

Symbolic Nuclear Analysis Package (SNAP)

Common Application Framework for
Engineering Analysis (CAFEAN)
Preprocessor Plug-in Application
Programming Interface

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Symbolic Nuclear Analysis Package (SNAP)

Common Application Framework for Engineering Analysis (CAFEAN) Preprocessor Plug-in Application Programming Interface

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ABSTRACT

Many of the analytical codes developed by the Office of Nuclear Regulatory Research (RES) rely on a text based input file to specify model parameters and computational options. The formats of the text based input files are often quite complex and usually require careful study before a user can create an input model that functions correctly. The Symbolic Nuclear Analysis Package (SNAP) is primarily a graphical user interface that was developed to simplify the analyst's task of creating input files for the analytic codes as well as helping to visualize code results. SNAP is a Java based computer application that runs on the most popular computer platforms including Windows XP and Vista, LINUX based systems, and Mac OS X. The code architecture used in SNAP is "plug-in" based and very flexible. Third party developers can implement their own user interfaces under SNAP without breaking the interfaces developed by other developers. The application programming interface (API) that is described in this document provides a short tutorial and some guidelines for developing a custom plug-in that works in the SNAP framework. This document also includes the actual API method and data-structure definitions needed to create such a custom interface.

FOREWORD

This document is intended for code developers interested in creating applications or “plug-ins” that work with the Symbolic Nuclear Analysis Package (SNAP).

The code architecture used in the Symbolic Nuclear Analysis Package (SNAP) is plug-in based and very flexible. Third party developers can implement their own user interfaces under SNAP by carefully following the application programming interface (API) that is described in this document. The “Main Report” of this document provides a simple tutorial and some guidelines for developing a custom plug-in that works with SNAP. The SNAP application and its plug-ins are based on the Common Application Framework for Engineering Analysis (CAFEAN) Java-based API. Appendix A of this document is automatically generated directly from the CAFEAN Java code by the JavaDoc application.

The CAFEAN API is still in development and, therefore, the information in this document is likely to change relatively frequently, perhaps as often as once per year. Code developers should make sure that they have the most up-to-date version of this document when using the CAFEAN API.

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PREFACE

This document is divided into several volumes. The first volume contains the “Main Report”; a general overview of the application programming interface (API) used by the Symbolic Nuclear Analysis Package (SNAP) and providing simple guidance on how to use the SNAP API. The remaining volumes of this document contain “Appendix A,” the actual API specification and documentation. Except for its front matter, Appendix A is the direct output from the standard JAVA documentation program known as “JavaDoc”. Appendix A is split into multiple volumes due to its large size.

The Main Report as well as Appendix A was written primarily by Ken Jones, John Rothe, and William Dunsford, of Applied Programming Technology, Inc.. (APT, Inc). APT, Inc, is the primary developer of the Symbolic Nuclear Analysis Package (SNAP) and associated Common Application Framework for Engineering Analysis (CAFEAN).

com.cafean.client.ui

Class DrawnView

```
java.lang.Object
|
|--java.awt.Component
|   |--java.awt.Container
|       |--javax.swing.JComponent
|           |--javax.swing.JPanel
|               |--com.cafean.client.ui.DockablePanel
|                   |--com.cafean.client.ui.DrawnView
```

All Implemented Interfaces:

MouseListener, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible, ModelElement

```
public class DrawnView
extends DockablePanel
implements ModelElement, javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler,
java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, MenuListener
```

The DrawnView is the panel that displays AbstractComponents and their connections. Each DrawnView contains a ZoomablePanel that allows the user to zoom into or out of a view. Each DrawnView also corresponds to a ViewComponent inside the AbstractModel. The ViewComponent stores all the important information for creating a DrawnView while loading and saving a model. The DrawnView is a MenuListener on the edit menu. The Tools menu of a DrawnView is filled by both the MECodePlugin of its AbstractModel and by the Feature plugins in the ModelEditor.

Field Summary

public static final	<u>NODE_FLAVOR</u>
---------------------	--------------------

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Constructor Summary

public	<u>DrawnView</u> (<u>AbstractModel</u> model, <u>ViewComponent</u> viewComp) Creates a new instance of DrawnView.
--------	---

Method Summary

void	<u>addAnnotation</u> (<u>Annotation</u> comp) This adds an <u>Annotation</u> to the center of the <u>panel</u> 's viewport.
void	<u>addAnnotation</u> (<u>Annotation</u> comp, boolean tofront) This adds an <u>Annotation</u> to the center of the <u>panel</u> 's viewport.
void	<u>addComponents</u> (<u>Iterator</u> itr) Adds a list of components by an iterator on a list of <u>components</u> .
void	<u>addComponents</u> (<u>Iterator</u> itr, boolean select) Adds a list of components by an iterator on a list of <u>components</u> .
<u>DrawnComponent</u>	<u>addDrawnComponent</u> (<u>AbstractComponent</u> comp, boolean select) This adds a specific <u>AbstractComponent</u> to a drawn view.
void	<u>addDrawnComponent</u> (<u>DrawnComponent</u> comp, boolean select) This adds a specific <u>DrawnComponent</u> to this DrawnView.
void	<u>addDrawnComponent</u> (<u>DrawnComponent</u> comp, boolean select, boolean withCons) This adds a specific <u>DrawnComponent</u> to this DrawnView.
void	<u>addMenuItem</u> (<u>JMenuItem</u> item) This allows <u>plugins</u> to add menu items to the "Tools" menu for this DrawnView.
void	<u>addOverlapPanel</u> (<u>OverlapPanel</u> panel) Adds an overlapping internal panel to this view for use as a user input sub-dialog.
void	<u>addToolBar</u> (<u>JToolBar</u> toolbar, String prefix, boolean visible) Adds the given toolbar to this DrawnView.
void	<u>clearSelection</u> () Clears the current selection from the zoom panel's bean box
int	<u>compareTo</u> (<u>DockablePanel</u> panel) Compares this panel with the specified panel for order.
Vector	<u>getAnnotations</u> () Gets all of the <u>annotations</u> in the <u>panel</u> for this Drawn View.
<u>BeanBox</u>	<u>getBeanBox</u> () An accessor for the <u>BeanBox</u> from the <u>ZoomablePanel</u>
java.awt.Dimension	<u>getCanvasSize</u> () Getter for the size of the <u>ZoomablePanel</u>
Vector	<u>getComponents</u> (boolean includeConnections) Returns all of the <u>components</u> stored inside the <u>beanbox</u> in an array.
<u>DrawnComponent</u>	<u>getDrawnComponentAt</u> (int i) Returns the DrawnComponent at a given index inside the bean Box.

int	<u>getDrawnComponentCount()</u> Returns the number of DrawnComponents that exist inside this drawn view.
<u>DrawnComponent[]</u>	<u>getDrawnComponents()</u> Returns all of the <u>components</u> stored inside the <u>beanbox</u> in an array.
JMenuBar	<u>getMenubar()</u>
<u>AbstractModel</u>	<u>getModel()</u> Gets the <u>AbstractModel</u> for this DrawnView.
<u>DrawnComponent[]</u>	<u>getSelectedComponents()</u> Returns all of the <u>components</u> that are selected inside the <u>beanbox</u> in an array.
static int	<u>getTemplateCC(java.io.File file)</u>
String	<u>getTitle()</u> Returns the title of the dialog containing this view or the name of the ViewComponent.
<u>Toolbox</u>	<u>getToolbox()</u> Retrieves this DrawnView's Toolbox.
<u>ViewComponent</u>	<u>getViewComponent()</u> Gets the <u>ViewComponent</u> for this DrawnView.
static byte[]	<u>getViewImage(java.io.File file)</u>
java.awt.Point	<u>getViewPosition()</u> Returns the upper left coordinate of the viewport in the main scroll pane this should make sure that the view stores this location for a local save.
java.awt.Dimension	<u>getViewSize()</u> Returns the dimensions of the viewport in the main scroll pane.
<u>ZoomablePanel</u>	<u>getZoomablePanel()</u> An accessor for the <u>ZoomablePanel</u>
double	<u>getZoomScale()</u> Getter for the <u>scale</u> of the <u>ZoomablePanel</u>
boolean	<u>importTemplate(java.io.File file)</u>
boolean	<u>importTemplate(java.io.File file, int existingCount)</u>
void	<u>layoutView()</u> This organizes all of the components within the view
void	<u>menuCanceled(MenuEvent e)</u> This implements the functionality of the javax.swing.event.MenuListener interface.
void	<u>menuDeselected(MenuEvent e)</u> This implements the functionality of the javax.swing.event.MenuListener interface.

void	<u>menuSelected</u> (MenuEvent e) This implements the functionality of the javax.swing.event.MenuListener interface.
void	<u>panelRemoved</u> () Called to notify this view that it has been removed.
void	<u>panelSelected</u> () Called to notify this view that it has been selected.
boolean	<u>printView</u> (boolean usePerspective) Prints this view
boolean	<u>printView</u> (org.apache.batik.transcoder.print.PrintTranscoder transcoder, boolean usePerspective) Prints this view into the given transcoder.
void	<u>resetZoomMenu</u> () Reset the zoom menu to ensure the current zoom factor is selected or none if the zoom is between selections.
void	<u>setCanvasSize</u> (java.awt.Dimension size) Setter for the size of the <u>ZoomablePanel</u>
void	<u>setLocked</u> (boolean locked) Locks this View (and updates the ViewComponent).
void	<u>setViewPosition</u> (java.awt.Point p) Sets the upper left coordinate of the viewport in the main scroll pane this should make sure that the view shows exactly what was shown when last open.
void	<u>setVisible</u> (boolean b)
void	<u>setZoomScale</u> (double scale) Setter for the <u>scale</u> of the <u>ZoomablePanel</u>
java.io.File	<u>snapshotView</u> () Creates an image snapshot of this view for use in the DrawnViewComponent.
void	<u>updateToolbars</u> () Enables and/or disables toolbar buttons based on such things as the current BeanBox selection.

Methods inherited from class com.cafean.client.ui.DockablePanel

compareTo, getModel, getTitle, panelRemoved, panelSelected, setTitle, toFront

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener,
 addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener,
 addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener,
 addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds,
 checkImage, checkImage, contains, contains, createImage, createImage,
 createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent,
 doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange,
 firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
 getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline,
 getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt,
 getComponentAt, getComponentListeners, getComponentOrientation, getCursor,
 getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys,
 getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics,
 getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners,
 getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests,
 getKeyListeners, getListeners, getLocale, getLocation, getLocation, getLocationOnScreen,
 getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners,
 getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize,
 getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit,
 getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate,
 inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered,
 isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet,
 isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque,
 isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list,
 list, list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag,
 mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent,
 preferredSize, prepareImage, prepareImage, print, printAll, remove,
 removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,
 removeHierarchyListener, removeInputMethodListener, removeKeyListener,
 removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify,
 removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint,
 repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground,
 setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled,
 setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont,
 setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize,
 setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show,
 size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update,
 validate

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

getTransferHandler

Methods inherited from interface `javax.accessibility.Accessible`

getAccessibleContext

Methods inherited from interface `com.cafean.client.analysis.ModelElement`

getModel

Methods inherited from interface `javax.swing.event.MenuListener`

menuCanceled, menuDeselected, menuSelected

Fields

NODE_FLAVOR

```
public static final java.awt.datatransfer.DataFlavor NODE_FLAVOR
```

Constructors

DrawnView

```
public DrawnView(AbstractModel model,  
                 ViewComponent viewComp)
```

Creates a new instance of DrawnView. This should only be done by the ViewComponent that is opening.

Methods

getMenubar

```
public JMenuBar getMenubar()
```

getTemplateCC

```
public static int getTemplateCC(java.io.File file)
```

getViewImage

```
public static byte[] getViewImage(java.io.File file)
```

importTemplate

```
public boolean importTemplate(java.io.File file)
```

importTemplate

```
public boolean importTemplate(java.io.File file,  
    int existingCount)
```

addOverlapPanel

```
public void addOverlapPanel(OverlapPanel panel)
```

Adds an overlapping internal panel to this view for use as a user input sub-dialog.

addToolBar

```
public void addToolBar(JToolBar toolbar,  
    String prefix,  
    boolean visible)
```

Adds the given toolbar to this DrawnView. The toolbar's visibility will default to the given visibility and controlled by a menu item and user preference, both named by the toolbar's current name.

Parameters:

- toolbar - the JToolBar instance to add to this view's toolbar panel. Buttons may be added before or after this method is called.
- prefix - a String containing the prefix to the ModelEditor preference to use when showing or hiding the toolbar
- visible - if true, the toolbar will be visible by default

setLocked

```
public void setLocked(boolean locked)
```

Locks this View (and updates the ViewComponent).

getToolbox

```
public Toolbox getToolbox()
```

Retrieves this DrawnView's Toolbox.

Returns:

the Toolbox for this DrawnView.

getViewComponent

```
public ViewComponent getViewComponent()
```

Gets the ViewComponent for this DrawnView.

Returns:
the `ViewComponent`.

getModel

```
public AbstractModel getModel()
```

Gets the AbstractModel for this `DrawnView`.

Returns:
the `AbstractModel`.

addComponents

```
public void addComponents(Iterator itr)
```

Adds a list of components by an iterator on a list of components. These components are not selected after they are added to the view. Any connection between components in the view is rendered with a DrawnConnection.

Parameters:
itr - the Iterator on a list of components.

addComponents

```
public void addComponents(Iterator itr,  
    boolean select)
```

Adds a list of components by an iterator on a list of components. Any connection between components in the view is rendered with a DrawnConnection.

Parameters:
itr - the Iterator on a list of components.
select - true if the components should be added to the selection after they are added.

addDrawnComponent

```
public void addDrawnComponent(DrawnComponent comp,  
    boolean select,  
    boolean withCons)
```

This adds a specific DrawnComponent to this `DrawnView`. The `DrawnComponent`'s position will not be set.

Parameters:
comp - the `DrawnComponent` to be added.
select - true if the component should be added to the selection after it is added.
withCons - if true, DrawnConnection will be created for each connection in the component whos opposite side exists in the view.

addDrawnComponent

```
public void addDrawnComponent(DrawnComponent comp,  
    boolean select)
```

This adds a specific DrawnComponent to this `DrawnView`. The `DrawnComponent`'s position will not be set. DrawnConnection will be created for each connection in the component whos opposite side exists in the view.

Parameters:

`comp` - the `DrawnComponent` to be added.
`select` - true if the component should be added to the selection after it is added.

addDrawnComponent

```
public DrawnComponent addDrawnComponent (AbstractComponent comp,  
                                           boolean select)
```

This adds a specific `AbstractComponent` to a drawn view. A new `DrawnComponent` is created from the component, and is inserted into the center of the viewport. If the component has a connection to or from any components already in the view are rendered with a `@link DrawnConnection`.

Parameters:

`comp` - the `AbstractComponent` to be added.
`select` - true if the component should be added to the selection after it is added.

addAnnotation

```
public void addAnnotation (Annotation comp)
```

This adds an `Annotation` to the center of the `panel`'s viewport. After the `Annotation` is added, it resets its bounds.

Parameters:

`comp` - the `Annotation` being added to the view.

addAnnotation

```
public void addAnnotation (Annotation comp,  
                             boolean tofront)
```

This adds an `Annotation` to the center of the `panel`'s viewport. After the `Annotation` is added, it resets its bounds.

Parameters:

`comp` - the `Annotation` being added to the view.

layoutView

```
public void layoutView ()
```

This organizes all of the components within the view

getDrawnComponentCount

```
public int getDrawnComponentCount ()
```

Returns the number of `DrawnComponents` that exist inside this drawn view.

Returns:

The number of components inside the beanbox

getDrawnComponentAt

```
public DrawnComponent getDrawnComponentAt(int i)
```

Returns the DrawnComponent at a given index inside the bean Box.

Parameters:

i - The index of the drawn component.

Returns:

the DrawnComponent at i.

getDrawnComponents

```
public DrawnComponent[] getDrawnComponents()
```

Returns all of the components stored inside the beanbox in an array. This includes connections but not annotations.

Returns:

the DrawnComponent[] of components in the beanbox.

getComponents

```
public Vector getComponents(boolean includeConnections)
```

Returns all of the components stored inside the beanbox in an array. This may include connections but not annotations.

Parameters:

includeConnections - if true DrawnConnections will be included in the selection.

Returns:

the Vector containing the components in the beanbox.

getSelectedComponents

```
public DrawnComponent[] getSelectedComponents()
```

Returns all of the components that are selected inside the beanbox in an array. This includes connections but not annotations.

Returns:

the DrawnComponent[] of selected components in the beanbox.

setVisible

```
public void setVisible(boolean b)
```

snapshotView

```
public java.io.File snapshotView()
```

Creates an image snapshot of this view for use in the DrawnViewComponent.

Returns:

a java.io.File that refers to the temporary file that the snapshot is stored in.

printView

```
public boolean printView(boolean usePerspective)
```

Prints this view

Returns:

true if successful

printView

```
public boolean printView(org.apache.batik.transcoder.print.PrintTranscoder transcoder,  
    boolean usePerspective)
```

Prints this view into the given transcoder.

Parameters:

transcoder - the GPrintTranscoderto print into.

Returns:

true if successful

resetZoomMenu

```
public void resetZoomMenu()
```

Reset the zoom menu to ensure the current zoom factor is selected or none if the zoom is between selections.

getCanvasSize

```
public java.awt.Dimension getCanvassize()
```

Getter for the size of the ZoomablePanel

Returns:

the Dimension containing the size of the ZoomablePanel's canvas.

setCanvasSize

```
public void setCanvasSize(java.awt.Dimension size)
```

Setter for the size of the ZoomablePanel

Parameters:

size - the Dimension containing the new size of the ZoomablePanel's canvas.

See Also:

ZoomablePanel.setPanelSize(Dimension)

getZoomScale

```
public double getZoomScale()
```

Getter for the scale of the ZoomablePanel

Returns:

the double scale factor of the ZoomablePanel.

See Also:

ZoomablePanel.getScale()

setZoomScale

```
public void setZoomScale(double scale)
```

Setter for the scale of the ZoomablePanel

Parameters:

scale - The new scale of the ZoomablePanel

getViewPosition

```
public java.awt.Point getViewPosition()
```

Returns the upper left coordinate of the viewport in the main scroll pane this should make sure that the view stores this location for a local save.

Returns:

the view position of the main scroll pane's view port.

getViewSize

```
public java.awt.Dimension getViewSize()
```

Returns the dimensions of the viewport in the main scroll pane. This is used to determine if a component is inside the current view.

setViewPosition

```
public void setViewPosition(java.awt.Point p)
```

Sets the upper left coordinate of the viewport in the main scroll pane this should make sure that the view shows exactly what was shown when last open.

Parameters:

p - The Point setting the view position of the main scroll pane's viewport.

clearSelection

```
public void clearSelection()
```

Clears the current selection from the zoom panel's bean box

updateToolbars

```
public void updateToolbars()
```

Enables and/or disables toolbar buttons based on such things as the current BeanBox selection.

menuSelected

```
public void menuSelected(MenuEvent e)
```

This implements the functionality of the `javax.swing.event.MenuListener` interface. Invoked when the edit menu is selected. This allows the BeanBox to determine if the various events can occur with the given selection.

Parameters:

e - the MenuEvent object

See Also:

BeanBox.canCopy()

BeanBox.canPaste()

BeanBox.canDelete()

ComponentPaster.canPasteSpecial(java.lang.Object)

menuDeselected

```
public void menuDeselected(MenuEvent e)
```

This implements the functionality of the `javax.swing.event.MenuListener` interface. Invoked when the menu is deselected.

Parameters:

e - the MenuEvent object { @inheritDoc }

menuCanceled

```
public void menuCanceled(MenuEvent e)
```

This implements the functionality of the `javax.swing.event.MenuListener` interface. Invoked when the menu is cancelled.

Parameters:

e - the MenuEvent object { @inheritDoc }

addMenuItem

```
public void addMenuItem(JMenuItem item)
```

This allows plugins to add menu items to the "Tools" menu for this DrawnView. The item is appended to the bottom of the "Tools" menu.

Parameters:

item - the JMenuItem being added to the view.

getAnnotations

```
public Vector getAnnotations()
```

Gets all of the annotations in the panel for this Drawn View.

Returns:

the Vector containing all of the annotations in this view.

See Also:

BeanBox.getAnnotations()

getBeanBox

```
public BeanBox getBeanBox()
```

An accessor for the BeanBox from the ZoomablePanel

Returns:

the BeanBox

getZoomablePanel

```
public ZoomablePanel getZoomablePanel()
```

An accessor for the ZoomablePanel

Returns:

the ZoomablePanel

panelSelected

```
public void panelSelected()
```

Called to notify this view that it has been selected.

This implementation calls on its BeanBox to update its selection and thus the main property view selection.

See Also:

updateSelection

panelRemoved

```
public void panelRemoved()
```

Called to notify this view that it has been removed.

This implementation calls on its BeanBox to update its selection and thus the main property view selection.

See Also:

updateSelection

getTitle

```
public String getTitle()
```

Returns the title of the dialog containing this view or the name of the ViewComponent.

compareTo

```
public int compareTo(DockablePanel panel)
```

Compares this panel with the specified panel for order. Returns a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified panel.

This method is used by the DockedPane to insert this panel into the appropriate place in the displayed panels.

Parameters:

panel - the DockablePanel to be compared.

Returns:

a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

com.cafean.client.ui

Class DrawnViewComponent

```

java.lang.Object
|
|--java.awt.Component
|   |--java.awt.Container
|       |--javax.swing.JComponent
|           |--com.cafean.client.ui.DrawnComponent
|               |--com.cafean.client.ui.DrawnViewComponent

```

All Implemented Interfaces:

Groupable, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, AnimationBeanGenerator, ComponentListener, StateEditable, java.awt.event.MouseMotionListener, java.awt.event.MouseListener, Cloneable

public class **DrawnViewComponent**

extends DrawnComponent

implements Cloneable, java.awt.event.MouseListener, java.awt.event.MouseMotionListener, StateEditable, ComponentListener, AnimationBeanGenerator, java.io.Serializable, HasGetTransferHandler, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, Groupable

A DrawnComponent extension used to render one ViewComponent inside another View. This includes embedded connections and an image.

See Also:

com.cafean.client.ui.DrawnEmbeddedConnection, ViewComponent

Field Summary

public static final	<u>ID</u>
	string id used to identify the template type for a polygon bean Value: DrawnViewComponent

Fields inherited from class com.cafean.client.ui.DrawnComponent:

BOTTOM, CENTER, CENTER_H, CENTER_V, CIRCLE, CROSSHATCH, DIAMOND, DOWN, LEFT, max_positions, NONE, PIXELS_P_METER, RIGHT, SEGMENT_BOTH, SEGMENT_INLET, SEGMENT_NONE, SEGMENT_OUTLET, SEGMENT_SPECIAL, SQUARE, TOP, TRIANGLE, UP

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Fields inherited from interface `javax.swing.undo.StateEditable`

RCSID

Constructor Summary

public	<u><code>DrawViewComponent</code></u> (<u><code>AbstractComponent</code></u> c) Creates a new instance of <code>DrawnComponentView</code>
--------	---

Method Summary

<u><code>TemplateEntry</code></u>	<u><code>createTemplateEntry</code></u> () Creates a new <code>TemplateEntry</code> for this <code>DrawnComponent</code> that stores all of the location and state data for this <code>DrawnComponent</code> .
-----------------------------------	---

void	<u><code>draw</code></u> (<u><code>java.awt.Graphics2D</code></u> g, boolean selected) Draw a simple X'd box if there is no image.
------	--

<u><code>DrawnEmbeddedConnection</code></u>	<u><code>findEmbedded</code></u> (<u><code>DrawnEmbeddedConnection</code></u> [] array, int comp, <u><code>ConnectionData</code></u> data)
---	---

<u><code>ConnectingPt</code></u>	<u><code>getConnectingPt</code></u> (int compIdent, <u><code>ConnectionData</code></u> data)
----------------------------------	--

Vector	<u><code>getCustomPopupItems</code></u> ()
--------	--

<u><code>java.awt.Dimension</code></u>	<u><code>getMinimumSize</code></u> ()
--	---------------------------------------

<u><code>DrawnSubComponent</code></u>	<u><code>getSubComponentAt</code></u> (int x, int y)
---------------------------------------	--

boolean	<u><code>hasSubComponents</code></u> ()
---------	---

void	<u><code>InitDrawing</code></u> () Creates a draw view component and puts it in the drawing vectors.
------	---

boolean	<u><code>isRepresenting</code></u> (int compid)
---------	---

void	<u><code>loadDrawnComponent</code></u> (<u><code>com.appt.xdr.PibBlock</code></u> block)
------	---

void	<u><code>mouseClicked</code></u> (<u><code>java.awt.event.MouseEvent</code></u> e)
------	---

void	<u><code>mouseMoved</code></u> (<u><code>java.awt.event.MouseEvent</code></u> e)
------	---

void	<u><code>readTemplateEntry</code></u> (<u><code>TemplateEntry</code></u> entry) Sets the data on this <code>DrawnComponent</code> from a <code>TemplateEntry</code> read in from a view template file.
------	--

void	<u>restoreState</u> (Hashtable state) Restore the state of the bean from an earlier edit.
void	<u>setBounds</u> (java.awt.Rectangle r)
com.appt.xdr.PibBlock	<u>store</u> (int viewNum)
void	<u>storeState</u> (Hashtable state) Store the state of the bean to permit undo.

