.2.7 CLASS MainApplet

Our program in Applet-form.

DECLARATION

```
public class MainApplet
extends javax.swing.JApplet
implements MainInterface
```

SERIALIZABLE FIELDS

- private Background `backgroundPanel`
—
- private Board `board`
—
- private Game `game`
—
- private IngameControls `controls`
—
- private SheepSpeak `sheepSpeak`
—
- private Header `header`
—
- private JLayeredPane `layeredPane`
—

CONSTRUCTORS

- *MainApplet*
`public MainApplet()`

METHODS

- *add*
`public Component add(java.awt.Component component,
int zindex, int x, int y)`
 - **Usage**
 - * Adds a component to the window.
 - **Parameters**
 - * `component` - The component to add.
 - * `zindex` - The Z-Index of the position.
 - * `x` - The X-coordinate.
 - * `y` - The Y-coordinate.

- **Returns** - The added component.

- *createBackgroundPanel*

```
public void createBackgroundPanel( java.lang.String  
backgroundImage )
```

- **Usage**

- * Creates a new background with the supplied image.

- **Parameters**

- * **backgroundImage** - The image to use as a background.

- *createBoard*

```
public void createBoard( )
```

- **Usage**

- * Creates a new board. **setGame()** must have been called before.

- *createHeader*

```
public void createHeader( )
```

- *createIngameControls*

```
public void createIngameControls(  
controller.DifficultyAction difficultyAction,  
controller.HelpAction helpAction )
```

- **Usage**

- * Creates the ingamecontrols.

- **Parameters**

- * **difficultyAction** - The action to perform when the "New game" button is pressed.
 - * **helpAction** - The action to perform when the "Help" button is pressed.

- *createSheepSpeak*

```
public void createSheepSpeak( )
```

- **Usage**

- * Create the SheepSpeak-object.

- *getBackgroundPanel*

```
public Background getBackgroundPanel( )
```

- **Usage**

- * Gets the background.
 - **Returns** - The background.
-

- *getBoard*

public Board **getBoard**()

- **Usage**
 - * Gets the graphical representation of the board.
 - **Returns** - The board.
-

- *getBoardDimension*

public Dimension **getBoardDimension**()

- **Usage**
 - * Gets the current dimensions of the board.
 - **Returns** - The dimensions of the board.
-

- *getControls*

public IngameControls **getControls**()

- *getGame*

public Game **getGame**()

- **Usage**
 - * Gets the current instance of the game used.
 - **Returns** - The game.
-

- *getSheepSpeak*

public SheepSpeak **getSheepSpeak**()

- **Usage**
 - * Gets the current SheepSpeak - the box in which the wise words of the sheep are.
 - **Returns** - The SheepSpeak-object.
-

- *hideElements*

public void **hideElements**()

- *setGame*

public void **setGame**(model.Game game)

- **Usage**
 - * Sets the current game instance. Must be called before createBoard().

– **Parameters**

* *game* - The game to set.

• *setMenu*

public void setMenu()

• *setup*

public void setup()

– **Usage**

* Performs some standard operations on the window.

• *showElements*

public void showElements()

METHODS INHERITED FROM CLASS `javax.swing.JApplet`

• *getAccessibleContext*

public AccessibleContext getAccessibleContext()

• *getContentPane*

public Container getContentPane()

• *getGlassPane*

public Component getGlassPane()

• *getJMenuBar*

public JMenuBar getJMenuBar()

• *getLayeredPane*

public JLayeredPane getLayeredPane()

• *getRootPane*

public JRootPane getRootPane()

• *remove*

public void remove(java.awt.Component arg0)

• *setContentPane*

public void setContentPane(java.awt.Container arg0)

• *setGlassPane*

public void setGlassPane(java.awt.Component arg0)

• *setJMenuBar*

public void setJMenuBar(javax.swing.JMenuBar arg0)

• *setLayeredPane*

public void setLayeredPane(javax.swing.JLayeredPane arg0)

• *setLayout*

public void setLayout(java.awt.LayoutManager arg0)

• *update*

public void update(java.awt.Graphics arg0)

METHODS INHERITED FROM CLASS `java.applet.Applet`

- *destroy*
`public void destroy()`
- *getAccessibleContext*
`public AccessibleContext getAccessibleContext()`
- *getAppletContext*
`public AppletContext getAppletContext()`
- *getAppletInfo*
`public String getAppletInfo()`
- *getAudioClip*
`public AudioClip getAudioClip(java.net.URL arg0)`
- *getAudioClip*
`public AudioClip getAudioClip(java.net.URL arg0,
java.lang.String arg1)`
- *getCodeBase*
`public URL getCodeBase()`
- *getDocumentBase*
`public URL getDocumentBase()`
- *getImage*
`public Image getImage(java.net.URL arg0)`
- *getImage*
`public Image getImage(java.net.URL arg0, java.lang.String
arg1)`
- *getLocale*
`public Locale getLocale()`
- *getParameter*
`public String getParameter(java.lang.String arg0)`
- *getParameterInfo*
`public String getParameterInfo()`
- *init*
`public void init()`
- *isActive*
`public boolean isActive()`
- *newAudioClip*
`public static final AudioClip newAudioClip(java.net.URL
arg0)`
- *play*
`public void play(java.net.URL arg0)`
- *play*
`public void play(java.net.URL arg0, java.lang.String arg1)`
- *resize*
`public void resize(java.awt.Dimension arg0)`

- *resize*
public void resize(int arg0, int arg1)
- *setStub*
public final void setStub(java.applet.AppletStub arg0)
- *showStatus*
public void showStatus(java.lang.String arg0)
- *start*
public void start()
- *stop*
public void stop()

METHODS INHERITED FROM CLASS java.awt.Panel

- *addNotify*
public void addNotify()
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()

METHODS INHERITED FROM CLASS java.awt.Container

- *add*
public Component add(java.awt.Component arg0)
- *add*
public Component add(java.awt.Component arg0, int arg1)
- *add*
public void add(java.awt.Component arg0, java.lang.Object arg1)
- *add*
public void add(java.awt.Component arg0, java.lang.Object arg1, int arg2)
- *add*
public Component add(java.lang.String arg0, java.awt.Component arg1)
- *addContainerListener*
public synchronized void addContainerListener(java.awt.event.ContainerListener arg0)
- *addNotify*
public void addNotify()
- *addPropertyChangeListener*
public void addPropertyChangeListener(java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public void addPropertyChangeListener(java.lang.String arg0, java.beans.PropertyChangeListener arg1)

- *applyComponentOrientation*
public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *countComponents*
public int countComponents()
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *doLayout*
public void doLayout()
- *findComponentAt*
public Component findComponentAt(int arg0, int arg1)
- *findComponentAt*
public Component findComponentAt(java.awt.Point arg0)
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getComponent*
public Component getComponent(int arg0)
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentCount*
public int getComponentCount()
- *getComponents*
public Component getComponents()
- *getComponentZOrder*
public final int getComponentZOrder(java.awt.Component
arg0)
- *getContainerListeners*
public synchronized ContainerListener getContainerListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
- *getFocusTraversalPolicy*
public FocusTraversalPolicy getFocusTraversalPolicy()
- *getInsets*
public Insets getInsets()
- *getLayout*
public LayoutManager getLayout()
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)

- *getMaximumSize*
public Dimension getMaximumSize()
- *getMinimumSize*
public Dimension getMinimumSize()
- *getMousePosition*
public Point getMousePosition(boolean arg0)
- *getPreferredSize*
public Dimension getPreferredSize()
- *insets*
public Insets insets()
- *invalidate*
public void invalidate()
- *isAncestorOf*
public boolean isAncestorOf(java.awt.Component arg0)
- *isFocusCycleRoot*
public boolean isFocusCycleRoot()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusTraversalPolicyProvider*
public final boolean isFocusTraversalPolicyProvider()
- *isFocusTraversalPolicySet*
public boolean isFocusTraversalPolicySet()
- *layout*
public void layout()
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *minimumSize*
public Dimension minimumSize()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintComponents*
public void paintComponents(java.awt.Graphics arg0)
- *preferredSize*
public Dimension preferredSize()
- *print*
public void print(java.awt.Graphics arg0)
- *printComponents*
public void printComponents(java.awt.Graphics arg0)
- *remove*
public void remove(java.awt.Component arg0)

- *remove*
public void remove(int arg0)
- *removeAll*
public void removeAll()
- *removeContainerListener*
public synchronized void removeContainerListener(java.awt.event.ContainerListener arg0)
- *removeNotify*
public void removeNotify()
- *setComponentZOrder*
public final void setComponentZOrder(java.awt.Component arg0, int arg1)
- *setFocusCycleRoot*
public void setFocusCycleRoot(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalPolicy*
public void setFocusTraversalPolicy(java.awt.FocusTraversalPolicy arg0)
- *setFocusTraversalPolicyProvider*
public final void setFocusTraversalPolicyProvider(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setLayout*
public void setLayout(java.awt.LayoutManager arg0)
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusDownCycle*
public void transferFocusDownCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

METHODS INHERITED FROM CLASS java.awt.Component

- *action*
public boolean action(java.awt.Event arg0, java.lang.Object arg1)
- *add*
public synchronized void add(java.awt.PopupMenu arg0)

- *addComponentListener*
public synchronized void addComponentListener(
java.awt.event.ComponentListener arg0)
- *addFocusListener*
public synchronized void addFocusListener(
java.awt.event.FocusListener arg0)
- *addHierarchyBoundsListener*
public void addHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)
- *addHierarchyListener*
public void addHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *addInputMethodListener*
public synchronized void addInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *addKeyListener*
public synchronized void addKeyListener(
java.awt.event.KeyListener arg0)
- *addMouseListener*
public synchronized void addMouseListener(
java.awt.event.MouseListener arg0)
- *addMouseMotionListener*
public synchronized void addMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *addMouseWheelListener*
public synchronized void addMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *addNotify*
public void addNotify()
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *applyComponentOrientation*
public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *bounds*
public Rectangle bounds()
- *checkImage*
public int checkImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)

- *checkImage*
public int checkImage(java.awt.Image arg0, int arg1, int arg2, java.awt.image.ImageObserver arg3)
- *contains*
public boolean contains(int arg0, int arg1)
- *contains*
public boolean contains(java.awt.Point arg0)
- *createImage*
public Image createImage(java.awt.image.ImageProducer arg0)
- *createImage*
public Image createImage(int arg0, int arg1)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1, java.awt.ImageCapabilities arg2)
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *disable*
public void disable()
- *dispatchEvent*
public final void dispatchEvent(java.awt.AWTEvent arg0)
- *doLayout*
public void doLayout()
- *enable*
public void enable()
- *enable*
public void enable(boolean arg0)
- *enableInputMethods*
public void enableInputMethods(boolean arg0)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, byte arg1, byte arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, char arg1, char arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, double arg1, double arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, float arg1, float arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, long arg1, long arg2)

- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, short arg1, short arg2)
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getBackground*
public Color getBackground()
- *getBounds*
public Rectangle getBounds()
- *getBounds*
public Rectangle getBounds(java.awt.Rectangle arg0)
- *getColorModel*
public ColorModel getColorModel()
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentListeners*
public synchronized ComponentListener getComponentListeners()
- *getComponentOrientation*
public ComponentOrientation getComponentOrientation()
- *getCursor*
public Cursor getCursor()
- *getDropTarget*
public synchronized DropTarget getDropTarget()
- *getFocusCycleRootAncestor*
public Container getFocusCycleRootAncestor()
- *getFocusListeners*
public synchronized FocusListener getFocusListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
- *getFocusTraversalKeysEnabled*
public boolean getFocusTraversalKeysEnabled()
- *getFont*
public Font getFont()
- *getFontMetrics*
public FontMetrics getFontMetrics(java.awt.Font arg0)
- *getForeground*
public Color getForeground()

- *getGraphics*
public Graphics **getGraphics**()
- *getGraphicsConfiguration*
public GraphicsConfiguration **getGraphicsConfiguration**()
- *getHeight*
public int **getHeight**()
- *getHierarchyBoundsListeners*
public synchronized HierarchyBoundsListener **getHierarchyBoundsListeners**()
- *getHierarchyListeners*
public synchronized HierarchyListener **getHierarchyListeners**()
- *getIgnoreRepaint*
public boolean **getIgnoreRepaint**()
- *getInputContext*
public InputContext **getInputContext**()
- *getInputMethodListeners*
public synchronized InputMethodListener **getInputMethodListeners**()
- *getInputMethodRequests*
public InputMethodRequests **getInputMethodRequests**()
- *getKeyListeners*
public synchronized KeyListener **getKeyListeners**()
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getLocale*
public Locale **getLocale**()
- *getLocation*
public Point **getLocation**()
- *getLocation*
public Point **getLocation**(java.awt.Point arg0)
- *getLocationOnScreen*
public Point **getLocationOnScreen**()
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()
- *getMouseListeners*
public synchronized MouseListener **getMouseListeners**()
- *getMouseMotionListeners*
public synchronized MouseMotionListener **getMouseMotionListeners**()
- *getMousePosition*
public Point **getMousePosition**()

- *getMouseWheelListeners*
public synchronized MouseWheelListener
getMouseWheelListeners()
- *getName*
public String getName()
- *getParent*
public Container getParent()
- *getPeer*
public ComponentPeer getPeer()
- *getPreferredSize*
public Dimension getPreferredSize()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners(java.lang.String arg0)
- *getSize*
public Dimension getSize()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)
- *getToolkit*
public Toolkit getToolkit()
- *getTreeLock*
public final Object getTreeLock()
- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *gotFocus*
public boolean gotFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *handleEvent*
public boolean handleEvent(java.awt.Event arg0)
- *hasFocus*
public boolean hasFocus()
- *hide*
public void hide()
- *imageUpdate*
public boolean imageUpdate(java.awt.Image arg0, int arg1,
int arg2, int arg3, int arg4, int arg5)
- *inside*
public boolean inside(int arg0, int arg1)

- *invalidate*
public void invalidate()
- *isBackgroundSet*
public boolean isBackgroundSet()
- *isCursorSet*
public boolean isCursorSet()
- *isDisplayable*
public boolean isDisplayable()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isEnabled*
public boolean isEnabled()
- *isFocusable*
public boolean isFocusable()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusOwner*
public boolean isFocusOwner()
- *isFocusTraversable*
public boolean isFocusTraversable()
- *isFontSet*
public boolean isFontSet()
- *isForegroundSet*
public boolean isForegroundSet()
- *isLightweight*
public boolean isLightweight()
- *isMaximumSizeSet*
public boolean isMaximumSizeSet()
- *isMinimumSizeSet*
public boolean isMinimumSizeSet()
- *isOpaque*
public boolean isOpaque()
- *isPreferredSizeSet*
public boolean isPreferredSizeSet()
- *isShowing*
public boolean isShowing()
- *isValid*
public boolean isValid()
- *isVisible*
public boolean isVisible()
- *keyDown*
public boolean keyDown(java.awt.Event arg0, int arg1)
- *keyUp*
public boolean keyUp(java.awt.Event arg0, int arg1)

- *layout*
public void layout()
- *list*
public void list()
- *list*
public void list(java.io.PrintStream arg0)
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *location*
public Point location()
- *lostFocus*
public boolean lostFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *minimumSize*
public Dimension minimumSize()
- *mouseDown*
public boolean mouseDown(java.awt.Event arg0, int arg1,
int arg2)
- *mouseDrag*
public boolean mouseDrag(java.awt.Event arg0, int arg1,
int arg2)
- *mouseEnter*
public boolean mouseEnter(java.awt.Event arg0, int arg1,
int arg2)
- *mouseExit*
public boolean mouseExit(java.awt.Event arg0, int arg1,
int arg2)
- *mouseMove*
public boolean mouseMove(java.awt.Event arg0, int arg1,
int arg2)
- *mouseUp*
public boolean mouseUp(java.awt.Event arg0, int arg1, int
arg2)
- *move*
public void move(int arg0, int arg1)
- *nextFocus*
public void nextFocus()
- *paint*
public void paint(java.awt.Graphics arg0)

- *paintAll*
public void paintAll(java.awt.Graphics arg0)
- *postEvent*
public boolean postEvent(java.awt.Event arg0)
- *preferredSize*
public Dimension preferredSize()
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, int arg1,
int arg2, java.awt.image.ImageObserver arg3)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *remove*
public synchronized void remove(java.awt.MenuComponent arg0
)
- *removeComponentListener*
public synchronized void removeComponentListener(
java.awt.event.ComponentListener arg0)
- *removeFocusListener*
public synchronized void removeFocusListener(
java.awt.event.FocusListener arg0)
- *removeHierarchyBoundsListener*
public void removeHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)
- *removeHierarchyListener*
public void removeHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *removeInputMethodListener*
public synchronized void removeInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *removeKeyListener*
public synchronized void removeKeyListener(
java.awt.event.KeyListener arg0)
- *removeMouseListener*
public synchronized void removeMouseListener(
java.awt.event.MouseListener arg0)
- *removeMouseMotionListener*
public synchronized void removeMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *removeMouseWheelListener*
public synchronized void removeMouseWheelListener(
java.awt.event.MouseWheelListener arg0)

- *removeNotify*
public void removeNotify()
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *repaint*
public void repaint()
- *repaint*
public void repaint(int arg0, int arg1, int arg2, int
arg3)
- *repaint*
public void repaint(long arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int
arg3, int arg4)
- *requestFocus*
public void requestFocus()
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int
arg3)
- *resize*
public void resize(java.awt.Dimension arg0)
- *resize*
public void resize(int arg0, int arg1)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBounds*
public void setBounds(int arg0, int arg1, int arg2, int
arg3)
- *setBounds*
public void setBounds(java.awt.Rectangle arg0)
- *setComponentOrientation*
public void setComponentOrientation(
java.awt.ComponentOrientation arg0)
- *setCursor*
public void setCursor(java.awt.Cursor arg0)
- *setDropTarget*
public synchronized void setDropTarget(
java.awt.dnd.DropTarget arg0)

- *setEnabled*
public void **setEnabled**(boolean arg0)
- *setFocusable*
public void **setFocusable**(boolean arg0)
- *setFocusTraversalKeys*
public void **setFocusTraversalKeys**(int arg0, java.util.Set arg1)
- *setFocusTraversalKeysEnabled*
public void **setFocusTraversalKeysEnabled**(boolean arg0)
- *setFont*
public void **setFont**(java.awt.Font arg0)
- *setForeground*
public void **setForeground**(java.awt.Color arg0)
- *setIgnoreRepaint*
public void **setIgnoreRepaint**(boolean arg0)
- *setLocale*
public void **setLocale**(java.util.Locale arg0)
- *setLocation*
public void **setLocation**(int arg0, int arg1)
- *setLocation*
public void **setLocation**(java.awt.Point arg0)
- *setMaximumSize*
public void **setMaximumSize**(java.awt.Dimension arg0)
- *setMinimumSize*
public void **setMinimumSize**(java.awt.Dimension arg0)
- *setName*
public void **setName**(java.lang.String arg0)
- *setPreferredSize*
public void **setPreferredSize**(java.awt.Dimension arg0)
- *setSize*
public void **setSize**(java.awt.Dimension arg0)
- *setSize*
public void **setSize**(int arg0, int arg1)
- *setVisible*
public void **setVisible**(boolean arg0)
- *show*
public void **show**()
- *show*
public void **show**(boolean arg0)
- *size*
public Dimension **size**()
- *toString*
public String **toString**()
- *transferFocus*
public void **transferFocus**()

- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusUpCycle*
public void transferFocusUpCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

2.2.8 CLASS MainWindow

DECLARATION

```
public class MainWindow
extends javax.swing.JFrame
implements MainInterface
```

SERIALIZABLE FIELDS

- private Background backgroundPanel
—
- private Board board
—
- private Game game
—
- private IngameControls controls
—
- private SheepSpeak sheepSpeak
—
- private Header header
—
- private JLayeredPane layeredPane
—
- private Image icon
—

CONSTRUCTORS

- *MainWindow*
`public MainWindow()`

METHODS

- *add*
`public Component add(java.awt.Component component,
int zindex, int x, int y)`
 - **Usage**
 - * Adds a component to the window.
 - **Parameters**
 - * `component` - The component to add.
 - * `zindex` - The Z-Index of the position.
 - * `x` - The X-coordinate.
 - * `y` - The Y-coordinate.
 - **Returns** - The added component.

- *createBackgroundPanel*
`public void createBackgroundPanel(java.lang.String
backgroundImage)`
 - **Usage**
 - * Creates a new background with the supplied image.
 - **Parameters**
 - * `backgroundImage` - The image to use as a background.

- *createBoard*
`public void createBoard()`
 - **Usage**
 - * Creates a new board. `setGame()` must have been called before.

- *createHeader*
`public void createHeader()`
- *createIngameControls*
`public void createIngameControls(
controller.DifficultyAction difficultyAction,
controller.HelpAction helpAction)`

- **Usage**

- * Creates the ingamecontrols.

- **Parameters**

- * **difficultyAction** - The action to perform when the "New game" button is pressed.

- * **helpAction** - The action to perform when the "Help" button is pressed.

- *createSheepSpeak*

```
public void createSheepSpeak( )
```

- **Usage**

- * Create the SheepSpeak-object.

- *getBackgroundPanel*

```
public Background getBackgroundPanel( )
```

- **Usage**

- * Gets the background.

- **Returns** - The background.

- *getBoard*

```
public Board getBoard( )
```

- **Usage**

- * Gets the graphical representation of the board.

- **Returns** - The board.

- *getBoardDimension*

```
public Dimension getBoardDimension( )
```

- **Usage**

- * Gets the current dimensions of the board.

- **Returns** - The dimensions of the board.

- *getControls*

```
public IngameControls getControls( )
```

- *getGame*

```
public Game getGame( )
```

- **Usage**

- * Gets the current instance of the game used.

- **Returns** - The game.

