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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/View.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | |  |
| [**PREV CLASS**](http://docs.google.com/fishPond/PublicTests.html)   NEXT CLASS | [**FRAMES**](http://docs.google.com/index.html?fishPond/View.html)    [**NO FRAMES**](http://docs.google.com/View.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: [NESTED](#2et92p0) | [FIELD](#1t3h5sf) | [CONSTR](#17dp8vu) | [METHOD](#3rdcrjn) | DETAIL: FIELD | [CONSTR](#2jxsxqh) | [METHOD](#3j2qqm3) |

## **fishPond**

Class View

java.lang.Object  
  
 java.awt.Component  
  
 java.awt.Container  
  
 javax.swing.JComponent  
  
 javax.swing.JPanel  
  
 **fishPond.View**

**All Implemented Interfaces:** java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, javax.accessibility.Accessible

public class **View**extends javax.swing.JPanel

THIS CLASS HAS BEEN WRITTEN FOR YOU -- DO NOT MODIFY IT!

This is the View of the M-V-C design pattern.

**Author:** Fawzi Emad Copyright (C) 2005 **See Also:**[Serialized Form](http://docs.google.com/serialized-form.html#fishPond.View)

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| **Nested Class Summary** | |

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| **Nested classes/interfaces inherited from class javax.swing.JComponent** |
| javax.swing.JComponent.AccessibleJComponent |

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| **Nested classes/interfaces inherited from class java.awt.Component** |
| java.awt.Component.BaselineResizeBehavior |

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| **Field Summary** | |

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| **Fields inherited from class javax.swing.JComponent** |
| TOOL\_TIP\_TEXT\_KEY, UNDEFINED\_CONDITION, WHEN\_ANCESTOR\_OF\_FOCUSED\_COMPONENT, WHEN\_FOCUSED, WHEN\_IN\_FOCUSED\_WINDOW |

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| **Fields inherited from class java.awt.Component** |
| BOTTOM\_ALIGNMENT, CENTER\_ALIGNMENT, LEFT\_ALIGNMENT, RIGHT\_ALIGNMENT, TOP\_ALIGNMENT |

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| **Fields inherited from interface java.awt.image.ImageObserver** |
| ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS, WIDTH |

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| **Constructor Summary** | |
| [**View**](http://docs.google.com/fishPond/View.html#View(fishPond.Model,%20int,%20int,%20int,%20int,%20int))([Model](http://docs.google.com/fishPond/Model.html) model, int rows, int cols, int rockCount, int fishCount, int plantCount) |

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| **Method Summary** | |
| int | [**getCols**](http://docs.google.com/fishPond/View.html#getCols())()            Return value of the cols field entered by the user into the GUI |
| int | [**getFishCount**](http://docs.google.com/fishPond/View.html#getFishCount())()            Return the value of the "fish" field entered by the user into the GUI |
| int | [**getPlantCount**](http://docs.google.com/fishPond/View.html#getPlantCount())()            Return the value of the "plants" field entered by the user into the GUI |
| java.awt.Dimension | [**getPreferredSize**](http://docs.google.com/fishPond/View.html#getPreferredSize())()            Tells Java GUI-drawing-thread how big this component should be drawn |
| int | [**getRockCount**](http://docs.google.com/fishPond/View.html#getRockCount())()            Return the value of the "rocks" field entered by the user into the GUI |
| int | [**getRows**](http://docs.google.com/fishPond/View.html#getRows())()            Return value of rows field entered by the user into the GUI |
| int | [**getSliderPosition**](http://docs.google.com/fishPond/View.html#getSliderPosition())()            Return the position of the slider (0 - 100) |
| void | [**paint**](http://docs.google.com/fishPond/View.html#paint(java.awt.Graphics))(java.awt.Graphics g)            Called by the GUI-drawing-thread when it is time to re-draw the View |
| void | [**registerDifferentPondButtonListener**](http://docs.google.com/fishPond/View.html#registerDifferentPondButtonListener(java.awt.event.ActionListener))(java.awt.event.ActionListener actionListener)            Register an "ActionListener" with the "New Pond" button in the GUI. |
| void | [**registerRestartButtonListener**](http://docs.google.com/fishPond/View.html#registerRestartButtonListener(java.awt.event.ActionListener))(java.awt.event.ActionListener actionListener)            Register an "ActionListener" with the Restart Button in the GUI. |
| void | [**registerSliderListener**](http://docs.google.com/fishPond/View.html#registerSliderListener(javax.swing.event.ChangeListener))(javax.swing.event.ChangeListener changeListener)            Register a "ChangeListener" with the Slider in the GUI. |
| void | [**rePack**](http://docs.google.com/fishPond/View.html#rePack())()            Re-size the GUI so that everything fits snugly. |
| void | [**updateYourself**](http://docs.google.com/fishPond/View.html#updateYourself(fishPond.Model))([Model](http://docs.google.com/fishPond/Model.html) copyOfModel)            The controller calls this method to let the View know that the model has changed. |