Methods inherited from class com.cafean.client.ui.DrawnComponent

addNotify, canBeResized, Clear, clearLinks, clone, componentChanged, componentConnected, componentDeleted, componentDisconnected, connectLinks, contains, contains, contains, createBorderRegion, createCenterShape, createConnectionPrototypes, createConnectionPt, createDisplayBeans, createPopupMenu, createTemplateEntry, disconnectAllMyLinks, draw, drawLabelStrings, flip, forTransformPoint, getBeanBox, getClockwiseFace, getComponent, getComponentID, getConnectingLocation, getConnectingPt, getConnectingPt, getConnectingPtAt, getConnectSize, getCounterFace, getCrossflowIndex, getCustomPopupMenuActions, getCustomPopupMenuItems, getCustomPopupMenuItems, getDefaultDrawLength, getDefaultDrawWidth, getDrawAngle, getDrawingFace, getDrawingObject, getFaceByAngle, getFillColor, getGlassPane, getGroupID, getHandleSize, getIndicatorColor, getLength, getLenScaleFactor, getMaxHeight, getMaxWidth, getMinWidth, getMirrorImageShape, getNormalObj, getNumberConnections, getOppositeFace, getOrientation, getOrientationMenu, getOrientationName, getParent, getPreferredSize, getSelectedConnector, getSelectedDropZone, getSubComponentAt, getToolTipText, getToolTipText, getWidthScaleFactor, getX_Pos, getXDistBetweenCPs, getXDistBetweenXflowCPs, getY_Pos, getZoomablePanel, hasSubComponents, InitDrawing, isAutoScale, isDrawBadges, isGroupIDValid, isObjectInsideBounds, isPlenumShaped, isPosnSet, isScalable, isSegmentSet, isSelected, isValveShaped, loadDrawnComponent, mouseClicked, mouseDragged, mouseEntered, mouseExited, mouseMoved, mousePressed, mouseReleased, moveRel, moveTo, paint, paintComponent, print, readTemplateEntry, removeNotify, repositionLinks, repositionLinks, resetPosition, restoreState, revTransformPoint, rotateTo, rotateTo, scaleIt, setAutoScale, setBackupComponent, setBounds, setComponent, setDrawAngle, setDrawBadges, setDrawHeight, setDrawWidth, setEqualTo, setGroupID, setGroupIDValid, setLabelString, setLenScaleFactor, setOrientation, setOrientationByAngle, setOrientationConstrained, setParent, setPixelsPerMeter, setSelected, setSizeTo, setWidthScaleFactor, setX_Pos, setY_Pos, showConnections, store, storeState, toString, translateConnectionToScreen, translatePointToScreen

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener,
 addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener,
 addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener,
 addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds,
 checkImage, checkImage, contains, contains, createImage, createImage,
 createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent,
 doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange,
 firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
 getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline,
 getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt,
 getComponentAt, getComponentListeners, getComponentOrientation, getCursor,
 getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys,
 getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics,
 getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners,
 getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests,
 getKeyListeners, getListeners, getLocale, getLocation, getLocation, getLocationOnScreen,
 getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners,
 getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize,
 getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit,
 getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate,
 inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered,
 isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet,
 isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque,
 isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list,
 list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag,
 mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent,
 preferredSize, prepareImage, prepareImage, print, printAll, remove,
 removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,
 removeHierarchyListener, removeInputMethodListener, removeKeyListener,
 removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify,
 removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint,
 repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground,
 setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled,
 setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont,
 setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize,
 setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show,
 size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update,
 validate

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

getTransferHandler

Methods inherited from interface `java.awt.event.MouseListener`

mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased

Methods inherited from interface `java.awt.event.MouseMotionListener`

mouseDragged, mouseMoved

Methods inherited from interface `javax.swing.undo.StateEditable`

restoreState, storeState

Methods inherited from interface `com.cafean.client.analysis.ComponentListener`

componentChanged, componentConnected, componentDeleted, componentDisconnected

Methods inherited from interface `com.cafean.client.ui.AnimationBeanGenerator`

createDisplayBeans

Methods inherited from interface `com.cafean.client.ui.util.Groupable`

getGroupID, isGroupIDValid, setGroupID, setGroupIDValid

Fields

ID

```
public static final java.lang.String ID
```

string id used to identify the template type for a polygon bean
Constant value: **DrawnViewComponent**

Constructors

DrawnViewComponent

```
public DrawnViewComponent(AbstractComponent c)
```

Creates a new instance of DrawnComponentView

Methods

store

```
public com.apt.xdr.PibBlock store(int viewNum)
```

This function returns a PibBlock for a drawn component.

loadDrawnComponent

```
public void loadDrawnComponent (com.appt.xdr.PibBlock block).
```

This function loads a DrawnComponent from a DrawnComponentRec.

InitDrawing

```
public void InitDrawing()
```

Creates a draw view component and puts it in the drawing vectors.

isRepresenting

```
public boolean isRepresenting(int compid)
```

getConnectingPt

```
public ConnectingPt getConnectingPt(int compIdent,  
    ConnectionData data)
```

findEmbedded

```
public DrawnEmbeddedConnection findEmbedded(DrawnEmbeddedConnection[] array,  
    int comp,  
    ConnectionData data)
```

hasSubComponents

```
public boolean hasSubComponents()
```

Returns true if this DrawnComponent has DrawnSubComponents contained within it

getSubComponentAt

```
public DrawnSubComponent getSubComponentAt(int x,  
    int y)
```

Returns the sub-component at the given coordinates, or null if no sub-component exists at that location.

getCustomPopupItems

```
public Vector getCustomPopupItems()
```

Returns the custom popup items of this DrawnComponent's target component

draw

```
public void draw(java.awt.Graphics2D g,  
                boolean selected)
```

Draw a simple X'd box if there is no image.

setBounds

```
public void setBounds(java.awt.Rectangle r)
```

getMinimumSize

```
public java.awt.Dimension getMinimumSize()
```

mouseClicked

```
public void mouseClicked(java.awt.event.MouseEvent e)
```

mouseMoved

```
public void mouseMoved(java.awt.event.MouseEvent e)
```

storeState

```
public void storeState(Hashtable state)
```

Store the state of the bean to permit undo.

Parameters:

state - A hash table containing modified parameters.

restoreState

```
public void restoreState(Hashtable state)
```

Restore the state of the bean from an earlier edit.

Parameters:

state - A hash table containing modified parameters.

createTemplateEntry

```
public TemplateEntry createTemplateEntry()
```

Creates a new `TemplateEntry` for this `DrawnComponent` that stores all of the location and state data for this `DrawnComponent`. Any `DrawnComponent` that has unique data associated with it should store that data in an extension of `TemplateEntry` and overwrite this method.

readTemplateEntry

```
public void readTemplateEntry(TemplateEntry entry)
```

Sets the data on this `DrawnComponent` from a `TemplateEntry` read in from a view template file. Any `DrawnComponent` that has unique data associated with it should read that data in, assuming a `TemplateEntry`.

com.cafean.client.ui Interface FullScreenDrawing

All Known Implementing Classes:
[LineAnnotation](#)

public interface **FullScreenDrawing**
extends

An interface describing a visual DrawnComponent or Annotation extension who's size is always that of the BeanBox that contains it.
See Also:

[DrawnConnection](#), [LineAnnotation](#)

Method Summary

java.awt.Rectangle	getUsedBounds() Retrieves the bounds actually used by this FullScreenDrawing.
void	translate(int dx, int dy) Translates this drawing by the given x and y deltas.

Methods

translate

```
public void translate(int dx,  
                      int dy)
```

Translates this drawing by the given x and y deltas.

getUsedBounds

```
public java.awt.Rectangle getUsedBounds()
```

Retrieves the bounds actually used by this FullScreenDrawing.

com.cafean.client.ui Class GlassPanel

```
java.lang.Object
  |-- java.awt.Component
      |-- java.awt.Container
          |-- javax.swing.JComponent
              |-- javax.swing.JPanel
                  |-- com.cafean.client.ui.GlassPanel
```

All Implemented Interfaces:

java.awt.event.MouseMotionListener, java.awt.event.MouseListener, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible

```
public class GlassPanel
```

```
extends JPanel
```

```
implements javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler,
java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, java.awt.event.MouseListener
, java.awt.event.MouseMotionListener
```

A glass panel that rests on top of the bean box in a view. This panel handles the rendering of the move, resize and rubberband selection boxes. Using a glass panel allows lines to draw without requiring the components they pass over to redraw. This greatly speeds up drawing rubberband lines and boxes. This class should only be used by DrawnViews.

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Constructor Summary

public	<u>GlassPanel()</u> The constructor for a new GlassPanel.
--------	--

Method Summary

void	<u>clearRubberBoxes()</u> Clears all of the current rubberband selection boxes.
------	--

void	<u>deleteRubberBox()</u> Erases the existing rubberband selection box.
void	<u>deleteRubberBoxes()</u> Erase the current rubberband selection boxes.
void	<u>deleteRubberLine(java.awt.Point begin, java.awt.Point end)</u> Erases an existing line between two points.
void	<u>deleteRubberLines(Vector points, java.awt.Point last)</u> Erase the current rubberband connection lines.
void	<u>drawRubberBox(java.awt.Rectangle box)</u> Draws a rubberband box on the GlassPane that corresponds to the given Rectangle coordinates and size.
void	<u>drawRubberBoxes(java.awt.Rectangle[] boxes)</u> Draws all the rubberband selection boxes.
void	<u>drawRubberLine(java.awt.Point begin, java.awt.Point end, java.awt.Point oldPoint)</u> Draws the rubberband connection line between two given points.
void	<u>drawRubberLines(Vector points, java.awt.Point last, java.awt.Point oldPoint)</u> Draw the rubberband connection lines
void	<u>forwardMouseEvent(java.awt.event.MouseEvent e)</u> Forward a mouse event to the current mouse target, setting it if necessary.
void	<u>forwardMouseEventToBeanBox(java.awt.event.MouseEvent e)</u> Forward a mouse event to the current mouse target, setting it if necessary.
<u>AbstractComponent</u>	<u>getConnectionSource()</u> Gets the AbstractComponent that started the connection.
java.awt.Dimension	<u>getMaximumSize()</u> Return the maximum size of this panel, which is one pixel larger then the <u>BeanBox</u> below it.
String	<u>getToolTipText(java.awt.event.MouseEvent event)</u> Returns the string to be used as the tooltip for event..
java.awt.Component	<u>locateComponentAt(int xpos, int ypos)</u> Locate a component at a specific position in the display.
java.awt.Component	<u>locateComponentAt(int xpos, int ypos, boolean returnChild)</u> Locate a component at a specific position in the display.
void	<u>mouseClicked(java.awt.event.MouseEvent orig_evt)</u> Proxies the given MouseEvent to the current MouseHandler
void	<u>mouseDragged(java.awt.event.MouseEvent orig_evt)</u> Proxies the given MouseEvent to the current MouseHandler
void	<u>mouseEntered(java.awt.event.MouseEvent orig_evt)</u> Proxies the given MouseEvent to the current MouseHandler

void	<u>mouseExited</u> (java.awt.event.MouseEvent orig_evt) Proxies the given MouseEvent to the current MouseHandler
void	<u>mouseMoved</u> (java.awt.event.MouseEvent orig_evt) Proxies the given MouseEvent to the current MouseHandler
void	<u>mousePressed</u> (java.awt.event.MouseEvent orig_evt) Proxies the given MouseEvent to the current MouseHandler
void	<u>mouseReleased</u> (java.awt.event.MouseEvent orig_evt) Proxies the given MouseEvent to the current MouseHandler
void	<u>paintComponent</u> (java.awt.Graphics g) Repaint the glasspane.
void	<u>removeNotify</u> () Overriden here to unregister from the tooltip manager
void	<u>repaint</u> (long tm, int x, int y, int width, int height) When repainting a region, add a buffer of 10 pixels all the way region to make sure that all connection bands repaint as well
boolean	<u>requiresTarget</u> () Determines if a target ConnectingPt is required for the current Connection.

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component


```
getTransferHandler
```

Methods inherited from interface javax.accessibility.Accessible

```
getAccessibleContext
```

Methods inherited from interface java.awt.event.MouseListener

```
mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased
```

Methods inherited from interface java.awt.event.MouseMotionListener

```
mouseDragged, mouseMoved
```

Constructors

GlassPanel

```
public GlassPanel()
```

The constructor for a new GlassPanel. This sets all of the default values on the GlassPanel.

Methods

removeNotify

```
public void removeNotify()
```

Overriden here to unregister from the tooltip manager

getToolTipText

```
public String getToolTipText(java.awt.event.MouseEvent event)
```

Returns the string to be used as the tooltip for event. If the mouse is hovering over a DrawnComponent, that DrawnComponent's name is used.

Parameters:

event - the MouseEvent generated by the ToolTipManager.

Returns:

the name of this DrawnComponent's Component.

getMaximumSize

```
public java.awt.Dimension getMaximumSize()
```

Return the maximum size of this panel, which is one pixel larger then the [BeanBox](#) below it.

Returns:

the Dimension containing the maximum size of the panel.

drawRubberLines

```
public void drawRubberLines (Vector points,  
                             java.awt.Point last,  
                             java.awt.Point oldPoint)
```

Draw the rubberband connection lines

Parameters:

points - the Vector of points for the line.
last - the Point added before the current position.
oldPoint - the previous location of the mouse, needed for removing the previous line.

deleteRubberLines

```
public void deleteRubberLines (Vector points,  
                               java.awt.Point last)
```

Erase the current rubberband connection lines.

Parameters:

points - the Vector of points in the line.
last - the last fixed anchor point.

drawRubberLine

```
public void drawRubberLine (java.awt.Point begin,  
                            java.awt.Point end,  
                            java.awt.Point oldPoint)
```

Draws the rubberband connection line between two given points. Before the new line is drawn, the line that already exists to the old point is drawn again, with the background color, erasing it.

Parameters:

begin - the Point where the line begins.
end - the Point where the line ends.
oldPoint - the previous endpoint.

deleteRubberLine

```
public void deleteRubberLine (java.awt.Point begin,  
                              java.awt.Point end)
```

Erases an existing line between two points.

Parameters:

begin - the Point where the line begins.
end - the Point where the line ends.

drawRubberBox

```
public void drawRubberBox (java.awt.Rectangle box)
```

Draws a rubberband box on the GlassPane that corresponds to the given Rectangle coordinates and size.

Parameters:

box - the Rectangle for the rubberband box.

deleteRubberBox

```
public void deleteRubberBox()
```

Erases the existing rubberband selection box.

drawRubberBoxes

```
public void drawRubberBoxes(java.awt.Rectangle[] boxes)
```

Draws all the rubberband selection boxes. This is used to draw a red selection box around all of the currently selected components.

Parameters:

boxes - the Rectangle[].

clearRubberBoxes

```
public void clearRubberBoxes()
```

Clears all of the current rubberband selection boxes. This does not actually erase the rubberbands, this just removes the reference to the previously drawn boxes.

deleteRubberBoxes

```
public void deleteRubberBoxes()
```

Erase the current rubberband selection boxes.

mousePressed

```
public void mousePressed(java.awt.event.MouseEvent orig_evt)
```

Proxies the given MouseEvent to the current MouseHandler

Parameters:

orig_evt - the MouseEvent being proxied to the MouseHandler

mouseEntered

```
public void mouseEntered(java.awt.event.MouseEvent orig_evt)
```

Proxies the given MouseEvent to the current MouseHandler

Parameters:

orig_evt - the MouseEvent being proxied to the MouseHandler

mouseMoved

```
public void mouseMoved(java.awt.event.MouseEvent orig_evt)
```

Proxies the given MouseEvent to the current MouseHandler

Parameters:

orig_evt - the MouseEvent being proxied to the MouseHandler

mouseExited

```
public void mouseExited(java.awt.event.MouseEvent orig_evt)
```

Proxies the given MouseEvent to the current MouseHandler

Parameters:

orig_evt - the MouseEvent being proxied to the MouseHandler

mouseClicked

```
public void mouseClicked(java.awt.event.MouseEvent orig_evt)
```

Proxies the given MouseEvent to the current MouseHandler

Parameters:

orig_evt - the MouseEvent being proxied to the MouseHandler

mouseReleased

```
public void mouseReleased(java.awt.event.MouseEvent orig_evt)
```

Proxies the given MouseEvent to the current MouseHandler

Parameters:

orig_evt - the MouseEvent being proxied to the MouseHandler

mouseDragged

```
public void mouseDragged(java.awt.event.MouseEvent orig_evt)
```

Proxies the given MouseEvent to the current MouseHandler

Parameters:

orig_evt - the MouseEvent being proxied to the MouseHandler

forwardMouseEvent

```
public void forwardMouseEvent(java.awt.event.MouseEvent e)
```

Forward a mouse event to the current mouse target, setting it if necessary.

Parameters:

e - The mouse event to be forwarded.

forwardMouseEventToBeanBox

```
public void forwardMouseEventToBeanBox(java.awt.event.MouseEvent e)
```

Forward a mouse event to the current mouse target, setting it if necessary.

Parameters:

e - The mouse event to be forwarded.

repaint

```
public void repaint(long tm,  
    int x,  
    int y,  
    int width,  
    int height)
```

When repainting a region, add a buffer of 10 pixels all the way region to make sure that all connection bands repaint as well

Parameters:

tm - this parameter is not used
x - the x value of the dirty region
y - the y value of the dirty region
width - the width of the dirty region
height - the height of the dirty region

See Also:

Component.isShowing()
RepaintManager.addDirtyRegion(javax.swing.JComponent, int, int, int, int)

paintComponent

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

Repaint the glasspane. Draw the selection and drag rectangles around each selected component.

Parameters:

g - the Graphics object.

locateComponentAt

```
public java.awt.Component locateComponentAt(int xpos,  
    int ypos)
```

Locate a component at a specific position in the display.

Parameters:

xpos - The x coordinate.
ypos - The y coordinate.

Returns:

The component located at the given coordinate, or null if none found.

locateComponentAt

```
public java.awt.Component locateComponentAt(int xpos,  
    int ypos,  
    boolean returnChild)
```

Locate a component at a specific position in the display.

Parameters:

xpos - The x coordinate.
ypos - The y coordinate.
returnChild - if true, this will return the child component at the give coordinates.

Returns:

The component located at the given coordinate, or null if none found.

requiresTarget

```
public boolean requiresTarget ()
```

Determines if a target ConnectingPt is required for the current Connection.

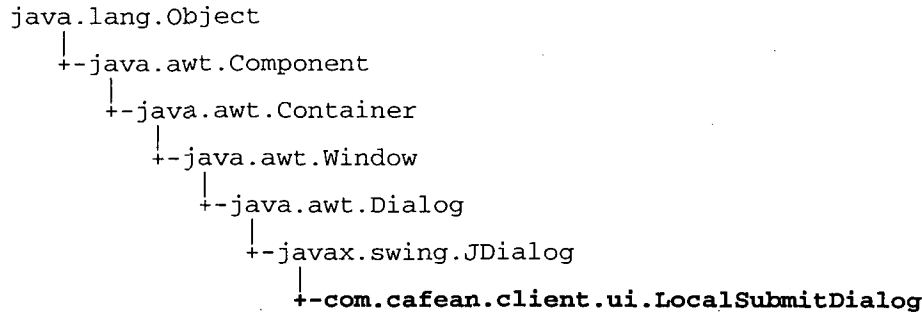
getConnectionSource

```
public AbstractComponent getConnectionSource ()
```

Gets the AbstractComponent that started the connection.

com.cafean.client.ui

Class LocalSubmitDialog



All Implemented Interfaces:

java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, javax.accessibility.Accessible, HasGetTransferHandler, RootPaneContainer, javax.accessibility.Accessible, WindowConstants

public class **LocalSubmitDialog**
 extends JDialog

This dialog allows the user to submit a job to a local calculation server. Since the local calculation server is not associated with a database, the user cannot input any kind of identifier for the runs.

Plugin and context specific extensions of this class should take note of updateRunOptions(RunOptions, File, File) for use in sending parameters, options or files to the the analysis code.

Fields inherited from class java.awt.Dialog

DEFAULT_MODALITY_TYPE

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Fields inherited from interface javax.swing.WindowConstants

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

Constructor Summary

public	LocalSubmitDialog(java.awt.Frame parent, org.omg.CORBA.ORB theOrb, String cType, java.io.File file) Creates a new LocalSubmitDialog for use in submitting an input deck to a Calculation Server.
--------	---

public	<code>LocalSubmitDialog(java.awt.Frame parent, org.omg.CORBA.ORB theOrb, String cType, AbstractModel theModel)</code> Creates a new LocalSubmitDialog for use in submitting an input deck and MED format model to a Calculation Server.
--------	--

Method Summary

<code>static com.cafean.CalcServer .command.AsciiFileElement</code>	<code>createAsciiFileElement(String name, java.io.File file)</code> Creates a new AsciiFileElement with the given name from the content of the given file.
<code>static com.cafean.CalcServer .command.BinaryFileElement</code>	<code>createBinaryFileElement(String name, java.io.File file)</code> Creates a new BinaryFileElement with the given from the content of the given file.
String	<code>getCalcType()</code>
JPanel	<code>getCustomPanel()</code> Retrieves the empty custom panel located just above the console check box that can be used to include custom UI objects.
String	<code>getLastJobPath()</code> Returns the folder path (on the server) of the last job submitted by this dialog.
String	<code>getLastJobUrl()</code> Returns the full URL to the last job submitted by this dialog.
int	<code>getLastSubmittedRun()</code> Returns the current DB_ID of the last job submitted by this dialog.
String	<code>getServer()</code>
void	<code>setRunOptions(com.cafean.CalcServer.command.RunOptions[] options)</code> Sets the Run Options passed to LaunchCalc when a job is submitted.
void	<code>setServer(String name)</code>
void	<code>setVisible(boolean visible)</code>
void	<code>useRestartFile(String file)</code>
void	<code>useRestartJob(String job)</code>

Methods inherited from class javax.swing.JDialog

`getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setJMenuBar, setLayeredPane, setLayout, setTransferHandler, update`

Methods inherited from class java.awt.Dialog

addNotify, getAccessibleContext, getModalityType, getTitle, hide, isModal, isResizable, isUndecorated, setModal, setModalityType, setResizable, setTitle, setUndecorated, setVisible, show, toBack

Methods inherited from class java.awt.Window

addNotify, addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getAccessibleContext, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getGraphicsConfiguration, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOwnedWindows, getOwner, getOwnerlessWindows, getToolkit, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isShowing, pack, postEvent, removeNotify, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImage, setIconImages, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setVisible, show, toBack, toFront

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds, checkImage, checkImage, contains, contains, createImage, createImage, createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent, doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline, getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt, getComponentAt, getComponentListeners, getComponentOrientation, getCursor, getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys, getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics, getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners, getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests, getKeyListeners, getListeners, getLocale, getLocation, getLocation, getLocationOnScreen, getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners, getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize, getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate, inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered, isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet, isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque, isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list, list, list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent, preferredSize, prepareImage, prepareImage, print, printAll, remove, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify, removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground, setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled, setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont, setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize, setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show, size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update, validate

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface javax.swing.RootPaneContainer

getContentPane, getGlassPane, getLayeredPane, getRootPane, setContentPane, setGlassPane, setLayeredPane

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

getTransferHandler

Constructors

LocalSubmitDialog

```
public LocalSubmitDialog(java.awt.Frame parent,  
                          org.omg.CORBA.ORB theOrb,  
                          String cType,  
                          java.io.File file)
```

Creates a new LocalSubmitDialog for use in submitting an input deck to a Calculation Server.

Parameters:

- parent - the JFrame parent used for modality.
- theOrb - the ORB (CORBA Object Request Broker) used by the application
- cType - a String containing the calculation type, must match a registered plugin's ID.
- file - the File being submitted for execution.

LocalSubmitDialog

```
public LocalSubmitDialog(java.awt.Frame parent,  
                          org.omg.CORBA.ORB theOrb,  
                          String cType,  
                          AbstractModel theModel)
```

Creates a new LocalSubmitDialog for use in submitting an input deck and MED format model to a Calculation Server.

Parameters:

- parent - the JFrame parent used for modality.
- theOrb - the ORB (CORBA Object Request Broker) used by the application
- cType - a String containing the calculation type, must match a registered plugin's ID.
- theModel - the AbstractModel being submitted for execution.

Methods

setVisible

```
public void setVisible(boolean visible)
```

getLastSubmittedRun

```
public int getLastSubmittedRun()
```

Returns the current DB_ID of the last job submitted by this dialog.

getLastJobPath

```
public String getLastJobPath()
```

Returns the folder path (on the server) of the last job submitted by this dialog.

getLastJobUrl

```
public String getLastJobUrl()
```

Returns the full URL to the last job submitted by this dialog.

getCustomPanel

```
public JPanel getCustomPanel()
```

Retrieves the empty custom panel located just above the console check box that can be used to include custom UI objects.

Parameters:

a - javax.swing.JPanel with default properties.

setRunOptions

```
public void setRunOptions(com.cafean.CalcServer.command.RunOptions[] options)
```

Sets the Run Options passed to LaunchCalc when a job is submitted.

useRestartFile

```
public void useRestartFile(String file)
```

useRestartJob

```
public void useRestartJob(String job)
```

createAsciiFileElement

```
public static com.cafean.CalcServer.command.AsciiFileElement  
createAsciiFileElement(String name,  
                        java.io.File file)
```

Creates a new AsciiFileElement with the given name from the content of the given file. If the file is large enough (16k) it will be compressed and the "compressed" property of the element set to true.

Parameters:

name - a String containing the "Key" or "Name" of the file element.
file - a File referring to the file to be read in.

Returns:

an AsciiFileElement containing the given file.

createBinaryFileElement

```
public static com.cafean.CalcServer.command.BinaryFileElement  
createBinaryFileElement(String name,  
                        java.io.File file)
```

Creates a new BinaryFileElement with the given from the content of the given file. If the file is large enough (16k) it will be compressed and the "compressed" property of the element set to true.