-
- *getSheepSpeak*
public SheepSpeak getSheepSpeak()
 - **Usage**
 - * Gets the current SheepSpeak - the box in which the wise words of the sheep are.
 - **Returns** - The SheepSpeak-object.
-
- *hideElements*
public void hideElements()
-
- *setGame*
public void setGame(model.Game game)
 - **Usage**
 - * Sets the current game instance. Must be called before createBoard().
 - **Parameters**
 - * **game** - The game to set.
-
- *setMenu*
public void setMenu()
-
- *setup*
public void setup()
 - **Usage**
 - * Performs some standard operations on the window.
-
- *showElements*
public void showElements()

METHODS INHERITED FROM CLASS javax.swing.JFrame

- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getContentPane*
public Container getContentPane()
- *getDefaultCloseOperation*
public int getDefaultCloseOperation()
- *getGlassPane*
public Component getGlassPane()

- *getJMenuBar*
public JMenuBar getJMenuBar()
- *getLayeredPane*
public JLayeredPane getLayeredPane()
- *getRootPane*
public JRootPane getRootPane()
- *isDefaultLookAndFeelDecorated*
public static boolean isDefaultLookAndFeelDecorated()
- *remove*
public void remove(java.awt.Component arg0)
- *setContentPane*
public void setContentPane(java.awt.Container arg0)
- *setDefaultCloseOperation*
public void setDefaultCloseOperation(int arg0)
- *setDefaultLookAndFeelDecorated*
public static void setDefaultLookAndFeelDecorated(boolean arg0)
- *setGlassPane*
public void setGlassPane(java.awt.Component arg0)
- *setIconImage*
public void setIconImage(java.awt.Image arg0)
- *setJMenuBar*
public void setJMenuBar(javax.swing.JMenuBar arg0)
- *setLayeredPane*
public void setLayeredPane(javax.swing.JLayeredPane arg0)
- *setLayout*
public void setLayout(java.awt.LayoutManager arg0)
- *update*
public void update(java.awt.Graphics arg0)

METHODS INHERITED FROM CLASS java.awt.Frame

- *addNotify*
public void addNotify()
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getCursorType*
public int getCursorType()
- *getExtendedState*
public synchronized int getExtendedState()
- *getFrames*
public static Frame getFrames()
- *getIconImage*
public Image getIconImage()

- *getMaximizedBounds*
public Rectangle getMaximizedBounds()
- *getMenuBar*
public MenuBar getMenuBar()
- *getState*
public synchronized int getState()
- *getTitle*
public String getTitle()
- *isResizable*
public boolean isResizable()
- *isUndecorated*
public boolean isUndecorated()
- *remove*
public void remove(java.awt.MenuComponent arg0)
- *removeNotify*
public void removeNotify()
- *setCursor*
public void setCursor(int arg0)
- *setExtendedState*
public synchronized void setExtendedState(int arg0)
- *setIconImage*
public synchronized void setIconImage(java.awt.Image arg0)
- *setMaximizedBounds*
public synchronized void setMaximizedBounds(java.awt.Rectangle arg0)
- *setMenuBar*
public void setMenuBar(java.awt.MenuBar arg0)
- *setResizable*
public void setResizable(boolean arg0)
- *setState*
public synchronized void setState(int arg0)
- *setTitle*
public void setTitle(java.lang.String arg0)
- *setUndecorated*
public void setUndecorated(boolean arg0)

METHODS INHERITED FROM CLASS `java.awt.Window`

-
- *addNotify*
public void addNotify()
 - *addPropertyChangeListener*
public void addPropertyChangeListener(java.beans.PropertyChangeListener arg0)
 - *addPropertyChangeListener*
public void addPropertyChangeListener(java.lang.String arg0, java.beans.PropertyChangeListener arg1)
 - *addWindowFocusListener*
public synchronized void addWindowFocusListener(java.awt.event.WindowFocusListener arg0)
 - *addWindowListener*
public synchronized void addWindowListener(java.awt.event.WindowListener arg0)
 - *addWindowStateListener*
public synchronized void addWindowStateListener(java.awt.event.WindowStateListener arg0)
 - *applyResourceBundle*
public void applyResourceBundle(java.util.ResourceBundle arg0)
 - *applyResourceBundle*
public void applyResourceBundle(java.lang.String arg0)
 - *createBufferStrategy*
public void createBufferStrategy(int arg0)
 - *createBufferStrategy*
public void createBufferStrategy(int arg0, java.awt.BufferCapabilities arg1)
 - *dispose*
public void dispose()
 - *getAccessibleContext*
public AccessibleContext getAccessibleContext()
 - *getBufferStrategy*
public BufferStrategy getBufferStrategy()
 - *getFocusableWindowState*
public boolean getFocusableWindowState()
 - *getFocusCycleRootAncestor*
public final Container getFocusCycleRootAncestor()
 - *getFocusOwner*
public Component getFocusOwner()
 - *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
 - *getGraphicsConfiguration*
public GraphicsConfiguration getGraphicsConfiguration()

- *getInputContext*
public InputContext getInputContext()
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)
- *getLocale*
public Locale getLocale()
- *getMostRecentFocusOwner*
public Component getMostRecentFocusOwner()
- *getOwnedWindows*
public Window getOwnedWindows()
- *getOwner*
public Window getOwner()
- *getToolkit*
public Toolkit getToolkit()
- *getWarningString*
public final String getWarningString()
- *getWindowFocusListeners*
public synchronized WindowFocusListener
getWindowFocusListeners()
- *getWindowListeners*
public synchronized WindowListener getWindowListeners()
- *getWindowStateListeners*
public synchronized WindowStateListener
getWindowStateListeners()
- *hide*
public void hide()
- *isActive*
public boolean isActive()
- *isAlwaysOnTop*
public final boolean isAlwaysOnTop()
- *isFocusableWindow*
public final boolean isFocusableWindow()
- *isFocusCycleRoot*
public final boolean isFocusCycleRoot()
- *isFocused*
public boolean isFocused()
- *isLocationByPlatform*
public boolean isLocationByPlatform()
- *isShowing*
public boolean isShowing()
- *pack*
public void pack()
- *postEvent*
public boolean postEvent(java.awt.Event arg0)

- *removeWindowFocusListener*
public synchronized void removeWindowFocusListener(
java.awt.event.WindowFocusListener arg0)
- *removeWindowListener*
public synchronized void removeWindowListener(
java.awt.event.WindowListener arg0)
- *removeWindowStateListener*
public synchronized void removeWindowStateListener(
java.awt.event.WindowStateListener arg0)
- *setAlwaysOnTop*
public final void setAlwaysOnTop(boolean arg0)
- *setBounds*
public void setBounds(int arg0, int arg1, int arg2, int
arg3)
- *setCursor*
public void setCursor(java.awt.Cursor arg0)
- *setFocusableWindowState*
public void setFocusableWindowState(boolean arg0)
- *setFocusCycleRoot*
public final void setFocusCycleRoot(boolean arg0)
- *setLocationByPlatform*
public void setLocationByPlatform(boolean arg0)
- *setLocationRelativeTo*
public void setLocationRelativeTo(java.awt.Component arg0)
- *show*
public void show()
- *toBack*
public void toBack()
- *toFront*
public void toFront()

METHODS INHERITED FROM CLASS java.awt.Container

- *add*
public Component add(java.awt.Component arg0)
- *add*
public Component add(java.awt.Component arg0, int arg1)
- *add*
public void add(java.awt.Component arg0, java.lang.Object
arg1)
- *add*
public void add(java.awt.Component arg0, java.lang.Object
arg1, int arg2)

- *add*
public Component add(java.lang.String arg0,
java.awt.Component arg1)
- *addContainerListener*
public synchronized void addContainerListener(
java.awt.event.ContainerListener arg0)
- *addNotify*
public void addNotify()
- *addPropertyChangeListener*
public void addPropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public void addPropertyChangeListener(java.lang.String
arg0, java.beans.PropertyChangeListener arg1)
- *applyComponentOrientation*
public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *countComponents*
public int countComponents()
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *doLayout*
public void doLayout()
- *findComponentAt*
public Component findComponentAt(int arg0, int arg1)
- *findComponentAt*
public Component findComponentAt(java.awt.Point arg0)
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getComponent*
public Component getComponent(int arg0)
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentCount*
public int getComponentCount()
- *getComponents*
public Component getComponents()
- *getComponentZOrder*
public final int getComponentZOrder(java.awt.Component
arg0)

- *getContainerListeners*
public synchronized ContainerListener getContainerListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
- *getFocusTraversalPolicy*
public FocusTraversalPolicy getFocusTraversalPolicy()
- *getInsets*
public Insets getInsets()
- *getLayout*
public LayoutManager getLayout()
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)
- *getMaximumSize*
public Dimension getMaximumSize()
- *getMinimumSize*
public Dimension getMinimumSize()
- *getMousePosition*
public Point getMousePosition(boolean arg0)
- *getPreferredSize*
public Dimension getPreferredSize()
- *insets*
public Insets insets()
- *invalidate*
public void invalidate()
- *isAncestorOf*
public boolean isAncestorOf(java.awt.Component arg0)
- *isFocusCycleRoot*
public boolean isFocusCycleRoot()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusTraversalPolicyProvider*
public final boolean isFocusTraversalPolicyProvider()
- *isFocusTraversalPolicySet*
public boolean isFocusTraversalPolicySet()
- *layout*
public void layout()
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *minimumSize*
public Dimension minimumSize()

- *paint*
public void paint(java.awt.Graphics arg0)
- *paintComponents*
public void paintComponents(java.awt.Graphics arg0)
- *preferredSize*
public Dimension preferredSize()
- *print*
public void print(java.awt.Graphics arg0)
- *printComponents*
public void printComponents(java.awt.Graphics arg0)
- *remove*
public void remove(java.awt.Component arg0)
- *remove*
public void remove(int arg0)
- *removeAll*
public void removeAll()
- *removeContainerListener*
public synchronized void removeContainerListener(java.awt.event.ContainerListener arg0)
- *removeNotify*
public void removeNotify()
- *setComponentZOrder*
public final void setComponentZOrder(java.awt.Component arg0, int arg1)
- *setFocusCycleRoot*
public void setFocusCycleRoot(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalPolicy*
public void setFocusTraversalPolicy(java.awt.FocusTraversalPolicy arg0)
- *setFocusTraversalPolicyProvider*
public final void setFocusTraversalPolicyProvider(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setLayout*
public void setLayout(java.awt.LayoutManager arg0)
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusDownCycle*
public void transferFocusDownCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

METHODS INHERITED FROM CLASS `java.awt.Component`

- *action*
`public boolean action(java.awt.Event arg0, java.lang.Object arg1)`
- *add*
`public synchronized void add(java.awt.PopupMenu arg0)`
- *addComponentListener*
`public synchronized void addComponentListener(
java.awt.event.ComponentListener arg0)`
- *addFocusListener*
`public synchronized void addFocusListener(
java.awt.event.FocusListener arg0)`
- *addHierarchyBoundsListener*
`public void addHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)`
- *addHierarchyListener*
`public void addHierarchyListener(
java.awt.event.HierarchyListener arg0)`
- *addInputMethodListener*
`public synchronized void addInputMethodListener(
java.awt.event.InputMethodListener arg0)`
- *addKeyListener*
`public synchronized void addKeyListener(
java.awt.event.KeyListener arg0)`
- *addMouseListener*
`public synchronized void addMouseListener(
java.awt.event.MouseListener arg0)`
- *addMouseMotionListener*
`public synchronized void addMouseMotionListener(
java.awt.event.MouseMotionListener arg0)`
- *addMouseWheelListener*
`public synchronized void addMouseWheelListener(
java.awt.event.MouseWheelListener arg0)`
- *addNotify*
`public void addNotify()`
- *addPropertyChangeListener*
`public synchronized void addPropertyChangeListener(
java.beans.PropertyChangeListener arg0)`
- *addPropertyChangeListener*
`public synchronized void addPropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)`
- *applyComponentOrientation*
`public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)`

- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *bounds*
public Rectangle bounds()
- *checkImage*
public int checkImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *checkImage*
public int checkImage(java.awt.Image arg0, int arg1, int
arg2, java.awt.image.ImageObserver arg3)
- *contains*
public boolean contains(int arg0, int arg1)
- *contains*
public boolean contains(java.awt.Point arg0)
- *createImage*
public Image createImage(java.awt.image.ImageProducer arg0)
- *createImage*
public Image createImage(int arg0, int arg1)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1
)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1,
java.awt.ImageCapabilities arg2)
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *disable*
public void disable()
- *dispatchEvent*
public final void dispatchEvent(java.awt.AWTEvent arg0)
- *doLayout*
public void doLayout()
- *enable*
public void enable()
- *enable*
public void enable(boolean arg0)
- *enableInputMethods*
public void enableInputMethods(boolean arg0)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, byte
arg1, byte arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, char
arg1, char arg2)

- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, double arg1, double arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, float arg1, float arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, long arg1, long arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, short arg1, short arg2)
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getBackground*
public Color getBackground()
- *getBounds*
public Rectangle getBounds()
- *getBounds*
public Rectangle getBounds(java.awt.Rectangle arg0)
- *getColorModel*
public ColorModel getColorModel()
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentListeners*
public synchronized ComponentListener getComponentListeners()
- *getComponentOrientation*
public ComponentOrientation getComponentOrientation()
- *getCursor*
public Cursor getCursor()
- *getDropTarget*
public synchronized DropTarget getDropTarget()
- *getFocusCycleRootAncestor*
public Container getFocusCycleRootAncestor()
- *getFocusListeners*
public synchronized FocusListener getFocusListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)

- *getFocusTraversalKeysEnabled*
public boolean **getFocusTraversalKeysEnabled**()
- *getFont*
public Font **getFont**()
- *getFontMetrics*
public FontMetrics **getFontMetrics**(java.awt.Font arg0)
- *getForeground*
public Color **getForeground**()
- *getGraphics*
public Graphics **getGraphics**()
- *getGraphicsConfiguration*
public GraphicsConfiguration **getGraphicsConfiguration**()
- *getHeight*
public int **getHeight**()
- *getHierarchyBoundsListeners*
public synchronized HierarchyBoundsListener
getHierarchyBoundsListeners()
- *getHierarchyListeners*
public synchronized HierarchyListener **getHierarchyListeners**()
- *getIgnoreRepaint*
public boolean **getIgnoreRepaint**()
- *getInputContext*
public InputContext **getInputContext**()
- *getInputMethodListeners*
public synchronized InputMethodListener
getInputMethodListeners()
- *getInputMethodRequests*
public InputMethodRequests **getInputMethodRequests**()
- *getKeyListeners*
public synchronized KeyListener **getKeyListeners**()
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getLocale*
public Locale **getLocale**()
- *getLocation*
public Point **getLocation**()
- *getLocation*
public Point **getLocation**(java.awt.Point arg0)
- *getLocationOnScreen*
public Point **getLocationOnScreen**()
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()

- *getMouseListeners*
public synchronized MouseListener getMouseListeners()
- *getMouseMotionListeners*
public synchronized MouseMotionListener
getMouseMotionListeners()
- *getMousePosition*
public Point getMousePosition()
- *getMouseWheelListeners*
public synchronized MouseWheelListener
getMouseWheelListeners()
- *getName*
public String getName()
- *getParent*
public Container getParent()
- *getPeer*
public ComponentPeer getPeer()
- *getPreferredSize*
public Dimension getPreferredSize()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners(java.lang.String arg0)
- *getSize*
public Dimension getSize()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)
- *getToolkit*
public Toolkit getToolkit()
- *getTreeLock*
public final Object getTreeLock()
- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *gotFocus*
public boolean gotFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *handleEvent*
public boolean handleEvent(java.awt.Event arg0)
- *hasFocus*
public boolean hasFocus()

- *hide*
public void hide()
- *imageUpdate*
public boolean imageUpdate(java.awt.Image arg0, int arg1, int arg2, int arg3, int arg4, int arg5)
- *inside*
public boolean inside(int arg0, int arg1)
- *invalidate*
public void invalidate()
- *isBackgroundSet*
public boolean isBackgroundSet()
- *isCursorSet*
public boolean isCursorSet()
- *isDisplayable*
public boolean isDisplayable()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isEnabled*
public boolean isEnabled()
- *isFocusable*
public boolean isFocusable()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusOwner*
public boolean isFocusOwner()
- *isFocusTraversable*
public boolean isFocusTraversable()
- *isFontSet*
public boolean isFontSet()
- *isForegroundSet*
public boolean isForegroundSet()
- *isLightweight*
public boolean isLightweight()
- *isMaximumSizeSet*
public boolean isMaximumSizeSet()
- *isMinimumSizeSet*
public boolean isMinimumSizeSet()
- *isOpaque*
public boolean isOpaque()
- *isPreferredSizeSet*
public boolean isPreferredSizeSet()
- *isShowing*
public boolean isShowing()
- *isValid*
public boolean isValid()

- *isVisible*
public boolean isVisible()
- *keyDown*
public boolean keyDown(java.awt.Event arg0, int arg1)
- *keyUp*
public boolean keyUp(java.awt.Event arg0, int arg1)
- *layout*
public void layout()
- *list*
public void list()
- *list*
public void list(java.io.PrintStream arg0)
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *location*
public Point location()
- *lostFocus*
public boolean lostFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *minimumSize*
public Dimension minimumSize()
- *mouseDown*
public boolean mouseDown(java.awt.Event arg0, int arg1,
int arg2)
- *mouseDrag*
public boolean mouseDrag(java.awt.Event arg0, int arg1,
int arg2)
- *mouseEnter*
public boolean mouseEnter(java.awt.Event arg0, int arg1,
int arg2)
- *mouseExit*
public boolean mouseExit(java.awt.Event arg0, int arg1,
int arg2)
- *mouseMove*
public boolean mouseMove(java.awt.Event arg0, int arg1,
int arg2)
- *mouseUp*
public boolean mouseUp(java.awt.Event arg0, int arg1, int
arg2)

- *move*
public void move(int arg0, int arg1)
- *nextFocus*
public void nextFocus()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintAll*
public void paintAll(java.awt.Graphics arg0)
- *postEvent*
public boolean postEvent(java.awt.Event arg0)
- *preferredSize*
public Dimension preferredSize()
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, java.awt.image.ImageObserver arg1)
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, int arg1, int arg2, java.awt.image.ImageObserver arg3)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *remove*
public synchronized void remove(java.awt.MenuComponent arg0)
- *removeComponentListener*
public synchronized void removeComponentListener(java.awt.event.ComponentListener arg0)
- *removeFocusListener*
public synchronized void removeFocusListener(java.awt.event.FocusListener arg0)
- *removeHierarchyBoundsListener*
public void removeHierarchyBoundsListener(java.awt.event.HierarchyBoundsListener arg0)
- *removeHierarchyListener*
public void removeHierarchyListener(java.awt.event.HierarchyListener arg0)
- *removeInputMethodListener*
public synchronized void removeInputMethodListener(java.awt.event.InputMethodListener arg0)
- *removeKeyListener*
public synchronized void removeKeyListener(java.awt.event.KeyListener arg0)
- *removeMouseListener*
public synchronized void removeMouseListener(java.awt.event.MouseListener arg0)

- *removeMouseMotionListener*
public synchronized void removeMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *removeMouseWheelListener*
public synchronized void removeMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *removeNotify*
public void removeNotify()
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *repaint*
public void repaint()
- *repaint*
public void repaint(int arg0, int arg1, int arg2, int
arg3)
- *repaint*
public void repaint(long arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int
arg3, int arg4)
- *requestFocus*
public void requestFocus()
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int
arg3)
- *resize*
public void resize(java.awt.Dimension arg0)
- *resize*
public void resize(int arg0, int arg1)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBounds*
public void setBounds(int arg0, int arg1, int arg2, int
arg3)
- *setBounds*
public void setBounds(java.awt.Rectangle arg0)
- *setComponentOrientation*
public void setComponentOrientation(
java.awt.ComponentOrientation arg0)

- *setCursor*
public void setCursor(java.awt.Cursor arg0)
- *setDropTarget*
public synchronized void setDropTarget(java.awt.dnd.DropTarget arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusable*
public void setFocusable(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalKeysEnabled*
public void setFocusTraversalKeysEnabled(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setIgnoreRepaint*
public void setIgnoreRepaint(boolean arg0)
- *setLocale*
public void setLocale(java.util.Locale arg0)
- *setLocation*
public void setLocation(int arg0, int arg1)
- *setLocation*
public void setLocation(java.awt.Point arg0)
- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setName*
public void setName(java.lang.String arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(int arg0, int arg1)
- *setVisible*
public void setVisible(boolean arg0)
- *show*
public void show()
- *show*
public void show(boolean arg0)

- *size*
public Dimension size()
- *toString*
public String toString()
- *transferFocus*
public void transferFocus()
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusUpCycle*
public void transferFocusUpCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

2.2.9 CLASS *NumberDialog*

DECLARATION

<pre>public class NumberDialog extends javax.swing.JDialog</pre>

SERIALIZABLE FIELDS

- private int value
—
- private JButton buttons
—
- private Game game
—

CONSTRUCTORS

- *NumberDialog*
`public NumberDialog(view.MainInterface main)`
 - **Usage**
 - * Creates a numberdialog with using the settings of the supplied MainInterface and also using it as parent.
 - **Parameters**
 - * `main` -

METHODS

- *getValue*
`public int getValue()`

METHODS INHERITED FROM CLASS `javax.swing.JDialog`

- *getAccessibleContext*
`public AccessibleContext getAccessibleContext()`
- *getContentPane*
`public Container getContentPane()`
- *getDefaultCloseOperation*
`public int getDefaultCloseOperation()`
- *getGlassPane*
`public Component getGlassPane()`
- *getJMenuBar*
`public JMenuBar getJMenuBar()`
- *getLayeredPane*
`public JLayeredPane getLayeredPane()`
- *getRootPane*
`public JRootPane getRootPane()`
- *isDefaultLookAndFeelDecorated*
`public static boolean isDefaultLookAndFeelDecorated()`
- *remove*
`public void remove(java.awt.Component arg0)`
- *setContentPane*
`public void setContentPane(java.awt.Container arg0)`
- *setDefaultCloseOperation*
`public void setDefaultCloseOperation(int arg0)`

- *setDefaultLookAndFeelDecorated*
public static void setDefaultLookAndFeelDecorated(boolean
arg0)
- *setGlassPane*
public void setGlassPane(java.awt.Component arg0)
- *setJMenuBar*
public void setJMenuBar(javax.swing.JMenuBar arg0)
- *setLayeredPane*
public void setLayeredPane(javax.swing.JLayeredPane arg0)
- *setLayout*
public void setLayout(java.awt.LayoutManager arg0)
- *update*
public void update(java.awt.Graphics arg0)

METHODS INHERITED FROM CLASS `java.awt.Dialog`

- *addNotify*
public void addNotify()
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getTitle*
public String getTitle()
- *hide*
public void hide()
- *isModal*
public boolean isModal()
- *isResizable*
public boolean isResizable()
- *isUndecorated*
public boolean isUndecorated()
- *setModal*
public void setModal(boolean arg0)
- *setResizable*
public void setResizable(boolean arg0)
- *setTitle*
public void setTitle(java.lang.String arg0)
- *setUndecorated*
public void setUndecorated(boolean arg0)
- *show*
public void show()

METHODS INHERITED FROM CLASS `java.awt.Window`

-
- *addNotify*
public void addNotify()
 - *addPropertyChangeListener*
public void addPropertyChangeListener(
java.beans.PropertyChangeListener arg0)
 - *addPropertyChangeListener*
public void addPropertyChangeListener(java.lang.String
arg0, java.beans.PropertyChangeListener arg1)
 - *addWindowFocusListener*
public synchronized void addWindowFocusListener(
java.awt.event.WindowFocusListener arg0)
 - *addWindowListener*
public synchronized void addWindowListener(
java.awt.event.WindowListener arg0)
 - *addWindowStateListener*
public synchronized void addWindowStateListener(
java.awt.event.WindowStateListener arg0)
 - *applyResourceBundle*
public void applyResourceBundle(java.util.ResourceBundle
arg0)
 - *applyResourceBundle*
public void applyResourceBundle(java.lang.String arg0)
 - *createBufferStrategy*
public void createBufferStrategy(int arg0)
 - *createBufferStrategy*
public void createBufferStrategy(int arg0,
java.awt.BufferCapabilities arg1)
 - *dispose*
public void dispose()
 - *getAccessibleContext*
public AccessibleContext getAccessibleContext()
 - *getBufferStrategy*
public BufferStrategy getBufferStrategy()
 - *getFocusableWindowState*
public boolean getFocusableWindowState()
 - *getFocusCycleRootAncestor*
public final Container getFocusCycleRootAncestor()
 - *getFocusOwner*
public Component getFocusOwner()
 - *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
 - *getGraphicsConfiguration*
public GraphicsConfiguration getGraphicsConfiguration()

- *getInputContext*
public InputContext getInputContext()
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)
- *getLocale*
public Locale getLocale()
- *getMostRecentFocusOwner*
public Component getMostRecentFocusOwner()
- *getOwnedWindows*
public Window getOwnedWindows()
- *getOwner*
public Window getOwner()
- *getToolkit*
public Toolkit getToolkit()
- *getWarningString*
public final String getWarningString()
- *getWindowFocusListeners*
public synchronized WindowFocusListener
getWindowFocusListeners()
- *getWindowListeners*
public synchronized WindowListener getWindowListeners()
- *getWindowStateListeners*
public synchronized WindowStateListener
getWindowStateListeners()
- *hide*
public void hide()
- *isActive*
public boolean isActive()
- *isAlwaysOnTop*
public final boolean isAlwaysOnTop()
- *isFocusableWindow*
public final boolean isFocusableWindow()
- *isFocusCycleRoot*
public final boolean isFocusCycleRoot()
- *isFocused*
public boolean isFocused()
- *isLocationByPlatform*
public boolean isLocationByPlatform()
- *isShowing*
public boolean isShowing()
- *pack*
public void pack()
- *postEvent*
public boolean postEvent(java.awt.Event arg0)

- *removeWindowFocusListener*
public synchronized void removeWindowFocusListener(
java.awt.event.WindowFocusListener arg0)
- *removeWindowListener*
public synchronized void removeWindowListener(
java.awt.event.WindowListener arg0)
- *removeWindowStateListener*
public synchronized void removeWindowStateListener(
java.awt.event.WindowStateListener arg0)
- *setAlwaysOnTop*
public final void setAlwaysOnTop(boolean arg0)
- *setBounds*
public void setBounds(int arg0, int arg1, int arg2, int
arg3)
- *setCursor*
public void setCursor(java.awt.Cursor arg0)
- *setFocusableWindowState*
public void setFocusableWindowState(boolean arg0)
- *setFocusCycleRoot*
public final void setFocusCycleRoot(boolean arg0)
- *setLocationByPlatform*
public void setLocationByPlatform(boolean arg0)
- *setLocationRelativeTo*
public void setLocationRelativeTo(java.awt.Component arg0)
- *show*
public void show()
- *toBack*
public void toBack()
- *toFront*
public void toFront()