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| **Methods inherited from class javax.swing.JPanel** |
| getAccessibleContext, getUI, getUIClassID, setUI, updateUI |

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| **Methods inherited from class javax.swing.JComponent** |
| addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getActionForKeyStroke, getActionMap, getAlignmentX, getAlignmentY, getAncestorListeners, getAutoscrolls, getBaseline, getBaselineResizeBehavior, getBorder, getBounds, getClientProperty, getComponentPopupMenu, getConditionForKeyStroke, getDebugGraphicsOptions, getDefaultLocale, getFontMetrics, getGraphics, getHeight, getInheritsPopupMenu, getInputMap, getInputMap, getInputVerifier, getInsets, getInsets, getListeners, getLocation, getMaximumSize, getMinimumSize, getNextFocusableComponent, getPopupLocation, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidateRoot, paintImmediately, paintImmediately, print, printAll, putClientProperty, registerKeyboardAction, registerKeyboardAction, removeAncestorListener, removeNotify, removeVetoableChangeListener, repaint, repaint, requestDefaultFocus, requestFocus, requestFocus, requestFocusInWindow, resetKeyboardActions, reshape, revalidate, scrollRectToVisible, setActionMap, setAlignmentX, setAlignmentY, setAutoscrolls, setBackground, setBorder, setComponentPopupMenu, setDebugGraphicsOptions, setDefaultLocale, setDoubleBuffered, setEnabled, setFocusTraversalKeys, setFont, setForeground, setInheritsPopupMenu, setInputMap, setInputVerifier, setMaximumSize, setMinimumSize, setNextFocusableComponent, setOpaque, setPreferredSize, setRequestFocusEnabled, setToolTipText, setTransferHandler, setVerifyInputWhenFocusTarget, setVisible, unregisterKeyboardAction, update |

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| **Methods inherited from class java.awt.Container** |
| add, add, add, add, add, addContainerListener, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getLayout, getMousePosition, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paintComponents, preferredSize, printComponents, remove, remove, removeAll, removeContainerListener, setComponentZOrder, setFocusCycleRoot, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setLayout, transferFocusBackward, transferFocusDownCycle, validate |

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

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| **Methods inherited from class java.lang.Object** |
| equals, getClass, hashCode, notify, notifyAll, wait, wait, wait |

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| **Constructor Detail** |

### View

public **View**([Model](http://docs.google.com/fishPond/Model.html) model,  
  
 int rows,  
  
 int cols,  
  
 int rockCount,  
  
 int fishCount,  
  
 int plantCount)

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| **Method Detail** |

### registerSliderListener

public void **registerSliderListener**(javax.swing.event.ChangeListener changeListener)

Register a "ChangeListener" with the Slider in the GUI.

### registerRestartButtonListener

public void **registerRestartButtonListener**(java.awt.event.ActionListener actionListener)

Register an "ActionListener" with the Restart Button in the GUI.

### registerDifferentPondButtonListener

public void **registerDifferentPondButtonListener**(java.awt.event.ActionListener actionListener)

Register an "ActionListener" with the "New Pond" button in the GUI.

### getSliderPosition

public int **getSliderPosition**()

Return the position of the slider (0 - 100)

### getRows

public int **getRows**()

Return value of rows field entered by the user into the GUI

### getCols

public int **getCols**()

Return value of the cols field entered by the user into the GUI

### getRockCount

public int **getRockCount**()

Return the value of the "rocks" field entered by the user into the GUI

### getFishCount

public int **getFishCount**()

Return the value of the "fish" field entered by the user into the GUI

### getPlantCount

public int **getPlantCount**()

Return the value of the "plants" field entered by the user into the GUI

### getPreferredSize

public java.awt.Dimension **getPreferredSize**()

Tells Java GUI-drawing-thread how big this component should be drawn

**Overrides:**getPreferredSize in class javax.swing.JComponent

### updateYourself

public void **updateYourself**([Model](http://docs.google.com/fishPond/Model.html) copyOfModel)

The controller calls this method to let the View know that the model has changed. The parameter will be a COPY of the model to be drawn by the GUI-drawing-thread whenever it feels like it.

### paint

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

Called by the GUI-drawing-thread when it is time to re-draw the View

**Overrides:**paint in class javax.swing.JComponent

### rePack

public void **rePack**()

Re-size the GUI so that everything fits snugly.

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| |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/View.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | |  |
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[Web Accessibility](https://www.umd.edu/web-accessibility)