Parameters:

name - a String containing the "Key" or "Name" of the file element.
file - a File referring to the file to be read in.

Returns:

a BinaryFileElement containing the given file.

getCalcType

```
public String getCalcType()
```

setServer

```
public void setServer(String name)
```

getServer

```
public String getServer()
```


com.cafean.client.ui Class MainFrame

```

java.lang.Object
|
+-java.awt.Component
|
+-java.awt.Container
|
+-java.awt.Window
|
+-java.awt.Frame
|
+-javax.swing.JFrame
|
+-com.cafean.client.ui.MainFrame

```

All Implemented Interfaces:

SDITopFrame, java.awt.datatransfer.ClipboardOwner, BatchProcessor, SplashListener, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, javax.accessibility.Accessible, java.awt.MenuContainer, HasGetTransferHandler, RootPaneContainer, javax.accessibility.Accessible, WindowConstants

public class MainFrame

extends JFrame

implements WindowConstants, javax.accessibility.Accessible, RootPaneContainer, HasGetTransferHandler, java.awt.MenuContainer, javax.accessibility.Accessible, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, SplashListener, BatchProcessor, java.awt.datatransfer.ClipboardOwner, SDITopFrame

The MainFrame is the central main class for the ModelEditor.

Field Summary	
public static	<u>debug</u> Display all debug information to the standard output
public static	<u>instance</u> This is a static reference to the current instance of the ModelEditor.
public static final	<u>MODE_CLEAR_CONSTANTS</u> This is clears constant references in clone Value: 3
public static final	<u>MODE_EXPORT_ASCII</u> This is exporting an ASCII file mode Value: 2
public static final	<u>MODE_EXPORT_ASCII_EXPLICIT</u> This is exporting an ASCII file mode that writes out all numerics as numbers Value: 5

public static final	<u>MODE_IMPORT</u> This clips all values less then -1e30 to -1e29 Value: 4
public static final	<u>MODE_NORMAL</u> This is normal operational mode Value: 0
public static final	<u>MODE_SAVE_MED</u> This is saving a MED file mode Value: 1
public static final	<u>SELECTOR_OPEN</u> A file selector mode for openFileSelector that indicates an Open type Value: 1
public static final	<u>SELECTOR_SAVE</u> A file selector mode for openFileSelector that indicates a Save type Value: 2

Fields inherited from class javax.swing.JFrame

EXIT_ON_CLOSE

Fields inherited from class java.awt.Frame

CROSSHAIR_CURSOR, DEFAULT_CURSOR, E_RESIZE_CURSOR, HAND_CURSOR, ICONIFIED, MAXIMIZED_BOTH, MAXIMIZED_HORIZ, MAXIMIZED_VERT, MOVE_CURSOR, N_RESIZE_CURSOR, NE_RESIZE_CURSOR, NORMAL, NW_RESIZE_CURSOR, S_RESIZE_CURSOR, SE_RESIZE_CURSOR, SW_RESIZE_CURSOR, TEXT_CURSOR, W_RESIZE_CURSOR, WAIT_CURSOR

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Fields inherited from interface javax.swing.WindowConstants

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

Constructor Summary

public	<u>MainFrame</u> (boolean showSplash) This constructs a new instance of the ModelEditor.
--------	---

Method Summary

static void	<u>addAbstractModel</u> (AbstractModel model) Adds a new AbstractModel to the ModelEditor.
-------------	---

static void	<u>addAbstractModel</u> (<u>AbstractModel</u> model, String label) Adds a new <u>AbstractModel</u> to the model editor.
static void	<u>addClassificationListener</u> (<u>ClassificationListener</u> listener) adds the given <u>ClassificationListener</u> to the list of listeners notified when the current <u>Classification</u> level changes.
static void	<u>addContextHelp</u> (java.awt.Component comp, String label) Adds a component to the context sensitive help, with the given label.
void	<u>addDockablePanel</u> (<u>DockablePanel</u> panel) Adds the given panel to the pane holding all <u>DockablePanels</u> .
static void	<u>addExportItem</u> (<u>JMenuItem</u> item) This inserts a new export option into the export menu.
static void	<u>addImportItem</u> (<u>JMenuItem</u> item) This inserts a new import option into the import menu.
static void	<u>addMenuItem</u> (<u>JMenuItem</u> item, String name) This is used to add a new menu item to the model editor main frame menu bar.
static int	<u>addMessage</u> (String text) Adds a new message to the <u>MessageWindow</u> .
static void	<u>addMessage</u> (String text, <u>AbstractComponent</u> comp) Adds the given text to the message window as a notice associated with the given component.
static void	<u>addMessage</u> (String text, <u>AbstractComponent</u> comp, int severityCode) Adds the given text as a message to the message window associated with the given component
static void	<u>addMessage</u> (String text, <u>GenericObject</u> comp, int severityCode) Adds the given text as a message to the message window associated with the given <u>GenericObject</u> .
static int	<u>addMessage</u> (String text, int severityCode) Adds the given text as a message to the message window with the given severity code chosen from those in <u>MessageWindow</u> .
static void	<u>addMessage</u> (String summary, String body, Object[] elements, int severityCode)
static void	<u>addMessage</u> (String text, Vector comps, int severityCode) Adds the given text as a multi-line message to the message window associated with the given components.
static void	<u>addMessage</u> (String text, <u>ViewComponent</u> view, <u>JComponent</u> uiComp, int severityCode) Adds the given text as a message to the <u>Message Window</u> associated with the given <u>ViewComponent</u> for the given GUI Component.
static void	<u>addModelNavigationShortcut</u> (<u>JComponent</u> comp) Adds a shortcut to the input/action maps of the given component used to display the <u>ModelSelectionPopup</u> .

void	<u>addPlaybackControl</u> (com.cafean.client.anim.PlaybackControl control) Adds the given playback control to the list of controls updated in <u>updatePlaybackButtons()</u>
void	<u>addPlaybackPanel</u> (com.cafean.client.anim.PlaybackButtonPanel panel) Adds the given playback panel to the list of controls updated in <u>updatePlaybackButtons()</u>
static void	<u>addRegisteredDialog</u> (java.awt.Dialog dialog, <u>AbstractModel</u> model) Adds the given dialog to the MainFrame's list of registered child dialogs.
static void	<u>addRegisteredFrame</u> (java.awt.Frame frame, <u>AbstractModel</u> model) Adds the given frame to the MainFrame's list of registered frames.
static void	<u>addSound</u> (int unused) Deprecated. 0.26.1
static void	<u>appendExportItems</u> (JMenu export)
static void	<u>appendToolsItems</u> (JMenu tools)
static void	<u>clearCheckErrors</u> () Sets the Message Window's error count beginning index to the number of messages currently in the table so that they will not be counted as errors or warnings in subsequent <u>getErrorCount</u> or <u>getWarningCount</u> calls.
static void	<u>clearCheckWarnings</u> () Sets the Message Window's warning count beginning index to the number of messages currently in the table so that they will not be counted as errors or warnings in subsequent <u>getErrorCount</u> or <u>getWarningCount</u> calls.
void	<u>closeAbstractModel</u> (<u>AbstractModel</u> model) Closes the given AbstractModel.
void	<u>closeMessageWindow</u> () Closes the MessageWindow from an external source.
void	<u>createModel</u> (<u>MECodePlugin</u> plugin) Creates a new AbstractModel for the given plugin.
static String	<u>dateStamp</u> () Gets a string that contains the current date.
static void	<u>deactivateRedoButtons</u> () disables the undoButton and redoButton
static void	<u>disableMainFrame</u> () Disables all mouse events for this MainFrame.
static void	<u>displayModelReport</u> (<u>AbstractModel</u> model) Displays a model report dialog if the given model implements ModelReportBuilder.
static void	<u>enableMainFrame</u> () Deactivates this MainFrame's glass pane thus allowing mouse events to pass through to the underlying components.

static ClientCodePlugin	<u>findClientPlugin</u> (String id) Finds a client plugin by its ID.
static <u>AbstractModel</u>	<u>findModelByIdent</u> (int ident) This finds the AbstractModel with the given ident.
static <u>MEPlugin</u>	<u>findPlugin</u> (String id) Finds a plugin by its ID.
static <u>AbstractModel</u>	<u>getAbstractModelAt</u> (int index) Returns the AbstractModel at a specified index.
static int	<u>getAbstractModelCount</u> () Returns the number of models currently inside the calculation project.
static ClientCodePlugin	<u>getClientPluginAt</u> (int index) Returns the plugin at the specified index into the client plugins vector.
static int	<u>getClientPluginCount</u> () Returns the number of client plugins currently loaded.
static java.awt.datatransfer .Clipboard	<u>getClipboard</u> ()
static <u>MECodePlugin</u> []	<u>getCodePlugins</u> () This returns all of the plugins currently loaded that extend MECodePlugin.
static <u>AbstractModel</u>	<u>getCurrentModel</u> () This returns the AbstractModel that, of the list of currently open models, is currently being worked on.
DockablePanel[]	<u>getDockablePanels</u> (<u>AbstractModel</u> model) Retrieves the dockable panels available for the given model.
static <u>MEFeaturePlugin</u> []	<u>getFeaturePlugins</u> () Returns an array of all the MEFeaturePlugins that are currently loaded.
static <u>MEFeaturePlugin</u> []	<u>getFeaturePlugins</u> (<u>AbstractModel</u> model) Finds all of the <u>feature plugins</u> that have data that needs to be stored along with the given model.
static FileChooser	<u>getFileChooser</u> () Gives access to a FileChooser for selecting a file.
static int	<u>getMode</u> () Getter for property mode.
static <u>AbstractModel</u>	<u>getModel</u> (String label) This finds the AbstractModel from the list of open models that has been stored under a given label.
static int	<u>getNumberOfErrorsFound</u> () Retrieves the number of error messages in the message window.

static int	<u>getNumberOfWarningsFound()</u> Retrieves the number of warning messages in the message window.
org.omg.CORBA.ORB	<u>getOrb()</u> Gets the current CORBA orb.
PDFViewer	<u>getPdfViewer()</u> Getter for property pdfViewer.
static <u>MEPlugin</u>	<u>getPluginAt(int index)</u> Returns the plugin at the specified index into the plugins vector.
static int	<u>getPluginCount()</u> Returns the number of plugins currently loaded.
<u>SnapPreferences</u>	<u>getPrefs()</u> Getter for the SnapPreferences object.
static <u>AbstractModel</u>	<u>getReferenceModel(AbstractModel model)</u> Retrieves the reference model for the given model if one has been loaded.
static Iterator	<u>getRegisteredDialogs()</u> Returns an unmodifiable List of the registered dialogs.
static Iterator	<u>getRegisteredDialogs(AbstractModel model)</u> Returns an unmodifiable List of the registered dialogs for a given model
static Iterator	<u>getRegisteredFrames()</u> Returns an unmodifiable List of the registered Frames.
static Iterator	<u>getRegisteredFrames(AbstractModel model)</u> Returns an unmodifiable List of the registered Frames for a given model
static java.io.File	<u>getSnapHomeDirectory()</u> Returns the installation directory for CAFEAN.
int	<u>getSplashStatus()</u>
String	<u>getSplashTitle()</u>
SnapUndoManager	<u>getUndoManager()</u> Deprecated. As of version 0.28.0, replaced by <u>AbstractModel.getUndoManager()</u> .
UndoableEditSupport	<u>getUndoSupport()</u> Deprecated. As of version 0.28.0, replaced by <u>AbstractModel.postEdit(UndoableEdit)</u> .
String	<u>getUserName()</u> Gets the current user id.
static String	<u>getValidLabel(String label)</u> Returns a valid key string for the user defined key passed in.

<u>Version</u>	<u>getVersion()</u> This gets the Version information for this instance of the ModelEditor.
void	<u>initializeDataSources()</u> Loads Custom data sources from client code plug-ins that implement the IncludesDataSource interface.
static boolean	<u>isJava3DAvailable()</u> Returns true if the Java3D libraries are available in the current classloader's classpath.
static boolean	<u>isPluginEnabled(MECodePlugin plugin)</u> Returns the enabled state of the given MECodePlugin.
static boolean	<u>isPluginInUse(MECodePlugin plugin)</u> Determines if the given MECodePlugin is currently in use by the ModelEditor.
boolean	<u>isSelectedDockablePanel(DockablePanel panel)</u> Returns a true if the given DockablePanel is the selected panel for the indicated model.
static boolean	<u>isValidLabel(String label)</u> Determines if the given label is text that can be processed as a valid model label.
static void	<u>loadReferenceModel(AbstractModel model, java.io.File file)</u> Loads the reference model for the given model from the given file.
void	<u>lostOwnership(java.awt.datatransfer.Clipboard clipboard, java.awt.datatransfer.Transferable contents)</u> The ClipboardOwner interface routine.
static void	<u>main(String[] args)</u> This is the main function for the ModelEditor.
static void	<u>offsetWindowLocation(java.awt.Window childWindow)</u> Offsets the given childWindow from other windows of the same type so that they do not overlap each other perfectly, hiding one another.
java.io.File	<u>openFileSelector(String title, int selectorType)</u> Opens a JFileChooser of the appropriate type configured with the given title and an appropriate button name and returns either the selected file or null on failure.
static void	<u>openMessageArea()</u> Opens the MessageWindow, and updates the checkbox menu item for the MessageWindow to show that it is open.
static <u>AbstractModel</u>	<u>openModelMED(java.io.File file, boolean prompt, String key)</u> Opens the given MED file on the current thread.
boolean	<u>processCommand(String command)</u>
static void	<u>refreshSteamTable()</u> Refreshes the loaded steam tables.
static void	<u>removeAbstractModel(AbstractModel model)</u> Removes a AbstractModel from the model editor.

static void	<u>removeClassificationListener</u> (<u>ClassificationListener</u> listener) removes the given ClassificationListener from the list of listeners notified when the current Classification level changes.
void	<u>removeDockablePanel</u> (<u>DockablePanel</u> panel) Removes the given panel from the pane holding all DockablePanels.
void	<u>removeExcessRecents</u> ()
void	<u>removePlaybackControl</u> (com.cafean.client.anim.PlaybackControl control) Removes the given playback control from the list of controls updated in <u>updatePlaybackButtons</u> ()
void	<u>removePlaybackPanel</u> (com.cafean.client.anim.PlaybackButtonPanel panel) Removes the given playback panel from the list of controls updated in <u>updatePlaybackButtons</u> ()
static void	<u>removeRegisteredDialog</u> (java.awt.Dialog dialog, <u>AbstractModel</u> model) Removes the given dialog from the MainFrame's list of registered child dialogs.
static void	<u>removeRegisteredFrame</u> (java.awt.Frame frame, <u>AbstractModel</u> model) Removes the given Frame from the MainFrame's list of registered frames.
boolean	<u>requestSaveFileName</u> (<u>AbstractModel</u> model) Opens a file selection dialog for specifying the target location of a MED file.
static void	<u>resetAllUnits</u> (int units) Resets all the renderers for units inside the model editor.
static void	<u>resetCursor</u> () Sets the cursor to the default cursor when the process requiring the waiting is complete.
void	<u>resetMenus</u> () Resets the menus on the main toolbar of the MainFrame.
void	<u>resetWindowingMode</u> () Updates and resets all Window Arrangement based on the current status.
void	<u>setChildLocation</u> (java.awt.Window childWindow) Sets the given window's location to be that of the center of this main frame's current screen.
void	<u>setCurrentModel</u> (<u>AbstractModel</u> m) This sets the AbstractModel from the list of open models that currently is being worked on.
static void	<u>setFileChooserLocation</u> (<u>JFileChooser</u> dlg) Sets the given JFileChooser's location to be the center of the main frame's current screen.
static void	<u>setMode</u> (int mode_) Setter for property mode.
static void	<u>setPlaybackTime</u> (String mess) Sets the currently display status message
static void	<u>setPluginEnabled</u> (<u>MECodePlugin</u> plugin, boolean enabled) Sets whether a given property is enabled or not.

void	<u>setSelectedDockablePanel</u> (DockablePanel panel)
void	<u>setSplashStatus</u> (int stat)
void	<u>setUserName</u> (String name) Sets the current user id.
void	<u>setVisible</u> (boolean visible) Shows or hides this MainFrame.
static void	<u>setWaitCursor</u> () Sets the cursor to a cursor indicating the user should wait for a process before continuing.
static void	<u>setWindowLocation</u> (java.awt.Window window) Sets the given window's location to be that of the center of this main frame's current screen.
static void	<u>showCreateDialog</u> () Attempts to create and add a new model by prompting the user with the list of available plugins.
static void	<u>showOpenDialog</u> () This event is called when the user wants to open a locally stored SAM file.
static void	<u>submitModel</u> (AbstractModel model, boolean local) Submits the given model for execution using its plug-in specific submitModel method.
static void	<u>updateClassification</u> () Updates the current classification level based on the currently open models.
void	<u>updatePlaybackButtons</u> () Enables or disables the pause, play and time buttons based on the current state of the Source Manger and it's master run.

Methods inherited from class `javax.swing.JFrame`:

`getAccessibleContext`, `getContentPane`, `getDefaultCloseOperation`, `getGlassPane`, `getGraphics`, `getJMenuBar`, `getLayeredPane`, `getRootPane`, `getTransferHandler`, `isDefaultLookAndFeelDecorated`, `remove`, `repaint`, `setContentPane`, `setDefaultCloseOperation`, `setDefaultLookAndFeelDecorated`, `setGlassPane`, `setIconImage`, `setJMenuBar`, `setLayeredPane`, `setLayout`, `setTransferHandler`, `update`

Methods inherited from class `java.awt.Frame`:

`addNotify`, `getAccessibleContext`, `getCursorType`, `getExtendedState`, `getFrames`, `setIconImage`, `getMaximizedBounds`, `getMenuBar`, `getState`, `getTitle`, `isResizable`, `isUndecorated`, `remove`, `removeNotify`, `setCursor`, `setExtendedState`, `setIconImage`, `setMaximizedBounds`, `setMenuBar`, `setResizable`, `setState`, `setTitle`, `setUndecorated`

Methods inherited from class `java.awt.Window`:

addNotify, addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getAccessibleContext, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getGraphicsConfiguration, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOwnedWindows, getOwner, getOwnerlessWindows, getToolkit, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isShowing, pack, postEvent, removeNotify, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImage, setIconImages, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setVisible, show, toBack, toFront

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

getAccessibleContext

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface javax.swing.RootPaneContainer

getContentPane, getGlassPane, getLayeredPane, getRootPane, setContentPane, setGlassPane, setLayeredPane

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

getTransferHandler

Methods inherited from interface com.cafean.utils.SplashListener

getSplashStatus, getSplashTitle, getVersion, setSplashStatus

Methods inherited from interface com.cafean.utils.BatchProcessor

processCommand

Methods inherited from interface java.awt.datatransfer.ClipboardOwner

lostOwnership

Methods inherited from interface com.cafean.utils.SDITopFrame

setChildLocation

Fields

instance

public static com.cafean.client.ui.MainFrame **instance**

This is a static reference to the current instance of the ModelEditor.

debug

public static boolean **debug**

Display all debug information to the standard output

SELECTOR_OPEN

public static final int **SELECTOR_OPEN**

A file selector mode for openFileSelector that indicates an Open type
Constant value: 1

SELECTOR_SAVE

public static final int **SELECTOR_SAVE**

A file selector mode for openFileSelector that indicates a Save type
Constant value: 2

MODE_NORMAL

public static final int **MODE_NORMAL**

This is normal operational mode
Constant value: 0

MODE_SAVE_MED

public static final int **MODE_SAVE_MED**

This is saving a MED file mode
Constant value: 1

MODE_EXPORT_ASCII

public static final int **MODE_EXPORT_ASCII**

This is exporting an ASCII file mode
Constant value: 2

MODE_CLEAR_CONSTANTS

public static final int **MODE_CLEAR_CONSTANTS**

This is clears constant references in clone
Constant value: 3

MODE_IMPORT

public static final int **MODE_IMPORT**

This clips all values less than -1e30 to -1e29
Constant value: 4

MODE_EXPORT_ASCII_EXPLICIT

public static final int **MODE_EXPORT_ASCII_EXPLICIT**

This is exporting an ASCII file mode that writes out all numerics as numbers
Constant value: 5

Constructors

MainFrame

```
public MainFrame(boolean showSplash)
```

This constructs a new instance of the ModelEditor. The new instance can be accessed from the public static reference `instance`. As the main controller class for the ModelEditor, this reads in all the plugins, loads all user preferences, and returns the ModelEditor to the visual state of the last time the user closed the ModelEditor.

Parameters:

`showSplash` - the boolean that is TRUE if the splashscreen should be shown.

Methods

getClipboard

```
public static java.awt.datatransfer.Clipboard getClipboard()
```

resetWindowingMode

```
public void resetWindowingMode()
```

Updates and resets all Window Arrangement based on the current status.

addDockablePanel

```
public void addDockablePanel(DockablePanel panel)
```

Adds the given panel to the pane holding all DockablePanels.

Parameters:

`panel` - the DockablePanel to add

removeDockablePanel

```
public void removeDockablePanel(DockablePanel panel)
```

Removes the given panel from the pane holding all DockablePanels.

Parameters:

`panel` - the DockablePanel to remove

getDockablePanels

```
public DockablePanel[] getDockablePanels(AbstractModel model)
```

Retrieves the dockable panels available for the given model.

Returns:

a DockablePanel[] containing the given model's panels.

isSelectedDockablePanel

public boolean **isSelectedDockablePanel**(DockablePanel panel)

Returns a true if the given DockablePanel is the selected panel for the indicated model. Returns false otherwise.

setSelectedDockablePanel

public void **setSelectedDockablePanel**(DockablePanel panel)

setSplashStatus

public void **setSplashStatus**(int stat)

getSplashStatus

public int **getSplashStatus**()

getSplashTitle

public String **getSplashTitle**()

getVersion

public Version **getVersion**()

This gets the Version information for this instance of the ModelEditor.

Returns:

the Version that contains the current release information.

displayModelReport

public static void **displayModelReport**(AbstractModel model)

Displays a model report dialog if the given model implements ModelReportBuilder. For other models, AbstractModel.checkModel() is called to display model check messages to the MessageWindow.

Parameters:

model - the AbstractModel for which to display a model report.

closeMessageWindow

public void **closeMessageWindow**()

Closes the MessageWindow from an external source. This ensures that when the MessageWindow is closed, the menu item is updated to show that the MessageWindow is not currently visible.

See Also:

MessageWindow

closeAbstractModel

```
public void closeAbstractModel (AbstractModel model)
```

Closes the given AbstractModel. Closes all the dialog windows for that model, removes it from the Navigator, and frees all the data for garbage collection.

Parameters:

model - the AbstractModel to be closed.

getCurrentModel

```
public static AbstractModel getCurrentModel ()
```

This returns the AbstractModel that, of the list of currently open models, is currently being worked on.

Returns:

the AbstractModel that is currently being edited.

setCurrentModel

```
public void setCurrentModel (AbstractModel m)
```

This sets the AbstractModel from the list of open models that currently is being worked on.

Parameters:

m - the AbstractModel.

getModel

```
public static AbstractModel getModel (String label)
```

This finds the AbstractModel from the list of open models that has been stored under a given label.

Parameters:

label - the String label given by the user.

Returns:

the AbstractModel stored with the given label.

getUndoManager

```
public SnapUndoManager getUndoManager ()
```

Deprecated. *As of version 0.28.0, replaced by AbstractModel.getUndoManager().*

Retrieves the SnapUndoManager handling the undo/redo stack for the current model. **NOTE: Most uses of this method should instead use AbstractModel.postEdit(UndoableEdit) as of version 0.28.0.**

Returns:

the SnapUndoManager handling the current model or null.

getUndoSupport

```
public UndoableEditSupport getUndoSupport()
```

Deprecated. *As of version 0.28.0, replaced by `AbstractModel.postEdit(UndoableEdit)`.*

Accessor for the UndoableEditSupport for the ModelEditor.

Returns:

an UndoableEditSupport wrapping the postEdit method for the current model.

resetAllUnits

```
public static void resetAllUnits(int units)
```

Resets all the renderers for units inside the model editor.

showCreateDialog

```
public static void showCreateDialog()
```

Attempts to create and add a new model by prompting the user with the list of available plugins.

createModel

```
public void createModel(MECodePlugin plugin)
```

Creates a new AbstractModel for the given plugin. This also creates a new ViewComponent for the model, and opens it.

processCommand

```
public boolean processCommand(String command)
```

showOpenDialog

```
public static void showOpenDialog()
```

This event is called when the user wants to open a locally stored SAM file.

Parameters:

event - the ActionEvent that fired this action.

openModelMED

```
public static AbstractModel openModelMED(java.io.File file,  
boolean prompt,  
String key)
```

Opens the given MED file on the current thread. This method must not be called from the Swing event thread.

WARNING: After loading the model from the given file the following two methods will be invoked from the Swing event thread:

- AbstractModel.executeUserDefinedFunctions()
- AbstractModel.validateAllComponents()

Parameters:

`file` - a File referring to the MED file containing the model to open
`prompt` - if true the user will be prompted with pop-up dialogs for errors and interaction; if false messages will be output to the message window to describe any error conditions or status changes.
`key` - a String containing the model key that will be used to reference the model after it has been opened. This key is of the form "M[0-9]" (e.g. "M3"). This parameter may be null.

Returns:

the newly opened model or null

requestSaveFileName

```
public boolean requestSaveFileName(AbstractModel model)
```

Opens a file selection dialog for specifying the target location of a MED file. This is used when saving a model for the first time, or when using the Save As option.

Parameters:

`model` - the AbstractModel that is being saved.

Returns:

TRUE unless the user cancels the file selection.

getNumberOfErrorsFound

```
public static int getNumberOfErrorsFound()
```

Retrieves the number of error messages in the message window.

Returns:

the int number of errors from the most recent error check.

getNumberOfWarningsFound

```
public static int getNumberOfWarningsFound()
```

Retrieves the number of warning messages in the message window.