METHODS INHERITED FROM CLASS java.awt.Container

- *add*
public Component add(java.awt.Component arg0)
- *add*
public Component add(java.awt.Component arg0, int arg1)
- *add*
public void add(java.awt.Component arg0, java.lang.Object
arg1)
- *add*
public void add(java.awt.Component arg0, java.lang.Object
arg1, int arg2)

- *add*
public Component add(java.lang.String arg0,
java.awt.Component arg1)
- *addContainerListener*
public synchronized void addContainerListener(
java.awt.event.ContainerListener arg0)
- *addNotify*
public void addNotify()
- *addPropertyChangeListener*
public void addPropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public void addPropertyChangeListener(java.lang.String
arg0, java.beans.PropertyChangeListener arg1)
- *applyComponentOrientation*
public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *countComponents*
public int countComponents()
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *doLayout*
public void doLayout()
- *findComponentAt*
public Component findComponentAt(int arg0, int arg1)
- *findComponentAt*
public Component findComponentAt(java.awt.Point arg0)
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getComponent*
public Component getComponent(int arg0)
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentCount*
public int getComponentCount()
- *getComponents*
public Component getComponents()
- *getComponentZOrder*
public final int getComponentZOrder(java.awt.Component
arg0)

- *getContainerListeners*
public synchronized ContainerListener getContainerListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
- *getFocusTraversalPolicy*
public FocusTraversalPolicy getFocusTraversalPolicy()
- *getInsets*
public Insets getInsets()
- *getLayout*
public LayoutManager getLayout()
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)
- *getMaximumSize*
public Dimension getMaximumSize()
- *getMinimumSize*
public Dimension getMinimumSize()
- *getMousePosition*
public Point getMousePosition(boolean arg0)
- *getPreferredSize*
public Dimension getPreferredSize()
- *insets*
public Insets insets()
- *invalidate*
public void invalidate()
- *isAncestorOf*
public boolean isAncestorOf(java.awt.Component arg0)
- *isFocusCycleRoot*
public boolean isFocusCycleRoot()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusTraversalPolicyProvider*
public final boolean isFocusTraversalPolicyProvider()
- *isFocusTraversalPolicySet*
public boolean isFocusTraversalPolicySet()
- *layout*
public void layout()
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *minimumSize*
public Dimension minimumSize()

- *paint*
public void paint(java.awt.Graphics arg0)
- *paintComponents*
public void paintComponents(java.awt.Graphics arg0)
- *preferredSize*
public Dimension preferredSize()
- *print*
public void print(java.awt.Graphics arg0)
- *printComponents*
public void printComponents(java.awt.Graphics arg0)
- *remove*
public void remove(java.awt.Component arg0)
- *remove*
public void remove(int arg0)
- *removeAll*
public void removeAll()
- *removeContainerListener*
public synchronized void removeContainerListener(java.awt.event.ContainerListener arg0)
- *removeNotify*
public void removeNotify()
- *setComponentZOrder*
public final void setComponentZOrder(java.awt.Component arg0, int arg1)
- *setFocusCycleRoot*
public void setFocusCycleRoot(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalPolicy*
public void setFocusTraversalPolicy(java.awt.FocusTraversalPolicy arg0)
- *setFocusTraversalPolicyProvider*
public final void setFocusTraversalPolicyProvider(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setLayout*
public void setLayout(java.awt.LayoutManager arg0)
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusDownCycle*
public void transferFocusDownCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

METHODS INHERITED FROM CLASS `java.awt.Component`

- *action*
`public boolean action(java.awt.Event arg0, java.lang.Object arg1)`
- *add*
`public synchronized void add(java.awt.PopupMenu arg0)`
- *addComponentListener*
`public synchronized void addComponentListener(java.awt.event.ComponentListener arg0)`
- *addFocusListener*
`public synchronized void addFocusListener(java.awt.event.FocusListener arg0)`
- *addHierarchyBoundsListener*
`public void addHierarchyBoundsListener(java.awt.event.HierarchyBoundsListener arg0)`
- *addHierarchyListener*
`public void addHierarchyListener(java.awt.event.HierarchyListener arg0)`
- *addInputMethodListener*
`public synchronized void addInputMethodListener(java.awt.event.InputMethodListener arg0)`
- *addKeyListener*
`public synchronized void addKeyListener(java.awt.event.KeyListener arg0)`
- *addMouseListener*
`public synchronized void addMouseListener(java.awt.event.MouseListener arg0)`
- *addMouseMotionListener*
`public synchronized void addMouseMotionListener(java.awt.event.MouseMotionListener arg0)`
- *addMouseWheelListener*
`public synchronized void addMouseWheelListener(java.awt.event.MouseWheelListener arg0)`
- *addNotify*
`public void addNotify()`
- *addPropertyChangeListener*
`public synchronized void addPropertyChangeListener(java.beans.PropertyChangeListener arg0)`
- *addPropertyChangeListener*
`public synchronized void addPropertyChangeListener(java.lang.String arg0, java.beans.PropertyChangeListener arg1)`
- *applyComponentOrientation*
`public void applyComponentOrientation(java.awt.ComponentOrientation arg0)`

- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *bounds*
public Rectangle bounds()
- *checkImage*
public int checkImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *checkImage*
public int checkImage(java.awt.Image arg0, int arg1, int
arg2, java.awt.image.ImageObserver arg3)
- *contains*
public boolean contains(int arg0, int arg1)
- *contains*
public boolean contains(java.awt.Point arg0)
- *createImage*
public Image createImage(java.awt.image.ImageProducer arg0)
- *createImage*
public Image createImage(int arg0, int arg1)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1
)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1,
java.awt.ImageCapabilities arg2)
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *disable*
public void disable()
- *dispatchEvent*
public final void dispatchEvent(java.awt.AWTEvent arg0)
- *doLayout*
public void doLayout()
- *enable*
public void enable()
- *enable*
public void enable(boolean arg0)
- *enableInputMethods*
public void enableInputMethods(boolean arg0)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, byte
arg1, byte arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, char
arg1, char arg2)

- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, double arg1, double arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, float arg1, float arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, long arg1, long arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, short arg1, short arg2)
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getBackground*
public Color getBackground()
- *getBounds*
public Rectangle getBounds()
- *getBounds*
public Rectangle getBounds(java.awt.Rectangle arg0)
- *getColorModel*
public ColorModel getColorModel()
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentListeners*
public synchronized ComponentListener getComponentListeners()
- *getComponentOrientation*
public ComponentOrientation getComponentOrientation()
- *getCursor*
public Cursor getCursor()
- *getDropTarget*
public synchronized DropTarget getDropTarget()
- *getFocusCycleRootAncestor*
public Container getFocusCycleRootAncestor()
- *getFocusListeners*
public synchronized FocusListener getFocusListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)

- *getFocusTraversalKeysEnabled*
public boolean **getFocusTraversalKeysEnabled**()
- *getFont*
public Font **getFont**()
- *getFontMetrics*
public FontMetrics **getFontMetrics**(java.awt.Font arg0)
- *getForeground*
public Color **getForeground**()
- *getGraphics*
public Graphics **getGraphics**()
- *getGraphicsConfiguration*
public GraphicsConfiguration **getGraphicsConfiguration**()
- *getHeight*
public int **getHeight**()
- *getHierarchyBoundsListeners*
public synchronized HierarchyBoundsListener
getHierarchyBoundsListeners()
- *getHierarchyListeners*
public synchronized HierarchyListener **getHierarchyListeners**()
- *getIgnoreRepaint*
public boolean **getIgnoreRepaint**()
- *getInputContext*
public InputContext **getInputContext**()
- *getInputMethodListeners*
public synchronized InputMethodListener
getInputMethodListeners()
- *getInputMethodRequests*
public InputMethodRequests **getInputMethodRequests**()
- *getKeyListeners*
public synchronized KeyListener **getKeyListeners**()
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getLocale*
public Locale **getLocale**()
- *getLocation*
public Point **getLocation**()
- *getLocation*
public Point **getLocation**(java.awt.Point arg0)
- *getLocationOnScreen*
public Point **getLocationOnScreen**()
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()

- *getMouseListeners*
public synchronized MouseListener getMouseListeners()
- *getMouseMotionListeners*
public synchronized MouseMotionListener
getMouseMotionListeners()
- *getMousePosition*
public Point getMousePosition()
- *getMouseWheelListeners*
public synchronized MouseWheelListener
getMouseWheelListeners()
- *getName*
public String getName()
- *getParent*
public Container getParent()
- *getPeer*
public ComponentPeer getPeer()
- *getPreferredSize*
public Dimension getPreferredSize()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners(java.lang.String arg0)
- *getSize*
public Dimension getSize()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)
- *getToolkit*
public Toolkit getToolkit()
- *getTreeLock*
public final Object getTreeLock()
- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *gotFocus*
public boolean gotFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *handleEvent*
public boolean handleEvent(java.awt.Event arg0)
- *hasFocus*
public boolean hasFocus()

- *hide*
public void hide()
- *imageUpdate*
public boolean imageUpdate(java.awt.Image arg0, int arg1, int arg2, int arg3, int arg4, int arg5)
- *inside*
public boolean inside(int arg0, int arg1)
- *invalidate*
public void invalidate()
- *isBackgroundSet*
public boolean isBackgroundSet()
- *isCursorSet*
public boolean isCursorSet()
- *isDisplayable*
public boolean isDisplayable()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isEnabled*
public boolean isEnabled()
- *isFocusable*
public boolean isFocusable()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusOwner*
public boolean isFocusOwner()
- *isFocusTraversable*
public boolean isFocusTraversable()
- *isFontSet*
public boolean isFontSet()
- *isForegroundSet*
public boolean isForegroundSet()
- *isLightweight*
public boolean isLightweight()
- *isMaximumSizeSet*
public boolean isMaximumSizeSet()
- *isMinimumSizeSet*
public boolean isMinimumSizeSet()
- *isOpaque*
public boolean isOpaque()
- *isPreferredSizeSet*
public boolean isPreferredSizeSet()
- *isShowing*
public boolean isShowing()
- *isValid*
public boolean isValid()

- *isVisible*
public boolean isVisible()
- *keyDown*
public boolean keyDown(java.awt.Event arg0, int arg1)
- *keyUp*
public boolean keyUp(java.awt.Event arg0, int arg1)
- *layout*
public void layout()
- *list*
public void list()
- *list*
public void list(java.io.PrintStream arg0)
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *location*
public Point location()
- *lostFocus*
public boolean lostFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *minimumSize*
public Dimension minimumSize()
- *mouseDown*
public boolean mouseDown(java.awt.Event arg0, int arg1,
int arg2)
- *mouseDrag*
public boolean mouseDrag(java.awt.Event arg0, int arg1,
int arg2)
- *mouseEnter*
public boolean mouseEnter(java.awt.Event arg0, int arg1,
int arg2)
- *mouseExit*
public boolean mouseExit(java.awt.Event arg0, int arg1,
int arg2)
- *mouseMove*
public boolean mouseMove(java.awt.Event arg0, int arg1,
int arg2)
- *mouseUp*
public boolean mouseUp(java.awt.Event arg0, int arg1, int
arg2)

- *move*
public void move(int arg0, int arg1)
- *nextFocus*
public void nextFocus()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintAll*
public void paintAll(java.awt.Graphics arg0)
- *postEvent*
public boolean postEvent(java.awt.Event arg0)
- *preferredSize*
public Dimension preferredSize()
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, java.awt.image.ImageObserver arg1)
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, int arg1, int arg2, java.awt.image.ImageObserver arg3)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *remove*
public synchronized void remove(java.awt.MenuComponent arg0)
- *removeComponentListener*
public synchronized void removeComponentListener(java.awt.event.ComponentListener arg0)
- *removeFocusListener*
public synchronized void removeFocusListener(java.awt.event.FocusListener arg0)
- *removeHierarchyBoundsListener*
public void removeHierarchyBoundsListener(java.awt.event.HierarchyBoundsListener arg0)
- *removeHierarchyListener*
public void removeHierarchyListener(java.awt.event.HierarchyListener arg0)
- *removeInputMethodListener*
public synchronized void removeInputMethodListener(java.awt.event.InputMethodListener arg0)
- *removeKeyListener*
public synchronized void removeKeyListener(java.awt.event.KeyListener arg0)
- *removeMouseListener*
public synchronized void removeMouseListener(java.awt.event.MouseListener arg0)

- *removeMouseMotionListener*
public synchronized void removeMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *removeMouseWheelListener*
public synchronized void removeMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *removeNotify*
public void removeNotify()
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *repaint*
public void repaint()
- *repaint*
public void repaint(int arg0, int arg1, int arg2, int
arg3)
- *repaint*
public void repaint(long arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int
arg3, int arg4)
- *requestFocus*
public void requestFocus()
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int
arg3)
- *resize*
public void resize(java.awt.Dimension arg0)
- *resize*
public void resize(int arg0, int arg1)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBounds*
public void setBounds(int arg0, int arg1, int arg2, int
arg3)
- *setBounds*
public void setBounds(java.awt.Rectangle arg0)
- *setComponentOrientation*
public void setComponentOrientation(
java.awt.ComponentOrientation arg0)

- *setCursor*
public void setCursor(java.awt.Cursor arg0)
- *setDropTarget*
public synchronized void setDropTarget(java.awt.dnd.DropTarget arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusable*
public void setFocusable(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalKeysEnabled*
public void setFocusTraversalKeysEnabled(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setIgnoreRepaint*
public void setIgnoreRepaint(boolean arg0)
- *setLocale*
public void setLocale(java.util.Locale arg0)
- *setLocation*
public void setLocation(int arg0, int arg1)
- *setLocation*
public void setLocation(java.awt.Point arg0)
- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setName*
public void setName(java.lang.String arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(int arg0, int arg1)
- *setVisible*
public void setVisible(boolean arg0)
- *show*
public void show()
- *show*
public void show(boolean arg0)

- *size*
public Dimension size()
- *toString*
public String toString()
- *transferFocus*
public void transferFocus()
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusUpCycle*
public void transferFocusUpCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

2.2.10 CLASS PlaceCenter

Class containing a function to center a component.

DECLARATION

<pre>public abstract class PlaceCenter extends java.lang.Object</pre>
--

CONSTRUCTORS

- *PlaceCenter*
public **PlaceCenter**()

METHODS

- *placeCenter*
public static void **placeCenter**(java.awt.Component
component)
 - **Usage**
 - * Places the component on the center of the screen.
 - **Parameters**
 - * component - The component to center.

2.2.11 CLASS *SheepSpeak*

The *SheepSpeak*, which is our main method to communicate with the users.

DECLARATION

<pre>public class SheepSpeak extends javax.swing.JPanel</pre>
--

SERIALIZABLE FIELDS

- private String text
—
- private Image backgroundImage
—
- private JLabel label
—

CONSTRUCTORS

- *SheepSpeak*
public **SheepSpeak**()

METHODS

- *paint*
public void **paint**(java.awt.Graphics g)
- *resetText*
public void **resetText**()
- *setText*
public void **setText**(java.lang.String text)

METHODS INHERITED FROM CLASS `javax.swing.JPanel`

- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getUI*
public PanelUI getUI()
- *getUIClassID*
public String getUIClassID()
- *setUI*
public void setUI(javax.swing.plaf.PanelUI arg0)
- *updateUI*
public void updateUI()

METHODS INHERITED FROM CLASS `javax.swing.JComponent`

- *addAncestorListener*
public void addAncestorListener(javax.swing.event.AncestorListener arg0)
- *addNotify*
public void addNotify()
- *addVetoableChangeListener*
public synchronized void addVetoableChangeListener(java.beans.VetoableChangeListener arg0)
- *computeVisibleRect*
public void computeVisibleRect(java.awt.Rectangle arg0)
- *contains*
public boolean contains(int arg0, int arg1)
- *createToolTip*
public JToolTip createToolTip()
- *disable*
public void disable()
- *enable*
public void enable()
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, boolean arg1, boolean arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, char arg1, char arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, int arg1, int arg2)
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()

- *getActionForKeyStroke*
public ActionListener **getActionForKeyStroke**(
 javax.swing.KeyStroke arg0)
- *getActionMap*
public final ActionMap **getActionMap**()
- *getAlignmentX*
public float **getAlignmentX**()
- *getAlignmentY*
public float **getAlignmentY**()
- *getAncestorListeners*
public AncestorListener **getAncestorListeners**()
- *getAutoscrolls*
public boolean **getAutoscrolls**()
- *getBorder*
public Border **getBorder**()
- *getBounds*
public Rectangle **getBounds**(java.awt.Rectangle arg0)
- *getClientProperty*
public final Object **getClientProperty**(java.lang.Object arg0
)
- *getComponentPopupMenu*
public JPopupMenu **getComponentPopupMenu**()
- *getConditionForKeyStroke*
public int **getConditionForKeyStroke**(javax.swing.KeyStroke
 arg0)
- *getDebugGraphicsOptions*
public int **getDebugGraphicsOptions**()
- *getDefaultLocale*
public static Locale **getDefaultLocale**()
- *getFontMetrics*
public FontMetrics **getFontMetrics**(java.awt.Font arg0)
- *getGraphics*
public Graphics **getGraphics**()
- *getHeight*
public int **getHeight**()
- *getInheritsPopupMenu*
public boolean **getInheritsPopupMenu**()
- *getInputMap*
public final InputMap **getInputMap**()
- *getInputMap*
public final InputMap **getInputMap**(int arg0)
- *getInputVerifier*
public InputVerifier **getInputVerifier**()
- *getInsets*
public Insets **getInsets**()

- *getInsets*
public Insets getInsets(java.awt.Insets arg0)
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)
- *getLocation*
public Point getLocation(java.awt.Point arg0)
- *getMaximumSize*
public Dimension getMaximumSize()
- *getMinimumSize*
public Dimension getMinimumSize()
- *getNextFocusableComponent*
public Component getNextFocusableComponent()
- *getPopupLocation*
public Point getPopupLocation(java.awt.event.MouseEvent arg0)
- *getPreferredSize*
public Dimension getPreferredSize()
- *getRegisteredKeyStrokes*
public KeyStroke getRegisteredKeyStrokes()
- *getRootPane*
public JRootPane getRootPane()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)
- *getToolTipLocation*
public Point getToolTipLocation(java.awt.event.MouseEvent arg0)
- *getToolTipText*
public String getToolTipText()
- *getToolTipText*
public String getToolTipText(java.awt.event.MouseEvent arg0)
- *getTopLevelAncestor*
public Container getTopLevelAncestor()
- *getTransferHandler*
public TransferHandler getTransferHandler()
- *getUIClassID*
public String getUIClassID()
- *getVerifyInputWhenFocusTarget*
public boolean getVerifyInputWhenFocusTarget()
- *getVetoableChangeListeners*
public synchronized VetoableChangeListener
getVetoableChangeListeners()
- *getVisibleRect*
public Rectangle getVisibleRect()

- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *grabFocus*
public void grabFocus()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isLightweightComponent*
public static boolean isLightweightComponent(java.awt.Component arg0)
- *isManagingFocus*
public boolean isManagingFocus()
- *isOpaque*
public boolean isOpaque()
- *isOptimizedDrawingEnabled*
public boolean isOptimizedDrawingEnabled()
- *isPaintingTile*
public boolean isPaintingTile()
- *isRequestFocusEnabled*
public boolean isRequestFocusEnabled()
- *isValidateRoot*
public boolean isValidateRoot()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintImmediately*
public void paintImmediately(int arg0, int arg1, int arg2, int arg3)
- *paintImmediately*
public void paintImmediately(java.awt.Rectangle arg0)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *putClientProperty*
public final void putClientProperty(java.lang.Object arg0, java.lang.Object arg1)
- *registerKeyboardAction*
public void registerKeyboardAction(java.awt.event.ActionListener arg0, javax.swing.KeyStroke arg1, int arg2)

- *registerKeyboardAction*
public void registerKeyboardAction(
java.awt.event.ActionListener arg0, java.lang.String arg1,
javax.swing.KeyStroke arg2, int arg3)
- *removeAncestorListener*
public void removeAncestorListener(
javax.swing.event.AncestorListener arg0)
- *removeNotify*
public void removeNotify()
- *removeVetoableChangeListener*
public synchronized void removeVetoableChangeListener(
java.beans.VetoableChangeListener arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int
arg3, int arg4)
- *repaint*
public void repaint(java.awt.Rectangle arg0)
- *requestDefaultFocus*
public boolean requestDefaultFocus()
- *requestFocus*
public void requestFocus()
- *requestFocus*
public boolean requestFocus(boolean arg0)
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *resetKeyboardActions*
public void resetKeyboardActions()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int
arg3)
- *revalidate*
public void revalidate()
- *scrollRectToVisible*
public void scrollRectToVisible(java.awt.Rectangle arg0)
- *setActionMap*
public final void setActionMap(javax.swing.ActionMap arg0)
- *setAlignmentX*
public void setAlignmentX(float arg0)
- *setAlignmentY*
public void setAlignmentY(float arg0)
- *setAutoscrolls*
public void setAutoscrolls(boolean arg0)
- *setBackground*
public void setBackground(java.awt.Color arg0)

- *setBorder*
public void setBorder(javax.swing.border.Border arg0)
- *setComponentPopupMenu*
public void setComponentPopupMenu(javax.swing.JPopupMenu arg0)
- *setDebugGraphicsOptions*
public void setDebugGraphicsOptions(int arg0)
- *setDefaultLocale*
public static void setDefaultLocale(java.util.Locale arg0)
- *setDoubleBuffered*
public void setDoubleBuffered(boolean arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setInheritsPopupMenu*
public void setInheritsPopupMenu(boolean arg0)
- *setInputMap*
public final void setInputMap(int arg0, javax.swing.InputMap arg1)
- *setInputVerifier*
public void setInputVerifier(javax.swing.InputVerifier arg0)
- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setNextFocusableComponent*
public void setNextFocusableComponent(java.awt.Component arg0)
- *setOpaque*
public void setOpaque(boolean arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setRequestFocusEnabled*
public void setRequestFocusEnabled(boolean arg0)
- *setToolTipText*
public void setToolTipText(java.lang.String arg0)
- *setTransferHandler*
public void setTransferHandler(javax.swing.TransferHandler arg0)

- *setVerifyInputWhenFocusTarget*
public void setVerifyInputWhenFocusTarget(boolean arg0)
- *setVisible*
public void setVisible(boolean arg0)
- *unregisterKeyboardAction*
public void unregisterKeyboardAction(javax.swing.KeyStroke arg0)
- *update*
public void update(java.awt.Graphics arg0)
- *updateUI*
public void updateUI()

METHODS INHERITED FROM CLASS java.awt.Container

- *add*
public Component add(java.awt.Component arg0)
- *add*
public Component add(java.awt.Component arg0, int arg1)
- *add*
public void add(java.awt.Component arg0, java.lang.Object arg1)
- *add*
public void add(java.awt.Component arg0, java.lang.Object arg1, int arg2)
- *add*
public Component add(java.lang.String arg0, java.awt.Component arg1)
- *addContainerListener*
public synchronized void addContainerListener(java.awt.event.ContainerListener arg0)
- *addNotify*
public void addNotify()
- *addPropertyChangeListener*
public void addPropertyChangeListener(java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public void addPropertyChangeListener(java.lang.String arg0, java.beans.PropertyChangeListener arg1)
- *applyComponentOrientation*
public void applyComponentOrientation(java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *countComponents*
public int countComponents()

- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *doLayout*
public void doLayout()
- *findComponentAt*
public Component findComponentAt(int arg0, int arg1)
- *findComponentAt*
public Component findComponentAt(java.awt.Point arg0)
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getComponent*
public Component getComponent(int arg0)
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentCount*
public int getComponentCount()
- *getComponents*
public Component getComponents()
- *getComponentZOrder*
public final int getComponentZOrder(java.awt.Component arg0)
- *getContainerListeners*
public synchronized ContainerListener getContainerListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
- *getFocusTraversalPolicy*
public FocusTraversalPolicy getFocusTraversalPolicy()
- *getInsets*
public Insets getInsets()
- *getLayout*
public LayoutManager getLayout()
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)
- *getMaximumSize*
public Dimension getMaximumSize()
- *getMinimumSize*
public Dimension getMinimumSize()
- *getMousePosition*
public Point getMousePosition(boolean arg0)
- *getPreferredSize*
public Dimension getPreferredSize()

- *insets*
public Insets insets()
- *invalidate*
public void invalidate()
- *isAncestorOf*
public boolean isAncestorOf(java.awt.Component arg0)
- *isFocusCycleRoot*
public boolean isFocusCycleRoot()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusTraversalPolicyProvider*
public final boolean isFocusTraversalPolicyProvider()
- *isFocusTraversalPolicySet*
public boolean isFocusTraversalPolicySet()
- *layout*
public void layout()
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *minimumSize*
public Dimension minimumSize()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintComponents*
public void paintComponents(java.awt.Graphics arg0)
- *preferredSize*
public Dimension preferredSize()
- *print*
public void print(java.awt.Graphics arg0)
- *printComponents*
public void printComponents(java.awt.Graphics arg0)
- *remove*
public void remove(java.awt.Component arg0)
- *remove*
public void remove(int arg0)
- *removeAll*
public void removeAll()
- *removeContainerListener*
public synchronized void removeContainerListener(java.awt.event.ContainerListener arg0)
- *removeNotify*
public void removeNotify()

- *setComponentZOrder*
public final void setComponentZOrder(java.awt.Component
arg0, int arg1)
- *setFocusCycleRoot*
public void setFocusCycleRoot(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set
arg1)
- *setFocusTraversalPolicy*
public void setFocusTraversalPolicy(
java.awt.FocusTraversalPolicy arg0)
- *setFocusTraversalPolicyProvider*
public final void setFocusTraversalPolicyProvider(boolean
arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setLayout*
public void setLayout(java.awt.LayoutManager arg0)
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusDownCycle*
public void transferFocusDownCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

METHODS INHERITED FROM CLASS java.awt.Component

- *action*
public boolean action(java.awt.Event arg0, java.lang.Object
arg1)
- *add*
public synchronized void add(java.awt.PopupMenu arg0)
- *addComponentListener*
public synchronized void addComponentListener(
java.awt.event.ComponentListener arg0)
- *addFocusListener*
public synchronized void addFocusListener(
java.awt.event.FocusListener arg0)
- *addHierarchyBoundsListener*
public void addHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)

- *addHierarchyListener*
public void addHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *addInputMethodListener*
public synchronized void addInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *addKeyListener*
public synchronized void addKeyListener(
java.awt.event.KeyListener arg0)
- *addMouseListener*
public synchronized void addMouseListener(
java.awt.event.MouseListener arg0)
- *addMouseMotionListener*
public synchronized void addMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *addMouseWheelListener*
public synchronized void addMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *addNotify*
public void addNotify()
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *applyComponentOrientation*
public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *bounds*
public Rectangle bounds()
- *checkImage*
public int checkImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *checkImage*
public int checkImage(java.awt.Image arg0, int arg1, int
arg2, java.awt.image.ImageObserver arg3)
- *contains*
public boolean contains(int arg0, int arg1)
- *contains*
public boolean contains(java.awt.Point arg0)
- *createImage*
public Image createImage(java.awt.image.ImageProducer arg0)

- *createImage*
public Image createImage(int arg0, int arg1)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1, java.awt.ImageCapabilities arg2)
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *disable*
public void disable()
- *dispatchEvent*
public final void dispatchEvent(java.awt.AWTEvent arg0)
- *doLayout*
public void doLayout()
- *enable*
public void enable()
- *enable*
public void enable(boolean arg0)
- *enableInputMethods*
public void enableInputMethods(boolean arg0)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, byte arg1, byte arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, char arg1, char arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, double arg1, double arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, float arg1, float arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, long arg1, long arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, short arg1, short arg2)
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getAlignmentX*
public float getAlignmentX()

- *getAlignmentY*
public float getAlignmentY()
- *getBackground*
public Color getBackground()
- *getBounds*
public Rectangle getBounds()
- *getBounds*
public Rectangle getBounds(java.awt.Rectangle arg0)
- *getColorModel*
public ColorModel getColorModel()
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentListeners*
public synchronized ComponentListener getComponentListeners()
- *getComponentOrientation*
public ComponentOrientation getComponentOrientation()
- *getCursor*
public Cursor getCursor()
- *getDropTarget*
public synchronized DropTarget getDropTarget()
- *getFocusCycleRootAncestor*
public Container getFocusCycleRootAncestor()
- *getFocusListeners*
public synchronized FocusListener getFocusListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
- *getFocusTraversalKeysEnabled*
public boolean getFocusTraversalKeysEnabled()
- *getFont*
public Font getFont()
- *getFontMetrics*
public FontMetrics getFontMetrics(java.awt.Font arg0)
- *getForeground*
public Color getForeground()
- *getGraphics*
public Graphics getGraphics()
- *getGraphicsConfiguration*
public GraphicsConfiguration getGraphicsConfiguration()
- *getHeight*
public int getHeight()

- *getHierarchyBoundsListeners*
public synchronized HierarchyBoundsListener
getHierarchyBoundsListeners()
- *getHierarchyListeners*
public synchronized HierarchyListener getHierarchyListeners()
- *getIgnoreRepaint*
public boolean getIgnoreRepaint()
- *getInputContext*
public InputContext getInputContext()
- *getInputMethodListeners*
public synchronized InputMethodListener
getInputMethodListeners()
- *getInputMethodRequests*
public InputMethodRequests getInputMethodRequests()
- *getKeyListeners*
public synchronized KeyListener getKeyListeners()
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)
- *getLocale*
public Locale getLocale()
- *getLocation*
public Point getLocation()
- *getLocation*
public Point getLocation(java.awt.Point arg0)
- *getLocationOnScreen*
public Point getLocationOnScreen()
- *getMaximumSize*
public Dimension getMaximumSize()
- *getMinimumSize*
public Dimension getMinimumSize()
- *getMouseListeners*
public synchronized MouseListener getMouseListeners()
- *getMouseMotionListeners*
public synchronized MouseMotionListener
getMouseMotionListeners()
- *getMousePosition*
public Point getMousePosition()
- *getMouseWheelListeners*
public synchronized MouseWheelListener
getMouseWheelListeners()
- *getName*
public String getName()
- *getParent*
public Container getParent()

- *getPeer*
public ComponentPeer getPeer()
- *getPreferredSize*
public Dimension getPreferredSize()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners(java.lang.String arg0)
- *getSize*
public Dimension getSize()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)
- *getToolkit*
public Toolkit getToolkit()
- *getTreeLock*
public final Object getTreeLock()
- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *gotFocus*
public boolean gotFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *handleEvent*
public boolean handleEvent(java.awt.Event arg0)
- *hasFocus*
public boolean hasFocus()
- *hide*
public void hide()
- *imageUpdate*
public boolean imageUpdate(java.awt.Image arg0, int arg1,
int arg2, int arg3, int arg4, int arg5)
- *inside*
public boolean inside(int arg0, int arg1)
- *invalidate*
public void invalidate()
- *isBackgroundSet*
public boolean isBackgroundSet()
- *isCursorSet*
public boolean isCursorSet()

- *isDisplayable*
public boolean isDisplayable()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isEnabled*
public boolean isEnabled()
- *isFocusable*
public boolean isFocusable()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusOwner*
public boolean isFocusOwner()
- *isFocusTraversable*
public boolean isFocusTraversable()
- *isFontSet*
public boolean isFontSet()
- *isForegroundSet*
public boolean isForegroundSet()
- *isLightweight*
public boolean isLightweight()
- *isMaximumSizeSet*
public boolean isMaximumSizeSet()
- *isMinimumSizeSet*
public boolean isMinimumSizeSet()
- *isOpaque*
public boolean isOpaque()
- *isPreferredSizeSet*
public boolean isPreferredSizeSet()
- *isShowing*
public boolean isShowing()
- *isValid*
public boolean isValid()
- *isVisible*
public boolean isVisible()
- *keyDown*
public boolean keyDown(java.awt.Event arg0, int arg1)
- *keyUp*
public boolean keyUp(java.awt.Event arg0, int arg1)
- *layout*
public void layout()
- *list*
public void list()
- *list*
public void list(java.io.PrintStream arg0)

- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *location*
public Point location()
- *lostFocus*
public boolean lostFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *minimumSize*
public Dimension minimumSize()
- *mouseDown*
public boolean mouseDown(java.awt.Event arg0, int arg1,
int arg2)
- *mouseDrag*
public boolean mouseDrag(java.awt.Event arg0, int arg1,
int arg2)
- *mouseEnter*
public boolean mouseEnter(java.awt.Event arg0, int arg1,
int arg2)
- *mouseExit*
public boolean mouseExit(java.awt.Event arg0, int arg1,
int arg2)
- *mouseMove*
public boolean mouseMove(java.awt.Event arg0, int arg1,
int arg2)
- *mouseUp*
public boolean mouseUp(java.awt.Event arg0, int arg1, int
arg2)
- *move*
public void move(int arg0, int arg1)
- *nextFocus*
public void nextFocus()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintAll*
public void paintAll(java.awt.Graphics arg0)
- *postEvent*
public boolean postEvent(java.awt.Event arg0)
- *preferredSize*
public Dimension preferredSize()

- *prepareImage*
public boolean prepareImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, int arg1,
int arg2, java.awt.image.ImageObserver arg3)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *remove*
public synchronized void remove(java.awt.MenuComponent arg0
)
- *removeComponentListener*
public synchronized void removeComponentListener(
java.awt.event.ComponentListener arg0)
- *removeFocusListener*
public synchronized void removeFocusListener(
java.awt.event.FocusListener arg0)
- *removeHierarchyBoundsListener*
public void removeHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)
- *removeHierarchyListener*
public void removeHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *removeInputMethodListener*
public synchronized void removeInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *removeKeyListener*
public synchronized void removeKeyListener(
java.awt.event.KeyListener arg0)
- *removeMouseListener*
public synchronized void removeMouseListener(
java.awt.event.MouseListener arg0)
- *removeMouseMotionListener*
public synchronized void removeMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *removeMouseWheelListener*
public synchronized void removeMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *removeNotify*
public void removeNotify()
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.beans.PropertyChangeListener arg0)

- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *repaint*
public void repaint()
- *repaint*
public void repaint(int arg0, int arg1, int arg2, int
arg3)
- *repaint*
public void repaint(long arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int
arg3, int arg4)
- *requestFocus*
public void requestFocus()
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int
arg3)
- *resize*
public void resize(java.awt.Dimension arg0)
- *resize*
public void resize(int arg0, int arg1)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBounds*
public void setBounds(int arg0, int arg1, int arg2, int
arg3)
- *setBounds*
public void setBounds(java.awt.Rectangle arg0)
- *setComponentOrientation*
public void setComponentOrientation(
java.awt.ComponentOrientation arg0)
- *setCursor*
public void setCursor(java.awt.Cursor arg0)
- *setDropTarget*
public synchronized void setDropTarget(
java.awt.dnd.DropTarget arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusable*
public void setFocusable(boolean arg0)

- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalKeysEnabled*
public void setFocusTraversalKeysEnabled(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setIgnoreRepaint*
public void setIgnoreRepaint(boolean arg0)
- *setLocale*
public void setLocale(java.util.Locale arg0)
- *setLocation*
public void setLocation(int arg0, int arg1)
- *setLocation*
public void setLocation(java.awt.Point arg0)
- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setName*
public void setName(java.lang.String arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(int arg0, int arg1)
- *setVisible*
public void setVisible(boolean arg0)
- *show*
public void show()
- *show*
public void show(boolean arg0)
- *size*
public Dimension size()
- *toString*
public String toString()
- *transferFocus*
public void transferFocus()
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusUpCycle*
public void transferFocusUpCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

2.2.12 CLASS *Statistics*

DECLARATION

<pre>public class Statistics extends javax.swing.JPanel</pre>
--

SERIALIZABLE FIELDS

- private Statistics statistics
—
- private JLabel difficultyLabel
—
- private JLabel difficultyValue
—
- private JLabel mistakesLabel
—
- private JLabel mistakesValue
—
- private JLabel helpLabel
—
- private JLabel helpValue
—
- private JLabel timeLabel
—
- private JLabel timeValue
—
- private Font font
—

CONSTRUCTORS

- *Statistics*
 public **Statistics**(model.Game game)
 - **Usage**
 - * Creates the statisticspanel based on the supplied game.
 - **Parameters**
 - * **game** - The game to base the statistics on.

METHODS INHERITED FROM CLASS javax.swing.JPanel

- *getAccessibleContext*
 public AccessibleContext getAccessibleContext()
- *getUI*
 public PanelUI getUI()
- *getUIClassID*
 public String getUIClassID()
- *setUI*
 public void setUI(javax.swing.plaf.PanelUI arg0)
- *updateUI*
 public void updateUI()

METHODS INHERITED FROM CLASS javax.swing.JComponent

- *addAncestorListener*
 public void addAncestorListener(javax.swing.event.AncestorListener arg0)
- *addNotify*
 public void addNotify()
- *addVetoableChangeListener*
 public synchronized void addVetoableChangeListener(java.beans.VetoableChangeListener arg0)
- *computeVisibleRect*
 public void computeVisibleRect(java.awt.Rectangle arg0)
- *contains*
 public boolean contains(int arg0, int arg1)
- *createToolTip*
 public JToolTip createToolTip()
- *disable*
 public void disable()

- *enable*
public void enable()
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0,
boolean arg1, boolean arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, char
arg1, char arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, int
arg1, int arg2)
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getActionForKeyStroke*
public ActionListener getActionForKeyStroke(
javax.swing.KeyStroke arg0)
- *getActionMap*
public final ActionMap getActionMap()
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getAncestorListeners*
public AncestorListener getAncestorListeners()
- *getAutoscrolls*
public boolean getAutoscrolls()
- *getBorder*
public Border getBorder()
- *getBounds*
public Rectangle getBounds(java.awt.Rectangle arg0)
- *getClientProperty*
public final Object getClientProperty(java.lang.Object arg0
)
- *getComponentPopupMenu*
public JPopupMenu getComponentPopupMenu()
- *getConditionForKeyStroke*
public int getConditionForKeyStroke(javax.swing.KeyStroke
arg0)
- *getDebugGraphicsOptions*
public int getDebugGraphicsOptions()
- *getDefaultLocale*
public static Locale getDefaultLocale()
- *getFontMetrics*
public FontMetrics getFontMetrics(java.awt.Font arg0)

- *getGraphics*
public Graphics **getGraphics**()
- *getHeight*
public int **getHeight**()
- *getInheritsPopupMenu*
public boolean **getInheritsPopupMenu**()
- *getInputMap*
public final InputMap **getInputMap**()
- *getInputMap*
public final InputMap **getInputMap**(int arg0)
- *getInputVerifier*
public InputVerifier **getInputVerifier**()
- *getInsets*
public Insets **getInsets**()
- *getInsets*
public Insets **getInsets**(java.awt.Insets arg0)
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getLocation*
public Point **getLocation**(java.awt.Point arg0)
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()
- *getNextFocusableComponent*
public Component **getNextFocusableComponent**()
- *getPopupLocation*
public Point **getPopupLocation**(java.awt.event.MouseEvent arg0)
- *getPreferredSize*
public Dimension **getPreferredSize**()
- *getRegisteredKeyStrokes*
public KeyStroke **getRegisteredKeyStrokes**()
- *getRootPane*
public JRootPane **getRootPane**()
- *getSize*
public Dimension **getSize**(java.awt.Dimension arg0)
- *getToolTipLocation*
public Point **getToolTipLocation**(java.awt.event.MouseEvent arg0)
- *getToolTipText*
public String **getToolTipText**()
- *getToolTipText*
public String **getToolTipText**(java.awt.event.MouseEvent arg0)

- *getTopLevelAncestor*
public Container **getTopLevelAncestor**()
- *getTransferHandler*
public TransferHandler **getTransferHandler**()
- *getUIClassID*
public String **getUIClassID**()
- *getVerifyInputWhenFocusTarget*
public boolean **getVerifyInputWhenFocusTarget**()
- *getVetoableChangeListeners*
public synchronized VetoableChangeListener **getVetoableChangeListeners**()
- *getVisibleRect*
public Rectangle **getVisibleRect**()
- *getWidth*
public int **getWidth**()
- *getX*
public int **getX**()
- *getY*
public int **getY**()
- *grabFocus*
public void **grabFocus**()
- *isDoubleBuffered*
public boolean **isDoubleBuffered**()
- *isLightweightComponent*
public static boolean **isLightweightComponent**(
java.awt.Component arg0)
- *isManagingFocus*
public boolean **isManagingFocus**()
- *isOpaque*
public boolean **isOpaque**()
- *isOptimizedDrawingEnabled*
public boolean **isOptimizedDrawingEnabled**()
- *isPaintingTile*
public boolean **isPaintingTile**()
- *isRequestFocusEnabled*
public boolean **isRequestFocusEnabled**()
- *isValidateRoot*
public boolean **isValidateRoot**()
- *paint*
public void **paint**(java.awt.Graphics arg0)
- *paintImmediately*
public void **paintImmediately**(int arg0, int arg1, int
arg2, int arg3)
- *paintImmediately*
public void **paintImmediately**(java.awt.Rectangle arg0)

- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *putClientProperty*
public final void putClientProperty(java.lang.Object arg0, java.lang.Object arg1)
- *registerKeyboardAction*
public void registerKeyboardAction(java.awt.event.ActionListener arg0, javax.swing.KeyStroke arg1, int arg2)
- *registerKeyboardAction*
public void registerKeyboardAction(java.awt.event.ActionListener arg0, java.lang.String arg1, javax.swing.KeyStroke arg2, int arg3)
- *removeAncestorListener*
public void removeAncestorListener(javax.swing.event.AncestorListener arg0)
- *removeNotify*
public void removeNotify()
- *removeVetoableChangeListener*
public synchronized void removeVetoableChangeListener(java.beans.VetoableChangeListener arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int arg3, int arg4)
- *repaint*
public void repaint(java.awt.Rectangle arg0)
- *requestDefaultFocus*
public boolean requestDefaultFocus()
- *requestFocus*
public void requestFocus()
- *requestFocus*
public boolean requestFocus(boolean arg0)
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *resetKeyboardActions*
public void resetKeyboardActions()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int arg3)
- *revalidate*
public void revalidate()
- *scrollRectToVisible*
public void scrollRectToVisible(java.awt.Rectangle arg0)

- *setActionMap*
public final void setActionMap(javax.swing.ActionMap arg0)
- *setAlignmentX*
public void setAlignmentX(float arg0)
- *setAlignmentY*
public void setAlignmentY(float arg0)
- *setAutoscrolls*
public void setAutoscrolls(boolean arg0)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBorder*
public void setBorder(javax.swing.border.Border arg0)
- *setComponentPopupMenu*
public void setComponentPopupMenu(javax.swing.JPopupMenu arg0)
- *setDebugGraphicsOptions*
public void setDebugGraphicsOptions(int arg0)
- *setDefaultLocale*
public static void setDefaultLocale(java.util.Locale arg0)
- *setDoubleBuffered*
public void setDoubleBuffered(boolean arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setInheritsPopupMenu*
public void setInheritsPopupMenu(boolean arg0)
- *setInputMap*
public final void setInputMap(int arg0, javax.swing.InputMap arg1)
- *setInputVerifier*
public void setInputVerifier(javax.swing.InputVerifier arg0)
- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setNextFocusableComponent*
public void setNextFocusableComponent(java.awt.Component arg0)

- *setOpaque*
public void setOpaque(boolean arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setRequestFocusEnabled*
public void setRequestFocusEnabled(boolean arg0)
- *setToolTipText*
public void setToolTipText(java.lang.String arg0)
- *setTransferHandler*
public void setTransferHandler(javax.swing.TransferHandler arg0)
- *setVerifyInputWhenFocusTarget*
public void setVerifyInputWhenFocusTarget(boolean arg0)
- *setVisible*
public void setVisible(boolean arg0)
- *unregisterKeyboardAction*
public void unregisterKeyboardAction(javax.swing.KeyStroke arg0)
- *update*
public void update(java.awt.Graphics arg0)
- *updateUI*
public void updateUI()

METHODS INHERITED FROM CLASS java.awt.Container

- *add*
public Component add(java.awt.Component arg0)
- *add*
public Component add(java.awt.Component arg0, int arg1)
- *add*
public void add(java.awt.Component arg0, java.lang.Object arg1)
- *add*
public void add(java.awt.Component arg0, java.lang.Object arg1, int arg2)
- *add*
public Component add(java.lang.String arg0, java.awt.Component arg1)
- *addContainerListener*
public synchronized void addContainerListener(java.awt.event.ContainerListener arg0)
- *addNotify*
public void addNotify()

- *addPropertyChangeListener*
public void addPropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public void addPropertyChangeListener(java.lang.String
arg0, java.beans.PropertyChangeListener arg1)
- *applyComponentOrientation*
public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *countComponents*
public int countComponents()
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *doLayout*
public void doLayout()
- *findComponentAt*
public Component findComponentAt(int arg0, int arg1)
- *findComponentAt*
public Component findComponentAt(java.awt.Point arg0)
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getComponent*
public Component getComponent(int arg0)
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentCount*
public int getComponentCount()
- *getComponents*
public Component getComponents()
- *getComponentZOrder*
public final int getComponentZOrder(java.awt.Component
arg0)
- *getContainerListeners*
public synchronized ContainerListener getContainerListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
- *getFocusTraversalPolicy*
public FocusTraversalPolicy getFocusTraversalPolicy()

- *getInsets*
public Insets **getInsets**()
- *getLayout*
public LayoutManager **getLayout**()
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()
- *getMousePosition*
public Point **getMousePosition**(boolean arg0)
- *getPreferredSize*
public Dimension **getPreferredSize**()
- *insets*
public Insets **insets**()
- *invalidate*
public void **invalidate**()
- *isAncestorOf*
public boolean **isAncestorOf**(java.awt.Component arg0)
- *isFocusCycleRoot*
public boolean **isFocusCycleRoot**()
- *isFocusCycleRoot*
public boolean **isFocusCycleRoot**(java.awt.Container arg0)
- *isFocusTraversalPolicyProvider*
public final boolean **isFocusTraversalPolicyProvider**()
- *isFocusTraversalPolicySet*
public boolean **isFocusTraversalPolicySet**()
- *layout*
public void **layout**()
- *list*
public void **list**(java.io.PrintStream arg0, int arg1)
- *list*
public void **list**(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component **locate**(int arg0, int arg1)
- *minimumSize*
public Dimension **minimumSize**()
- *paint*
public void **paint**(java.awt.Graphics arg0)
- *paintComponents*
public void **paintComponents**(java.awt.Graphics arg0)
- *preferredSize*
public Dimension **preferredSize**()

- *print*
public void print(java.awt.Graphics arg0)
- *printComponents*
public void printComponents(java.awt.Graphics arg0)
- *remove*
public void remove(java.awt.Component arg0)
- *remove*
public void remove(int arg0)
- *removeAll*
public void removeAll()
- *removeContainerListener*
public synchronized void removeContainerListener(java.awt.event.ContainerListener arg0)
- *removeNotify*
public void removeNotify()
- *setComponentZOrder*
public final void setComponentZOrder(java.awt.Component arg0, int arg1)
- *setFocusCycleRoot*
public void setFocusCycleRoot(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalPolicy*
public void setFocusTraversalPolicy(java.awt.FocusTraversalPolicy arg0)
- *setFocusTraversalPolicyProvider*
public final void setFocusTraversalPolicyProvider(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setLayout*
public void setLayout(java.awt.LayoutManager arg0)
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusDownCycle*
public void transferFocusDownCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

METHODS INHERITED FROM CLASS `java.awt.Component`

- *action*
`public boolean action(java.awt.Event arg0, java.lang.Object arg1)`
- *add*
`public synchronized void add(java.awt.PopupMenu arg0)`
- *addComponentListener*
`public synchronized void addComponentListener(java.awt.event.ComponentListener arg0)`
- *addFocusListener*
`public synchronized void addFocusListener(java.awt.event.FocusListener arg0)`
- *addHierarchyBoundsListener*
`public void addHierarchyBoundsListener(java.awt.event.HierarchyBoundsListener arg0)`
- *addHierarchyListener*
`public void addHierarchyListener(java.awt.event.HierarchyListener arg0)`
- *addInputMethodListener*
`public synchronized void addInputMethodListener(java.awt.event.InputMethodListener arg0)`
- *addKeyListener*
`public synchronized void addKeyListener(java.awt.event.KeyListener arg0)`
- *addMouseListener*
`public synchronized void addMouseListener(java.awt.event.MouseListener arg0)`
- *addMouseMotionListener*
`public synchronized void addMouseMotionListener(java.awt.event.MouseMotionListener arg0)`
- *addMouseWheelListener*
`public synchronized void addMouseWheelListener(java.awt.event.MouseWheelListener arg0)`
- *addNotify*
`public void addNotify()`
- *addPropertyChangeListener*
`public synchronized void addPropertyChangeListener(java.beans.PropertyChangeListener arg0)`
- *addPropertyChangeListener*
`public synchronized void addPropertyChangeListener(java.lang.String arg0, java.beans.PropertyChangeListener arg1)`
- *applyComponentOrientation*
`public void applyComponentOrientation(java.awt.ComponentOrientation arg0)`

- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *bounds*
public Rectangle bounds()
- *checkImage*
public int checkImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *checkImage*
public int checkImage(java.awt.Image arg0, int arg1, int
arg2, java.awt.image.ImageObserver arg3)
- *contains*
public boolean contains(int arg0, int arg1)
- *contains*
public boolean contains(java.awt.Point arg0)
- *createImage*
public Image createImage(java.awt.image.ImageProducer arg0)
- *createImage*
public Image createImage(int arg0, int arg1)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1
)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1,
java.awt.ImageCapabilities arg2)
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *disable*
public void disable()
- *dispatchEvent*
public final void dispatchEvent(java.awt.AWTEvent arg0)
- *doLayout*
public void doLayout()
- *enable*
public void enable()
- *enable*
public void enable(boolean arg0)
- *enableInputMethods*
public void enableInputMethods(boolean arg0)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, byte
arg1, byte arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, char
arg1, char arg2)

- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, double arg1, double arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, float arg1, float arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, long arg1, long arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, short arg1, short arg2)
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getBackground*
public Color getBackground()
- *getBounds*
public Rectangle getBounds()
- *getBounds*
public Rectangle getBounds(java.awt.Rectangle arg0)
- *getColorModel*
public ColorModel getColorModel()
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentListeners*
public synchronized ComponentListener getComponentListeners()
- *getComponentOrientation*
public ComponentOrientation getComponentOrientation()
- *getCursor*
public Cursor getCursor()
- *getDropTarget*
public synchronized DropTarget getDropTarget()
- *getFocusCycleRootAncestor*
public Container getFocusCycleRootAncestor()
- *getFocusListeners*
public synchronized FocusListener getFocusListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)

- *getFocusTraversalKeysEnabled*
public boolean **getFocusTraversalKeysEnabled**()
- *getFont*
public Font **getFont**()
- *getFontMetrics*
public FontMetrics **getFontMetrics**(java.awt.Font arg0)
- *getForeground*
public Color **getForeground**()
- *getGraphics*
public Graphics **getGraphics**()
- *getGraphicsConfiguration*
public GraphicsConfiguration **getGraphicsConfiguration**()
- *getHeight*
public int **getHeight**()
- *getHierarchyBoundsListeners*
public synchronized HierarchyBoundsListener **getHierarchyBoundsListeners**()
- *getHierarchyListeners*
public synchronized HierarchyListener **getHierarchyListeners**()
- *getIgnoreRepaint*
public boolean **getIgnoreRepaint**()
- *getInputContext*
public InputContext **getInputContext**()
- *getInputMethodListeners*
public synchronized InputMethodListener **getInputMethodListeners**()
- *getInputMethodRequests*
public InputMethodRequests **getInputMethodRequests**()
- *getKeyListeners*
public synchronized KeyListener **getKeyListeners**()
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getLocale*
public Locale **getLocale**()
- *getLocation*
public Point **getLocation**()
- *getLocation*
public Point **getLocation**(java.awt.Point arg0)
- *getLocationOnScreen*
public Point **getLocationOnScreen**()
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()

- *getMouseListeners*
public synchronized MouseListener getMouseListeners()
- *getMouseMotionListeners*
public synchronized MouseMotionListener
getMouseMotionListeners()
- *getMousePosition*
public Point getMousePosition()
- *getMouseWheelListeners*
public synchronized MouseWheelListener
getMouseWheelListeners()
- *getName*
public String getName()
- *getParent*
public Container getParent()
- *getPeer*
public ComponentPeer getPeer()
- *getPreferredSize*
public Dimension getPreferredSize()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners(java.lang.String arg0)
- *getSize*
public Dimension getSize()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)
- *getToolkit*
public Toolkit getToolkit()
- *getTreeLock*
public final Object getTreeLock()
- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *gotFocus*
public boolean gotFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *handleEvent*
public boolean handleEvent(java.awt.Event arg0)
- *hasFocus*
public boolean hasFocus()

- *hide*
public void hide()
- *imageUpdate*
public boolean imageUpdate(java.awt.Image arg0, int arg1, int arg2, int arg3, int arg4, int arg5)
- *inside*
public boolean inside(int arg0, int arg1)
- *invalidate*
public void invalidate()
- *setBackgroundSet*
public boolean setBackgroundSet()
- *isCursorSet*
public boolean isCursorSet()
- *isDisplayable*
public boolean isDisplayable()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isEnabled*
public boolean isEnabled()
- *isFocusable*
public boolean isFocusable()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusOwner*
public boolean isFocusOwner()
- *isFocusTraversable*
public boolean isFocusTraversable()
- *isFontSet*
public boolean isFontSet()
- *isForegroundSet*
public boolean isForegroundSet()
- *isLightweight*
public boolean isLightweight()
- *isMaximumSizeSet*
public boolean isMaximumSizeSet()
- *isMinimumSizeSet*
public boolean isMinimumSizeSet()
- *isOpaque*
public boolean isOpaque()
- *isPreferredSizeSet*
public boolean isPreferredSizeSet()
- *isShowing*
public boolean isShowing()
- *isValid*
public boolean isValid()

- *isVisible*
public boolean isVisible()
- *keyDown*
public boolean keyDown(java.awt.Event arg0, int arg1)
- *keyUp*
public boolean keyUp(java.awt.Event arg0, int arg1)
- *layout*
public void layout()
- *list*
public void list()
- *list*
public void list(java.io.PrintStream arg0)
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *location*
public Point location()
- *lostFocus*
public boolean lostFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *minimumSize*
public Dimension minimumSize()
- *mouseDown*
public boolean mouseDown(java.awt.Event arg0, int arg1,
int arg2)
- *mouseDrag*
public boolean mouseDrag(java.awt.Event arg0, int arg1,
int arg2)
- *mouseEnter*
public boolean mouseEnter(java.awt.Event arg0, int arg1,
int arg2)
- *mouseExit*
public boolean mouseExit(java.awt.Event arg0, int arg1,
int arg2)
- *mouseMove*
public boolean mouseMove(java.awt.Event arg0, int arg1,
int arg2)
- *mouseUp*
public boolean mouseUp(java.awt.Event arg0, int arg1, int
arg2)

- *move*
public void move(int arg0, int arg1)
- *nextFocus*
public void nextFocus()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintAll*
public void paintAll(java.awt.Graphics arg0)
- *postEvent*
public boolean postEvent(java.awt.Event arg0)
- *preferredSize*
public Dimension preferredSize()
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, java.awt.image.ImageObserver arg1)
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, int arg1, int arg2, java.awt.image.ImageObserver arg3)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *remove*
public synchronized void remove(java.awt.MenuComponent arg0)
- *removeComponentListener*
public synchronized void removeComponentListener(java.awt.event.ComponentListener arg0)
- *removeFocusListener*
public synchronized void removeFocusListener(java.awt.event.FocusListener arg0)
- *removeHierarchyBoundsListener*
public void removeHierarchyBoundsListener(java.awt.event.HierarchyBoundsListener arg0)
- *removeHierarchyListener*
public void removeHierarchyListener(java.awt.event.HierarchyListener arg0)
- *removeInputMethodListener*
public synchronized void removeInputMethodListener(java.awt.event.InputMethodListener arg0)
- *removeKeyListener*
public synchronized void removeKeyListener(java.awt.event.KeyListener arg0)
- *removeMouseListener*
public synchronized void removeMouseListener(java.awt.event.MouseListener arg0)

- *removeMouseListener*
public synchronized void removeMouseListener(
java.awt.event.MouseMotionListener arg0)
- *removeMouseWheelListener*
public synchronized void removeMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *removeNotify*
public void removeNotify()
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *repaint*
public void repaint()
- *repaint*
public void repaint(int arg0, int arg1, int arg2, int
arg3)
- *repaint*
public void repaint(long arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int
arg3, int arg4)
- *requestFocus*
public void requestFocus()
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int
arg3)
- *resize*
public void resize(java.awt.Dimension arg0)
- *resize*
public void resize(int arg0, int arg1)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBounds*
public void setBounds(int arg0, int arg1, int arg2, int
arg3)
- *setBounds*
public void setBounds(java.awt.Rectangle arg0)
- *setComponentOrientation*
public void setComponentOrientation(
java.awt.ComponentOrientation arg0)

- *setCursor*
public void setCursor(java.awt.Cursor arg0)
- *setDropTarget*
public synchronized void setDropTarget(java.awt.dnd.DropTarget arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusable*
public void setFocusable(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalKeysEnabled*
public void setFocusTraversalKeysEnabled(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setIgnoreRepaint*
public void setIgnoreRepaint(boolean arg0)
- *setLocale*
public void setLocale(java.util.Locale arg0)
- *setLocation*
public void setLocation(int arg0, int arg1)
- *setLocation*
public void setLocation(java.awt.Point arg0)
- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setName*
public void setName(java.lang.String arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(int arg0, int arg1)
- *setVisible*
public void setVisible(boolean arg0)
- *show*
public void show()
- *show*
public void show(boolean arg0)

- *size*
public Dimension size()
- *toString*
public String toString()
- *transferFocus*
public void transferFocus()
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusUpCycle*
public void transferFocusUpCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

2.2.13 CLASS *SudokuButton*

Creates buttons based on images.

DECLARATION

<pre>public class SudokuButton extends javax.swing.JButton</pre>

SERIALIZABLE FIELDS

- private Image backgroundImage
—

CONSTRUCTORS

- *SudokuButton*
public **SudokuButton**(java.lang.String imageFile)
— **Usage**
* Creates a button based on the supplied image.
— **Parameters**
* imageFile - The image to use as a background.

METHODS

- *paint*
`public void paint(java.awt.Graphics g)`
 - **Usage**
 - * Overrides the paint-method to make sure that the image gets drawn.

METHODS INHERITED FROM CLASS `javax.swing.JButton`

- *getAccessibleContext*
`public AccessibleContext getAccessibleContext()`
- *getUIClassID*
`public String getUIClassID()`
- *isDefaultButton*
`public boolean isDefaultButton()`
- *isDefaultCapable*
`public boolean isDefaultCapable()`
- *removeNotify*
`public void removeNotify()`
- *setDefaultCapable*
`public void setDefaultCapable(boolean arg0)`
- *updateUI*
`public void updateUI()`

METHODS INHERITED FROM CLASS `javax.swing.AbstractButton`

- *addActionListener*
`public void addActionListener(java.awt.event.ActionListener arg0)`
- *addChangeListener*
`public void addChangeListener(javax.swing.event.ChangeListener arg0)`
- *addItemListener*
`public void addItemListener(java.awt.event.ItemListener arg0)`
- *doClick*
`public void doClick()`
- *doClick*
`public void doClick(int arg0)`

- *getAction*
public Action **getAction**()
- *getActionCommand*
public String **getActionCommand**()
- *getActionListeners*
public ActionListener **getActionListeners**()
- *getChangeListeners*
public ChangeListener **getChangeListeners**()
- *getDisabledIcon*
public Icon **getDisabledIcon**()
- *getDisabledSelectedIcon*
public Icon **getDisabledSelectedIcon**()
- *getDisplayedMnemonicIndex*
public int **getDisplayedMnemonicIndex**()
- *getHorizontalAlignment*
public int **getHorizontalAlignment**()
- *getHorizontalTextPosition*
public int **getHorizontalTextPosition**()
- *getIcon*
public Icon **getIcon**()
- *getIconTextGap*
public int **getIconTextGap**()
- *getItemListeners*
public ItemListener **getItemListeners**()
- *getLabel*
public String **getLabel**()
- *getMargin*
public Insets **getMargin**()
- *getMnemonic*
public int **getMnemonic**()
- *getModel*
public ButtonModel **getModel**()
- *getMultiClickThreshold*
public long **getMultiClickThreshold**()
- *getPressedIcon*
public Icon **getPressedIcon**()
- *getRolloverIcon*
public Icon **getRolloverIcon**()
- *getRolloverSelectedIcon*
public Icon **getRolloverSelectedIcon**()
- *getSelectedIcon*
public Icon **getSelectedIcon**()
- *getSelectedObjects*
public Object **getSelectedObjects**()

- *getText*
public String getText()
- *getUI*
public ButtonUI getUI()
- *getVerticalAlignment*
public int getVerticalAlignment()
- *getVerticalTextPosition*
public int getVerticalTextPosition()
- *imageUpdate*
public boolean imageUpdate(java.awt.Image arg0, int arg1, int arg2, int arg3, int arg4, int arg5)
- *isBorderPainted*
public boolean isBorderPainted()
- *isContentAreaFilled*
public boolean isContentAreaFilled()
- *isFocusPainted*
public boolean isFocusPainted()
- *isRolloverEnabled*
public boolean isRolloverEnabled()
- *isSelected*
public boolean isSelected()
- *removeActionListener*
public void removeActionListener(java.awt.event.ActionListener arg0)
- *removeChangeListener*
public void removeChangeListener(javax.swing.event.ChangeListener arg0)
- *removeItemListener*
public void removeItemListener(java.awt.event.ItemListener arg0)
- *setAction*
public void setAction(javax.swing.Action arg0)
- *setActionCommand*
public void setActionCommand(java.lang.String arg0)
- *setBorderPainted*
public void setBorderPainted(boolean arg0)
- *setContentAreaFilled*
public void setContentAreaFilled(boolean arg0)
- *setDisabledIcon*
public void setDisabledIcon(javax.swing.Icon arg0)
- *setDisabledSelectedIcon*
public void setDisabledSelectedIcon(javax.swing.Icon arg0)
- *setDisplayMnemonicIndex*
public void setDisplayMnemonicIndex(int arg0)

- *setEnabled*
public void **setEnabled**(boolean arg0)
- *setFocusPainted*
public void **setFocusPainted**(boolean arg0)
- *setHorizontalAlignment*
public void **setHorizontalAlignment**(int arg0)
- *setHorizontalTextPosition*
public void **setHorizontalTextPosition**(int arg0)
- *setIcon*
public void **setIcon**(javax.swing.Icon arg0)
- *setIconTextGap*
public void **setIconTextGap**(int arg0)
- *setLabel*
public void **setLabel**(java.lang.String arg0)
- *setLayout*
public void **setLayout**(java.awt.LayoutManager arg0)
- *setMargin*
public void **setMargin**(java.awt.Insets arg0)
- *setMnemonic*
public void **setMnemonic**(char arg0)
- *setMnemonic*
public void **setMnemonic**(int arg0)
- *setModel*
public void **setModel**(javax.swing.ButtonModel arg0)
- *setMultiClickThreshold*
public void **setMultiClickThreshold**(long arg0)
- *setPressedIcon*
public void **setPressedIcon**(javax.swing.Icon arg0)
- *setRolloverEnabled*
public void **setRolloverEnabled**(boolean arg0)
- *setRolloverIcon*
public void **setRolloverIcon**(javax.swing.Icon arg0)
- *setRolloverSelectedIcon*
public void **setRolloverSelectedIcon**(javax.swing.Icon arg0)
- *setSelected*
public void **setSelected**(boolean arg0)
- *setSelectedIcon*
public void **setSelectedIcon**(javax.swing.Icon arg0)
- *setText*
public void **setText**(java.lang.String arg0)
- *setUI*
public void **setUI**(javax.swing.plaf.ButtonUI arg0)
- *setVerticalAlignment*
public void **setVerticalAlignment**(int arg0)
- *setVerticalTextPosition*
public void **setVerticalTextPosition**(int arg0)
- *updateUI*
public void **updateUI**()

METHODS INHERITED FROM CLASS `javax.swing.JComponent`

- *addAncestorListener*
`public void addAncestorListener(
javax.swing.event.AncestorListener arg0)`
- *addNotify*
`public void addNotify()`
- *addVetoableChangeListener*
`public synchronized void addVetoableChangeListener(
java.beans.VetoableChangeListener arg0)`
- *computeVisibleRect*
`public void computeVisibleRect(java.awt.Rectangle arg0)`
- *contains*
`public boolean contains(int arg0, int arg1)`
- *createToolTip*
`public JToolTip createToolTip()`
- *disable*
`public void disable()`
- *enable*
`public void enable()`
- *firePropertyChange*
`public void firePropertyChange(java.lang.String arg0,
boolean arg1, boolean arg2)`
- *firePropertyChange*
`public void firePropertyChange(java.lang.String arg0, char
arg1, char arg2)`
- *firePropertyChange*
`public void firePropertyChange(java.lang.String arg0, int
arg1, int arg2)`
- *getAccessibleContext*
`public AccessibleContext getAccessibleContext()`
- *getActionForKeyStroke*
`public ActionListener getActionForKeyStroke(
javax.swing.KeyStroke arg0)`
- *getActionMap*
`public final ActionMap getActionMap()`
- *getAlignmentX*
`public float getAlignmentX()`
- *getAlignmentY*
`public float getAlignmentY()`
- *getAncestorListeners*
`public AncestorListener getAncestorListeners()`
- *getAutoscrolls*
`public boolean getAutoscrolls()`

- *getBorder*
public Border **getBorder**()
- *getBounds*
public Rectangle **getBounds**(java.awt.Rectangle arg0)
- *getClientProperty*
public final Object **getClientProperty**(java.lang.Object arg0)
- *getComponentPopupMenu*
public JPopupMenu **getComponentPopupMenu**()
- *getConditionForKeyStroke*
public int **getConditionForKeyStroke**(javax.swing.KeyStroke arg0)
- *getDebugGraphicsOptions*
public int **getDebugGraphicsOptions**()
- *getDefaultLocale*
public static Locale **getDefaultLocale**()
- *getFontMetrics*
public FontMetrics **getFontMetrics**(java.awt.Font arg0)
- *getGraphics*
public Graphics **getGraphics**()
- *getHeight*
public int **getHeight**()
- *getInheritsPopupMenu*
public boolean **getInheritsPopupMenu**()
- *getInputMap*
public final InputMap **getInputMap**()
- *getInputMap*
public final InputMap **getInputMap**(int arg0)
- *getInputVerifier*
public InputVerifier **getInputVerifier**()
- *getInsets*
public Insets **getInsets**()
- *getInsets*
public Insets **getInsets**(java.awt.Insets arg0)
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getLocation*
public Point **getLocation**(java.awt.Point arg0)
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()
- *getNextFocusableComponent*
public Component **getNextFocusableComponent**()

- *getPopupLocation*
public Point **getPopupLocation**(java.awt.event.MouseEvent
arg0)
- *getPreferredSize*
public Dimension **getPreferredSize**()
- *getRegisteredKeyStrokes*
public KeyStroke **getRegisteredKeyStrokes**()
- *getRootPane*
public JRootPane **getRootPane**()
- *getSize*
public Dimension **getSize**(java.awt.Dimension **arg0**)
- *getToolTipLocation*
public Point **getToolTipLocation**(java.awt.event.MouseEvent
arg0)
- *getToolTipText*
public String **getToolTipText**()
- *getToolTipText*
public String **getToolTipText**(java.awt.event.MouseEvent **arg0**
)
- *getTopLevelAncestor*
public Container **getTopLevelAncestor**()
- *getTransferHandler*
public TransferHandler **getTransferHandler**()
- *getUIClassID*
public String **getUIClassID**()
- *getVerifyInputWhenFocusTarget*
public boolean **getVerifyInputWhenFocusTarget**()
- *getVetoableChangeListeners*
public synchronized VetoableChangeListener
getVetoableChangeListeners()
- *getVisibleRect*
public Rectangle **getVisibleRect**()
- *getWidth*
public int **getWidth**()
- *getX*
public int **getX**()
- *getY*
public int **getY**()
- *grabFocus*
public void **grabFocus**()
- *isDoubleBuffered*
public boolean **isDoubleBuffered**()
- *isLightweightComponent*
public static boolean **isLightweightComponent**(
java.awt.Component **arg0**)

- *isManagingFocus*
public boolean isManagingFocus()
- *isOpaque*
public boolean isOpaque()
- *isOptimizedDrawingEnabled*
public boolean isOptimizedDrawingEnabled()
- *isPaintingTile*
public boolean isPaintingTile()
- *isRequestFocusEnabled*
public boolean isRequestFocusEnabled()
- *isValidateRoot*
public boolean isValidateRoot()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintImmediately*
public void paintImmediately(int arg0, int arg1, int arg2, int arg3)
- *paintImmediately*
public void paintImmediately(java.awt.Rectangle arg0)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *putClientProperty*
public final void putClientProperty(java.lang.Object arg0, java.lang.Object arg1)
- *registerKeyboardAction*
public void registerKeyboardAction(java.awt.event.ActionListener arg0, javax.swing.KeyStroke arg1, int arg2)
- *registerKeyboardAction*
public void registerKeyboardAction(java.awt.event.ActionListener arg0, java.lang.String arg1, javax.swing.KeyStroke arg2, int arg3)
- *removeAncestorListener*
public void removeAncestorListener(javax.swing.event.AncestorListener arg0)
- *removeNotify*
public void removeNotify()
- *removeVetoableChangeListener*
public synchronized void removeVetoableChangeListener(java.beans.VetoableChangeListener arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int arg3, int arg4)

- *repaint*
public void repaint(java.awt.Rectangle arg0)
- *requestDefaultFocus*
public boolean requestDefaultFocus()
- *requestFocus*
public void requestFocus()
- *requestFocus*
public boolean requestFocus(boolean arg0)
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *resetKeyboardActions*
public void resetKeyboardActions()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int arg3)
- *revalidate*
public void revalidate()
- *scrollRectToVisible*
public void scrollRectToVisible(java.awt.Rectangle arg0)
- *setActionMap*
public final void setActionMap(javax.swing.ActionMap arg0)
- *setAlignmentX*
public void setAlignmentX(float arg0)
- *setAlignmentY*
public void setAlignmentY(float arg0)
- *setAutoscrolls*
public void setAutoscrolls(boolean arg0)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBorder*
public void setBorder(javax.swing.border.Border arg0)
- *setComponentPopupMenu*
public void setComponentPopupMenu(javax.swing.JPopupMenu arg0)
- *setDebugGraphicsOptions*
public void setDebugGraphicsOptions(int arg0)
- *setDefaultLocale*
public static void setDefaultLocale(java.util.Locale arg0)
- *setDoubleBuffered*
public void setDoubleBuffered(boolean arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)

- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setInheritsPopupMenu*
public void setInheritsPopupMenu(boolean arg0)
- *setInputMap*
public final void setInputMap(int arg0, javax.swing.InputMap arg1)
- *setInputVerifier*
public void setInputVerifier(javax.swing.InputVerifier arg0)
- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setNextFocusableComponent*
public void setNextFocusableComponent(java.awt.Component arg0)
- *setOpaque*
public void setOpaque(boolean arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setRequestFocusEnabled*
public void setRequestFocusEnabled(boolean arg0)
- *setToolTipText*
public void setToolTipText(java.lang.String arg0)
- *setTransferHandler*
public void setTransferHandler(javax.swing.TransferHandler arg0)
- *setVerifyInputWhenFocusTarget*
public void setVerifyInputWhenFocusTarget(boolean arg0)
- *setVisible*
public void setVisible(boolean arg0)
- *unregisterKeyboardAction*
public void unregisterKeyboardAction(javax.swing.KeyStroke arg0)
- *update*
public void update(java.awt.Graphics arg0)
- *updateUI*
public void updateUI()