Returns:

the int number of warnings from the most recent error check.

addSound

```
public static void addSound(int unused)
```

Deprecated. 0.26.1

This method does nothing as sounds are not supported by the ModelEditor.

addMessage

```
public static int addMessage(String text)
```

Adds a new message to the MessageWindow.

Parameters:

text - the String to be added to the MessageWindow.

Returns:

the return flag from adding a message to the MessageWindow.

See Also:

[MessageWindow](#)

addMessage

```
public static int addMessage(String text,  
int severityCode)
```

Adds the given text as a message to the message window with the given severity code chosen from those in MessageWindow.

Parameters:

text - the String to be added to the MessageWindow

severityCode - the MessageWindow based enumeration for the type of message.

Returns:

the int return flag from the MessageWindow.

See Also:

[MessageWindow](#)

addMessage

```
public static void addMessage(String text,  
AbstractComponent comp)
```

Adds the given text to the message window as a notice associated with the given component.

Parameters:

text - the String to be added to the MessageWindow

comp - the AbstractComponent.

See Also:

[MessageWindow](#)

addMessage

```
public static void addMessage(String text,  
    AbstractComponent comp,  
    int severityCode)
```

Adds the given text as a message to the message window associated with the given component

Parameters:

text - the String to be added to the MessageWindow
comp - the AbstractComponent.
severityCode - the severity code chosen from those in MessageWindow.

See Also:

[MessageWindow](#)

addMessage

```
public static void addMessage(String text,  
    ViewComponent view,  
    JComponent uiComp,  
    int severityCode)
```

Adds the given text as a message to the Message Window associated with the given ViewComponent for the given GUI Component.

Parameters:

text - the String to be added to the MessageWindow
view - the ViewComponent
uiComp - the JComponent that the given message refers to
severityCode - the severity code chosen from those in MessageWindow.

See Also:

[MessageWindow](#)

addMessage

```
public static void addMessage(String text,  
    GenericObject comp,  
    int severityCode)
```

Adds the given text as a message to the message window associated with the given GenericObject.

Parameters:

text - the String to be added to the MessageWindow
comp - the GenericObject.
severityCode - the severity code chosen from those in MessageWindow.

See Also:

[MessageWindow](#)

addMessage

```
public static void addMessage(String text,  
    Vector comps,  
    int severityCode)
```

Adds the given text as a multi-line message to the message window associated with the given components.

Parameters:

text - the String to be added to the MessageWindow
comps - the Vector of components.
severityCode - the severity code chosen from those in MessageWindow.

See Also:

[MessageWindow](#)

addMessage

```
public static void addMessage(String summary,  
    String body,  
    Object[] elements,  
    int severityCode)
```

openMessageArea

```
public static void openMessageArea()
```

Opens the MessageWindow, and updates the checkbox menu item for the MessageWindow to show that it is open.

clearCheckErrors

```
public static void clearCheckErrors()
```

Sets the Message Window's error count beginning index to the number of messages currently in the table so that they will not be counted as errors or warnings in subsequent `getErrorCount` or `getWarningCount` calls.

clearCheckWarnings

```
public static void clearCheckWarnings()
```

Sets the Message Window's warning count beginning index to the number of messages currently in the table so that they will not be counted as errors or warnings in subsequent `getErrorCount` or `getWarningCount` calls.

getAbstractModelAt

```
public static AbstractModel getAbstractModelAt(int index)
```

Returns the AbstractModel at a specified index.

Parameters:

index - the index into the models vector.

Returns:

the AbstractModel at the specified index.

addAbstractModel

```
public static void addAbstractModel(AbstractModel model)
```

Adds a new AbstractModel to the ModelEditor.

Note: The model will be added to the Navigator on the Swing event thread.

Parameters:

model - the AbstractModel.

See Also:

[addAbstractModel\(AbstractModel, String\)](#)

addAbstractModel

```
public static void addAbstractModel(AbstractModel model,  
    String label)
```

Adds a new AbstractModel to the model editor. Sets this model as the currently selected model, and refreshes the Navigator.

Note: The model will be added to the Navigator on the Swing event thread.

Parameters:

label - the String label for this model, if NULL the next available is assigned.

model - the AbstractModel to add

removeAbstractModel

```
public static void removeAbstractModel(AbstractModel model)
```

Removes a AbstractModel from the model editor. If this was the currently selected model, and there is another model, the first of the other models is set selected. Otherwise, it is left null

Parameters:

model - the AbstractModel.

findModelByIdent

```
public static AbstractModel findModelByIdent(int ident)
```

This finds the AbstractModel with the given ident. A Model's ident is given to it when it is opened inside the ModelEditor. This allows the ModelEditor to keep the open models separate.

Parameters:

ident - the ident of the model.

Returns:

the AbstractModel with the given ident, or NULL if not found.

getReferenceModel

```
public static AbstractModel getReferenceModel(AbstractModel model)
```

Retrieves the reference model for the given model if one has been loaded.

Parameters:

model - the AbstractModel to retrieve a reference model for.

Returns:

an AbstractModel reference to the given model's reference model.

loadReferenceModel

```
public static void loadReferenceModel (AbstractModel model,  
    java.io.File file)
```

Loads the reference model for the given model from the given file.

Parameters:

model - the AbstractModel to load a reference model for.
file - the File to load the reference model from.

Returns:

an AbstractModel reference to the given model's reference model.

getAbstractModelCount

```
public static int getAbstractModelCount ()
```

Returns the number of models currently inside the calculation project.

Returns:

the size of the models vector.

dateStamp

```
public static String dateStamp ()
```

Gets a string that contains the current date.

Returns:

the String containing the current date and time.

setWaitCursor

```
public static void setWaitCursor ()
```

Sets the cursor to a cursor indicating the user should wait for a process before continuing.

See Also:

java.awt.Cursor

resetCursor

```
public static void resetCursor ()
```

Sets the cursor to the default cursor when the process requiring the waiting is complete.

See Also:

java.awt.Cursor

submitModel

```
public static void submitModel(AbstractModel model,  
    boolean local)
```

Submits the given model for execution using its plug-in specific submitModel method.

See Also:

MECodePlugin.submitModel(AbstractModel, boolean)

disableMainFrame

```
public static void disableMainFrame()
```

Disables all mouse events for this MainFrame. Activates the glass pane within this MainFrame and consumes all mouse events before they can be delivered to the underlying components.

enableMainFrame

```
public static void enableMainFrame()
```

Deactivates this MainFrame's glass pane thus allowing mouse events to pass through to the underlying components.

refreshSteamTable

```
public static void refreshSteamTable()
```

Refreshes the loaded steam tables.

deactivateRedoButtons

```
public static void deactivateRedoButtons()
```

disables the undoButton and redoButton

setVisible

```
public void setVisible(boolean visible)
```

Shows or hides this MainFrame.

Parameters:

`visible` - if true, a thread will be started to load the steam tables.

removeExcessRecents

```
public void removeExcessRecents()
```

openFileSelector

```
public java.io.File openFileSelector(String title,  
    int selectorType)
```


Opens a JFileChooser of the appropriate type configured with the given title and an appropriate button name and returns either the selected file or null on failure.

Parameters:

title - a String containing the desired dialog title.

selectorType - one of the SELECTOR_* enumerated integers. Used to determine which 'last' property to track and how to configure the dialog.

Returns:

the File selected by the user, or null if it was cancelled.

setWindowLocation

```
public static void setWindowLocation(java.awt.Window window)
```

Sets the given window's location to be that of the center of this main frame's current screen.

Parameters:

window - the Window to set location for.

setChildLocation

```
public void setChildLocation(java.awt.Window childWindow)
```

Sets the given window's location to be that of the center of this main frame's current screen.

Parameters:

childWindow - the Window to set location for.

offsetWindowLocation

```
public static void offsetWindowLocation(java.awt.Window childWindow)
```

Offsets the given childWindow from other windows of the same type so that they do not overlap each other perfectly, hiding one another.

Note: The given window must be registered first with addRegisteredDialog.

setFileChooserLocation

```
public static void setFileChooserLocation(JFileChooser dlg)
```

Sets the given JFileChooser's location to be the center of the main frame's current screen. This is primarily used by the Plugins to open FileChoosers in the center of the screen.

Parameters:

dlg - the JFileChooser that has just been opened.

lostOwnership

```
public void lostOwnership(java.awt.datatransfer.Clipboard clipboard,  
    java.awt.datatransfer.Transferable contents)
```

The ClipboardOwner interface routine. Implemented as a noop here.

Parameters:

clipboard - the Clipboard.
contents - the Transferable contents on the clipboard.

getPrefs

```
public SnapPreferences getPrefs()
```

Getter for the SnapPreferences object.

Returns:

prefs.

setUserName

```
public void setUserName(String name)
```

Sets the current user id.

Parameters:

name - the String user id.

getUserName

```
public String getUserName()
```

Gets the current user id.

Returns:

the String user id.

main

```
public static void main(String[] args)
```

This is the main function for the ModelEditor. It spawns a new instance of the MainFrame, opens all the Corba objects, and handles all of the commandline arguments.

Parameters:

args - the String[] command line arguments. Acceptable arguments are:

- --version : prints out the current version of the ModelEditor.
 - --usage & --help : prints out the command line help.
 - --debug : Turns on debugging.
 - --nosplash : Turns off the splash screen.
 - --userid : Sets the current userid to the next argument.
 - --batch : Opens the batchfile contained in the next argument.
-

getOrb

```
public org.omg.CORBA.ORB getOrb()
```

Gets the current CORBA orb. If that ORB does not exist, it creates it. This is needed for submitting jobs.

Returns:

the org.omg.CORBA.ORB object.

See Also:

org.omg.CORBA.ORB

isJava3DAvailable

```
public static boolean isJava3DAvailable()
```

Returns true if the Java3D libraries are available in the current classloader's classpath.

addExportItem

```
public static void addExportItem(JMenuItem item)
```

This inserts a new export option into the export menu. This allows MEPlugins to add plugin specific export actions to the MainFrame's menu.

Parameters:

item - the JMenuItem being added.

addImportItem

```
public static void addImportItem(JMenuItem item)
```

This inserts a new import option into the import menu. This allows MEPlugins to add plugin specific import actions to the MainFrame's menu.

Parameters:

item - the JMenuItem being added.

addMenuItem

```
public static void addMenuItem(JMenuItem item,  
String name)
```

This is used to add a new menu item to the model editor main frame menu bar.

Parameters:

item - This JMenuItem is about to be inserted into a menu.
name - the Name of the menu where the item is to be inserted. Allowed Names are:

- FILE
 - EDIT
 - VIEW
 - TOOLS
 - WINDOW
 - HELP
-

findClientPlugin

```
public static ClientCodePlugin findClientPlugin(String id)
```

Finds a client plugin by its ID.

Parameters:

id - the String id of the plugin being looked for.

Returns:

the ClientCodePlugin with the given id; or null if not found

getClientPluginAt

```
public static ClientCodePlugin getClientPluginAt(int index)
```

Returns the plugin at the specified index into the client plugins vector.

Parameters:

index - the index of the desired client plugin

Returns:

the ClientCodePlugin at the specified index.

getClientPluginCount

```
public static int getClientPluginCount()
```

Returns the number of client plugins currently loaded.

Returns:

the number of client plugins available

findPlugin

```
public static MEPlugin findPlugin(String id)
```

Finds a plugin by its ID. If the plugin is a MECodePlugin, the plugin ID should be the same as the code_name of an AbstractModel built by that plugin.

Parameters:

id - the String id of the plugin being looked for.

Returns:

the MEPlugin with id for its PluginId, or null if there isn't one.

getPluginAt

```
public static MEPlugin getPluginAt(int index)
```

Returns the plugin at the specified index into the plugins vector.

Parameters:

index - the index into the plugin vector.

Returns:

the MEPlugin at the specified index.

getPluginCount

```
public static int getPluginCount()
```

Returns the number of plugins currently loaded.

Returns:

the size of the plugins vector.

getCodePlugins

```
public static MECodePlugin[] getCodePlugins()
```

This returns all of the plugins currently loaded that extend MECodePlugin.

Returns:

A MECodePlugin[] containing all the currently loaded code plugins.

getValidLabel

```
public static String getValidLabel(String label)
```

Returns a valid key string for the user defined key passed in. If NULL is passed in, this will return the next available key. If the key is invalid, this will return NULL.

Parameters:

label - See Above

Returns:

See Above

isValidLabel

```
public static boolean isValidLabel(String label)
```

Determines if the given label is text that can be processed as a valid model label. This is for determining if a KEY is being used or BATCH format.

Parameters:

label - the string being tested.

Returns:

TRUE if the string consists of the character 'M' followed by an integer.

getFeaturePlugins

```
public static MEFeaturePlugin[] getFeaturePlugins(AbstractModel model)
```

Finds all of the feature plugins that have data that needs to be stored along with the given model. This makes use of the MEFeaturePlugin.isAssociated(AbstractModel) function on all of the current MEFeaturePlugins.

Parameters:

model - the AbstractModel that is about to be stored.

Returns:

the MEFeaturePlugin[] of plugins associated with the model.

getFeaturePlugins

```
public static MEFeaturePlugin[] getFeaturePlugins()
```

Returns an array of all the MEFeaturePlugins that are currently loaded.

Returns:

the current MEFeaturePlugins.

getSnapHomeDirectory

```
public static java.io.File getSnapHomeDirectory()
```

Returns the installation directory for CAFEAN. This is either passed to the VM by a -DCAFEAN_HOME="dir" or its the current working directory.

Returns:

the File object containing the absolute path to the current working component.

getFileChooser

```
public static FileChooser getFileChooser()
```

Gives access to a FileChooser for selecting a file. This should be used by any plugin that attempts to load or store information in a file. The dialog created by this FileChooser always appears at the center of the screen.

Returns:

the FileChooser created by the ModelEditor.

addRegisteredDialog

```
public static void addRegisteredDialog(java.awt.Dialog dialog,  
    AbstractModel model)
```

Adds the given dialog to the MainFrame's list of registered child dialogs. Registered child dialogs appear in the windows menu and have their location offset from other registered windows by setWindowLocation(Window).

Parameters:

dialog - the Dialog that will be added to the window list.
model - the AbstractModel that the given dialog is related to

getRegisteredDialogs

```
public static Iterator getRegisteredDialogs()
```

Returns an unmodifiable List of the registered dialogs.

getRegisteredDialogs

```
public static Iterator getRegisteredDialogs(AbstractModel model)
```

Returns an unmodifiable List of the registered dialogs for a given model

removeRegisteredDialog

```
public static void removeRegisteredDialog(java.awt.Dialog dialog,  
AbstractModel model)
```

Removes the given dialog from the MainFrame's list of registered child dialogs.

Parameters:

dialog - the Dialog that will be removed from the window list.

See Also:

addRegisteredDialog(Dialog, AbstractModel)

addRegisteredFrame

```
public static void addRegisteredFrame(java.awt.Frame frame,  
AbstractModel model)
```

Adds the given frame to the MainFrame's list of registered frames. Registered frames appear in the windows menu and have their location offset from other registered windows by setWindowLocation(Window).

Parameters:

dialog - the Frame that will be added to the frame list.

model - the AbstractModel that the given Frame is related to

getRegisteredFrames

```
public static Iterator getRegisteredFrames()
```

Returns an unmodifiable List of the registered Frames.

getRegisteredFrames

```
public static Iterator getRegisteredFrames(AbstractModel model)
```

Returns an unmodifiable List of the registered Frames for a given model

removeRegisteredFrame

```
public static void removeRegisteredFrame(java.awt.Frame frame,  
AbstractModel model)
```

Removes the given Frame from the MainFrame's list of registered frames.

Parameters:

frame - the Frame that will be removed from the frame list.

See Also:

addRegisteredFrame(Frame, AbstractModel)

addClassificationListener

```
public static void addClassificationListener(ClassificationListener listener)
```

adds the given ClassificationListener to the list of listeners notified when the current Classification level changes.

Note: the new listener is notified immediately upon addition.

removeClassificationListener

```
public static void removeClassificationListener(ClassificationListener listener)
```

removes the given ClassificationListener from the list of listeners notified when the current Classification level changes.

updateClassification

```
public static void updateClassification()
```

Updates the current classification level based on the currently open models.

getMode

```
public static int getMode()
```

Getter for property mode.

Returns:

Value of property mode.

setMode

```
public static void setMode(int mode_)
```

Setter for property mode.

Parameters:

mode - New value of property mode.

getPdfViewer

```
public PDFViewer getPdfViewer()
```

Getter for property pdfViewer.

Returns:

Value of property pdfViewer.

updatePlaybackButtons

```
public void updatePlaybackButtons()
```

Enables or disables the pause, play and time buttons based on the current state of the Source Manger and it's master run.

setPlaybackTime

```
public static void setPlaybackTime(String mess)
```

Sets the currently display status message

Parameters:

mess - A String containing the new message

addContextHelp

```
public static void addContextHelp(java.awt.Component comp,  
    String label)
```

Adds a component to the context sensitive help, with the given label.

addPlaybackPanel

```
public void addPlaybackPanel(com.cafean.client.anim.PlaybackButtonPanel panel)
```

Adds the given playback panel to the list of controls updated in updatePlaybackButtons()

removePlaybackPanel

```
public void removePlaybackPanel(com.cafean.client.anim.PlaybackButtonPanel panel)
```

Removes the given playback panel from the list of controls updated in updatePlaybackButtons()

addPlaybackControl

```
public void addPlaybackControl(com.cafean.client.anim.PlaybackControl control)
```

Adds the given playback control to the list of controls updated in updatePlaybackButtons()

removePlaybackControl

```
public void removePlaybackControl(com.cafean.client.anim.PlaybackControl control)
```

Removes the given playback control from the list of controls updated in updatePlaybackButtons()

resetMenus

```
public void resetMenus()
```

Resets the menus on the main toolbar of the MainFrame. This rebuilds all of the menus, and allows plugins to be disabled or enabled while the MainFrame is open.

isPluginEnabled

```
public static boolean isPluginEnabled(MECodePlugin plugin)
```

Returns the enabled state of the given MECodePlugin.

setPluginEnabled

```
public static void setPluginEnabled(MECodePlugin plugin,  
    boolean enabled)
```

Sets whether a given property is enabled or not.

isPluginInUse

```
public static boolean isPluginInUse(MECodePlugin plugin)
```

Determines if the given MECodePlugin is currently in use by the ModelEditor. A MECodePlugin is considered in use if and only if there exists an open model for that plugin.

initializeDataSources

```
public void initializeDataSources()
```

Loads Custom data sources from client code plug-ins that implement the IncludesDataSource interface.

appendExportItems

```
public static void appendExportItems(JMenu export)
```

appendToolsItems

```
public static void appendToolsItems(JMenu tools)
```

addModelNavigationShortcut

```
public static void addModelNavigationShortcut(JComponent comp)
```

Adds a shortcut to the input/action maps of the given component used to display the ModelSelectionPopup. The initiating key-press is CTRL+TAB. While CTRL is held, the user can repeatedly press or hold TAB to cycle through models. Upon releasing CTRL, the highlighted model in the popup is selected in the Navigator.

Any tables, lists, and other components displayed in the MainFrame that manually add a CTRL+TAB action and are displayed somewhere within the MainFrame should be passed to this method.

Parameters:

comp - the component

com.cafean.client.ui

Class MessageWindow

```
java.lang.Object
|--java.awt.Component
    |--java.awt.Container
        |--javax.swing.JComponent
            |--javax.swing.JPanel
                +--com.cafean.client.ui.MessageWindow
```

All Implemented Interfaces:

java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible

```
public class MessageWindow
extends JPanel
```

A panel implementation of a centralized message window.

Field Summary	
public static final	<u>AlertMsg</u> Message type for non-error messages that the user should be alerted to. Value: 0
public static final	<u>AlertSound</u> unused sound type Value: 0
public static final	<u>ConnectSound</u> unused sound type Value: 5
public static final	<u>DisconnectSound</u> unused sound type Value: 6
public static final	<u>InfoMsg</u> Message type for normal messages. Value: 1
public static final	<u>InfoSound</u> unused sound type Value: 1

public static final	<u>InternalErrMsg</u> Message type for errors that are not user created or caused. Value: 4
public static final	<u>InternalErrSound</u> unused sound type Value: 4
public static final	<u>NoSound</u> unused sound type Value: -1
public static final	<u>UserErrorMsg</u> Message type for errors that are considered user created or caused Value: 3
public static final	<u>UserErrorSound</u> unused sound type Value: 3
public static final	<u>WarningMsg</u> Message type for non-fatal errors or warnings Value: 2
public static final	<u>WarningSound</u> unused sound type Value: 2

Fields inherited from class `javax.swing.JComponent`.

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class `java.awt.Component`.

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

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

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

Constructor Summary

public	<u>MessageWindow()</u> Creates new form MessageDialog.
--------	---

Method Summary

int	<u>addMessage</u> (Message message)
-----	-------------------------------------

int	<u>addMessage</u> (String message) Adds the given message as type InfoMsg.
void	<u>addMessage</u> (String text, <u>AbstractComponent</u> comp) Adds the given message as type InfoMsg with the attached component.
void	<u>addMessage</u> (String text, <u>AbstractComponent</u> comp, int severityCode) Adds the given message as type severityCode with the attached component.
void	<u>addMessage</u> (String text, <u>GenericObject</u> object, int severityCode) Adds the given message as type severityCode with the attached component.
int	<u>addMessage</u> (String text, int severityCode) Adds the given message with the given severity code
void	<u>addMessage</u> (String text, int severityCode, Object[] object)
void	<u>addMessage</u> (String text, Vector comps, int severityCode) Adds the given message as type severityCode with the attached components.
void	<u>addMessage</u> (String text, <u>ViewComponent</u> comp, int severityCode, JComponent uiComp) Adds the given message as type severityCode in the given View for the given UI Component.
static void	<u>addMessageListener</u> (MessageSelectionListener msl) Prepends the message listener to the head of the listeners array.
void	<u>addNotify</u> ()
void	<u>addSound</u> (int soundType) Sound is not supported by MessageWindow.
void	<u>clearCheckErrors</u> () Sets the error count beginning index to the number of messages currently in the table so that they will not be counted as errors or warnings in subsequent <u>getErrorCount</u> or <u>getWarningCount</u> calls.
void	<u>clearWarningCount</u> () Sets the error count beginning index to the number of messages currently in the table so that they will not be counted as errors or warnings in subsequent <u>getErrorCount</u> or <u>getWarningCount</u> calls.
String	<u>dateStamp</u> () Creates a formatted date stamp of the current time/date.
static void	<u>fireMessageSelected</u> (Message[] messages) Fires a new MessageSelectionEvent on all the listeners.
static <u>MessageWindow</u>	<u>getInstance</u> () retrieves the singleton instance of the message window
Message[]	<u>getMessages</u> ()

int	<u>getNumberOfErrorsFound()</u> Retrieves the number of error messages since the last clearWarningCount or clearCheckErrors call.
java.io.PrintStream	<u>getOutputStream()</u> Retrieves the PrintStream that this MessageWindow sends its alternate output stream to.
int	<u>getWarningCount()</u> Retrieves the number of warning messages since the last clearWarningCount or clearCheckErrors call.
void	<u>removeModelRefs(AbstractModel model)</u> Removes the objects inside the current message list that use the given model as a reference.
void	<u>setGroupMessages(boolean group)</u> Sets the flag that groups the incoming messages together.
void	<u>setOutputStream(java.io.PrintStream out)</u> Sets the PrintStream that this MessageWindow sends its alternate output stream to.
void	<u>setupContextHelp()</u> Sets up the context sensitive help on the Message Window
void	<u>toFront()</u> ensures that this message window is visible

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

getTransferHandler

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Fields

AlertMsg

public static final int **AlertMsg**

Message type for non-error messages that the user should be alerted to.
Constant value: **0**

InfoMsg

public static final int **InfoMsg**

Message type for normal messages.
Constant value: **1**

WarningMsg

public static final int **WarningMsg**

Message type for non-fatal errors or warnings
Constant value: **2**

UserErrorMsg

public static final int **UserErrorMsg**

Message type for errors that are considered user created or caused
Constant value: **3**

InternalErrMsg

public static final int **InternalErrMsg**

Message type for errors that are not user created or caused.
Constant value: **4**

NoSound

public static final int **NoSound**

unused sound type
Constant value: **-1**

AlertSound

```
public static final int AlertSound
```

```
unused sound type  
Constant value: 0
```

InfoSound

```
public static final int InfoSound
```

```
unused sound type  
Constant value: 1
```

WarningSound

```
public static final int WarningSound
```

```
unused sound type  
Constant value: 2
```

UserErrorSound

```
public static final int UserErrorSound
```

```
unused sound type  
Constant value: 3
```

InternalErrSound

```
public static final int InternalErrSound
```

```
unused sound type  
Constant value: 4
```

ConnectSound

```
public static final int ConnectSound
```

```
unused sound type  
Constant value: 5
```

DisconnectSound

```
public static final int DisconnectSound
```

```
unused sound type  
Constant value: 6
```

Constructors

MessageWindow

```
public MessageWindow()
```

Creates new form MessageDialog. This should only be done by the MainFrame, when a new instance of the ModelEditor is started. The MessageWindow is never Modal, and always uses the current instance of the MainFrame as a parent.

Methods

getInstance

```
public static MessageWindow getInstance()
```

retrieves the singleton instance of the message window

addNotify

```
public void addNotify()
```

setupContextHelp

```
public void setupContextHelp()
```

Sets up the context sensitive help on the Message Window

setOutputStream

```
public void setOutputStream(java.io.PrintStream out)
```

Sets the PrintStream that this MessageWindow sends its alternate output stream to. The alternate output stream can be turned off by using setOutputStream(null) and defaults to System.err.