METHODS INHERITED FROM CLASS `java.awt.Container`

- *add*
public Component add(java.awt.Component arg0)
- *add*
public Component add(java.awt.Component arg0, int arg1)
- *add*
public void add(java.awt.Component arg0, java.lang.Object arg1)
- *add*
public void add(java.awt.Component arg0, java.lang.Object arg1, int arg2)
- *add*
public Component add(java.lang.String arg0, java.awt.Component arg1)
- *addContainerListener*
public synchronized void addContainerListener(java.awt.event.ContainerListener arg0)
- *addNotify*
public void addNotify()
- *addPropertyChangeListener*
public void addPropertyChangeListener(java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public void addPropertyChangeListener(java.lang.String arg0, java.beans.PropertyChangeListener arg1)
- *applyComponentOrientation*
public void applyComponentOrientation(java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *countComponents*
public int countComponents()
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *doLayout*
public void doLayout()
- *findComponentAt*
public Component findComponentAt(int arg0, int arg1)
- *findComponentAt*
public Component findComponentAt(java.awt.Point arg0)
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()

- *getComponent*
public Component **getComponent**(int arg0)
- *getComponentAt*
public Component **getComponentAt**(int arg0, int arg1)
- *getComponentAt*
public Component **getComponentAt**(java.awt.Point arg0)
- *getComponentCount*
public int **getComponentCount**()
- *getComponents*
public Component **getComponents**()
- *getComponentZOrder*
public final int **getComponentZOrder**(java.awt.Component arg0)
- *getContainerListeners*
public synchronized ContainerListener **getContainerListeners**()
- *getFocusTraversalKeys*
public Set **getFocusTraversalKeys**(int arg0)
- *getFocusTraversalPolicy*
public FocusTraversalPolicy **getFocusTraversalPolicy**()
- *getInsets*
public Insets **getInsets**()
- *getLayout*
public LayoutManager **getLayout**()
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()
- *getMousePosition*
public Point **getMousePosition**(boolean arg0)
- *getPreferredSize*
public Dimension **getPreferredSize**()
- *insets*
public Insets **insets**()
- *invalidate*
public void **invalidate**()
- *isAncestorOf*
public boolean **isAncestorOf**(java.awt.Component arg0)
- *isFocusCycleRoot*
public boolean **isFocusCycleRoot**()
- *isFocusCycleRoot*
public boolean **isFocusCycleRoot**(java.awt.Container arg0)
- *isFocusTraversalPolicyProvider*
public final boolean **isFocusTraversalPolicyProvider**()

- *isFocusTraversalPolicySet*
public boolean isFocusTraversalPolicySet()
- *layout*
public void layout()
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *minimumSize*
public Dimension minimumSize()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintComponents*
public void paintComponents(java.awt.Graphics arg0)
- *preferredSize*
public Dimension preferredSize()
- *print*
public void print(java.awt.Graphics arg0)
- *printComponents*
public void printComponents(java.awt.Graphics arg0)
- *remove*
public void remove(java.awt.Component arg0)
- *remove*
public void remove(int arg0)
- *removeAll*
public void removeAll()
- *removeContainerListener*
public synchronized void removeContainerListener(java.awt.event.ContainerListener arg0)
- *removeNotify*
public void removeNotify()
- *setComponentZOrder*
public final void setComponentZOrder(java.awt.Component arg0, int arg1)
- *setFocusCycleRoot*
public void setFocusCycleRoot(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalPolicy*
public void setFocusTraversalPolicy(java.awt.FocusTraversalPolicy arg0)

- *setFocusTraversalPolicyProvider*
public final void setFocusTraversalPolicyProvider(boolean
arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setLayout*
public void setLayout(java.awt.LayoutManager arg0)
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusDownCycle*
public void transferFocusDownCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

METHODS INHERITED FROM CLASS java.awt.Component

- *action*
public boolean action(java.awt.Event arg0, java.lang.Object
arg1)
- *add*
public synchronized void add(java.awt.PopupMenu arg0)
- *addComponentListener*
public synchronized void addComponentListener(
java.awt.event.ComponentListener arg0)
- *addFocusListener*
public synchronized void addFocusListener(
java.awt.event.FocusListener arg0)
- *addHierarchyBoundsListener*
public void addHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)
- *addHierarchyListener*
public void addHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *addInputMethodListener*
public synchronized void addInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *addKeyListener*
public synchronized void addKeyListener(
java.awt.event.KeyListener arg0)
- *addMouseListener*
public synchronized void addMouseListener(
java.awt.event.MouseListener arg0)

- *addMouseMotionListener*
public synchronized void addMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *addMouseWheelListener*
public synchronized void addMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *addNotify*
public void addNotify()
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *applyComponentOrientation*
public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *bounds*
public Rectangle bounds()
- *checkImage*
public int checkImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *checkImage*
public int checkImage(java.awt.Image arg0, int arg1, int
arg2, java.awt.image.ImageObserver arg3)
- *contains*
public boolean contains(int arg0, int arg1)
- *contains*
public boolean contains(java.awt.Point arg0)
- *createImage*
public Image createImage(java.awt.image.ImageProducer arg0)
- *createImage*
public Image createImage(int arg0, int arg1)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1
)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1,
java.awt.ImageCapabilities arg2)
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *disable*
public void disable()

- *dispatchEvent*
public final void **dispatchEvent**(java.awt.AWTEvent arg0)
- *doLayout*
public void **doLayout**()
- *enable*
public void **enable**()
- *enable*
public void **enable**(boolean arg0)
- *enableInputMethods*
public void **enableInputMethods**(boolean arg0)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, byte arg1, byte arg2)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, char arg1, char arg2)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, double arg1, double arg2)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, float arg1, float arg2)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, long arg1, long arg2)
- *firePropertyChange*
public void **firePropertyChange**(java.lang.String arg0, short arg1, short arg2)
- *getAccessibleContext*
public AccessibleContext **getAccessibleContext**()
- *getAlignmentX*
public float **getAlignmentX**()
- *getAlignmentY*
public float **getAlignmentY**()
- *getBackground*
public Color **getBackground**()
- *getBounds*
public Rectangle **getBounds**()
- *getBounds*
public Rectangle **getBounds**(java.awt.Rectangle arg0)
- *getColorModel*
public ColorModel **getColorModel**()
- *getComponentAt*
public Component **getComponentAt**(int arg0, int arg1)

- *getComponentAt*
public Component **getComponentAt**(java.awt.Point arg0)
- *getComponentListeners*
public synchronized ComponentListener **getComponentListeners**()
- *getComponentOrientation*
public ComponentOrientation **getComponentOrientation**()
- *getCursor*
public Cursor **getCursor**()
- *getDropTarget*
public synchronized DropTarget **getDropTarget**()
- *getFocusCycleRootAncestor*
public Container **getFocusCycleRootAncestor**()
- *getFocusListeners*
public synchronized FocusListener **getFocusListeners**()
- *getFocusTraversalKeys*
public Set **getFocusTraversalKeys**(int arg0)
- *getFocusTraversalKeysEnabled*
public boolean **getFocusTraversalKeysEnabled**()
- *getFont*
public Font **getFont**()
- *getFontMetrics*
public FontMetrics **getFontMetrics**(java.awt.Font arg0)
- *getForeground*
public Color **getForeground**()
- *getGraphics*
public Graphics **getGraphics**()
- *getGraphicsConfiguration*
public GraphicsConfiguration **getGraphicsConfiguration**()
- *getHeight*
public int **getHeight**()
- *getHierarchyBoundsListeners*
public synchronized HierarchyBoundsListener **getHierarchyBoundsListeners**()
- *getHierarchyListeners*
public synchronized HierarchyListener **getHierarchyListeners**()
- *getIgnoreRepaint*
public boolean **getIgnoreRepaint**()
- *getInputContext*
public InputContext **getInputContext**()
- *getInputMethodListeners*
public synchronized InputMethodListener **getInputMethodListeners**()
- *getInputMethodRequests*
public InputMethodRequests **getInputMethodRequests**()

- *getKeyListeners*
public synchronized KeyListener getKeyListeners()
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)
- *getLocale*
public Locale getLocale()
- *getLocation*
public Point getLocation()
- *getLocation*
public Point getLocation(java.awt.Point arg0)
- *getLocationOnScreen*
public Point getLocationOnScreen()
- *getMaximumSize*
public Dimension getMaximumSize()
- *getMinimumSize*
public Dimension getMinimumSize()
- *getMouseListeners*
public synchronized MouseListener getMouseListeners()
- *getMouseMotionListeners*
public synchronized MouseMotionListener getMouseMotionListeners()
- *getMousePosition*
public Point getMousePosition()
- *getMouseWheelListeners*
public synchronized MouseWheelListener getMouseWheelListeners()
- *getName*
public String getName()
- *getParent*
public Container getParent()
- *getPeer*
public ComponentPeer getPeer()
- *getPreferredSize*
public Dimension getPreferredSize()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener getPropertyChangeListeners()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener getPropertyChangeListeners(java.lang.String arg0)
- *getSize*
public Dimension getSize()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)

- *getToolkit*
public Toolkit getToolkit()
- *getTreeLock*
public final Object getTreeLock()
- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *gotFocus*
public boolean gotFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *handleEvent*
public boolean handleEvent(java.awt.Event arg0)
- *hasFocus*
public boolean hasFocus()
- *hide*
public void hide()
- *imageUpdate*
public boolean imageUpdate(java.awt.Image arg0, int arg1,
int arg2, int arg3, int arg4, int arg5)
- *inside*
public boolean inside(int arg0, int arg1)
- *invalidate*
public void invalidate()
- *isBackgroundSet*
public boolean isBackgroundSet()
- *isCursorSet*
public boolean isCursorSet()
- *isDisplayable*
public boolean isDisplayable()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isEnabled*
public boolean isEnabled()
- *isFocusable*
public boolean isFocusable()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusOwner*
public boolean isFocusOwner()
- *isFocusTraversable*
public boolean isFocusTraversable()

- *isFontSet*
public boolean isFontSet()
- *isForegroundSet*
public boolean isForegroundSet()
- *isLightweight*
public boolean isLightweight()
- *isMaximumSizeSet*
public boolean isMaximumSizeSet()
- *isMinimumSizeSet*
public boolean isMinimumSizeSet()
- *isOpaque*
public boolean isOpaque()
- *isPreferredSizeSet*
public boolean isPreferredSizeSet()
- *isShowing*
public boolean isShowing()
- *isValid*
public boolean isValid()
- *isVisible*
public boolean isVisible()
- *keyDown*
public boolean keyDown(java.awt.Event arg0, int arg1)
- *keyUp*
public boolean keyUp(java.awt.Event arg0, int arg1)
- *layout*
public void layout()
- *list*
public void list()
- *list*
public void list(java.io.PrintStream arg0)
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *location*
public Point location()
- *lostFocus*
public boolean lostFocus(java.awt.Event arg0, java.lang.Object arg1)
- *minimumSize*
public Dimension minimumSize()

- *mouseDown*
public boolean mouseDown(java.awt.Event arg0, int arg1,
int arg2)
- *mouseDrag*
public boolean mouseDrag(java.awt.Event arg0, int arg1,
int arg2)
- *mouseEnter*
public boolean mouseEnter(java.awt.Event arg0, int arg1,
int arg2)
- *mouseExit*
public boolean mouseExit(java.awt.Event arg0, int arg1,
int arg2)
- *mouseMove*
public boolean mouseMove(java.awt.Event arg0, int arg1,
int arg2)
- *mouseUp*
public boolean mouseUp(java.awt.Event arg0, int arg1, int
arg2)
- *move*
public void move(int arg0, int arg1)
- *nextFocus*
public void nextFocus()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintAll*
public void paintAll(java.awt.Graphics arg0)
- *postEvent*
public boolean postEvent(java.awt.Event arg0)
- *preferredSize*
public Dimension preferredSize()
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, int arg1,
int arg2, java.awt.image.ImageObserver arg3)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *remove*
public synchronized void remove(java.awt.MenuComponent arg0
)
- *removeComponentListener*
public synchronized void removeComponentListener(
java.awt.event.ComponentListener arg0)

- *removeFocusListener*
public synchronized void removeFocusListener(
java.awt.event.FocusListener arg0)
- *removeHierarchyBoundsListener*
public void removeHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)
- *removeHierarchyListener*
public void removeHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *removeInputMethodListener*
public synchronized void removeInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *removeKeyListener*
public synchronized void removeKeyListener(
java.awt.event.KeyListener arg0)
- *removeMouseListener*
public synchronized void removeMouseListener(
java.awt.event.MouseListener arg0)
- *removeMouseMotionListener*
public synchronized void removeMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *removeMouseWheelListener*
public synchronized void removeMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *removeNotify*
public void removeNotify()
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *repaint*
public void repaint()
- *repaint*
public void repaint(int arg0, int arg1, int arg2, int
arg3)
- *repaint*
public void repaint(long arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int
arg3, int arg4)
- *requestFocus*
public void requestFocus()

- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int arg3)
- *resize*
public void resize(java.awt.Dimension arg0)
- *resize*
public void resize(int arg0, int arg1)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBounds*
public void setBounds(int arg0, int arg1, int arg2, int arg3)
- *setBounds*
public void setBounds(java.awt.Rectangle arg0)
- *setComponentOrientation*
public void setComponentOrientation(java.awt.ComponentOrientation arg0)
- *setCursor*
public void setCursor(java.awt.Cursor arg0)
- *setDropTarget*
public synchronized void setDropTarget(java.awt.dnd.DropTarget arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusable*
public void setFocusable(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalKeysEnabled*
public void setFocusTraversalKeysEnabled(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setIgnoreRepaint*
public void setIgnoreRepaint(boolean arg0)
- *setLocale*
public void setLocale(java.util.Locale arg0)
- *setLocation*
public void setLocation(int arg0, int arg1)
- *setLocation*
public void setLocation(java.awt.Point arg0)

- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setName*
public void setName(java.lang.String arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(java.awt.Dimension arg0)
- *setSize*
public void setSize(int arg0, int arg1)
- *setVisible*
public void setVisible(boolean arg0)
- *show*
public void show()
- *show*
public void show(boolean arg0)
- *size*
public Dimension size()
- *toString*
public String toString()
- *transferFocus*
public void transferFocus()
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusUpCycle*
public void transferFocusUpCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

2.2.14 CLASS SudokuMenu

A menubar containing the proper menuitems.

DECLARATION

<pre>public class SudokuMenu extends javax.swing.JMenuBar</pre>
--

SERIALIZABLE FIELDS

- private MainInterface mainWindow
—
- private JMenu menuGame
—
- private JMenu menuHelp
—
- private JMenuItem itemNewGame
—
- private JMenuItem itemExit
—
- private JMenuItem itemRules
—
- private JMenuItem itemHint
—
- private Game game
—

CONSTRUCTORS

- *SudokuMenu*
public **SudokuMenu**(view.MainInterface main)
 - **Usage**
 - * Create the menubar and add it to the supplied MainInterface
 - **Parameters**
 - * **main** - The MainInterface which should get the menubar.

METHODS INHERITED FROM CLASS `javax.swing.JMenuBar`

- *add*
`public JMenu add(javax.swing.JMenu arg0)`
- *addNotify*
`public void addNotify()`
- *getAccessibleContext*
`public AccessibleContext getAccessibleContext()`
- *getComponent*
`public Component getComponent()`
- *getComponentAtIndex*
`public Component getComponentAtIndex(int arg0)`
- *getComponentIndex*
`public int getComponentIndex(java.awt.Component arg0)`
- *getHelpMenu*
`public JMenu getHelpMenu()`
- *getMargin*
`public Insets getMargin()`
- *getMenu*
`public JMenu getMenu(int arg0)`
- *getMenuCount*
`public int getMenuCount()`
- *getSelectionModel*
`public SingleSelectionModel getSelectionModel()`
- *getSubElements*
`public MenuElement getSubElements()`
- *getUI*
`public MenuBarUI getUI()`
- *getUIClassID*
`public String getUIClassID()`
- *isBorderPainted*
`public boolean isBorderPainted()`
- *isSelected*
`public boolean isSelected()`
- *menuSelectionChanged*
`public void menuSelectionChanged(boolean arg0)`
- *processKeyEvent*
`public void processKeyEvent(java.awt.event.KeyEvent arg0, javax.swing.MenuElement [] arg1, javax.swing.MenuSelectionManager arg2)`
- *processMouseEvent*
`public void processMouseEvent(java.awt.event.MouseEvent arg0, javax.swing.MenuElement [] arg1, javax.swing.MenuSelectionManager arg2)`

- *removeNotify*
public void removeNotify()
- *setBorderPainted*
public void setBorderPainted(boolean arg0)
- *setHelpMenu*
public void setHelpMenu(javax.swing.JMenu arg0)
- *setMargin*
public void setMargin(java.awt.Insets arg0)
- *setSelected*
public void setSelected(java.awt.Component arg0)
- *setSelectionModel*
public void setSelectionModel(javax.swing.SingleSelectionModel arg0)
- *setUI*
public void setUI(javax.swing.plaf.MenuBarUI arg0)
- *updateUI*
public void updateUI()

METHODS INHERITED FROM CLASS javax.swing.JComponent

- *addAncestorListener*
public void addAncestorListener(javax.swing.event.AncestorListener arg0)
- *addNotify*
public void addNotify()
- *addVetoableChangeListener*
public synchronized void addVetoableChangeListener(java.beans.VetoableChangeListener arg0)
- *computeVisibleRect*
public void computeVisibleRect(java.awt.Rectangle arg0)
- *contains*
public boolean contains(int arg0, int arg1)
- *createToolTip*
public JToolTip createToolTip()
- *disable*
public void disable()
- *enable*
public void enable()
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, boolean arg1, boolean arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, char arg1, char arg2)

- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, int arg1, int arg2)
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getActionForKeyStroke*
public ActionListener getActionForKeyStroke(javax.swing.KeyStroke arg0)
- *getActionMap*
public final ActionMap getActionMap()
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getAncestorListeners*
public AncestorListener getAncestorListeners()
- *getAutoscrolls*
public boolean getAutoscrolls()
- *getBorder*
public Border getBorder()
- *getBounds*
public Rectangle getBounds(java.awt.Rectangle arg0)
- *getClientProperty*
public final Object getClientProperty(java.lang.Object arg0)
- *getComponentPopupMenu*
public JPopupMenu getComponentPopupMenu()
- *getConditionForKeyStroke*
public int getConditionForKeyStroke(javax.swing.KeyStroke arg0)
- *getDebugGraphicsOptions*
public int getDebugGraphicsOptions()
- *getDefaultLocale*
public static Locale getDefaultLocale()
- *getFontMetrics*
public FontMetrics getFontMetrics(java.awt.Font arg0)
- *getGraphics*
public Graphics getGraphics()
- *getHeight*
public int getHeight()
- *getInheritsPopupMenu*
public boolean getInheritsPopupMenu()
- *getInputMap*
public final InputMap getInputMap()

- *getInputMap*
public final InputMap getInputMap(int arg0)
- *getInputVerifier*
public InputVerifier getInputVerifier()
- *getInsets*
public Insets getInsets()
- *getInsets*
public Insets getInsets(java.awt.Insets arg0)
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)
- *getLocation*
public Point getLocation(java.awt.Point arg0)
- *getMaximumSize*
public Dimension getMaximumSize()
- *getMinimumSize*
public Dimension getMinimumSize()
- *getNextFocusableComponent*
public Component getNextFocusableComponent()
- *getPopupLocation*
public Point getPopupLocation(java.awt.event.MouseEvent arg0)
- *getPreferredSize*
public Dimension getPreferredSize()
- *getRegisteredKeyStrokes*
public KeyStroke getRegisteredKeyStrokes()
- *getRootPane*
public JRootPane getRootPane()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)
- *getToolTipLocation*
public Point getToolTipLocation(java.awt.event.MouseEvent arg0)
- *getToolTipText*
public String getToolTipText()
- *getToolTipText*
public String getToolTipText(java.awt.event.MouseEvent arg0)
- *getTopLevelAncestor*
public Container getTopLevelAncestor()
- *getTransferHandler*
public TransferHandler getTransferHandler()
- *getUIClassID*
public String getUIClassID()
- *getVerifyInputWhenFocusTarget*
public boolean getVerifyInputWhenFocusTarget()

- *getVetoableChangeListeners*
public synchronized VetoableChangeListener
getVetoableChangeListeners()
- *getVisibleRect*
public Rectangle getVisibleRect()
- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *grabFocus*
public void grabFocus()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isLightweightComponent*
public static boolean isLightweightComponent(
java.awt.Component arg0)
- *isManagingFocus*
public boolean isManagingFocus()
- *isOpaque*
public boolean isOpaque()
- *isOptimizedDrawingEnabled*
public boolean isOptimizedDrawingEnabled()
- *isPaintingTile*
public boolean isPaintingTile()
- *isRequestFocusEnabled*
public boolean isRequestFocusEnabled()
- *isValidateRoot*
public boolean isValidateRoot()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintImmediately*
public void paintImmediately(int arg0, int arg1, int
arg2, int arg3)
- *paintImmediately*
public void paintImmediately(java.awt.Rectangle arg0)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *putClientProperty*
public final void putClientProperty(java.lang.Object arg0,
java.lang.Object arg1)

- *registerKeyboardAction*
public void registerKeyboardAction(
 java.awt.event.ActionListener arg0, javax.swing.KeyStroke
 arg1, int arg2)
- *registerKeyboardAction*
public void registerKeyboardAction(
 java.awt.event.ActionListener arg0, java.lang.String arg1,
 javax.swing.KeyStroke arg2, int arg3)
- *removeAncestorListener*
public void removeAncestorListener(
 javax.swing.event.AncestorListener arg0)
- *removeNotify*
public void removeNotify()
- *removeVetoableChangeListener*
public synchronized void removeVetoableChangeListener(
 java.beans.VetoableChangeListener arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int
 arg3, int arg4)
- *repaint*
public void repaint(java.awt.Rectangle arg0)
- *requestDefaultFocus*
public boolean requestDefaultFocus()
- *requestFocus*
public void requestFocus()
- *requestFocus*
public boolean requestFocus(boolean arg0)
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *resetKeyboardActions*
public void resetKeyboardActions()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int
 arg3)
- *revalidate*
public void revalidate()
- *scrollRectToVisible*
public void scrollRectToVisible(java.awt.Rectangle arg0)
- *setActionMap*
public final void setActionMap(javax.swing.ActionMap arg0)
- *setAlignmentX*
public void setAlignmentX(float arg0)
- *setAlignmentY*
public void setAlignmentY(float arg0)

- *setAutoscrolls*
public void setAutoscrolls(boolean arg0)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBorder*
public void setBorder(javax.swing.border.Border arg0)
- *setComponentPopupMenu*
public void setComponentPopupMenu(javax.swing.JPopupMenu arg0)
- *setDebugGraphicsOptions*
public void setDebugGraphicsOptions(int arg0)
- *setDefaultLocale*
public static void setDefaultLocale(java.util.Locale arg0)
- *setDoubleBuffered*
public void setDoubleBuffered(boolean arg0)
- *setEnabled*
public void setEnabled(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setForeground*
public void setForeground(java.awt.Color arg0)
- *setInheritsPopupMenu*
public void setInheritsPopupMenu(boolean arg0)
- *setInputMap*
public final void setInputMap(int arg0, javax.swing.InputMap arg1)
- *setInputVerifier*
public void setInputVerifier(javax.swing.InputVerifier arg0)
- *setMaximumSize*
public void setMaximumSize(java.awt.Dimension arg0)
- *setMinimumSize*
public void setMinimumSize(java.awt.Dimension arg0)
- *setNextFocusableComponent*
public void setNextFocusableComponent(java.awt.Component arg0)
- *setOpaque*
public void setOpaque(boolean arg0)
- *setPreferredSize*
public void setPreferredSize(java.awt.Dimension arg0)
- *setRequestFocusEnabled*
public void setRequestFocusEnabled(boolean arg0)

- *setToolTipText*
public void **setToolTipText**(java.lang.String arg0)
- *setTransferHandler*
public void **setTransferHandler**(javax.swing.TransferHandler arg0)
- *setVerifyInputWhenFocusTarget*
public void **setVerifyInputWhenFocusTarget**(boolean arg0)
- *setVisible*
public void **setVisible**(boolean arg0)
- *unregisterKeyboardAction*
public void **unregisterKeyboardAction**(javax.swing.KeyStroke arg0)
- *update*
public void **update**(java.awt.Graphics arg0)
- *updateUI*
public void **updateUI**()

METHODS INHERITED FROM CLASS java.awt.Container

- *add*
public Component **add**(java.awt.Component arg0)
- *add*
public Component **add**(java.awt.Component arg0, int arg1)
- *add*
public void **add**(java.awt.Component arg0, java.lang.Object arg1)
- *add*
public void **add**(java.awt.Component arg0, java.lang.Object arg1, int arg2)
- *add*
public Component **add**(java.lang.String arg0, java.awt.Component arg1)
- *addContainerListener*
public synchronized void **addContainerListener**(java.awt.event.ContainerListener arg0)
- *addNotify*
public void **addNotify**()
- *addPropertyChangeListener*
public void **addPropertyChangeListener**(java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public void **addPropertyChangeListener**(java.lang.String arg0, java.beans.PropertyChangeListener arg1)

- *applyComponentOrientation*
public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *countComponents*
public int countComponents()
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *doLayout*
public void doLayout()
- *findComponentAt*
public Component findComponentAt(int arg0, int arg1)
- *findComponentAt*
public Component findComponentAt(java.awt.Point arg0)
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getComponent*
public Component getComponent(int arg0)
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentCount*
public int getComponentCount()
- *getComponents*
public Component getComponents()
- *getComponentZOrder*
public final int getComponentZOrder(java.awt.Component
arg0)
- *getContainerListeners*
public synchronized ContainerListener getContainerListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
- *getFocusTraversalPolicy*
public FocusTraversalPolicy getFocusTraversalPolicy()
- *getInsets*
public Insets getInsets()
- *getLayout*
public LayoutManager getLayout()
- *getListeners*
public EventListener getListeners(java.lang.Class arg0)

- *getMaximumSize*
public Dimension getMaximumSize()
- *getMinimumSize*
public Dimension getMinimumSize()
- *getMousePosition*
public Point getMousePosition(boolean arg0)
- *getPreferredSize*
public Dimension getPreferredSize()
- *insets*
public Insets insets()
- *invalidate*
public void invalidate()
- *isAncestorOf*
public boolean isAncestorOf(java.awt.Component arg0)
- *isFocusCycleRoot*
public boolean isFocusCycleRoot()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusTraversalPolicyProvider*
public final boolean isFocusTraversalPolicyProvider()
- *isFocusTraversalPolicySet*
public boolean isFocusTraversalPolicySet()
- *layout*
public void layout()
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *minimumSize*
public Dimension minimumSize()
- *paint*
public void paint(java.awt.Graphics arg0)
- *paintComponents*
public void paintComponents(java.awt.Graphics arg0)
- *preferredSize*
public Dimension preferredSize()
- *print*
public void print(java.awt.Graphics arg0)
- *printComponents*
public void printComponents(java.awt.Graphics arg0)
- *remove*
public void remove(java.awt.Component arg0)

- *remove*
public void remove(int arg0)
- *removeAll*
public void removeAll()
- *removeContainerListener*
public synchronized void removeContainerListener(java.awt.event.ContainerListener arg0)
- *removeNotify*
public void removeNotify()
- *setComponentZOrder*
public final void setComponentZOrder(java.awt.Component arg0, int arg1)
- *setFocusCycleRoot*
public void setFocusCycleRoot(boolean arg0)
- *setFocusTraversalKeys*
public void setFocusTraversalKeys(int arg0, java.util.Set arg1)
- *setFocusTraversalPolicy*
public void setFocusTraversalPolicy(java.awt.FocusTraversalPolicy arg0)
- *setFocusTraversalPolicyProvider*
public final void setFocusTraversalPolicyProvider(boolean arg0)
- *setFont*
public void setFont(java.awt.Font arg0)
- *setLayout*
public void setLayout(java.awt.LayoutManager arg0)
- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusDownCycle*
public void transferFocusDownCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

METHODS INHERITED FROM CLASS java.awt.Component

- *action*
public boolean action(java.awt.Event arg0, java.lang.Object arg1)
- *add*
public synchronized void add(java.awt.PopupMenu arg0)

- *addComponentListener*
public synchronized void addComponentListener(
java.awt.event.ComponentListener arg0)
- *addFocusListener*
public synchronized void addFocusListener(
java.awt.event.FocusListener arg0)
- *addHierarchyBoundsListener*
public void addHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)
- *addHierarchyListener*
public void addHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *addInputMethodListener*
public synchronized void addInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *addKeyListener*
public synchronized void addKeyListener(
java.awt.event.KeyListener arg0)
- *addMouseListener*
public synchronized void addMouseListener(
java.awt.event.MouseListener arg0)
- *addMouseMotionListener*
public synchronized void addMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *addMouseWheelListener*
public synchronized void addMouseWheelListener(
java.awt.event.MouseWheelListener arg0)
- *addNotify*
public void addNotify()
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *addPropertyChangeListener*
public synchronized void addPropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *applyComponentOrientation*
public void applyComponentOrientation(
java.awt.ComponentOrientation arg0)
- *areFocusTraversalKeysSet*
public boolean areFocusTraversalKeysSet(int arg0)
- *bounds*
public Rectangle bounds()
- *checkImage*
public int checkImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)

- *checkImage*
public int checkImage(java.awt.Image arg0, int arg1, int
arg2, java.awt.image.ImageObserver arg3)
- *contains*
public boolean contains(int arg0, int arg1)
- *contains*
public boolean contains(java.awt.Point arg0)
- *createImage*
public Image createImage(java.awt.image.ImageProducer arg0)
- *createImage*
public Image createImage(int arg0, int arg1)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1
)
- *createVolatileImage*
public VolatileImage createVolatileImage(int arg0, int arg1,
java.awt.ImageCapabilities arg2)
- *deliverEvent*
public void deliverEvent(java.awt.Event arg0)
- *disable*
public void disable()
- *dispatchEvent*
public final void dispatchEvent(java.awt.AWTEvent arg0)
- *doLayout*
public void doLayout()
- *enable*
public void enable()
- *enable*
public void enable(boolean arg0)
- *enableInputMethods*
public void enableInputMethods(boolean arg0)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, byte
arg1, byte arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, char
arg1, char arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, double
arg1, double arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, float
arg1, float arg2)
- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, long
arg1, long arg2)

- *firePropertyChange*
public void firePropertyChange(java.lang.String arg0, short arg1, short arg2)
- *getAccessibleContext*
public AccessibleContext getAccessibleContext()
- *getAlignmentX*
public float getAlignmentX()
- *getAlignmentY*
public float getAlignmentY()
- *getBackground*
public Color getBackground()
- *getBounds*
public Rectangle getBounds()
- *getBounds*
public Rectangle getBounds(java.awt.Rectangle arg0)
- *getColorModel*
public ColorModel getColorModel()
- *getComponentAt*
public Component getComponentAt(int arg0, int arg1)
- *getComponentAt*
public Component getComponentAt(java.awt.Point arg0)
- *getComponentListeners*
public synchronized ComponentListener getComponentListeners()
- *getComponentOrientation*
public ComponentOrientation getComponentOrientation()
- *getCursor*
public Cursor getCursor()
- *getDropTarget*
public synchronized DropTarget getDropTarget()
- *getFocusCycleRootAncestor*
public Container getFocusCycleRootAncestor()
- *getFocusListeners*
public synchronized FocusListener getFocusListeners()
- *getFocusTraversalKeys*
public Set getFocusTraversalKeys(int arg0)
- *getFocusTraversalKeysEnabled*
public boolean getFocusTraversalKeysEnabled()
- *getFont*
public Font getFont()
- *getFontMetrics*
public FontMetrics getFontMetrics(java.awt.Font arg0)
- *getForeground*
public Color getForeground()

- *getGraphics*
public Graphics **getGraphics**()
- *getGraphicsConfiguration*
public GraphicsConfiguration **getGraphicsConfiguration**()
- *getHeight*
public int **getHeight**()
- *getHierarchyBoundsListeners*
public synchronized HierarchyBoundsListener
getHierarchyBoundsListeners()
- *getHierarchyListeners*
public synchronized HierarchyListener **getHierarchyListeners**()
- *getIgnoreRepaint*
public boolean **getIgnoreRepaint**()
- *getInputContext*
public InputContext **getInputContext**()
- *getInputMethodListeners*
public synchronized InputMethodListener
getInputMethodListeners()
- *getInputMethodRequests*
public InputMethodRequests **getInputMethodRequests**()
- *getKeyListeners*
public synchronized KeyListener **getKeyListeners**()
- *getListeners*
public EventListener **getListeners**(java.lang.Class arg0)
- *getLocale*
public Locale **getLocale**()
- *getLocation*
public Point **getLocation**()
- *getLocation*
public Point **getLocation**(java.awt.Point arg0)
- *getLocationOnScreen*
public Point **getLocationOnScreen**()
- *getMaximumSize*
public Dimension **getMaximumSize**()
- *getMinimumSize*
public Dimension **getMinimumSize**()
- *getMouseListeners*
public synchronized MouseListener **getMouseListeners**()
- *getMouseMotionListeners*
public synchronized MouseMotionListener
getMouseMotionListeners()
- *getMousePosition*
public Point **getMousePosition**()

- *getMouseWheelListeners*
public synchronized MouseWheelListener
getMouseWheelListeners()
- *getName*
public String getName()
- *getParent*
public Container getParent()
- *getPeer*
public ComponentPeer getPeer()
- *getPreferredSize*
public Dimension getPreferredSize()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners()
- *getPropertyChangeListeners*
public synchronized PropertyChangeListener
getPropertyChangeListeners(java.lang.String arg0)
- *getSize*
public Dimension getSize()
- *getSize*
public Dimension getSize(java.awt.Dimension arg0)
- *getToolkit*
public Toolkit getToolkit()
- *getTreeLock*
public final Object getTreeLock()
- *getWidth*
public int getWidth()
- *getX*
public int getX()
- *getY*
public int getY()
- *gotFocus*
public boolean gotFocus(java.awt.Event arg0,
java.lang.Object arg1)
- *handleEvent*
public boolean handleEvent(java.awt.Event arg0)
- *hasFocus*
public boolean hasFocus()
- *hide*
public void hide()
- *imageUpdate*
public boolean imageUpdate(java.awt.Image arg0, int arg1,
int arg2, int arg3, int arg4, int arg5)
- *inside*
public boolean inside(int arg0, int arg1)

- *invalidate*
public void invalidate()
- *isBackgroundSet*
public boolean isBackgroundSet()
- *isCursorSet*
public boolean isCursorSet()
- *isDisplayable*
public boolean isDisplayable()
- *isDoubleBuffered*
public boolean isDoubleBuffered()
- *isEnabled*
public boolean isEnabled()
- *isFocusable*
public boolean isFocusable()
- *isFocusCycleRoot*
public boolean isFocusCycleRoot(java.awt.Container arg0)
- *isFocusOwner*
public boolean isFocusOwner()
- *isFocusTraversable*
public boolean isFocusTraversable()
- *isFontSet*
public boolean isFontSet()
- *isForegroundSet*
public boolean isForegroundSet()
- *isLightweight*
public boolean isLightweight()
- *isMaximumSizeSet*
public boolean isMaximumSizeSet()
- *isMinimumSizeSet*
public boolean isMinimumSizeSet()
- *isOpaque*
public boolean isOpaque()
- *isPreferredSizeSet*
public boolean isPreferredSizeSet()
- *isShowing*
public boolean isShowing()
- *isValid*
public boolean isValid()
- *isVisible*
public boolean isVisible()
- *keyDown*
public boolean keyDown(java.awt.Event arg0, int arg1)
- *keyUp*
public boolean keyUp(java.awt.Event arg0, int arg1)

- *layout*
public void layout()
- *list*
public void list()
- *list*
public void list(java.io.PrintStream arg0)
- *list*
public void list(java.io.PrintStream arg0, int arg1)
- *list*
public void list(java.io.PrintWriter arg0)
- *list*
public void list(java.io.PrintWriter arg0, int arg1)
- *locate*
public Component locate(int arg0, int arg1)
- *location*
public Point location()
- *lostFocus*
public boolean lostFocus(java.awt.Event arg0, java.lang.Object arg1)
- *minimumSize*
public Dimension minimumSize()
- *mouseDown*
public boolean mouseDown(java.awt.Event arg0, int arg1, int arg2)
- *mouseDrag*
public boolean mouseDrag(java.awt.Event arg0, int arg1, int arg2)
- *mouseEnter*
public boolean mouseEnter(java.awt.Event arg0, int arg1, int arg2)
- *mouseExit*
public boolean mouseExit(java.awt.Event arg0, int arg1, int arg2)
- *mouseMove*
public boolean mouseMove(java.awt.Event arg0, int arg1, int arg2)
- *mouseUp*
public boolean mouseUp(java.awt.Event arg0, int arg1, int arg2)
- *move*
public void move(int arg0, int arg1)
- *nextFocus*
public void nextFocus()
- *paint*
public void paint(java.awt.Graphics arg0)

- *paintAll*
public void paintAll(java.awt.Graphics arg0)
- *postEvent*
public boolean postEvent(java.awt.Event arg0)
- *preferredSize*
public Dimension preferredSize()
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0,
java.awt.image.ImageObserver arg1)
- *prepareImage*
public boolean prepareImage(java.awt.Image arg0, int arg1,
int arg2, java.awt.image.ImageObserver arg3)
- *print*
public void print(java.awt.Graphics arg0)
- *printAll*
public void printAll(java.awt.Graphics arg0)
- *remove*
public synchronized void remove(java.awt.MenuComponent arg0
)
- *removeComponentListener*
public synchronized void removeComponentListener(
java.awt.event.ComponentListener arg0)
- *removeFocusListener*
public synchronized void removeFocusListener(
java.awt.event.FocusListener arg0)
- *removeHierarchyBoundsListener*
public void removeHierarchyBoundsListener(
java.awt.event.HierarchyBoundsListener arg0)
- *removeHierarchyListener*
public void removeHierarchyListener(
java.awt.event.HierarchyListener arg0)
- *removeInputMethodListener*
public synchronized void removeInputMethodListener(
java.awt.event.InputMethodListener arg0)
- *removeKeyListener*
public synchronized void removeKeyListener(
java.awt.event.KeyListener arg0)
- *removeMouseListener*
public synchronized void removeMouseListener(
java.awt.event.MouseListener arg0)
- *removeMouseMotionListener*
public synchronized void removeMouseMotionListener(
java.awt.event.MouseMotionListener arg0)
- *removeMouseWheelListener*
public synchronized void removeMouseWheelListener(
java.awt.event.MouseWheelListener arg0)

- *removeNotify*
public void removeNotify()
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.beans.PropertyChangeListener arg0)
- *removePropertyChangeListener*
public synchronized void removePropertyChangeListener(
java.lang.String arg0, java.beans.PropertyChangeListener arg1
)
- *repaint*
public void repaint()
- *repaint*
public void repaint(int arg0, int arg1, int arg2, int
arg3)
- *repaint*
public void repaint(long arg0)
- *repaint*
public void repaint(long arg0, int arg1, int arg2, int
arg3, int arg4)
- *requestFocus*
public void requestFocus()
- *requestFocusInWindow*
public boolean requestFocusInWindow()
- *reshape*
public void reshape(int arg0, int arg1, int arg2, int
arg3)
- *resize*
public void resize(java.awt.Dimension arg0)
- *resize*
public void resize(int arg0, int arg1)
- *setBackground*
public void setBackground(java.awt.Color arg0)
- *setBounds*
public void setBounds(int arg0, int arg1, int arg2, int
arg3)
- *setBounds*
public void setBounds(java.awt.Rectangle arg0)
- *setComponentOrientation*
public void setComponentOrientation(
java.awt.ComponentOrientation arg0)
- *setCursor*
public void setCursor(java.awt.Cursor arg0)
- *setDropTarget*
public synchronized void setDropTarget(
java.awt.dnd.DropTarget arg0)

- *setEnabled*
public void **setEnabled**(boolean arg0)
- *setFocusable*
public void **setFocusable**(boolean arg0)
- *setFocusTraversalKeys*
public void **setFocusTraversalKeys**(int arg0, java.util.Set arg1)
- *setFocusTraversalKeysEnabled*
public void **setFocusTraversalKeysEnabled**(boolean arg0)
- *setFont*
public void **setFont**(java.awt.Font arg0)
- *setForeground*
public void **setForeground**(java.awt.Color arg0)
- *setIgnoreRepaint*
public void **setIgnoreRepaint**(boolean arg0)
- *setLocale*
public void **setLocale**(java.util.Locale arg0)
- *setLocation*
public void **setLocation**(int arg0, int arg1)
- *setLocation*
public void **setLocation**(java.awt.Point arg0)
- *setMaximumSize*
public void **setMaximumSize**(java.awt.Dimension arg0)
- *setMinimumSize*
public void **setMinimumSize**(java.awt.Dimension arg0)
- *setName*
public void **setName**(java.lang.String arg0)
- *setPreferredSize*
public void **setPreferredSize**(java.awt.Dimension arg0)
- *setSize*
public void **setSize**(java.awt.Dimension arg0)
- *setSize*
public void **setSize**(int arg0, int arg1)
- *setVisible*
public void **setVisible**(boolean arg0)
- *show*
public void **show**()
- *show*
public void **show**(boolean arg0)
- *size*
public Dimension **size**()
- *toString*
public String **toString**()
- *transferFocus*
public void **transferFocus**()

- *transferFocusBackward*
public void transferFocusBackward()
- *transferFocusUpCycle*
public void transferFocusUpCycle()
- *update*
public void update(java.awt.Graphics arg0)
- *validate*
public void validate()

2.2.15 CLASS *ViewSettings*

Abstract class containing the various settings used in the GUI.

DECLARATION

```
public abstract class ViewSettings
extends java.lang.Object
```

CONSTRUCTORS

- *ViewSettings*
public **ViewSettings**()

METHODS

- *getAlternateHeight*
public static int **getAlternateHeight**()
– **Returns** - The alternate height used for the congratulationscreen and difficultyselection.
- *getBoardSpacing*
public static int **getBoardSpacing**()
– **Returns** - The spacing between the quadrants on the board.
- *getButtonBackground*
public static Color **getButtonBackground**()
– **Returns** - The backgroundcolor of the buttons

- *getButtonDimension*
public static Dimension **getButtonDimension**()
– **Returns** - The size of the buttons as a Dimension.

- *getButtonSize*
public static int **getButtonSize**()
– **Returns** - The size of the buttons on the board.

- *getHintColor*
public static Color **getHintColor**()
– **Returns** - The color used for showing hints on the board.

- *getMainHeight*
public static int **getMainHeight**()
– **Returns** - The height of the mainwindow.

- *getMainWidth*
public static int **getMainWidth**()
– **Returns** - The width of the mainwindow.

- *getWrongNumberColor*
public static Color **getWrongNumberColor**()
– **Returns** - The color used for wrong numbers on the board.

Chapter 3

Package model

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3.1 Interfaces

3.1.1 INTERFACE GameSettings

Interface to retrieve GameSettings

DECLARATION

```
public interface GameSettings
```

METHODS

- *getBoardDimensions*
public int getBoardDimensions()
- *getBoardLength*
public int getBoardLength()
- *getDifficulty*
public String getDifficulty()
- *getNumbersToRemove*
public int getNumbersToRemove()
- *getQuadrantDimensions*
public int getQuadrantDimensions()
- *getStdBoardArray*
public int getStdBoardArray()
- *getValidValues*
public int getValidValues()

3.2 Classes

3.2.1 CLASS Board

Board.java is able to generate sudoku boards, get values from fields and set values in fields. It can compare two boards to check if the sudoku is solved.

DECLARATION

```
public class Board
extends java.util.Observable
```

CONSTRUCTORS

- *Board*
`public Board()`
 - **Usage**
 - * Creates a board with all fields filled in.
- *Board*
`public Board(model.Board board)`
- *Board*
`public Board(model.GameSettings settings)`
- *Board*
`public Board(int [] boardArray)`
- *Board*
`public Board(int [] boardArray, model.GameSettings settings)`

METHODS

- *getSettings*
`public GameSettings getSettings()`
 - **Returns** - the settings
- *getValue*
`public int getValue(int fieldId)`
 - **Usage**
 - * Gets the value from board[] at position a
 - **Parameters**
 - * fieldId -
 - **Returns** - The value at the fieldId-position.
 - **Exceptions**

* java.lang.IllegalArgumentException -

- *isEqualTo*

public boolean **isEqualTo**(model.Board compareBoard)

- **Usage**

- * Compares current board to supplied board to determine if the sudoku is correctly solved.

- **Parameters**

- * compareBoard - The board to compare to.

- **Returns** - True or false depending on whether or not the boards are equal.

- *print*

public void **print**()

- *reset*

public void **reset**(model.GameSettings settings,
model.Game game)

- *setValue*

public void **setValue**(int fieldId, int value)

- **Usage**

- * Sets a value b into board[] at position a

- **Parameters**

- * fieldId - The fieldnumber whose value is to be set
 - * value - The value to set

- **Exceptions**

- * java.lang.IllegalArgumentException -

- *shuffle*

public void **shuffle**()

- **Usage**

- * Shuffles rows, columns, quadrantcolumns and quadrantrows of the board.

- *switchColumns*

public void **switchColumns**(int first, int second)

- **Usage**

- * Switches the two supplied columns in the board.

- **Parameters**

* **first** - The first column to be switched.
 * **second** - The second column to be switched.

- *switchQuadrantColumns*

public void **switchQuadrantColumns**(int **first**, int **second**)

- **Usage**

* Switches the two supplied quadrantcolumns in the board.

- **Parameters**

* **first** - The first quadrantcolumn to be switched.
 * **second** - The second quadrantcolumn to be switched.

- *switchQuadrantRows*

public void **switchQuadrantRows**(int **first**, int **second**)

- **Usage**

* Switches the two supplied quadrantrows in the board.

- **Parameters**

* **first** - The first quadrantrow to be switched.
 * **second** - The second quadrantrow to be switched.

- *switchRows*

public void **switchRows**(int **first**, int **second**)

- **Usage**

* Switches the two supplied rows in the board.

- **Parameters**

* **first** - The first row to be switched.
 * **second** - The second row to be switched.

- *toArray*

public int **toArray**()

METHODS INHERITED FROM CLASS java.util.Observable

- *addObserver*

public synchronized void **addObserver**(java.util.Observer **arg0**)

- *countObservers*

public synchronized int **countObservers**()

- *deleteObserver*
`public synchronized void deleteObserver(java.util.Observer
arg0)`
- *deleteObservers*
`public synchronized void deleteObservers()`
- *hasChanged*
`public synchronized boolean hasChanged()`
- *notifyObservers*
`public void notifyObservers()`
- *notifyObservers*
`public void notifyObservers(java.lang.Object arg0)`

3.2.2 CLASS EasySettings

The easy gamesettings for a 9x9 Sudoku.

DECLARATION

```
public class EasySettings
extends model.General9x9Settings
implements GameSettings
```

FIELDS

- public static final int IDENTIFIER
—

CONSTRUCTORS

- *EasySettings*
`public EasySettings()`

METHODS

- *getDifficulty*
`public String getDifficulty()`
— **Usage**
* returns the difficulty

– **Returns** - The difficulty

- *getNumbersToRemove*
 public int **getNumbersToRemove**()
 – **Usage**
 * returns the numbers to remove
 – **Returns** - The numbers to remove

METHODS INHERITED FROM CLASS `model.General9x9Settings`

(in 3.2.4, page 284)

- *getBoardDimensions*
 public int **getBoardDimensions**()
 – **Usage**
 * returns the board dimension
 – **Returns** - The board dimension
- *getBoardLength*
 public int **getBoardLength**()
 – **Usage**
 * returns the board length
 – **Returns** - The board length
- *getNumbersToRemove*
 public abstract int **getNumbersToRemove**()
 – **Usage**
 * returns the number of fields to remove
 – **Returns** - The number of fields to remove
- *getQuadrantDimensions*
 public int **getQuadrantDimensions**()
 – **Usage**
 * returns the quadrant dimension
 – **Returns** - The quadrant dimension
- *getStdBoardArray*
 public int **getStdBoardArray**()
 – **Usage**
 * returns the standard board array for the current settings
 – **Returns** - The standard board array for the current settings
- *getValidValues*
 public int **getValidValues**()
 – **Usage**
 * returns the valid values
 – **Returns** - The valid values

3.2.3 CLASS **Game**

Contains the gameboard and the solution. When a new game is created **Game** will create a new board.