Parameters:

out - the PrintStream to print alternate output to.

getOutputStream

```
public java.io.PrintStream getOutputStream()
```

Retrieves the PrintStream that this MessageWindow sends its alternate output stream to. The alternate output stream can be turned off by using setOutputStream(null) and defaults to System.err.

clearWarningCount

```
public void clearWarningCount()
```

Sets the error count beginning index to the number of messages currently in the table so that they will not be counted as errors or warnings in subsequent getErrorCount or getWarningCount calls.

clearCheckErrors

```
public void clearCheckErrors()
```

Sets the error count beginning index to the number of messages currently in the table so that they will not be counted as errors or warnings in subsequent getErrorCount or getWarningCount calls.

addMessage

```
public int addMessage(String message)
```

Adds the given message as type InfoMsg. If the message begins with the string Error or Warning then it is added without that prefix.

Parameters:

message - a String containing the message to be displayed.

addMessage

```
public int addMessage(String text,  
    int severityCode)
```

Adds the given message with the given severity code

Parameters:

text - a String containing the message to be displayed.

Returns:

the index of the Message created for use with replaceMessage.

addMessage

```
public void addMessage(String text,  
    AbstractComponent comp)
```

Adds the given message as type InfoMsg with the attached component.

Parameters:

text - a String containing the message to be displayed.

Returns:

the index of the Message created for use with replaceMessage.

addMessage

```
public void addMessage(String text,  
    Vector comps,  
    int severityCode)
```

Adds the given message as type severityCode with the attached components.

Parameters:

text - a String containing the message to be displayed.

Returns:

the index of the Message created for use with replaceMessage.

addMessage

```
public void addMessage(String text,  
    AbstractComponent comp,  
    int severityCode)
```

Adds the given message as type `severityCode` with the attached component.

Parameters:

`text` - a String containing the message to be displayed.

Returns:

the index of the Message created for use with `replaceMessage`.

addMessage

```
public void addMessage(String text,  
                        int severityCode,  
                        Object[] object)
```

addMessage

```
public void addMessage(String text,  
                        ViewComponent comp,  
                        int severityCode,  
                        JComponent uiComp)
```

Adds the given message as type `severityCode` in the given View for the given UI Component.

Parameters:

`text` - a String containing the message to be displayed.
`uiComp` - the JComponent target of this message.

Returns:

the index of the Message created for use with `replaceMessage`.

addMessage

```
public void addMessage(String text,  
                        GenericObject object,  
                        int severityCode)
```

Adds the given message as type `severityCode` with the attached component.

Parameters:

`text` - a String containing the message to be displayed.

Returns:

the index of the Message created for use with `replaceMessage`.

addMessage

```
public int addMessage(Message message)
```

setGroupMessages

```
public void setGroupMessages(boolean group)
```

Sets the flag that groups the incoming messages together. These messages are not displayed inside the table, but collected inside an ArrayList. The list of grouped messages can be accessed until the group flag is set to true again.

Parameters:

group - the boolean flag that groups messages together.

getMessages

```
public Message[] getMessages()
```

getWarningCount

```
public int getWarningCount()
```

Retrieves the number of warning messages since the last clearWarningCount or clearCheckErrors call.

getNumberOfErrorsFound

```
public int getNumberOfErrorsFound()
```

Retrieves the number of error messages since the last clearWarningCount or clearCheckErrors call.

toFront

```
public void toFront()
```

ensures that this message window is visible

addSound

```
public void addSound(int soundType)
```

Sound is not supported by MessageWindow.

dateStamp

```
public String dateStamp()
```

Creates a formatted date stamp of the current time/date.

addMessageListener

```
public static void addMessageListener(MessageSelectionListener msl)
```

Prepends the message listener to the head of the listeners array. This allows for listeners to override the message selection behavior in a specific plug-in.

fireMessageSelected

```
public static void fireMessageSelected(Message[] messages)
```

Fires a new MessageSelectionEvent on all the listeners. The first listener to consume the event terminates the loop.

removeModelRefs

```
public void removeModelRefs(AbstractModel model)
```

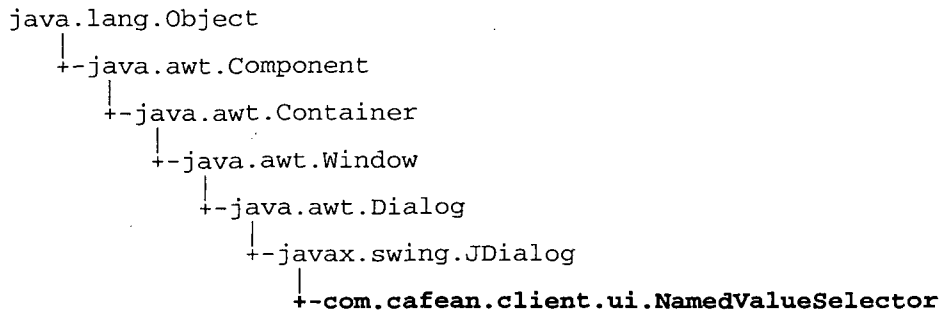
Removes the objects inside the current message list that use the given model as a reference.

Parameters:

model

com.cafean.client.ui

Class NamedValueSelector



All Implemented Interfaces:

java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, javax.accessibility.Accessible, HasGetTransferHandler, RootPaneContainer, javax.accessibility.Accessible, WindowConstants

public class **NamedValueSelector**
 extends JDialog

The NamedValueSelector provides the user with list of values with a name associated with them. The NamedValueSelector is given two parallel arrays or Vectors with the value and the names in each.

Fields inherited from class java.awt.Dialog
DEFAULT_MODALITY_TYPE
Fields inherited from class java.awt.Component
BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT
Fields inherited from interface java.awt.image.ImageObserver
ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS, WIDTH
Fields inherited from interface javax.swing.WindowConstants
DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

Constructor Summary

public	<u>NamedValueSelector</u> (java.awt.Frame parent, Object[] values, Object[] names) Creates a new NamedValueSelector that is modal over the given parent.
public	<u>NamedValueSelector</u> (JDialog parent, Object[] values, Object[] names) Creates a new NamedValueSelector that is modal over the given parent.
public	<u>NamedValueSelector</u> (java.awt.Frame parent, Vector values, Vector names) Creates a new NamedValueSelector that is modal over the given parent.

public	<u>NamedValueSelector</u> (JDialog parent, Vector values, Vector names) Creates a new NamedValueSelector that is modal over the given parent.
--------	--

Method Summary

int	<u>getSelectedIndex</u> () Returns the index of the object selected by the user.
TableCellEditor	<u>getTableCellEditor</u> () Provides a table cell editor of a property editor panel and the popup named value selection dialog
boolean	<u>isCancelled</u> () This is used to determine how the user closed the NamedValueSelector.
void	<u>setFirstFieldDisplayed</u> (boolean value) Method will enable or disable the first field in the "value -- name" displayed in this editor.
void	<u>setSelectedIndex</u> (int val) Sets the selected index for this value selector.
void	<u>setSelectedValue</u> (Object val_) Sets the selected value for this value selector.
void	<u>setValueLabel</u> (String text)

Methods inherited from class javax.swing.JDialog

getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, remove, repaint, setContentPane, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setJMenuBar, setLayeredPane, setLayout, setTransferHandler, update

Methods inherited from class java.awt.Dialog

addNotify, getAccessibleContext, getModalityType, getTitle, hide, isModal, isResizable, isUndecorated, setModal, setModalityType, setResizable, setTitle, setUndecorated, setVisible, show, toBack

Methods inherited from class java.awt.Window

addNotify, addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getAccessibleContext, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getGraphicsConfiguration, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOwnedWindows, getOwner, getOwnerlessWindows, getToolkit, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isShowing, pack, postEvent, removeNotify, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImage, setIconImages, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setVisible, show, toBack, toFront

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

getAccessibleContext

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface javax.swing.RootPaneContainer

getContentPane, getGlassPane, getLayeredPane, getRootPane, setContentPane, setGlassPane, setLayeredPane

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

getTransferHandler

Constructors

NamedValueSelector

```
public NamedValueSelector(java.awt.Frame parent,  
                           Object[] values,  
                           Object[] names)
```

Creates a new NamedValueSelector that is modal over the given parent.

Parameters:

parent - the Frame object that spawned this selector.
values - the Object[] of values.
names - the Object[] of names for the values.

NamedValueSelector

```
public NamedValueSelector(JDialog parent,  
                           Object[] values,  
                           Object[] names)
```

Creates a new NamedValueSelector that is modal over the given parent.

Parameters:

parent - the JDialog object that spawned this selector.
values - the Object[] of values.
names - the Object[] of names for the values.

NamedValueSelector

```
public NamedValueSelector(java.awt.Frame parent,  
                           Vector values,  
                           Vector names)
```

Creates a new NamedValueSelector that is modal over the given parent.

Parameters:

parent - the Frame object that spawned this selector.
values - the Vector of values.
names - the Vector of names for the values.

NamedValueSelector

```
public NamedValueSelector(JDialog parent,  
                          Vector values,  
                          Vector names)
```

Creates a new NamedValueSelector that is modal over the given parent.

Parameters:

parent - the Dialog object that spawned this selector.
values - the Vector of values.
names - the Vector of names for the values.

Methods

setSelectedIndex

```
public void setSelectedIndex(int val)
```

Sets the selected index for this value selector.

setSelectedValue

```
public void setSelectedValue(Object val_)
```

Sets the selected value for this value selector.

getSelectedIndex

```
public int getSelectedIndex()
```

Returns the index of the object selected by the user.

Returns:

the index of the Object selected by the user.

isCancelled

```
public boolean isCancelled()
```

This is used to determine how the user closed the NamedValueSelector. If the user exits the dialog by any means other than by pressing the OK button, this is set to TRUE.

Returns:

FALSE if the user pressed the OK button.

setValueLabel

```
public void setValueLabel(String text)
```

setFirstFieldDisplayed

public void **setFirstFieldDisplayed**(boolean value)

Method will enable or disable the first field in the "value -- name" displayed in this editor. (i.e. 1 -- CVH will be seen as CVH if this method is passed false)

Parameters:

value - the boolean which determines if the first field value should be displayed.

getTableCellEditor

public TableCellEditor **getTableCellEditor**()

Provides a table cell editor of a property editor panel and the popup named value selection dialog

Returns:

the TableCellEditor to be used for this dialog

com.cafean.client.ui

Class Pad

java.lang.Object

└-com.cafean.client.ui.Pad

All Implemented Interfaces:
Cloneable

public class Pad
extends Object
implements Cloneable

A small storage class for the location and direction of a connecting point in a drawn component.

Constructor Summary

public	<u>Pad</u> (int direction, java.awt.geom.Point2D.Double pt) Creates a new Pad with the given direction and location.
public	<u>Pad</u> (int direction, double xd, double yd) Creates a new Pad with the given direction and location.

Method Summary

int	<u>getFace</u> () Sets this pad's face.
java.awt.Point	<u>getLocation</u> () Retrieves this Pad's location
java.awt.geom.Point2D .Double	<u>getPadXY</u> () Retrieves this Pad's location
void	<u>setFace</u> (int face) Sets this pad's face.
void	<u>setPadXY</u> (double xd, double yd) Sets this pad's location
void	<u>setPadXY</u> (int x, int y) Sets this pad's location
void	<u>setPadXY</u> (java.awt.Point pt) Sets this pad's location
void	<u>setPadXY</u> (java.awt.geom.Point2D.Double pt) Sets this pad's location

void	<code>setPadXY(java.awt.geom.Point2D pt)</code> Sets this pad's location
------	---

Methods inherited from class `java.lang.Object`

`equals`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Constructors

Pad

```
public Pad(int direction,  
           java.awt.geom.Point2D.Double pt)
```

Creates a new Pad with the given direction and location.

Pad

```
public Pad(int direction,  
           double xd,  
           double yd)
```

Creates a new Pad with the given direction and location.

Methods

setPadXY

```
public void setPadXY(int x,  
                    int y)
```

Sets this pad's location

setPadXY

```
public void setPadXY(double xd,  
                    double yd)
```

Sets this pad's location

setPadXY

```
public void setPadXY(java.awt.geom.Point2D.Double pt)
```

Sets this pad's location

setPadXY

```
public void setPadXY(java.awt.geom.Point2D pt)
```

Sets this pad's location

setPadXY

```
public void setPadXY(java.awt.Point pt)
```

Sets this pad's location

getPadXY

```
public java.awt.geom.Point2D.Double getPadXY()
```

Retrieves this Pad's location

getLocation

```
public java.awt.Point getLocation()
```

Retrieves this Pad's location

setFace

```
public void setFace(int face)
```

Sets this pad's face. This value is also referred to as direction.

getFace

```
public int getFace()
```

Sets this pad's face. This value is also referred to as direction.

com.cafean.client.ui Class RealArrayDialog

```

java.lang.Object
  |-- java.awt.Component
      |-- java.awt.Container
          |-- java.awt.Window
              |-- java.awt.Dialog
                  |-- javax.swing.JDialog
                      |-- com.cafean.client.ui.RealArrayDialog

```

All Implemented Interfaces:

java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, javax.accessibility.Accessible, HasGetTransferHandler, RootPaneContainer, javax.accessibility.Accessible, WindowConstants

```

public class RealArrayDialog
extends JDialog

```

This dialog allows the user to change the values stored inside an array of Reals. Optionally this allows for the number of elements inside the array to change as well. This option defaults to true.

Nested Class Summary

class	<u>RealArrayDialog.TempClipboardEnabledTable</u> RealArrayDialog.TempClipboardEnabledTable
-------	---

Fields inherited from class java.awt.Dialog

DEFAULT_MODALITY_TYPE

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Fields inherited from interface javax.swing.WindowConstants

DISPOSE_ON_CLOSE, DO_NOTHING_ON_CLOSE, EXIT_ON_CLOSE, HIDE_ON_CLOSE

Constructor Summary

public	<u>RealArrayDialog</u> (java.awt.Frame parent, <u>Real[]</u> array) Creates new form RealArrayDialog
--------	---

public	<code>RealArrayDialog(java.awt.Frame parent, <u>Real[]</u> array, boolean <u>FixedDimension</u>)</code> Creates a new <code>RealArrayDialog</code> for editing the given array, setting whether the array's length can be modified.
public	<code>RealArrayDialog(java.awt.Frame parent, <u>Real[]</u> array, boolean <u>FixedDimension</u>, <u>AbstractModel</u> model)</code> Creates a new <code>RealArrayDialog</code> for editing the given array, setting whether the array's length can be modified.
public	<code><u>RealArrayDialog</u>(JDialog parent, <u>Real[]</u> array)</code> Creates new form <code>RealArrayDialog</code>
public	<code><u>RealArrayDialog</u>(JDialog parent, <u>Real[]</u> array, boolean <u>fixedDimension</u>)</code> Creates a new <code>RealArrayDialog</code> for editing the given array, setting whether the array's length can be modified.
public	<code><u>RealArrayDialog</u>(JDialog parent, <u>Real[]</u> array, boolean <u>fixedDimension</u>, <u>AbstractModel</u> model)</code> Creates a new <code>RealArrayDialog</code> for editing the given array, setting whether the array's length can be modified.

Method Summary

<u>Real[]</u>	<code><u>getArray</u>()</code> Gets the array that has been modified by this dialog.
boolean	<code><u>isCancelled</u>()</code> Determines how the dialog was exited.
void	<code><u>setCustomTable</u>(JTable table)</code> Sets the editor's table to a custom plug-in specified table.
void	<code><u>setSortable</u>(boolean val_)</code> Enables sorting of the real array.

Methods inherited from class `javax.swing.JDialog`

`getAccessibleContext, getContentPane, getDefaultCloseOperation, getGlassPane, getGraphics, getJMenuBar, getLayeredPane, getRootPane, getTransferHandler, isDefaultLookAndFeelDecorated, remove, repaint, getContentPane, setDefaultCloseOperation, setDefaultCloseOperation, setDefaultCloseOperation, setDefaultLookAndFeelDecorated, setGlassPane, setJMenuBar, setLayeredPane, setLayout, setTransferHandler, update`

Methods inherited from class `java.awt.Dialog`

`addNotify, getAccessibleContext, getModalityType, getTitle, hide, isModal, isResizable, isUndecorated, setModal, setModalityType, setResizable, setTitle, setUndecorated, setVisible, show, toBack`

Methods inherited from class `java.awt.Window`

addNotify, addPropertyChangeListener, addPropertyChangeListener, addWindowFocusListener, addWindowListener, addWindowStateListener, applyResourceBundle, applyResourceBundle, createBufferStrategy, createBufferStrategy, dispose, getAccessibleContext, getBufferStrategy, getFocusableWindowState, getFocusCycleRootAncestor, getFocusOwner, getFocusTraversalKeys, getGraphicsConfiguration, getIconImages, getInputContext, getListeners, getLocale, getModalExclusionType, getMostRecentFocusOwner, getOwnedWindows, getOwner, getOwnerlessWindows, getToolkit, getWarningString, getWindowFocusListeners, getWindowListeners, getWindows, getWindowStateListeners, hide, isActive, isAlwaysOnTop, isAlwaysOnTopSupported, isFocusableWindow, isFocusCycleRoot, isFocused, isLocationByPlatform, isShowing, pack, postEvent, removeNotify, removeWindowFocusListener, removeWindowListener, removeWindowStateListener, reshape, setAlwaysOnTop, setBounds, setBounds, setCursor, setFocusableWindowState, setFocusCycleRoot, setIconImage, setIconImages, setLocationByPlatform, setLocationRelativeTo, setMinimumSize, setModalExclusionType, setSize, setSize, setVisible, show, toBack, toFront

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

getAccessibleContext

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface javax.swing.RootPaneContainer

getContentPane, getGlassPane, getLayeredPane, getRootPane, setContentPane, setGlassPane, setLayeredPane

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

getTransferHandler

Constructors

RealArrayDialog

```
public RealArrayDialog(java.awt.Frame parent,  
                       Real[] array)
```

Creates new form RealArrayDialog

RealArrayDialog

```
public RealArrayDialog(java.awt.Frame parent,  
                       Real[] array,  
                       boolean fixedDimension)
```

Creates a new RealArrayDialog for editing the given array, setting whether the array's length can be modified.

Parameters:

- parent - the Frame that created this editor.
- array - the Real[] that is being modified.
- fixedDimension - whether the user can modify the number of elements.

RealArrayDialog

```
public RealArrayDialog(java.awt.Frame parent,  
                       Real[] array,  
                       boolean fixedDimension,  
                       AbstractModel model)
```

Creates a new RealArrayDialog for editing the given array, setting whether the array's length can be modified.

Parameters:

- parent - the Frame that created this editor.
- array - the Real[] that is being modified.
- fixedDimension - whether the user can modify the number of elements.

RealArrayDialog

```
public RealArrayDialog(JDialog parent,  
                       Real[] array)
```

Creates new form RealArrayDialog

RealArrayDialog

```
public RealArrayDialog(JDialog parent,  
                       Real[] array,  
                       boolean fixedDimension)
```

Creates a new RealArrayDialog for editing the given array, setting whether the array's length can be modified.

Parameters:

parent - the JDialog that created this editor.
array - the Real[] that is being modified.
fixedDimension - whether the user can modify the number of elements.

RealArrayDialog

```
public RealArrayDialog(JDialog parent,  
                       Real[] array,  
                       boolean fixedDimension,  
                       AbstractModel model)
```

Creates a new RealArrayDialog for editing the given array, setting whether the array's length can be modified.

Parameters:

parent - the JDialog that created this editor.
array - the Real[] that is being modified.
fixedDimension - whether the user can modify the number of elements.

Methods

setSortable

```
public void setSortable(boolean val_)
```

Enables sorting of the real array. This ensures that the values in this table always appear in increasing numerical order.

setCustomTable

```
public void setCustomTable(JTable table)
```

Sets the editor's table to a custom plug-in specified table.

Parameters:

table - the JTable plug-in customized table used to edit.

isCancelled

```
public boolean isCancelled()
```

Determines how the dialog was exited.

Returns:

true unless the Ok button was pressed.//GEN-HEADEREND:event_closeDialog

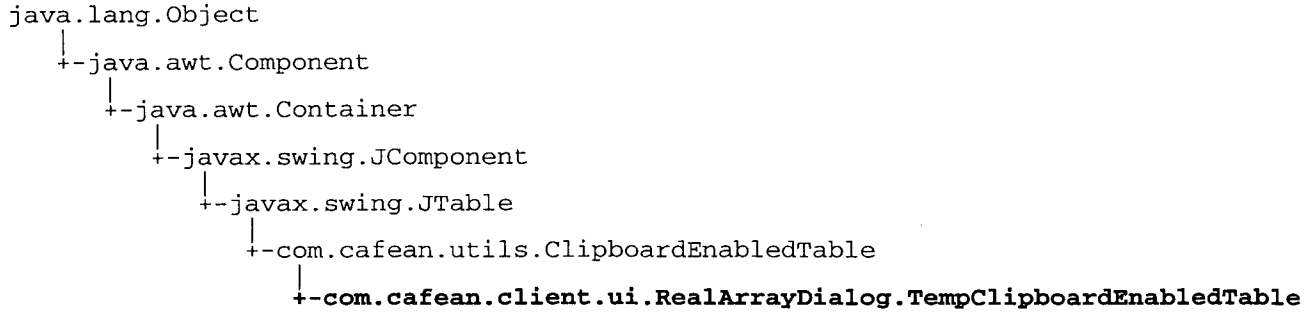
getArray

public Real[] **getArray**()

Gets the array that has been modified by this dialog.

com.cafean.client.ui

Class RealArrayDialog.TempClipboardEnabledTable



All Implemented Interfaces:

java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, RowSorterListener, javax.accessibility.Accessible, CellEditorListener, ListSelectionListener, TableColumnModelListener, Scrollable, TableModelListener

```
public class RealArrayDialog.TempClipboardEnabledTable
extends ClipboardEnabledTable
```

A JTable extension designed to allow proper system clipboard copy/paste behavior for derived tables.

Fields inherited from class javax.swing.JTable

AUTO_RESIZE_ALL_COLUMNS, AUTO_RESIZE_LAST_COLUMN, AUTO_RESIZE_NEXT_COLUMN, AUTO_RESIZE_OFF, AUTO_RESIZE_SUBSEQUENT_COLUMNS

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Constructor Summary

public RealArrayDialog.TempClipboardEnabledTable()

This constructor should be used by components which do not desire to have undo events generated on paste or have rows created on paste.

public	<u>RealArrayDialog.TempClipboardEnabledTable</u> (TableModel model, AbstractComponent workingComponent) This constructor should be used by components which do desire to have undo events generated on paste.
--------	--

Method Summary

void	<u>addNotify</u> ()
void	<u>cancelTableEditing</u> ()
boolean	<u>editCellAt</u> (int row, int column) Programmatically starts editing the cell at row and column, if those indices are in the valid range, and the cell at those indices is editable.
TableCellEditor	<u>getCellEditor</u> (int row, int column)
Action	<u>getCopyAction</u> () Retrieves an action suitable for use in a copy menu item or button
TableCellEditor	<u>getDefaultEditor</u> (Class class)
Action	<u>getPasteAction</u> () Retrieves an action suitable for use in a Paste menu item or button
Action	<u>getSelectAllAction</u> () Action for selecting all items in a table
Action	<u>getSortAction</u> () Action to sort the table data
boolean	<u>getUseMultiUndoEvents</u> ()
boolean	<u>isCurrentlyCopying</u> () Method determines if this table is currently copying values.
boolean	<u>isCurrentlyPasting</u> () Method determines if this table is currently copying values.
void	<u>removeNotify</u> ()
void	<u>stopTableEditing</u> ()

Methods inherited from class com.cafean.utils.ClipboardEnabledTable

getCopyAction, getPasteAction, isCurrentlyCopying, isCurrentlyPasting, setValueAt

Methods inherited from class javax.swing.JTable

addColumn, addColumnSelectionInterval, addNotify, addRowSelectionInterval, changeSelection, clearSelection, columnAdded, columnAtPoint, columnMarginChanged, columnMoved, columnRemoved, columnSelectionChanged, convertColumnIndexToModel, convertColumnIndexToView, convertRowIndexToModel, convertRowIndexToView, createDefaultColumnsFromModel, createScrollPaneForTable, doLayout, editCellAt, editCellAt, editingCanceled, editingStopped, getAccessibleContext, getAutoCreateColumnsFromModel, getAutoCreateRowSorter, getAutoResizeMode, getCellEditor, getCellEditor, getCellRect, getCellRenderer, getCellSelectionEnabled, getColumn, getColumnClass, getColumnCount, getColumnModel, getColumnName, getColumnSelectionAllowed, getDefaultEditor, getDefaultRenderer, getDragEnabled, getDropLocation, getDropMode, getEditingColumn, getEditingRow, getEditorComponent, getFillsViewportHeight, getGridColor, getInterCellSpacing, getModel, getPreferredSize, getPrintable, getRowCount, getRowHeight, getRowHeight, getRowMargin, getRowSelectionAllowed, getRowSorter, getScrollableBlockIncrement, getScrollableTracksViewportHeight, getScrollableTracksViewportWidth, getScrollableUnitIncrement, getSelectedColumn, getSelectedColumnCount, getSelectedColumns, getSelectedRow, getSelectedRowCount, getSelectedRows, getSelectionBackground, getSelectionForeground, getSelectionModel, getShowHorizontalLines, getShowVerticalLines, getSurrendersFocusOnKeystroke, getTableHeader, getToolTipText, getUI, getUIClassID, getUpdateSelectionOnSort, getValueAt, isCellEditable, isCellSelected, isColumnSelected, isEditing, isRowSelected, moveColumn, prepareEditor, prepareRenderer, print, print, print, print, print, removeColumn, removeColumnSelectionInterval, removeEditor, removeNotify, removeRowSelectionInterval, rowAtPoint, selectAll, setAutoCreateColumnsFromModel, setAutoCreateRowSorter, setAutoResizeMode, setCellEditor, setCellSelectionEnabled, setColumnModel, setColumnSelectionAllowed, setColumnSelectionInterval, setDefaultEditor, setDefaultRenderer, setDragEnabled, setDropMode, setEditingColumn, setEditingRow, setFillsViewportHeight, setGridColor, setInterCellSpacing, setModel, setPreferredSize, setRowHeight, setRowHeight, setRowMargin, setRowSelectionAllowed, setRowSelectionInterval, setRowSorter, setSelectionBackground, setSelectionForeground, setSelectionMode, setSelectionModel, setShowGrid, setShowHorizontalLines, setShowVerticalLines, getSurrendersFocusOnKeystroke, setTableHeader, setUI, setUpdateSelectionOnSort, setValueAt, sizeColumnsToFit, sizeColumnsToFit, sorterChanged, tableChanged, updateUI, valueChanged

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

getTransferHandler

Methods inherited from interface javax.swing.event.TableModelListener

tableChanged

Methods inherited from interface javax.swing.Scrollable

getPreferredScrollableViewportSize, getScrollableBlockIncrement,
getScrollableTracksViewportHeight, getScrollableTracksViewportWidth,
getScrollableUnitIncrement

Methods inherited from interface javax.swing.event.TableColumnModelListener

columnAdded, columnMarginChanged, columnMoved, columnRemoved, columnSelectionChanged

Methods inherited from interface javax.swing.event.ListSelectionListener

valueChanged

Methods inherited from interface javax.swing.event.CellEditorListener

editingCanceled, editingStopped

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface javax.swing.event.RowSorterListener

sorterChanged

Constructors

RealArrayDialog.TempClipboardEnabledTable

```
public RealArrayDialog.TempClipboardEnabledTable ()
```

This constructor should be used by components which do not desire to have undo events generated on paste or have rows created on paste.