DECLARATION

<pre>public class Game extends java.lang.Object</pre>
--

CONSTRUCTORS

- *Game*
`public Game()`
 - **Usage**
 - * Stores the solved board in solutionBoard. Makes the generator remove numbers until the desired difficulty is reached and then stores the new board in currentBoard

METHODS

- *getCurrentBoard*
`public Board getCurrentBoard()`
 - **Usage**
 - * returns the current board
 - **Returns** - The current board

- *getSolutionBoard*
`public Board getSolutionBoard()`
 - **Usage**
 - * returns the solved board
 - **Returns** - The solved board

- *getStatistics*
`public Statistics getStatistics()`
 - **Usage**

- * returns the statistics
 - **Returns** - The statistics

- *reset*
 - public void reset(model.GameSettings settings)
 - **Usage**
 - * creates a new statistics element based on the settings.
 - **Parameters**
 - * settings -

- *setSolutionBoard*
 - public void setSolutionBoard(model.Board solutionBoard)
 - **Usage**
 - * stores the solved board
 - **Parameters**
 - * solutionBoard -

3.2.4 CLASS General9x9Settings

Contains the general settings for a 9x9 sudoku

DECLARATION

```
public abstract class General9x9Settings
extends java.lang.Object
implements GameSettings
```

CONSTRUCTORS

- *General9x9Settings*
 - public **General9x9Settings**()

METHODS

- *getBoardDimensions*
public int **getBoardDimensions**()
 - **Usage**
 - * returns the board dimension
 - **Returns** - The board dimension

- *getBoardLength*
public int **getBoardLength**()
 - **Usage**
 - * returns the board length
 - **Returns** - The board length

- *getNumbersToRemove*
public abstract int **getNumbersToRemove**()
 - **Usage**
 - * returns the number of fields to remove
 - **Returns** - The number of fields to remove

- *getQuadrantDimensions*
public int **getQuadrantDimensions**()
 - **Usage**
 - * returns the quadrant dimension
 - **Returns** - The quadrant dimension

- *getStdBoardArray*
public int **getStdBoardArray**()
 - **Usage**
 - * returns the standard board array for the current settings
 - **Returns** - The standard board array for the current settings

- *getValidValues*
public int **getValidValues**()
 - **Usage**
 - * returns the valid values
 - **Returns** - The valid values

3.2.5 CLASS Generator

The sudoku generator.

DECLARATION

```
public abstract class Generator
extends java.lang.Object
```

CONSTRUCTORS

- *Generator*
`public Generator()`

METHODS

- *generate*
`public static void generate(model.Board board)`
- *generate*
`public static void generate(model.Board board,
model.GameSettings settings)`
 - **Usage**
 - * Generates a playable gameboard removing one field at a time until the desired difficulty is achieved.
 - **Parameters**
 - * **board** - The board to remove fields from.
 - * **settings** - The board settings (board size)

3.2.6 CLASS HardSettings

The hard gamesettings for a 9x9 Sudoku.

DECLARATION

```
public class HardSettings
extends model.General9x9Settings
implements GameSettings
```

FIELDS

- `public static final int IDENTIFIER`
 -

CONSTRUCTORS

- *HardSettings*
`public HardSettings()`

METHODS

- *getDifficulty*
`public String getDifficulty()`
 - **Usage**
 - * returns the difficulty
 - **Returns** - The difficulty
-
- *getNumbersToRemove*
`public int getNumbersToRemove()`
 - **Usage**
 - * returns the numbers to remove
 - **Returns** - The numbers to remove

METHODS INHERITED FROM CLASS `model.General9x9Settings`

(in 3.2.4, page 284)

- *getBoardDimensions*
`public int getBoardDimensions()`
 - **Usage**
 - * returns the board dimension
 - **Returns** - The board dimension
-
- *getBoardLength*
`public int getBoardLength()`
 - **Usage**
 - * returns the board length

- **Returns** - The board length
-
- *getNumbersToRemove*
 public abstract int **getNumbersToRemove**()
 - **Usage**
 - * returns the number of fields to remove
 - **Returns** - The number of fields to remove
-
- *getQuadrantDimensions*
 public int **getQuadrantDimensions**()
 - **Usage**
 - * returns the quadrant dimension
 - **Returns** - The quadrant dimension
-
- *getStdBoardArray*
 public int **getStdBoardArray**()
 - **Usage**
 - * returns the standard board array for the current settings
 - **Returns** - The standard board array for the current settings
-
- *getValidValues*
 public int **getValidValues**()
 - **Usage**
 - * returns the valid values
 - **Returns** - The valid values

3.2.7 CLASS Helper

Helper.java is able to find a field thats solveable, find fields that are incorrectly filled in and how many mistakes present on the board.

DECLARATION

```
public abstract class Helper
extends java.lang.Object
```

CONSTRUCTORS

- *Helper*
 public **Helper**()

METHODS

• *findSolveable*

```
public static int findSolveable( model.Board  board,  
model.GameSettings  settings )
```

– **Usage**

- * Finds a field on the current board which is solveable and returns that field id.

– **Parameters**

- * **board** - The board from which the help is needed.
- * **settings** - The game settings from which the board is created under.

– **Returns** - A fieldId that is solveable and suggested to the player.– **Exceptions**

- * `java.lang.NoSuchFieldException` -
-

• *findSolveable*

```
public static int findSolveable( model.Game  game )
```

– **Usage**

- * Finds a field on the current board which is solveable and returns that fieldId. Calls
`findSolveable(game.getCurrentBoard(),
game.getCurrentBoard().getSettings());`

– **Parameters**

- * **game** - The current game.

– **Returns** - A fieldId that is solveable and suggested to the player.– **Exceptions**

- * `java.lang.NoSuchFieldException` -
-

• *getAmountOfMistakes*

```
public static int getAmountOfMistakes( model.Game  
game )
```

– **Usage**

- * This function scans the board for mistakes and returns how many mistakes there currently is.

– **Parameters**

- * **game** - The current game that's being played.
 - **Returns** - The number of mistakes currently on the board.

- *getFieldsWithMistakes*
 - public static int **getFieldsWithMistakes**(model.Game game)
 - **Usage**
 - * Gets an int-array with the fieldIds containing mistakes.
 - Calls `getFieldsWithMistakes (game, getAmountOfMistakes(game));`
 - **Parameters**
 - * **game** - The current game.
 - **Returns** - An int[] containing the fieldIds with mistakes.

- *getFieldsWithMistakes*
 - public static int **getFieldsWithMistakes**(model.Game game, int amountOfMistakes)
 - **Usage**
 - * Gets an int-array with the fieldIds containing mistakes.
 - **Parameters**
 - * **game** - The current game.
 - * **amountOfMistakes** - Used to the size of the result array.
 - **Returns** - An int[] containing the fieldIds with mistakes.

3.2.8 CLASS NormalSettings

The normal gamesettings for a 9x9 Sudoku.

DECLARATION

```
public class NormalSettings
extends model.General9x9Settings
implements GameSettings
```

FIELDS

- public static final int IDENTIFIER

—

CONSTRUCTORS

- *NormalSettings*
public **NormalSettings**()

METHODS

- *getDifficulty*
public String **getDifficulty**()
 - **Usage**
* returns the difficulty
 - **Returns** - The difficulty
-
- *getNumbersToRemove*
public int **getNumbersToRemove**()
 - **Usage**
* returns the numbers to remove
 - **Returns** - The numbers to remove

METHODS INHERITED FROM CLASS `model.General9x9Settings`

(in 3.2.4, page 284)

- *getBoardDimensions*
public int **getBoardDimensions**()
 - **Usage**
* returns the board dimension
 - **Returns** - The board dimension
-
- *getBoardLength*
public int **getBoardLength**()
 - **Usage**
* returns the board length
 - **Returns** - The board length
-
- *getNumbersToRemove*
public abstract int **getNumbersToRemove**()
 - **Usage**
* returns the number of fields to remove
 - **Returns** - The number of fields to remove

-
- *getQuadrantDimensions*
 public int **getQuadrantDimensions**()
 – **Usage**
 * returns the quadrant dimension
 – **Returns** - The quadrant dimension
-
- *getStdBoardArray*
 public int **getStdBoardArray**()
 – **Usage**
 * returns the standard board array for the current settings
 – **Returns** - The standard board array for the current settings
-
- *getValidValues*
 public int **getValidValues**()
 – **Usage**
 * returns the valid values
 – **Returns** - The valid values

3.2.9 CLASS Solver

Solver class used to solve a Sudoku-puzzle.

DECLARATION

```
public abstract class Solver
extends java.lang.Object
```

CONSTRUCTORS

- *Solver*
 public **Solver**()

METHODS

- *solveField*
 public static int **solveField**(int fieldNum, model.Board board)
 – **Usage**

- * In calling the solver, first `solverLevelOne` is used, then if this is unable to produce a unique result, call `solverLevelTwo`.
- **Parameters**
 - * `fieldNum` - the integer value the specific field has on the board
 - * `board` - the sudoku board used
- **Returns** - the result of trying to solve the field, 0 if not solveable.

3.2.10 CLASS Statistics

The statistics of the current game.

Keeps track of the amount of Hints and Mistakes made.

DECLARATION

```
public class Statistics
extends java.lang.Object
```

CONSTRUCTORS

- *Statistics*

```
public Statistics( )
```

 - **Usage**
 - * Creates a new statistics type for the game. The amount of hints used and mistakes made from start is, naturally, 0.

METHODS

- *getElapsedTime*

```
public String getElapsedTime( )
```

 - **Usage**
 - * returns the time elapsed durring play
 - **Returns** - The time elapsed durring play
- *getHints*

```
public int getHints( )
```

- **Usage**

- * Returns the amount of hints used.

- **Returns** - The amount of hints.

- *getMistakes*

```
public int getMistakes( )
```

- **Usage**

- * Returns the amount of mistakes used.

- **Returns** - The amount of mistakes

- *increaseHints*

```
public void increaseHints( )
```

- **Usage**

- * Increases the amount of hints used by 1.

- *increaseMistakesBy*

```
public void increaseMistakesBy( int amount )
```

- **Usage**

- * Increases the amount of mistakes used by 1.

- *setStopTime*

```
public void setStopTime( )
```

- **Usage**

- * Sets the time at which the Sudoku was solved.

3.2.11 CLASS *SudokuMath*

Performs various mathematical operations on *SudokuBoards*. Everything is 0-index'ed, and works on boards of all sizes. Fx. a row from a 3x3x9 Sudoku has the numbers 0 to 8.

DECLARATION

<pre>public abstract class SudokuMath extends java.lang.Object</pre>
--

CONSTRUCTORS

- *SudokuMath*
`public SudokuMath()`

METHODS

- *getColumnFromPos*
`public static int getColumnFromPos(int position,
model.Board board)`
 - **Usage**
 - * Gets the contents of the column based on the position in the board. This is done by first calculating the columnNumber, adding the value this position contains to an array, and then continuously adding boardDim to the columnNumber, adding that value to the array until the array has boardDimension values in it.
 - **Parameters**
 - * **position** - The position to get the column from.
 - * **board** - The board to get the column from.
 - **Returns** - An int-array containing the column.

- *getColumnNumber*
`public static int getColumnNumber(int position,
model.GameSettings settings)`
 - **Usage**
 - * Converts a position to a columnnumber, by calculating (position % boardDimension).
 - **Parameters**
 - * **position** - The position on the board.
 - **Returns** - The number of the column.

- *getQuadrantFromPos*
`public static int getQuadrantFromPos(int position,
model.Board board)`
 - **Usage**

- * Gets the contents of the quadrant based on the position in the board. It calculates the fieldId of the top left corner of the quadrant, and then adds the fieldIds based on the size of the board.

– **Parameters**

- * **position** - The position to get the quadrant from.
- * **board** - The board to get the quadrant from.

– **Returns** - An int-array containing the quadrant.

• *getQuadrantNumber*

```
public static int getQuadrantNumber( int position,
model.GameSettings settings )
```

– **Usage**

- * Converts a position to a quadrantnumber, by calculating $((\text{rowNumber} / \text{quadrantDim}) * \text{quadrantDim} + \text{columnNumber} / \text{quadrantDim})$.

– **Parameters**

- * **position** - The position on the board.

– **Returns** - The number of the quadrant.

• *getRowFromPos*

```
public static int getRowFromPos( int position,
model.Board board )
```

– **Usage**

- * Gets the contents of the row based on the position in the board. This is done by subtracting the columnNumber from the position value, and adding values to an int-array until it has reached the length of the boardDimension.

– **Parameters**

- * **position** - The position to get the row from.
- * **board** - The board to get the row from.

– **Returns** - An int-array containing the row.

• *getRowNumber*

```
public static int getRowNumber( int position,
model.GameSettings settings )
```

– **Usage**

- * Converts a position to a rownumber, by calculating $(\text{position} / \text{boardDimension})$.

- **Parameters**
 - * **position** - The position on the board.
- **Returns** - The number of the row.

Chapter 4

Package tests

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<hr/>	

4.1 Classes

4.1.1 CLASS `TestFindSolveable`

The JUnit `TestCase` Class for `Helper.findSolveable()`.

DECLARATION

```
public class TestFindSolveable
extends junit.framework.TestCase
```

CONSTRUCTORS

- *TestFindSolveable*
`public TestFindSolveable()`

METHODS

- *testFindSolveable01*
`public void testFindSolveable01()`
 - **Usage**
 - * First test of `findSolveable()`:
Tests that the `Helper` returns an `NoSuchFieldException` when no solveable `fieldId` can be found.
- *testFindSolveable02*
`public void testFindSolveable02()`
 - **Usage**
 - * Second test of `findSolveable()`:
This test looks at the opposite of `testFindSolveable01`, namely when there is a field that can be solved, and that the correct `fieldId` is returned, plus no `Exception` is thrown.

METHODS INHERITED FROM CLASS `junit.framework.TestCase`

- *countTestCases*
`public int countTestCases()`

- *getName*
public String getName()
- *run*
public TestResult run()
- *run*
public void run(junit.framework.TestResult arg0)
- *runBare*
public void runBare()
- *setName*
public void setName(java.lang.String arg0)
- *toString*
public String toString()

METHODS INHERITED FROM CLASS junit.framework.Assert

- *assertEquals*
public static void assertEquals(boolean arg0, boolean arg1)
- *assertEquals*
public static void assertEquals(byte arg0, byte arg1)
- *assertEquals*
public static void assertEquals(char arg0, char arg1)
- *assertEquals*
public static void assertEquals(double arg0, double arg1, double arg2)
- *assertEquals*
public static void assertEquals(float arg0, float arg1, float arg2)
- *assertEquals*
public static void assertEquals(int arg0, int arg1)
- *assertEquals*
public static void assertEquals(long arg0, long arg1)
- *assertEquals*
public static void assertEquals(java.lang.Object arg0, java.lang.Object arg1)
- *assertEquals*
public static void assertEquals(short arg0, short arg1)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, boolean arg1, boolean arg2)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, byte arg1, byte arg2)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, char arg1, char arg2)

- *assertEquals*
public static void assertEquals(java.lang.String arg0, double arg1, double arg2, double arg3)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, float arg1, float arg2, float arg3)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, int arg1, int arg2)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, long arg1, long arg2)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, java.lang.Object arg1, java.lang.Object arg2)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, short arg1, short arg2)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, java.lang.String arg1)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, java.lang.String arg1, java.lang.String arg2)
- *assertFalse*
public static void assertFalse(boolean arg0)
- *assertFalse*
public static void assertFalse(java.lang.String arg0, boolean arg1)
- *assertNotNull*
public static void assertNotNull(java.lang.Object arg0)
- *assertNotNull*
public static void assertNotNull(java.lang.String arg0, java.lang.Object arg1)
- *assertNotSame*
public static void assertNotSame(java.lang.Object arg0, java.lang.Object arg1)
- *assertNotSame*
public static void assertNotSame(java.lang.String arg0, java.lang.Object arg1, java.lang.Object arg2)
- *assertNull*
public static void assertNull(java.lang.Object arg0)
- *assertNull*
public static void assertNull(java.lang.String arg0, java.lang.Object arg1)

- *assertSame*
public static void **assertSame**(java.lang.Object arg0,
java.lang.Object arg1)
- *assertSame*
public static void **assertSame**(java.lang.String arg0,
java.lang.Object arg1, java.lang.Object arg2)
- *assertTrue*
public static void **assertTrue**(boolean arg0)
- *assertTrue*
public static void **assertTrue**(java.lang.String arg0, boolean
arg1)
- *fail*
public static void **fail**()
- *fail*
public static void **fail**(java.lang.String arg0)

4.1.2 CLASS TestSudokuMathGetFromPos

The JUnit TestCase Class for the getXFromPos methods used in SudokuMath.

DECLARATION

```
public class TestSudokuMathGetFromPos
extends junit.framework.TestCase
```

CONSTRUCTORS

- *TestSudokuMathGetFromPos*
public **TestSudokuMathGetFromPos**()

METHODS

- *testGetColumnFromPos*
public void **testGetColumnFromPos**()

– **Usage**
* This tests the second of the getFromPos-methods:
getColumnFromPos().
- *testGetQuadrantFromPos*
public void **testGetQuadrantFromPos**()

– Usage

* This tests the third of the getFromPos-methods:
getQuadrantFromPos().

• *testGetRowFromPos*

public void **testGetRowFromPos**()

– Usage

* This tests the first of the getFromPos-methods:
getRowFromPos().

METHODS INHERITED FROM CLASS `junit.framework.TestCase`• *countTestCases*

public int **countTestCases**()

• *getName*

public String **getName**()

• *run*

public **TestResult** **run**()

• *run*

public void **run**(`junit.framework.TestResult` **arg0**)

• *runBare*

public void **runBare**()

• *setName*

public void **setName**(`java.lang.String` **arg0**)

• *toString*

public String **toString**()

METHODS INHERITED FROM CLASS `junit.framework.Assert`• *assertEquals*

public static void **assertEquals**(boolean **arg0**, boolean **arg1**)

• *assertEquals*

public static void **assertEquals**(byte **arg0**, byte **arg1**)

• *assertEquals*

public static void **assertEquals**(char **arg0**, char **arg1**)

• *assertEquals*

public static void **assertEquals**(double **arg0**, double **arg1**,
double **arg2**)

• *assertEquals*

public static void **assertEquals**(float **arg0**, float **arg1**,
float **arg2**)

- *assertEquals*
public static void assertEquals(int arg0, int arg1)
- *assertEquals*
public static void assertEquals(long arg0, long arg1)
- *assertEquals*
public static void assertEquals(java.lang.Object arg0, java.lang.Object arg1)
- *assertEquals*
public static void assertEquals(short arg0, short arg1)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, boolean arg1, boolean arg2)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, byte arg1, byte arg2)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, char arg1, char arg2)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, double arg1, double arg2, double arg3)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, float arg1, float arg2, float arg3)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, int arg1, int arg2)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, long arg1, long arg2)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, java.lang.Object arg1, java.lang.Object arg2)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, short arg1, short arg2)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, java.lang.String arg1)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, java.lang.String arg1, java.lang.String arg2)
- *assertFalse*
public static void assertFalse(boolean arg0)

- *assertFalse*
 public static void **assertFalse**(java.lang.String arg0, boolean
 arg1)

- *assertNotNull*
 public static void **assertNotNull**(java.lang.Object arg0)

- *assertNotNull*
 public static void **assertNotNull**(java.lang.String arg0,
 java.lang.Object arg1)

- *assertNotSame*
 public static void **assertNotSame**(java.lang.Object arg0,
 java.lang.Object arg1)

- *assertNotSame*
 public static void **assertNotSame**(java.lang.String arg0,
 java.lang.Object arg1, java.lang.Object arg2)

- *assertNull*
 public static void **assertNull**(java.lang.Object arg0)

- *assertNull*
 public static void **assertNull**(java.lang.String arg0,
 java.lang.Object arg1)

- *assertSame*
 public static void **assertSame**(java.lang.Object arg0,
 java.lang.Object arg1)

- *assertSame*
 public static void **assertSame**(java.lang.String arg0,
 java.lang.Object arg1, java.lang.Object arg2)

- *assertTrue*
 public static void **assertTrue**(boolean arg0)

- *assertTrue*
 public static void **assertTrue**(java.lang.String arg0, boolean
 arg1)

- *fail*
 public static void **fail**()

- *fail*
 public static void **fail**(java.lang.String arg0)

4.1.3 CLASS TestSudokuMathGetNumber

The JUnit TestCase Class for the getXNumber methods used in SudokuMath.

DECLARATION

```
public class TestSudokuMathGetNumber
extends junit.framework.TestCase
```

CONSTRUCTORS

- *TestSudokuMathGetNumber*
public **TestSudokuMathGetNumber**()

METHODS

- *testGetColumnNumber*
public void **testGetColumnNumber**()
– **Usage**
* This tests the second of the get-methods:
 getColumnNumber().

- *testGetQuadrantNumber*
public void **testGetQuadrantNumber**()
– **Usage**
* This tests the third of the get-methods:
 getQuadrantNumber().

- *testGetRowNumber*
public void **testGetRowNumber**()
– **Usage**
* This tests the first of the get-methods: getRowNumber().

METHODS INHERITED FROM CLASS `junit.framework.TestCase`

- *countTestCases*
public int **countTestCases**()
- *getName*
public String **getName**()
- *run*
public **TestResult** **run**()
- *run*
public void **run**(`junit.framework.TestResult` **arg0**)
- *runBare*
public void **runBare**()
- *setName*
public void **setName**(`java.lang.String` **arg0**)
- *toString*
public String **toString**()

METHODS INHERITED FROM CLASS `junit.framework.Assert`

-
- *assertEquals*
public static void assertEquals(boolean arg0, boolean arg1)
 - *assertEquals*
public static void assertEquals(byte arg0, byte arg1)
 - *assertEquals*
public static void assertEquals(char arg0, char arg1)
 - *assertEquals*
public static void assertEquals(double arg0, double arg1, double arg2)
 - *assertEquals*
public static void assertEquals(float arg0, float arg1, float arg2)
 - *assertEquals*
public static void assertEquals(int arg0, int arg1)
 - *assertEquals*
public static void assertEquals(long arg0, long arg1)
 - *assertEquals*
public static void assertEquals(java.lang.Object arg0, java.lang.Object arg1)
 - *assertEquals*
public static void assertEquals(short arg0, short arg1)
 - *assertEquals*
public static void assertEquals(java.lang.String arg0, boolean arg1, boolean arg2)
 - *assertEquals*
public static void assertEquals(java.lang.String arg0, byte arg1, byte arg2)
 - *assertEquals*
public static void assertEquals(java.lang.String arg0, char arg1, char arg2)
 - *assertEquals*
public static void assertEquals(java.lang.String arg0, double arg1, double arg2, double arg3)
 - *assertEquals*
public static void assertEquals(java.lang.String arg0, float arg1, float arg2, float arg3)
 - *assertEquals*
public static void assertEquals(java.lang.String arg0, int arg1, int arg2)
 - *assertEquals*
public static void assertEquals(java.lang.String arg0, long arg1, long arg2)

- *assertEquals*
public static void assertEquals(java.lang.String arg0,
java.lang.Object arg1, java.lang.Object arg2)
- *assertEquals*
public static void assertEquals(java.lang.String arg0, short
arg1, short arg2)
- *assertEquals*
public static void assertEquals(java.lang.String arg0,
java.lang.String arg1)
- *assertEquals*
public static void assertEquals(java.lang.String arg0,
java.lang.String arg1, java.lang.String arg2)
- *assertFalse*
public static void assertFalse(boolean arg0)
- *assertFalse*
public static void assertFalse(java.lang.String arg0, boolean
arg1)
- *assertNotNull*
public static void assertNotNull(java.lang.Object arg0)
- *assertNotNull*
public static void assertNotNull(java.lang.String arg0,
java.lang.Object arg1)
- *assertNotSame*
public static void assertNotSame(java.lang.Object arg0,
java.lang.Object arg1)
- *assertNotSame*
public static void assertNotSame(java.lang.String arg0,
java.lang.Object arg1, java.lang.Object arg2)
- *assertNull*
public static void assertNull(java.lang.Object arg0)
- *assertNull*
public static void assertNull(java.lang.String arg0,
java.lang.Object arg1)
- *assertSame*
public static void assertSame(java.lang.Object arg0,
java.lang.Object arg1)
- *assertSame*
public static void assertSame(java.lang.String arg0,
java.lang.Object arg1, java.lang.Object arg2)
- *assertTrue*
public static void assertTrue(boolean arg0)
- *assertTrue*
public static void assertTrue(java.lang.String arg0, boolean
arg1)
- *fail*
public static void fail()
- *fail*
public static void fail(java.lang.String arg0)