RealArrayDialog.TempClipboardEnabledTable

```
public RealArrayDialog.TempClipboardEnabledTable (TableModel model,  
AbstractComponent workingComponent)
```

This constructor should be used by components which do desire to have undo events generated on paste.

Parameters:

model - the TableModel

workingComponent - the AbstractComponent which is being edited.

Methods

editCellAt

```
public boolean editCellAt(int row,  
                           int column)
```

Programmatically starts editing the cell at `row` and `column`, if those indices are in the valid range, and the cell at those indices is editable. Note that this is a convenience method for `editCellAt(int, int, null)`.

Parameters:

`row` - the row to be edited
`column` - the column to be edited

Returns:

false if for any reason the cell cannot be edited, or if the indices are invalid

getUseMultiUndoEvents

```
public boolean getUseMultiUndoEvents()
```

getCopyAction

```
public Action getCopyAction()
```

Retrieves an action suitable for use in a copy menu item or button

getPasteAction

```
public Action getPasteAction()
```

Retrieves an action suitable for use in a Paste menu item or button

getSelectAllAction

```
public Action getSelectAllAction()
```

Action for selecting all items in a table

getSortAction

```
public Action getSortAction()
```

Action to sort the table data

isCurrentlyCopying

```
public boolean isCurrentlyCopying()
```

Method determines if this table is currently copying values.

Returns:

True is returned if copying is currently being used.

isCurrentlyPasting

```
public boolean isCurrentlyPasting()
```

Method determines if this table is currently copying values.

Returns:

True is returned if copying is currently being used.

cancelTableEditing

```
public void cancelTableEditing()
```

stopTableEditing

```
public void stopTableEditing()
```

getDefaultEditor

```
public TableCellEditor getDefaultEditor(Class cls)
```

getCellEditor

```
public TableCellEditor getCellEditor(int row,  
int column)
```

addNotify

```
public void addNotify()
```

removeNotify

```
public void removeNotify()
```


com.cafean.client.ui Class RealEditor

```

java.lang.Object
  |--javax.swing.AbstractCellEditor
    |--javax.swing.DefaultCellEditor
      +-com.cafean.client.ui.RealEditor
  
```

All Implemented Interfaces:

ModelDependent, java.io.Serializable, CellEditor, TableCellEditor, TableCellEditor

```

public class RealEditor
extends DefaultCellEditor
implements TableCellEditor, TableCellEditor, CellEditor, java.io.Serializable, ModelDependent
  
```

RealEditor is a TableCellEditor that edits Real values stored inside a JTable. RealEditor is actually a wrapper for a RealTextField that actually handles editing the Real value. RealEditor overrides getCellEditorValue and returns the value from the RealTextField.

See Also:

Real, RealTextField

Constructor Summary

public	<u>RealEditor()</u> This constructor for a new RealEditor will create its own RealTextField.
public	<u>RealEditor(RealTextField field)</u> This constructor for a new RealEditor

Method Summary

boolean	<u>doMultiEdit()</u>
Object	<u>getCellEditorValue()</u> This gets the value from the RealTextField.
<u>AbstractModel</u>	<u>getModel()</u>
java.awt.Component	<u>getTableCellEditorComponent(JTable table, Object value, boolean isSelected, int row, int column)</u> delegates to javax.swing.DefaultCellEditor and sets the returned component's font to the table's font.
void	<u>setModel(AbstractModel model)</u>
static void	<u>setUpEditor(JTable table, int fromCol, int toCol, String[] line1, String[] line2, MultiLineHeaderRenderer headerRenderer)</u> This sets up a table with RealEditors between the specified columns.

static void	<u>setUpRealEditor</u> (JTable table) This fills all the columns in a JTable with RealEditors.
static void	<u>setUpRealEditor</u> (JTable table, <u>AbstractModel</u> model) This fills all the columns in a JTable with RealEditors.

Methods inherited from class javax.swing.DefaultCellEditor

cancelCellEditing, getCellEditorValue, getClickCountToStart, getComponent, getTableCellEditorComponent, getTreeCellEditorComponent, isCellEditable, setClickCountToStart, shouldSelectCell, stopCellEditing

Methods inherited from class javax.swing.AbstractCellEditor

addCellEditorListener, cancelCellEditing, getCellEditorListeners, isCellEditable, removeCellEditorListener, shouldSelectCell, stopCellEditing

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface javax.swing.CellEditor

addCellEditorListener, cancelCellEditing, getCellEditorValue, isCellEditable, removeCellEditorListener, shouldSelectCell, stopCellEditing

Methods inherited from interface javax.swing.table.TableCellEditor

getTableCellEditorComponent

Methods inherited from interface javax.swing.CellEditor

addCellEditorListener, cancelCellEditing, getCellEditorValue, isCellEditable, removeCellEditorListener, shouldSelectCell, stopCellEditing

Methods inherited from interface javax.swing.tree.TreeCellEditor

getTreeCellEditorComponent

Methods inherited from interface javax.swing.CellEditor

addCellEditorListener, cancelCellEditing, getCellEditorValue, isCellEditable, removeCellEditorListener, shouldSelectCell, stopCellEditing

Methods inherited from interface com.cafean.client.analysis.ModelDependent

getModel, setModel

Constructors

RealEditor

```
public RealEditor()
```

This constructor for a new RealEditor will create its own RealTextField. This is for use inside Tables where the RealTextField doesn't need a parent.

RealEditor

```
public RealEditor(RealTextField field)
```

This constructor for a new RealEditor

Parameters:

textField - the RealTextField that will actually edit the value.

Methods

getCellEditorValue

```
public Object getCellEditorValue()
```

This gets the value from the RealTextField. If the text returned is not a valid floating point number, the Real returned is Unknown.

Returns:

the Real value form the RealTextField, or a Real set unknown.

setUpRealEditor

```
public static void setUpRealEditor(JTable table)
```

This fills all the columns in a JTable with RealEditors.

Parameters:

table - the JTable that is being filled.

setUpRealEditor

```
public static void setUpRealEditor(JTable table,  
    AbstractModel model)
```

This fills all the columns in a JTable with RealEditors.

Parameters:

table - the JTable that is being filled.

model - the AbstractModel that contains the current units.

setUpEditor

```
public static void setUpEditor(JTable table,
    int fromCol,
    int toCol,
    String[] line1,
    String[] line2,
    MultiLineHeaderRenderer headerRenderer)
```

This sets up a table with RealEditors between the specified columns.

Parameters:

table - the JTable that is being setup.
fromCol - the first column that should have RealEditors.
toCol - the last column that should have RealEditors.
line1 - the String[] that contains the first line for all of the column headers.
line2 - the String[] that contains the second line for all of the column headers.
headerRenderer - a MultiLineHeaderRenderer for the table.

doMultiEdit

```
public boolean doMultiEdit()
```

getTableCellEditorComponent

```
public java.awt.Component getTableCellEditorComponent(JTable table,
    Object value,
    boolean isSelected,
    int row,
    int column)
```

delegates to javax.swing.DefaultCellEditor and sets the returned component's font to the table's font.

getModel

```
public AbstractModel getModel()
```

setModel

```
public void setModel(AbstractModel model)
```

com.cafean.client.ui Class RealRenderer

```

java.lang.Object
  |-- java.awt.Component
      |-- java.awt.Container
          |-- javax.swing.JComponent
              |-- javax.swing.JLabel
                  |-- com.cafean.client.ui.RealRenderer
  
```

All Implemented Interfaces:

TableCellRenderer, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible, SwingConstants

```
public class RealRenderer
```

```
extends JLabel
```

```
implements SwingConstants, javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler,
java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, TableCellRenderer
```

A renderer for use in rendering a Real value in a JTable. This renderer should be paired with [RealEditor](#) if the value is editable.

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Fields inherited from interface javax.swing.SwingConstants

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

Constructor Summary

public	RealRenderer() creates a new renderer
public	RealRenderer(int alignment) creates a new renderer with a default horizontal alignment already set.

Method Summary

java.awt.Component	<u>getTableCellRendererComponent</u> (JTable table, Object value, boolean isSelected, boolean hasFocus, int row, int column) Returns the component used for drawing the cell.
void	<u>setDisabledCellsGray</u> (boolean option) Method determines if cells which return !isCellEditable should be painted gray.
void	<u>setDisabledTextVisible</u> (boolean option) Method determines if cells which return !isCellEditable should have painted values.

Methods inherited from class javax.swing.JLabel

getAccessibleContext, getDisabledIcon, getDisplayedMnemonic, getDisplayedMnemonicIndex, getHorizontalAlignment, getHorizontalTextPosition, getIcon, getIconTextGap, getLabelFor, getText, getUI, getUIClassID, getVerticalAlignment, getVerticalTextPosition, imageUpdate, setDisabledIcon, setDisplayedMnemonic, setDisplayedMnemonicIndex, setDisplayedMnemonicIndex, setHorizontalAlignment, setHorizontalTextPosition, setIcon, setIconTextGap, setLabelFor, setText, setUI, setVerticalAlignment, setVerticalTextPosition, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

getTransferHandler

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface javax.swing.table.TableCellRenderer

getTableCellRendererComponent

Constructors

RealRenderer

```
public RealRenderer()
```

creates a new renderer

RealRenderer

```
public RealRenderer(int alignment)
```

creates a new renderer with a default horizontal alignment already set.

Methods

setDisabledCellsGray

```
public void setDisabledCellsGray(boolean option)
```

Method determines if cells which return !isCellEditable should be painted gray.

Parameters:

option - the boolean used to disable or enabled grayout.

setDisabledTextVisible

```
public void setDisabledTextVisible(boolean option)
```

Method determines if cells which return !isCellEditable should have painted values.

Parameters:

option - the boolean used to disable or enabled disabled text.

getTableCellRendererComponent

```
public java.awt.Component getTableCellRendererComponent(JTable table,  
    Object value,  
    boolean isSelected,  
    boolean hasFocus,  
    int row,  
    int column)
```

Returns the component used for drawing the cell. This method is used to configure the renderer appropriately before drawing.

Parameters:

table - the JTable that is asking the renderer to draw; can be null

value - the value of the cell to be rendered. It is up to the specific renderer to interpret and draw the value. For example, if value is the string "true", it could be rendered as a string or it could be rendered as a check box that is checked. null is a valid value

isSelected - true if the cell is to be rendered with the selection highlighted; otherwise false

hasFocus - if true, render cell appropriately. For example, put a special border on the cell, if the cell can be edited, render in the color used to indicate editing

row - the row index of the cell being drawn. When drawing the header, the value of row is -1

column - the column index of the cell being drawn

com.cafean.client.ui Class RealTextField

```
java.lang.Object
├── java.awt.Component
│   ├── java.awt.Container
│   │   ├── javax.swing.JComponent
│   │   │   ├── javax.swing.text.JTextComponent
│   │   │   │   ├── javax.swing.JTextField
│   │   │   │   └── com.cafean.client.ui.RealTextField
```

All Implemented Interfaces:

ModelDependent, java.awt.datatransfer.ClipboardOwner, java.io.Serializable, InsertErrorListener, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible, Scrollable, SwingConstants

public class RealTextField

extends JTextField

implements SwingConstants, Scrollable, javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, InsertErrorListener, java.io.Serializable, java.awt.datatransfer.ClipboardOwner, ModelDependent

The RealTextField is a JTextField that is specialized for working with Real values and extensions from the Number package. A RealTextField is created like a regular TextField. However, getValue() returns a Real Object instead of a String Object. The default Real is dimensionless, so storing the entered value into a value with units should involve a convert(double value) call on the target to preserve the entered value.

Fields inherited from class javax.swing.JTextField

notifyAction

Fields inherited from class javax.swing.text.JTextComponent

DEFAULT_KEYMAP, FOCUS_ACCELERATOR_KEY

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Fields inherited from interface javax.swing.SwingConstants

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

Constructor Summary

public	<u>RealTextField()</u> Creates a default textfield with a null string, 0 columns, and a null DecimalFormat.
public	<u>RealTextField(int alignment)</u> Creates a default textfield with a null string, 0 columns, and a null DecimalFormat.
public	<u>RealTextField(String text, int columns, java.text.DecimalFormat format)</u>
public	<u>RealTextField(String text, int columns, java.text.DecimalFormat format, boolean addListener)</u> This constructor allows for the MouseListener that opens the right click menu for the text field to be disabled.
public	<u>RealTextField(int columns, java.text.DecimalFormat format)</u> Creates a textfield with an initial null String as text, and the specified number of columns and format.
public	<u>RealTextField(String text)</u> Creates a textfield with the specified text, 0 columns and a null DecimalFormat
public	<u>RealTextField(String text, int columns)</u> Creates a textfield with the specified text, the specified number of columns, and a null DecimalFormat

Method Summary

void	<u>formatChanged()</u> This function is called when the document changes format
Double	<u>getDoubleValue()</u> This attempts to return the value inside this RealTextField as a Double.
java.text.DecimalFormat	<u>getFormat()</u> Getter for the DecimalFormat of this RealTextField.
Long	<u>getLongValue()</u> This attempts to return the value inside this RealTextField as a Long.
<u>AbstractModel</u>	<u>getModel()</u>
Number	<u>getNumberValue()</u> This attempts to return the value inside this RealTextField as a Number.
<u>Real</u>	<u>getValue()</u> This attempts to return the value inside this RealTextField as a Real.

void	<u>insertFailed</u> (NumericPlainDocument doc, int offset, String str, AttributeSet a) This function is overridden to handle an error that occurs during insertion.
boolean	<u>isUncertain</u> () Determines if the current value in the RealTextField is uncertain.
boolean	<u>isUnknown</u> () This method is used to determine whether the value inside this RealTextField is a known value.
void	<u>lostOwnership</u> (java.awt.datatransfer.Clipboard clipboard, java.awt.datatransfer.Transferable contents)
void	<u>normalize</u> () Formats the String in the RealTextField to the specified DecimalFormat.
void	<u>setAllowNumerics</u> (boolean allow) when set to true, this real text field will allow the selection and specification of user defined numerics
void	<u>setFormat</u> (java.text.DecimalFormat format) Sets the DecimalFormat on this RealTextField.
void	<u>setModel</u> (AbstractModel model)
void	<u>setText</u> (String text)
void	<u>setValue</u> (double d) Sets the value of the current RealTextField to the specified double
void	<u>setValue</u> (long l) Sets the value of the current RealTextField to the specified long
void	<u>setValue</u> (Number number) Sets the value of the current RealTextField to the specified Number
void	<u>setValue</u> (Real r) Sets the value of the current RealTextField to the specified Real value.
void	<u>setValueUncertain</u> () If the RealTextField represents multiple sources of data that differ, the value is considered uncertain.
void	<u>setValueUnknown</u> () Sets the value of the current RealTextField to Unknown
String	<u>toString</u> () Returns the current value of the RealTextField as a String.

Methods inherited from class javax.swing.JTextField

addActionListener, getAccessibleContext, getAction, getActionListeners, getActions, getColumns, getHorizontalAlignment, getHorizontalVisibility, getPreferredSize, getScrollOffset, getUIClassID, isValidRoot, postActionEvent, removeActionListener, scrollRectToVisible, setAction, setActionCommand, setColumns, setDocument, setFont, setHorizontalAlignment, setScrollOffset

Methods inherited from class javax.swing.text.JTextComponent

addCaretListener, addInputMethodListener, addKeymap, copy, cut, getAccessibleContext, getActions, getCaret, getCaretColor, getCaretListeners, getCaretPosition, getDisabledTextColor, getDocument, getDragEnabled, getDropLocation, getDropMode, getFocusAccelerator, getHighlighter, getInputMethodRequests, getKeymap, getKeymap, getMargin, getNavigationFilter, getPreferredSize, getPrintable, getScrollableBlockIncrement, getScrollableTracksViewportHeight, getScrollableTracksViewportWidth, getScrollableUnitIncrement, getSelectedText, getSelectedTextColor, getSelectionColor, getSelectionEnd, getSelectionStart, getText, getText, getToolTipText, getUI, isEditable, loadKeymap, modelToView, moveCaretPosition, paste, print, print, print, read, removeCaretListener, removeKeymap, removeNotify, replaceSelection, select, selectAll, setCaret, setCaretColor, setCaretPosition, setComponentOrientation, setDisabledTextColor, setDocument, setDragEnabled, setDropMode, setEditable, setFocusAccelerator, setHighlighter, setKeymap, setMargin, setNavigationFilter, setSelectedTextColor, setSelectionColor, setSelectionEnd, setSelectionStart, setText, setUI, updateUI, viewToModel, write

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

getTransferHandler

Methods inherited from interface javax.swing.Scrollable

getPreferredScrollableViewportSize, getScrollableBlockIncrement,
getScrollableTracksViewportHeight, getScrollableTracksViewportWidth,
getScrollableUnitIncrement

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface com.cafean.client.ui.NumericPlainDocument.InsertErrorListener

insertFailed

Methods inherited from interface java.awt.datatransfer.ClipboardOwner

lostOwnership

Methods inherited from interface com.cafean.client.analysis.ModelDependent

getModel, setModel

Constructors

RealTextField

```
public RealTextField()
```

Creates a default textfield with a null string, 0 columns, and a null DecimalFormat.

RealTextField

```
public RealTextField(int alignment)
```

Creates a default textfield with a null string, 0 columns, and a null DecimalFormat. This also sets the default horizontal alignment.

RealTextField

```
public RealTextField(String text,  
                    int columns,  
                    java.text.DecimalFormat format)
```

Parameters:

- text - the initial text to appear in the textfield
- columns - the number of columns to appear in the textfield
- format - the DecimalFormat to display the numbers in the textfield

RealTextField

```
public RealTextField(String text,  
                    int columns,  
                    java.text.DecimalFormat format,  
                    boolean addListener)
```

This constructor allows for the `MouseListener` that opens the right click menu for the text field to be disabled.

Parameters:

`text` - the initial text to appear in the textfield
`columns` - the number of columns to appear in the textfield
`format` - the `DecimalFormat` to display the numbers in the textfield
`addListener` - boolean flag for disabling the `MouseListener`

RealTextField

```
public RealTextField(int columns,  
                    java.text.DecimalFormat format)
```

Creates a textfield with an initial null `String` as text, and the specified number of columns and format.

RealTextField

```
public RealTextField(String text)
```

Creates a textfield with the specified text, 0 columns and a null `DecimalFormat`

RealTextField

```
public RealTextField(String text,  
                    int columns)
```

Creates a textfield with the specified text, the specified number of columns, and a null `DecimalFormat`

Methods

setFormat

```
public void setFormat(java.text.DecimalFormat format)
```

Sets the `DecimalFormat` on this `RealTextField`.

Parameters:

`format` - the `DecimalFormat` required for the `RealTextField`.

getFormat

```
public java.text.DecimalFormat getFormat()
```

Getter for the `DecimalFormat` of this `RealTextField`.

Returns:

the `DecimalFormat`.

formatChanged

```
public void formatChanged()
```

This function is called when the document changes format .

isUnknown

```
public boolean isUnknown()
```

This method is used to determine whether the value inside this RealTextField is a known value.

Returns:

TRUE if the value in the RealTextField is unknown.

setText

```
public void setText(String text)
```

getLongValue

```
public Long getLongValue()  
throws java.text.ParseException
```

This attempts to return the value inside this RealTextField as a Long. If the value cannot be converted it throws a ParseException.

Returns:

the value of the RealTextField as a Long

Throws:

a - ParseException if the value in the textfield cannot be parsed as a Long

getDoubleValue

```
public Double getDoubleValue()  
throws java.text.ParseException
```

This attempts to return the value inside this RealTextField as a Double. If the value cannot be converted it throws a ParseException.

Returns:

the value of the RealTextField as a Double

Throws:

a - ParseException if the value in the textfield cannot be parsed as a Double

getNumberValue

```
public Number getNumberValue()  
throws java.text.ParseException
```

This attempts to return the value inside this RealTextField as a Number. If the value cannot be converted it throws a ParseException.

Returns:

the value of the textfield as a Number

Throws:

a - ParseException if the value in the textfield cannot be parsed as a Number

getValue

```
public Real getValue()  
throws java.text.ParseException
```

This attempts to return the value inside this RealTextField as a Real. If the value cannot be converted it throws a ParseException.

Returns:

the value of the textfield as a Real

Throws:

a - ParseException if the value in the textfield cannot be parsed as a Real

setValueUnknown

```
public void setValueUnknown()
```

Sets the value of the current RealTextField to Unknown

setValue

```
public void setValue(Number number)
```

Sets the value of the current RealTextField to the specified Number

Parameters:

number - the Number to be set in the RealTextField.

setValue

```
public void setValue(long l)
```

Sets the value of the current RealTextField to the specified long

Parameters:

l - the long to be set in the RealTextField.

setValue

```
public void setValue(double d)
```

Sets the value of the current RealTextField to the specified double

Parameters:

d - the double to be set in the RealTextField.

setValue

```
public void setValue(Real r)
```

Sets the value of the current RealTextField to the specified Real value.

Parameters:

r - the Real to be set in the RealTextField.

normalize

```
public void normalize()  
.throws java.text.ParseException
```

Formats the String in the RealTextField to the specified DecimalFormat.

insertFailed

```
public void insertFailed(NumericPlainDocument doc,  
    int offset,  
    String str,  
    AttributeSet a)
```

This function is overridden to handle an error that occurs during insertion.

Parameters:

doc - the NumericPlainDocument being edited.
offset - the current index in the string where the error occurred.
str - the String that is in the TextField.

toString

```
public String toString()
```

Returns the current value of the RealTextField as a String.

Returns:

the text String of the RealTextField

setValueUncertain

```
public void setValueUncertain()
```

If the RealTextField represents multiple sources of data that differ, the value is considered uncertain. The Text that is displayed is multiple stars. This sets the value stored to be uncertain.

isUncertain

```
public boolean isUncertain()
```

Determines if the current value in the RealTextField is uncertain.

Returns:

TRUE if the value is uncertain.

setAllowNumerics

```
public void setAllowNumerics(boolean allow)
```

when set to true, this real text field will allow the selection and specification of user defined numerics

lostOwnership

```
public void lostOwnership(java.awt.datatransfer.Clipboard clipboard,  
    java.awt.datatransfer.Transferable contents)
```

getModel

```
public AbstractModel getModel()
```

setModel

```
public void setModel(AbstractModel model)
```

com.cafean.client.ui Interface RefreshableDialog

All Known Implementing Classes:
[AsciiViewer](#)

public interface **RefreshableDialog**
extends

An interface describing a Dialog extension whos data and/or structure can be refreshed directly based on a change of the currently displayed units type or a global refresh.

Method Summary

void	<u>refresh()</u> Refreshes and redisplayes this dialog's data
void	<u>unitsChanged()</u> Indicates that the currently displayed units type has changed and updates this dialogs display.

Methods

unitsChanged

public void **unitsChanged()**

Indicates that the currently displayed units type has changed and updates this dialogs display.

refresh

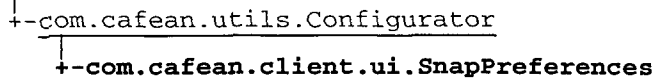
public void **refresh()**

Refreshes and redisplayes this dialog's data

com.cafean.client.ui

Class SnapPreferences

java.lang.Object



All Implemented Interfaces:

PropertyController, ComponentElement

```

public class SnapPreferences
extends Configurator
implements ComponentElement, PropertyController
  
```

Field Summary	
public static final	<u>DCB_MINI_NAV</u> a behavior enumeration that indicates that double-clicking a DrawnComponent will open a MiniNavigator for that component Value: 2
public static final	<u>DCB_NAV_SELECT</u> a behavior enumeration that indicates that double-clicking a DrawnComponent will select that component in the Navigator. Value: 1
public static final	<u>Num_Databases</u> Value: 5
public static final	<u>SESSION_ALWAYS</u> the enumerated session mode where the session is always restored when the ModelEditor is launched Value: 1
public static final	<u>SESSION_NAMES</u>
public static final	<u>SESSION_NEVER</u> the enumerated session mode where the session is never restored when the ModelEditor is launched Value: 2
public static final	<u>SESSION_PROMPT</u> the enumerated session mode where the user is asked if the previous session should be restored when the ModelEditor is launched Value: 0
public static final	<u>SESSION_VALUES</u>

public static final	<u>VIEW_SEL_IND</u> Value: 1
public static final	<u>VIEW_SEL_NAV</u> Value: 3
public static final	<u>VIEW_SEL_NAV1</u> Value: 2
public static final	<u>WINDOW_MULTIPLE</u> the enumerated windowing arrangement mode where each major UI region will have it's own Frame. Value: 1
public static final	<u>WINDOW_NAMES</u>
public static final	<u>WINDOW_NAVIGATOR_ABOVE_PROPERTIES</u> the enumerated windowing arrangement mode where the Navigator is placed above the Property View. Value: 2
public static final	<u>WINDOW_NAVIGATOR_BESIDE_PROPERTIES</u> the enumerated windowing arrangement mode where the Navigator is placed to the left of the Property View Value: 3
public static final	<u>WINDOW_SINGLE</u> Deprecated. There is now no longer one 'single-window' mode, but several. This value exists as an alias of <u>WINDOW_NAVIGATOR_ABOVE_PROPERTIES</u> Value: 2
public static final	<u>WINDOW_VALUES</u>

Fields inherited from interface `com.cafean.client.ui.beans.PropertyController`

`ALL, COLOR_OPTIONAL, DISABLED, NONE, OPTIONAL, REQUIRED`

Constructor Summary

public	<u>SnapPreferences()</u>
--------	--------------------------

Method Summary

boolean	<u>areComponentsScaled()</u>
static String	<u>getAttributeGroup(String property)</u> Retrieves the name of the Attribute Group for the given property name.

static String[]	<u>getAttributeGroups()</u> Retrieves the Attribute Group Names for this preferences object.
int	<u>getAttributeIndex(String propertyName)</u>
static String[]	<u>getAttributesForGroup(String groupName)</u> Retrieves the Attribute Names for the given group.
java.awt.Color	<u>getBaseErrorColor()</u>
java.awt.Color	<u>getBaseHeatedColor()</u>
java.awt.Color	<u>getBaseIncompleteColor()</u>
java.awt.Color	<u>getBaseNormalColor()</u>
java.awt.Color	<u>getBaseNormCsColor()</u>
java.awt.Color	<u>getBasePoweredColor()</u> Getter for property poweredColorBase.
java.awt.Color	<u>getBaseSelectedColor()</u>
java.awt.Color	<u>getBaseSpecialColor()</u>
java.awt.Color	<u>getBaseWarningColor()</u>
java.awt.Font	<u>getCanvasFont()</u>
java.awt.Font	<u>getCanvasFontItalic()</u>
java.awt.FontMetrics	<u>getCanvasFontItalicMetrics()</u>
java.awt.FontMetrics	<u>getCanvasFontMetrics()</u>
<u>AbstractComponent</u>	<u>getComponent()</u>
java.awt.Color	<u>getConnectionColor()</u>
int	<u>getConnectionSize()</u>
int	<u>getDefaultUnits()</u> Getter for the default model units.
int	<u>getDoubleClickBehavior()</u> Retrieves the double-click behavior as either <u>DCB_NAV_SELECT</u> or <u>DCB_MINI_NAV</u>

java.awt.Color	<u>getErrorColor()</u>
int	<u>getHandleSize()</u>
java.awt.Color	<u>getHeatedColor()</u>
java.awt.Color	<u>getIncompleteColor()</u>
java.io.File	<u>getLastPath(String name)</u> Loads a file from the model editor module.
java.io.File	<u>getLastPath(String module, String name)</u> Loads a file from the given module module.
int	<u>getLayoutIterations()</u> Getter for property layoutIterations.
java.awt.Font	<u>getMessageFont()</u>
<u>AbstractModel</u>	<u>getModel()</u>
java.awt.Color	<u>getNormalColor()</u>
java.awt.Color	<u>getNormCsColor()</u>
<u>ComponentElement</u>	<u>getOwner()</u>
java.awt.Color	<u>getPoweredColor()</u> Getter for property poweredColor.
boolean	<u>getScaleComponents()</u>
java.awt.Color	<u>getSelectedColor()</u>
int	<u>getSessionMode()</u> Retrieves the current session mode as one of the above SESSION_* enumerations.
boolean	<u>getShowCreateViewDialog()</u> Returns true if the Create Views dialog should be shown when a model is imported.
boolean	<u>getShowWelcomeDialog()</u> Returns true if the welcome dialog should be shown when a the ModelEditor is opened.
java.awt.Color	<u>getSpecialColor()</u>
int	<u>getTabLayout()</u> Getter for property tabLayout.
int	<u>getViewSelectionMode()</u>

java.awt.Color	<u>getWarningColor()</u>
int	<u>getWindowingMode()</u> retrieves the current windowing arrangement mode as one of the above WINDOW_* enumerations.
String	<u>getXpdfPath()</u> sets the path to the XPDF executable used by the PDFViewer
boolean	<u>isDatabaseConfigured()</u> Deprecated. Snap Version 0.25.0 September 17th 2006
boolean	<u>isJeditAvailable()</u> Returns true if the "jEdit Executable" property is defined and refers to an existing file.
boolean	<u>isPropertyActive(String propertyName)</u>
boolean	<u>isPropertyEnabled(String propertyName)</u>
boolean	<u>isPropertyRequired(String propertyName)</u>
boolean	<u>isPropertyResizable(String propertyName)</u>
boolean	<u>isPropertyRestartEditable(String propertyName)</u>
boolean	<u>isRestartResizable(String propertyName)</u>
boolean	<u>isSingleFrame()</u> Returns true if the current windowing mode is a single window mode.
boolean	<u>isUnlockedAA()</u> returns true if the DrawnView will use antialiasing when unlocked
boolean	<u>load()</u>
static java.awt.TexturePaint	<u>makeBumpyTexture(java.awt.Color drawColor)</u>
void	<u>resetModule()</u>
boolean	<u>save()</u>
void	<u>setBaseErrorColor(java.awt.Color errorColor)</u>
void	<u>setBaseHeatedColor(java.awt.Color heatedColor)</u>
void	<u>setBaseIncompleteColor(java.awt.Color incompleteColor)</u>
void	<u>setBaseNormalColor(java.awt.Color normalColor)</u>

void	<u>setBaseNormCsColor</u> (java.awt.Color normCsColor)
void	<u>setBasePoweredColor</u> (java.awt.Color poweredColor)
void	<u>setBaseSelectedColor</u> (java.awt.Color selectedColor)
void	<u>setBaseSpecialColor</u> (java.awt.Color specialColor)
void	<u>setBaseWarningColor</u> (java.awt.Color warningColor)
void	<u>setCanvasFont</u> (java.awt.Font font)
void	<u>setConnectionColor</u> (java.awt.Color c)
void	<u>setConnectionSize</u> (int i)
void	<u>setDefaultUnits</u> (int val_) Setter for the default model units.
void	<u>setDoubleClickBehavior</u> (int doubleClickBehavior) Sets the double-click behavior as either <u>DCB_NAV_SELECT</u> or <u>DCB_MINI_NAV</u>
void	<u>setErrorColor</u> (java.awt.Color c)
void	<u>setHandleSize</u> (int i)
void	<u>setHeatedColor</u> (java.awt.Color c)
void	<u>setIncompleteColor</u> (java.awt.Color c)
void	<u>setLastPath</u> (String name, java.io.File last) Stores the given file path into the "Model Editor" module with the name "Last " + name + " File".
void	<u>setLastPath</u> (String module, String name, java.io.File last) Stores the given file path into a module with the name "Last " + name + " File".
void	<u>setLayoutIterations</u> (int val_) Setter for property layoutIterations.
void	<u>setNormalColor</u> (java.awt.Color c)
void	<u>setNormCsColor</u> (java.awt.Color c)
void	<u>setPoweredColor</u> (java.awt.Color c)
void	<u>setScaleComponents</u> (boolean flag)

void	<u>setSelectedColor</u> (java.awt.Color c)
void	<u>setSessionMode</u> (int mode) Sets the current session mode as one of the above SESSION_* enumerations.
void	<u>setShowCreateViewDialog</u> (boolean show) Set to true if the Create Views dialog should be shown when a model is imported.
void	<u>setShowHS_connections</u> (boolean flag)
void	<u>setShowWelcomeDialog</u> (boolean show) Set to true if the welcome dialog should be shown when a the ModelEditor is opened.
void	<u>setSpecialColor</u> (java.awt.Color c)
void	<u>setTabLayout</u> (int val_) Setter for property tabLayout.
void	<u>setUnlockedAA</u> (boolean unlockedAA) if set to true the DrawnView will use antialiasing when unlocked
void	<u>setViewSelectionMode</u> (int viewSelectionMode)
void	<u>setWarningColor</u> (java.awt.Color c)
void	<u>setWindowingMode</u> (int mode) sets the current windowing arrangement mode as one of the above WINDOW_* enumerations.
void	<u>setXpdfPath</u> (String path) gets the path to the XPDF executable used by the PDFViewer
boolean	<u>ShowHS_connections</u> ()

Methods inherited from class com.cafean.utils.Configurator

addCodeInfos, addServer, destroy, getCodeInfos, getColor, getColor, getColor, getColor, getConfigFileDir, getConfigFileName, getDividerLocation, getDividerLocation, getFont, getFont, getFont, getGeometry, getGeometry, getGeometry, getGeometry, getGeometry, getGeometry, getLocalServer, getNrcDBServer, getProperty, getProperty, getProperty, getServers, getWebSupport, reDirectStdErrOut, removeAllCodeInfos, removeAllServers, removeProperty, removeProperty, removeServer, save, setColor, setColor, setDividerLocation, setDividerLocation, setFont, setFont, setGeometry, setGeometry, setGeometry, setLookAndFeel, setModule, setNrcDBServer, setProperty, setProperty, setWebSupport, updateAvailable, updateLookAndFeel

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.cafean.client.analysis.ComponentElement

getComponent, getOwner

Methods inherited from interface `com.cafean.client.analysis.ModelElement`

`getModel`

Methods inherited from interface `com.cafean.client.ui.beans.PropertyController`

`getAttributeIndex`, `isPropertyActive`, `isPropertyEnabled`, `isPropertyRequired`,
`isPropertyResizable`, `isPropertyRestartEditable`, `isRestartResizable`

Fields

WINDOW_MULTIPLE

`public static final int WINDOW_MULTIPLE`

the enumerated windowing arrangement mode where each major UI region will have it's own Frame.
Constant value: 1

WINDOW_NAVIGATOR_ABOVE_PROPERTIES

`public static final int WINDOW_NAVIGATOR_ABOVE_PROPERTIES`

the enumerated windowing arrangement mode where the Navigator is placed above the Property View.
Constant value: 2

WINDOW_NAVIGATOR_BESIDE_PROPERTIES

`public static final int WINDOW_NAVIGATOR_BESIDE_PROPERTIES`

the enumerated windowing arrangement mode where the Navigator is placed to the left of the Property View
Constant value: 3

SESSION_PROMPT

`public static final int SESSION_PROMPT`

the enumerated session mode where the user is asked if the previous session should be restored when the ModelEditor is launched
Constant value: 0

SESSION_ALWAYS

`public static final int SESSION_ALWAYS`

the enumerated session mode where the session is always restored when the ModelEditor is launched
Constant value: 1

SESSION_NEVER

`public static final int SESSION_NEVER`

the enumerated session mode where the session is never restored when the ModelEditor is launched

Constant value: 2

WINDOW_SINGLE

```
public static final int WINDOW_SINGLE
```

Deprecated. *There is now no longer one 'single-window' mode, but several. This value exists as an alias of WINDOW_NAVIGATOR_ABOVE_PROPERTIES*

The enumerated windowing arrangement mode that indicates that all major UI portions use a single Frame.
Constant value: 2

WINDOW_VALUES

```
public static final int WINDOW_VALUES
```

WINDOW_NAMES

```
public static final java.lang.String WINDOW_NAMES
```

SESSION_VALUES

```
public static final int SESSION_VALUES
```

SESSION_NAMES

```
public static final java.lang.String SESSION_NAMES
```

Num_Databases

```
public static final int Num_Databases
```

Constant value: 5

DCB_NAV_SELECT

```
public static final int DCB_NAV_SELECT
```

a behavior enumeration that indicates that double-clicking a DrawnComponent will select that component in the Navigator.
Constant value: 1

DCB_MINI_NAV

```
public static final int DCB_MINI_NAV
```

a behavior enumeration that indicates that double-clicking a DrawnComponent will open a MiniNavigator for that component

Constant value: 2

VIEW_SEL_IND

```
public static final int VIEW_SEL_IND
```

Constant value: 1

VIEW_SEL_NAV1

```
public static final int VIEW_SEL_NAV1
```

Constant value: 2

VIEW_SEL_NAV

```
public static final int VIEW_SEL_NAV
```

Constant value: 3

Constructors

SnapPreferences

```
public SnapPreferences()
```

Methods

resetModule

```
public void resetModule()
```

load

```
public boolean load()
```

save

```
public boolean save()
```

Saves the currently loaded configuration to the user's .snaprc. Only modules that have data that changed are saved.

isJeditAvailable

```
public boolean isJeditAvailable()
```

Returns true if the "jEdit Executable" property is defined and refers to an existing file.

getDoubleClickBehavior

```
public int getDoubleClickBehavior()
```

Retrieves the double-click behavior as either DCB_NAV_SELECT or DCB_MINI_NAV

setDoubleClickBehavior

```
public void setDoubleClickBehavior(int doubleClickBehavior)
```

Sets the double-click behavior as either DCB_NAV_SELECT or DCB_MINI_NAV

areComponentsScaled

```
public boolean areComponentsScaled()
```

setScaleComponents

```
public void setScaleComponents(boolean flag)
```

getScaleComponents

```
public boolean getScaleComponents()
```

ShowHS_connections

```
public boolean ShowHS_connections()
```

setShowHS_connections

```
public void setShowHS_connections(boolean flag)
```

getHandleSize

```
public int getHandleSize()
```

setHandleSize

```
public void setHandleSize(int i)
```

getConnectionSize

```
public int getConnectionSize()
```

setConnectionSize

```
public void setConnectionSize(int i)
```

getNormalColor

```
public java.awt.Color getNormalColor()
```

getNormCsColor

```
public java.awt.Color getNormCsColor()
```

getWarningColor

```
public java.awt.Color getWarningColor()
```

getErrorColor

```
public java.awt.Color getErrorColor()
```

getIncompleteColor

```
public java.awt.Color getIncompleteColor()
```

getSelectedColor

```
public java.awt.Color getSelectedColor()
```

getSpecialColor

```
public java.awt.Color getSpecialColor()
```

getHeatedColor

```
public java.awt.Color getHeatedColor()
```

getConnectionColor

```
public java.awt.Color getConnectionColor()
```

getBaseNormalColor

```
public java.awt.Color getBaseNormalColor()
```

getBaseNormCsColor

```
public java.awt.Color getBaseNormCsColor()
```

getBaseWarningColor

```
public java.awt.Color getBaseWarningColor()
```

getBaseErrorColor

```
public java.awt.Color getBaseErrorColor()
```

getBaseIncompleteColor

```
public java.awt.Color getBaseIncompleteColor()
```

getBaseSelectedColor

```
public java.awt.Color getBaseSelectedColor()
```

getBaseSpecialColor

```
public java.awt.Color getBaseSpecialColor()
```

getBaseHeatedColor

```
public java.awt.Color getBaseHeatedColor()
```

setBaseNormalColor

```
public void setBaseNormalColor(java.awt.Color normalColor)
```

setBaseNormCsColor

```
public void setBaseNormCsColor(java.awt.Color normCsColor)
```

setBaseWarningColor

```
public void setBaseWarningColor(java.awt.Color warningColor)
```

setBaseErrorColor

```
public void setBaseErrorColor(java.awt.Color errorColor)
```

setBaseIncompleteColor

```
public void setBaseIncompleteColor(java.awt.Color incompleteColor)
```

setBaseSelectedColor

```
public void setBaseSelectedColor(java.awt.Color selectedColor)
```

setBaseSpecialColor

```
public void setBaseSpecialColor(java.awt.Color specialColor)
```

setBaseHeatedColor

```
public void setBaseHeatedColor(java.awt.Color heatedColor)
```

setNormalColor

```
public void setNormalColor(java.awt.Color c)
```

setNormCsColor

```
public void setNormCsColor(java.awt.Color c)
```

setWarningColor

```
public void setWarningColor(java.awt.Color c)
```

setErrorColor

```
public void setErrorColor(java.awt.Color c)
```

setIncompleteColor

```
public void setIncompleteColor(java.awt.Color c)
```

setSelectedColor

```
public void setSelectedColor(java.awt.Color c)
```

setSpecialColor

```
public void setSpecialColor(java.awt.Color c)
```

setHeatedColor

```
public void setHeatedColor(java.awt.Color c)
```

setConnectionColor

```
public void setConnectionColor(java.awt.Color c)
```

getCanvasFont

```
public java.awt.Font getCanvasFont()
```

setCanvasFont

```
public void setCanvasFont(java.awt.Font font)
```

getCanvasFontItalic

```
public java.awt.Font getCanvasFontItalic()
```

getCanvasFontItalicMetrics

```
public java.awt.FontMetrics getCanvasFontItalicMetrics()
```

getCanvasFontMetrics

```
public java.awt.FontMetrics getCanvasFontMetrics()
```

makeBumpyTexture

```
public static java.awt.TexturePaint makeBumpyTexture(java.awt.Color drawColor)
```

getMessageFont

```
public java.awt.Font getMessageFont()
```

getLastPath

```
public java.io.File getLastPath(String module,  
    String name)
```

Loads a file from the given module module. This does not use the current module but specifically obtains the property from the given module. This will return null if the property does not exist.

Parameters:

module - the name of the module with the requested path.

name - the name of the file to obtain.

getLastPath

```
public java.io.File getLastPath(String name)
```

Loads a file from the model editor module. This does not use the current module but specifically obtains the property from the Model Editor module. This will return null if the property does not exist.

Parameters:

module - the name of the module with the requested path.
name - the name of the file to obtain.

setLastPath

```
public void setLastPath(String module,  
    String name,  
    java.io.File last)
```

Stores the given file path into a module with the name "Last " + name + " File". This will specifically enter the value into the given module.

setLastPath

```
public void setLastPath(String name,  
    java.io.File last)
```

Stores the given file path into the "Model Editor" module with the name "Last " + name + " File". This will specifically enter the value into the "Model Editor" module.

getPoweredColor

```
public java.awt.Color getPoweredColor()
```

Getter for property poweredColor.

Returns:

Value of property poweredColor.

setPoweredColor

```
public void setPoweredColor(java.awt.Color c)
```

getBasePoweredColor

```
public java.awt.Color getBasePoweredColor()
```

Getter for property poweredColorBase.

Returns:

Value of property poweredColorBase.

setBasePoweredColor

```
public void setBasePoweredColor(java.awt.Color poweredColor)
```

setWindowingMode

```
public void setWindowingMode(int mode)
```

sets the current windowing arrangement mode as one of the above WINDOW_* enumerations.

getWindowingMode

```
public int getWindowingMode()
```

retrieves the current windowing arrangement mode as one of the above WINDOW_* enumerations.

isSingleFrame

```
public boolean isSingleFrame()
```

Returns true if the current windowing mode is a single window mode.

setSessionMode

```
public void setSessionMode(int mode)
```

Sets the current session mode as one of the above SESSION_* enumerations.

getSessionMode

```
public int getSessionMode()
```

Retrieves the current session mode as one of the above SESSION_* enumerations.

getComponent

```
public AbstractComponent getComponent()
```

getModel

```
public AbstractModel getModel()
```

getOwner

```
public ComponentElement getOwner()
```

getAttributeGroups

```
public static String[] getAttributeGroups()
```

Retrieves the Attribute Group Names for this preferences object.

Returns:

a String[] in which each entry is an attribute group name

getAttributeGroup

```
public static String getAttributeGroup(String property)
```

Retrieves the name of the Attribute Group for the given property name.

Parameters:

property - a String containing the name of the property

Returns:

a String containing the group name for the given property or null

getAttributesForGroup

```
public static String[] getAttributesForGroup(String groupName)
```

Retrieves the Attribute Names for the given group.

Returns:

a String[] containing the attribute names for the given group name or a 0 length String[] if none are found.

getLayoutIterations

```
public int getLayoutIterations()
```

Getter for property layoutIterations.

Returns:

Value of property layoutIterations.

setLayoutIterations

```
public void setLayoutIterations(int val_)
```

Setter for property layoutIterations.

Parameters:

val_ - New value of property layoutIterations.

getTabLayout

```
public int getTabLayout()
```

Getter for property tabLayout.

setTabLayout

```
public void setTabLayout(int val_)
```

Setter for property tabLayout.

getDefaultUnits

```
public int getDefaultUnits()
```

Getter for the default model units.

setDefaultUnits

```
public void setDefaultUnits(int val_)
```

Setter for the default model units.

getShowCreateViewDialog

```
public boolean getShowCreateViewDialog()
```

Returns true if the Create Views dialog should be shown when a model is imported.

setShowCreateViewDialog

```
public void setShowCreateViewDialog(boolean show)
```

Set to true if the Create Views dialog should be shown when a model is imported.

getShowWelcomeDialog

```
public boolean getShowWelcomeDialog()
```

Returns true if the welcome dialog should be shown when a the ModelEditor is opened.

setShowWelcomeDialog

```
public void setShowWelcomeDialog(boolean show)
```

Set to true if the welcome dialog should be shown when a the ModelEditor is opened.

isPropertyEnabled

```
public boolean isPropertyEnabled(String propertyName)
```

getXpdfPath

```
public String getXpdfPath()
```

sets the path to the XPDF executable used by the PDFViewer

setXpdfPath

public void **setXpdfPath**(String path)

gets the path to the XPDF executable used by the PDFViewer

isPropertyRequired

public boolean **isPropertyRequired**(String propertyName)

isPropertyRestartEditable

public boolean **isPropertyRestartEditable**(String propertyName)

getAttributeIndex

public int **getAttributeIndex**(String propertyName)

isPropertyResizable

public boolean **isPropertyResizable**(String propertyName)

isRestartResizable

public boolean **isRestartResizable**(String propertyName)

isPropertyActive

public boolean **isPropertyActive**(String propertyName)

isUnlockedAA

public boolean **isUnlockedAA**()

returns true if the DrawnView will use antialiasing when unlocked

setUnlockedAA

public void **setUnlockedAA**(boolean unlockedAA)

if set to true the DrawnView will use antialiasing when unlocked

getViewSelectionMode

```
public int getViewSelectionMode()
```

setViewSelectionMode

```
public void setViewSelectionMode(int viewSelectionMode)
```

isDatabaseConfigured

```
public boolean isDatabaseConfigured()
```

Deprecated. *Snap Version 0.25.0 September 17th 2006*

Returns false as the SnapSB server is no longer supported.

com.cafean.client.ui

Class TableSorter

```
java.lang.Object
  |
  +--javax.swing.table.AbstractTableModel
      |
      +--com.cafean.client.ui.TableSorter
```

All Implemented Interfaces:
TableModelListener, java.io.Serializable, TableModel

```
public class TableSorter
  extends AbstractTableModel
  implements TableModel, java.io.Serializable, TableModelListener
```

A sorting wrapper for TableModels to allow sorting by a particular column.

TableSorter does not store or copy the data in the TableModel, instead it maintains an array of integers which it keeps the same size as the number of rows in its model.

When the model changes it notifies the sorter that something has changed eg. "rowsAdded" so that its internal array of integers can be reallocated. As requests are made of the sorter (such as `getValueAt(int, int)`) it redirects them to its model via the mapping array. That way the TableSorter appears to hold another copy of the table with the rows in a different order. The sorting algorithm used is stable which means that it does not move around rows when its comparison function returns 0 to denote that they are equivalent.

To use, simply wrap your table model with TableSorter and use `getIndexForRow(int)` to convert JTable row indicies to your TableModel's row indicies.

Modified from an example by Philip Milne from java.sun.com swing tutorial

See Also:

[addMouseListenerToHeaderInTable\(JTable\)](#)

Constructor Summary

public	TableSorter() Creates a new instance of Table Sorter
public	TableSorter(TableModel model) Creates an instance of table sorter given a table model

Method Summary

void	addMouseListenerToHeaderInTable(JTable table) Adds a mouse listener to the table header.
void	checkModel() Verifies the current model has the same size as the data stored by the table sorter.
int	compare(int row1, int row2) Compares the values stored in two rows of the table.

int	<u>compareRowsByColumn</u> (int row1, int row2, int column) Compares the value stored in two rows of a given column.
Class	<u>getColumnClass</u> (int aColumn) Returns the Class of the given column.
int	<u>getColumnCount</u> () Returns the number of columns in the tablemodel.
String	<u>getColumnName</u> (int aColumn) Returns the name of the given column.
int	<u>getIndexForRow</u> (int aRow). Finds the actual index given a specific table row.
TableModel	<u>getModel</u> () Accessor for the TableModel of the JTable this is sorting
int	<u>getRowCount</u> () Returns the number of rows in the tablemodel.
Object	<u>getValueAt</u> (int aRow, int aColumn) Passes through the value stored in the sorted locations.
boolean	<u>isCellEditable</u> (int row, int column) Determines if the cell specified by row and column is editable.
void	<u>setModel</u> (TableModel model) Setter for the TableModel of the JTable this is sorting
void	<u>setValueAt</u> (Object aValue, int aRow, int aColumn) Sets the value stored in the sorted locations.
void	<u>sort</u> (Object sender) Arranges the rows of a table so that they are sorted.
void	<u>sortByColumn</u> (int column) Sorts the table by the given column in ascending order.
void	<u>sortByColumn</u> (int column, boolean ascending) Sorts the table by the given column, in either ascending or descending order.
void	<u>tableChanged</u> (TableModelEvent e) This is implemented to support the TableListener interface the table indecies are reallocated whenever a table's values change.

Methods inherited from class javax.swing.table.AbstractTableModel

addTableModelListener, findColumn, fireTableCellUpdated, fireTableChanged, fireTableDataChanged, fireTableRowsDeleted, fireTableRowsInserted, fireTableRowsUpdated, fireTableStructureChanged, getColumnClass, getColumnName, getListeners, getTableModelListeners, isCellEditable, removeTableModelListener, setValueAt

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface javax.swing.table.TableModel

addTableModelListener, getColumnClass, getColumnCount, getColumnName, getRowCount, getValueAt, isCellEditable, removeTableModelListener, setValueAt

Methods inherited from interface javax.swing.event.TableModelListener

tableChanged

Constructors

TableSorter

```
public TableSorter()
```

Creates a new instance of Table Sorter

TableSorter

```
public TableSorter(TableModel model)
```

Creates an instance of table sorter given a table model

Parameters:

model - the TableModel for the JTable this is sorting.

Methods

getModel

```
public TableModel getModel()
```

Accessor for the TableModel of the JTable this is sorting

setModel

```
public void setModel(TableModel model)
```

Setter for the TableModel of the JTable this is sorting

Returns:

the TableModel.

compareRowsByColumn

```
public int compareRowsByColumn(int row1,  
    int row2,  
    int column)
```


Compares the value stored in two rows of a given column.

Parameters:

row1 - the index of the first row.
row2 - the index of the second row.
column - the index of the column.

compare

```
public int compare(int row1,  
                  int row2)
```

Compares the values stored in two rows of the table.

Parameters:

row1 - the index of the first row.
row2 - the index of the second row.

tableChanged

```
public void tableChanged(TableModelEvent e)
```

This is implemented to support the TableListener interface the table indices are reallocated whenever a table's values change.

Parameters:

e - the TableModeEvent that was fired.

checkModel

```
public void checkModel()
```

Verifies the current model has the same size as the data stored by the table sorter.

Throws:

Exception - if the model has a different number of rows than the local vector.

sort

```
public void sort(Object sender)
```

Arranges the rows of a table so that they are sorted.

getValueAt

```
public Object getValueAt(int aRow,  
                          int aColumn)
```

Passes through the value stored in the sorted locations.

Parameters:

aRow - the row index.
aColumn - the column index.

Returns:

the Object stored at the sorted row index for aRow

setValueAt

```
public void setValueAt(Object aValue,  
    int aRow,  
    int aColumn)
```

Sets the value stored in the sorted locations.

Parameters:

aValue - the Object stored at the sorted row index for aRow.
aRow - the row index.
aColumn - the column index.

getRowCount

```
public int getRowCount()
```

Returns the number of rows in the tablemodel.

Returns:

the number of rows in the TableModel or 0 if there isn't a model.

getColumnCount

```
public int getColumnCount()
```

Returns the number of columns in the tablemodel.

Returns:

the number of columns in the TableModel or 0 if there isn't a model.

getColumnName

```
public String getColumnName(int aColumn)
```

Returns the name of the given column.

Parameters:

aColumn - the index of the column.

Returns:

the String name stored for the column in the table model.

getColumnClass

```
public Class getColumnClass(int aColumn)
```

Returns the Class of the given column.

Parameters:

aColumn - the index of the column.

Returns:

the Class stored for the column in the table model.

isCellEditable

```
public boolean isCellEditable(int row,  
    int column)
```

Determines if the cell specified by row and column is editable. This is passed on to the TableModel.

Parameters:

row - the row index.
column - the column index.

Returns:

TRUE if the specified cell can be edited.

sortByColumn

```
public void sortByColumn(int column)
```

Sorts the table by the given column in ascending order.

Parameters:

column - the column index.

sortByColumn

```
public void sortByColumn(int column,  
    boolean ascending)
```

Sorts the table by the given column, in either ascending or descending order.

Parameters:

column - the column index.
ascending - If this is TRUE, the table is sorted in ascending order.

getIndexForRow

```
public int getIndexForRow(int aRow)
```

Finds the actual index given a specific table row.

Parameters:

aRow - the row index.

addMouseListenerToHeaderInTable

```
public void addMouseListenerToHeaderInTable(JTable table)
```

Adds a mouse listener to the table header. If a column is selected, that column gets sorted.

Parameters:

table - the JTable.

com.cafean.client.ui Class Toolbox

```

java.lang.Object
  |-- java.awt.Component
      |-- java.awt.Container
          |-- javax.swing.JComponent
              |-- javax.swing.JToolBar
                  |-- com.cafean.client.ui.Toolbox
  
```

All Implemented Interfaces:

java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler,
java.io.Serializable, javax.accessibility.Accessible, SwingConstants

```

public class Toolbox
extends JToolBar
  
```

The central handler class for a DrawnView's Tools. Tools in this care are the MouseListener instances that are available in a particular DrawnView. Examples of these handlers are the Select Tool, Connection Tool, etc.

Field Summary	
public static final	<u>CURSOR_MANIP_P</u> used to indicate the manipulation of points
public static final	<u>ICON_ELL_ANNOT</u>
public static final	<u>ICON_IMAGE_ANNOT</u>
public static final	<u>ICON_LINE_ANNOT</u>
public static final	<u>ICON_NEW</u>
public static final	<u>ICON_REC_ANNOT</u>
public static final	<u>ICON_TXT_ANNOT</u>
public static final	<u>TOOL_CONNECT</u> The enumeration for the Connect tool Value: 5
public static final	<u>TOOL_INSERT</u> The enumeration for the Insert tool Value: 4

public static final	<u>TOOL_INTERACTIVE</u> The enumeration for the Interactive tool Value: 6
public static final	<u>TOOL_NONE</u> No tool has been selected Value: 0
public static final	<u>TOOL_PAN</u> The enumeration for the Pan tool Value: 2
public static final	<u>TOOL_SELECT</u> The enumeration for the select Tool Value: 1
public static final	<u>TOOL_ZOOM</u> The enumeration for the Zoom tool Value: 3

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Fields inherited from interface javax.swing.SwingConstants

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

Constructor Summary

public	<u>Toolbox</u> (<u>DrawnView</u> parent) Creates new Toolbox
--------	--

Method Summary

void	<u>addToolChangeListener</u> (<u>ToolChangeListener</u> listener) Adds the given listener to the the list to notify when the current tool has changed.
------	--

void	<u>createBeanSelectionMenu</u> (<u>JMenu</u> menu) Creates a select menu appropriate for selecting AbstractDisplayBean instances within the DrawnView parent of this Toolbox.
------	---

JToolBar[]	<u>createCategoryToolBars()</u> Creates a set of JToolBar instances appropriate for allowing quick selection of types for the Insertion Tool.
static java.awt.Cursor	<u>createCursor(String resource)</u> Creates a Cursor from the image referred to by the given resource name.
JComponent[]	<u>createDisplayBeans(int pixelsPerMeter, AnimationBeanGenerator dc)</u> Attempts to create a set of AbstractDisplayBeans from the given AnimationBeanGenerator using AnimationBeanGenerator.createDisplayBeans(int, double, java.lang.ClassLoader).
JComponent[]	<u>createDisplayBeans(int pixelsPerMeter, double widthScaleFactor, AnimationBeanGenerator dc)</u> Attempts to create a set of AbstractDisplayBeans from the given AnimationBeanGenerator using AnimationBeanGenerator.createDisplayBeans(int, double, java.lang.ClassLoader).
JComponent	<u>createSelected()</u> Creates an instance of the currently selected component type in the given model and returns a renderer for the created component.
static Class	<u>findDisplayBeanClass(String className)</u> Retrieves the Class with the given class name in the list of Display Bean classes available.
<u>Category</u>	<u>getComponentCategory()</u> Retrieves the Category of the currently selected component type in the palette of the Toolbox.
java.awt.Cursor	<u>getCurrentCursor()</u> Retrieves the cursor for the views based off of the currently selected tool.
java.awt.Cursor	<u>getCurrentCursor(java.awt.event.MouseEvent evt)</u> Retrieves the cursor for the views based off of the currently selected tool.
int	<u>getCurrentTool()</u> Retrieves the enumerated type of the current tool.
boolean	<u>isCompActionSelected()</u> Returns true if the selected toolbox action will create an AbstractComponent.
static com.cafean.client.anim. AbstractDisplayBean	<u>loadDisplayBean(DrawnDisplayBeanRec rec)</u> Loads a display bean from the given display bean rec.
static void	<u>loadDisplayBeanClasses()</u> Loads the display beans from the jar files included in the Components directories in both the current user's home directory and system wide.
boolean	<u>loadVedaExport(java.io.File exportedFile)</u> Attempts to import a VEDA mask dump file.
void	<u>removeToolChangeListener(ToolChangeListener listener)</u> Adds the given listener to the the list to notify when the current tool has changed.
void	<u>setCurrentAction(ToolboxAction action)</u> Sets the current ToolboxAction used for creating new drawings with the Insertion Tool.

void	<u>setCurrentTool</u> (int tool) switches the toolbox to the given tool.
void	<u>setLocked</u> (boolean locked) Updates the state of this Toolbox to correspond with the given locked state.
static byte[]	<u>storeDisplayBean</u> (com.cafean.client.anim.AbstractDisplayBean bean) XML Encodes the given bean and returns the byte[] result of the encoding.
static boolean	<u>verifyBeansAvailable</u> (Vector records) Verifies that any com.cafean.client.anim.AbstractDisplayBeans stored in the given Vector as com.cafean.client.io.med.DrawnDisplayBeanRecs have the proper classes available to be loaded.

Methods inherited from class javax.swing.JToolBar

add, addSeparator, addSeparator, getAccessibleContext, getComponentAtIndex, getComponentIndex, getMargin, getOrientation, getUI, getUIClassID, isBorderPainted, isFloatable, isRollover, setBorderPainted, setFloatable, setLayout, setMargin, setOrientation, setRollover, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

getTransferHandler

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Fields

TOOL_NONE

public static final int **TOOL_NONE**

No tool has been selected
Constant value: **0**

TOOL_SELECT

public static final int **TOOL_SELECT**

The enumeration for the select Tool
Constant value: **1**

TOOL_PAN

public static final int **TOOL_PAN**

The enumeration for the Pan tool
Constant value: **2**

TOOL_ZOOM

public static final int **TOOL_ZOOM**

The enumeration for the Zoom tool
Constant value: **3**

TOOL_INSERT

public static final int **TOOL_INSERT**

The enumeration for the Insert tool
Constant value: **4**

TOOL_CONNECT

public static final int **TOOL_CONNECT**

The enumeration for the Connect tool
Constant value: **5**

TOOL_INTERACTIVE

```
public static final int TOOL_INTERACTIVE
```

The enumeration for the Interactive tool
Constant value: 6

CURSOR_MANIP_P

```
public static final java.awt.Cursor CURSOR_MANIP_P
```

used to indicate the manipulation of points

ICON_NEW

```
public static final javax.swing.Icon ICON_NEW
```

ICON_TXT_ANNOT

```
public static final javax.swing.Icon ICON_TXT_ANNOT
```

ICON_REC_ANNOT

```
public static final javax.swing.Icon ICON_REC_ANNOT
```

ICON_ELL_ANNOT

```
public static final javax.swing.Icon ICON_ELL_ANNOT
```

ICON_LINE_ANNOT

```
public static final javax.swing.Icon ICON_LINE_ANNOT
```

ICON_IMAGE_ANNOT

```
public static final javax.swing.Icon ICON_IMAGE_ANNOT
```

Constructors

Toolbox

```
public Toolbox(DrawnView parent)
```

Creates new Toolbox

Methods

setLocked

```
public void setLocked(boolean locked)
```

Updates the state of this Toolbox to correspond with the given locked state. When locked, the insert and connect tools are disabled.

createCategoryToolBars

```
public JToolBar[] createCategoryToolBars()
```

Creates a set of JToolBar instances appropriate for allowing quick selection of types for the Insertion Tool. The buttons included in these toolbars activate the Insertion Tool and set the currently selected insert type.

createBeanSelectionMenu

```
public void createBeanSelectionMenu(JMenu menu)
```

Creates a select menu appropriate for selecting AbstractDisplayBean instances within the DrawnView parent of this Toolbox.

addToolChangeListener

```
public void addToolChangeListener(ToolChangeListener listener)
```

Adds the given listener to the the list to notify when the current tool has changed.

Parameters:

listener - the ToolChangeListener being added to the toolChangeListeners list.

removeToolChangeListener

```
public void removeToolChangeListener(ToolChangeListener listener)
```

Adds the given listener to the the list to notify when the current tool has changed.

Parameters:

listener - the ToolChangeListener being removed from the toolChangeListeners list.

getCurrentCursor

```
public java.awt.Cursor getCurrentCursor()
```

Retrieves the cursor for the views based off of the currently selected tool.

setCurrentTool

```
public void setCurrentTool(int tool)
```

switches the toolbox to the given tool.

getCurrentTool

```
public int getCurrentTool()
```

Retrieves the enumerated type of the current tool.

Returns:

the Current tool.

getCurrentCursor

```
public java.awt.Cursor getCurrentCursor(java.awt.event.MouseEvent evt)
```

Retrieves the cursor for the views based off of the currently selected tool.

getComponentCategory

```
public Category getComponentCategory()
```

Retrieves the Category of the currently selected component type in the palette of the Toolbox.

Parameters:

model - the AbstractModel that the retrieved Category is for.

Returns:

the Category selected or null if none is selected.

isCompActionSelected

```
public boolean isCompActionSelected()
```

Returns true if the selected toolbox action will create an AbstractComponent. This method is needed to allow insert handlers to determine if a complete() type method may be called from createSelected().

createSelected

```
public JComponent createSelected()
```

Creates an instance of the currently selected component type in the given model and returns a renderer for the created component.

Returns:

the JComponent being used to render the created component.

Throws:

IllegalArgumentException - if the selected component type is not supported by the given model.

setCurrentAction

```
public void setCurrentAction(ToolboxAction action)
```

Sets the current ToolboxAction used for creating new drawings with the Insertion Tool. This method should only be called from ToolboxAction derivatives.

createCursor

```
public static java.awt.Cursor createCursor(String resource)
```

Creates a Cursor from the image referred to by the given resource name.

Returns:

a java.awt.Cursor created with the given resource.

storeDisplayBean

```
public static byte[] storeDisplayBean(com.cafean.client.anim.AbstractDisplayBean bean)
```

XML Encodes the given bean and returns the byte[] result of the encoding.

createDisplayBeans

```
public JComponent[] createDisplayBeans(int pixelsPerMeter,  
    AnimationBeanGenerator dc)
```

Attempts to create a set of AbstractDisplayBeans from the given AnimationBeanGenerator using AnimationBeanGenerator.createDisplayBeans(int, double, java.lang.ClassLoader).

createDisplayBeans

```
public JComponent[] createDisplayBeans(int pixelsPerMeter,  
    double widthScaleFactor,  
    AnimationBeanGenerator dc)
```

Attempts to create a set of AbstractDisplayBeans from the given AnimationBeanGenerator using AnimationBeanGenerator.createDisplayBeans(int, double, java.lang.ClassLoader).

loadVedaExport

```
public boolean loadVedaExport(java.io.File exportedFile)
```

Attempts to import a VEDA mask dump file. This is an experimental method that is only available during debug mode.

verifyBeansAvailable

```
public static boolean verifyBeansAvailable(Vector records)
```

Verifies that any com.cafean.client.anim.AbstractDisplayBeans stored in the given Vector as com.cafean.client.io.med.DrawnDisplayBeanRecs have the proper classes available to be loaded.

Returns:

true if the display beans in the given Vector can be loaded

loadDisplayBean

```
public static com.cafean.client.anim.AbstractDisplayBean  
loadDisplayBean(DrawnDisplayBeanRec rec)
```

Loads a display bean from the given display bean rec.

findDisplayBeanClass

public static Class **findDisplayBeanClass**(String className)

Retrieves the Class with the given class name in the list of Display Bean classes available.

Returns:

the Class referred to by className or null.

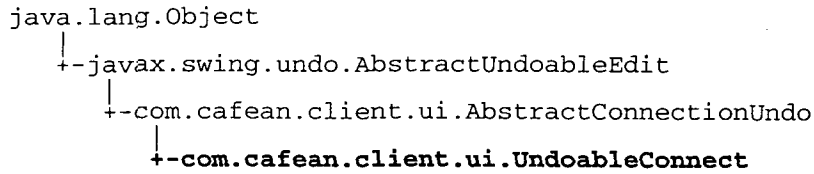
loadDisplayBeanClasses

public static void **loadDisplayBeanClasses**()

Loads the display beans from the jar files included in the Components directories in both the current user's home directory and system wide.

com.cafean.client.ui

Class UndoableConnect



All Implemented Interfaces:
 java.io.Serializable, UndoableEdit

public class UndoableConnect
 extends AbstractConnectionUndo

This class is an undoable connect

Constructor Summary

public	UndoableConnect (<u>AbstractComponent</u> left, <u>AbstractComponent</u> right) creates a new undoable connection to allow the connection of the given left component to the given right component to be undone.
--------	---

Method Summary

String	<u>getPresentationName</u> ()
void	<u>redo</u> ()
void	<u>undo</u> ()

Methods inherited from class com.cafean.client.ui.AbstractConnectionUndo

canRedo, canUndo, end, setConnection

Methods inherited from class javax.swing.undo.AbstractUndoableEdit

addEdit, canRedo, canUndo, die, getPresentationName, getRedoPresentationName, getUndoPresentationName, isSignificant, redo, replaceEdit, toString, undo

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface javax.swing.undo.UndoableEdit

addEdit, canRedo, canUndo, die, getPresentationName, getRedoPresentationName, getUndoPresentationName, isSignificant, redo, replaceEdit, undo

Constructors

UndoableConnect

```
public UndoableConnect (AbstractComponent left,  
                        AbstractComponent right)
```

creates a new undoable connection to allow the connection of the given left component to the given right component to be undone. This object should be created before the connection is established and setConnection called afterward.

Methods

undo

```
public void undo()  
    throws CannotUndoException
```

redo

```
public void redo()  
    throws CannotRedoException
```

getPresentationName

```
public String getPresentationName()
```

com.cafean.client.ui

Class UndoableDelete

```

java.lang.Object
  |
  +- javax.swing.undo.AbstractUndoableEdit
    |
    +- com.cafean.client.ui.UndoableDelete
  
```

All Implemented Interfaces:
 java.io.Serializable, UndoableEdit

```

public class UndoableDelete
extends AbstractUndoableEdit
  
```

This class is an UndoableAction which deletes components.

Constructor Summary

public	<u>UndoableDelete</u> (Vector deleted) Creates an undoable object for use in undoing the deletion of the givne components.
public	<u>UndoableDelete</u> (AbstractComponent[] deleted) Creates an undoable object for use in undoing the deletion of the givne components.

Method Summary

boolean	<u>canRedo</u> () returns true
boolean	<u>canUndo</u> () returns true
String	<u>getPresentationName</u> ()
void	<u>redo</u> () Redoes the deletion of this object's components by deleting them again
void	<u>undo</u> () Undoes the deletion of this object's components by reinserting them into the model.

Methods inherited from class javax.swing.undo.AbstractUndoableEdit

addEdit, canRedo, canUndo, die, getPresentationName, getRedoPresentationName, getUndoPresentationName, isSignificant, redo, replaceEdit, toString, undo

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface javax.swing.undo.UndoableEdit

```
addEdit, canRedo, canUndo, die, getPresentationName, getRedoPresentationName,  
getUndoPresentationName, isSignificant, redo, replaceEdit, undo
```

Constructors

UndoableDelete

```
public UndoableDelete(Vector deleted)
```

Creates an undoable object for use in undoing the deletion of the givne components.

Parameters:

components - a Vector of AbstractComponent objects to be deleted.

UndoableDelete

```
public UndoableDelete(AbstractComponent[] deleted)
```

Creates an undoable object for use in undoing the deletion of the givne components.

Parameters:

components - an AbstractComponent[] of components to be deleted.

Methods

canRedo

```
public boolean canRedo()
```

returns true

canUndo

```
public boolean canUndo()
```

returns true

undo

```
public void undo()  
throws CannotUndoException
```

Undoes the deletion of this object's components by reinserting them into the model.

redo

```
public void redo()  
throws CannotRedoException
```

Redoes the deletion of this object's components by deleting them again

getPresentationName

```
public String getPresentationName()
```

com.cafean.client.ui Class UndoableDisconnect

```

java.lang.Object
  |-- javax.swing.undo.AbstractUndoableEdit
    |-- com.cafean.client.ui.AbstractConnectionUndo
      |-- com.cafean.client.ui.UndoableDisconnect
  
```

All Implemented Interfaces:

java.io.Serializable, UndoableEdit

```

public class UndoableDisconnect
extends AbstractConnectionUndo
  
```

This class is an undoable disconnect

Constructor Summary

public	<u>UndoableDisconnect</u> (<u>AbstractComponent</u> left, <u>AbstractComponent</u> right) creates a new undoable connection to allow the disconnection of the given left component to the given right component to be undone.
--------	---

Method Summary

String	<u>getPresentationName</u> () returns "Disconnect"
void	<u>redo</u> () Redoes this disconnection by disconnecting
void	<u>setConnection</u> (<u>Connection</u> connection)
void	<u>undo</u> () Undoes this disconnection by re-establishing the connecton

Methods inherited from class com.cafean.client.ui.AbstractConnectionUndo

canRedo, canUndo, end, setConnection

Methods inherited from class javax.swing.undo.AbstractUndoableEdit

addEdit, canRedo, canUndo, die, getPresentationName, getRedoPresentationName, getUndoPresentationName, isSignificant, redo, replaceEdit, toString, undo

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface javax.swing.undo.UndoableEdit

addEdit, canRedo, canUndo, die, getPresentationName, getRedoPresentationName, getUndoPresentationName, isSignificant, redo, replaceEdit, undo

Constructors

UndoableDisconnect

```
public UndoableDisconnect (AbstractComponent left,  
                           AbstractComponent right)
```

creates a new undoable connection to allow the disconnection of the given left component to the given right component to be undone. This object should be created before the connection disconnected and setConnection called afterward.

Methods

setConnection

```
public void setConnection (Connection connection)
```

undo

```
public void undo ()  
    throws CannotUndoException
```

Undoes this disconnection by re-establishing the connecton

redo

```
public void redo ()  
    throws CannotRedoException
```

Redoes this disconnection by disconnecting

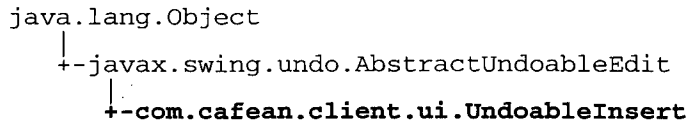
getPresentationName

```
public String getPresentationName ()
```

returns "Disconnect"

com.cafean.client.ui

Class UndoableInsert



All Implemented Interfaces:
 java.io.Serializable, UndoableEdit

public class **UndoableInsert**
 extends AbstractUndoableEdit

A simple UndoableEdit for use in undo-redo of a component insertion.

Constructor Summary	
public	<u>UndoableInsert</u> (<u>AbstractComponent</u> component) Creates a new undo object for use in undoing the insert of the given component.

Method Summary	
boolean	<u>canRedo</u> () Returns true
boolean	<u>canUndo</u> () Returns true
String	<u>getPresentationName</u> () returns "Insert Component"
void	<u>redo</u> () redoes the insertion of the component by re-inserting it
void	<u>undo</u> () Undoes the insertion of the component by deleting it

Methods inherited from class javax.swing.undo.AbstractUndoableEdit
addEdit, canRedo, canUndo, die, getPresentationName, getRedoPresentationName, getUndoPresentationName, isSignificant, redo, replaceEdit, toString, undo

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

Methods inherited from interface javax.swing.undo.UndoableEdit
(No methods listed)

```
addEdit, canRedo, canUndo, die, getPresentationName, getRedoPresentationName,  
getUndoPresentationName, isSignificant, redo, replaceEdit, undo
```

Constructors

UndoableInsert

```
public UndoableInsert(AbstractComponent component)
```

Creates a new undo object for use in undoing the insert of the given component.

Methods

canRedo

```
public boolean canRedo()
```

Returns true

canUndo

```
public boolean canUndo()
```

Returns true

undo

```
public void undo()  
    throws CannotUndoException
```

Undoes the insertion of the component by deleting it

redo

```
public void redo()  
    throws CannotRedoException
```

redoes the insertion of the component by re-inserting it

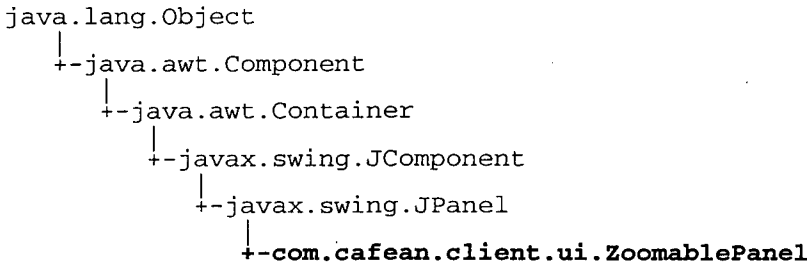
getPresentationName

```
public String getPresentationName()
```

returns "Insert Component"

com.cafean.client.ui

Class ZoomablePanel



All Implemented Interfaces:

ToolChangeListener, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible

```

public class ZoomablePanel
  extends JPanel
  implements javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler,
  java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, ToolChangeListener
  
```

The Zoomable panel is the panel in the DrawnView that contains both the BeanBox for components, and the GlassPane that covers the view. It controls the MouseHandlers based on the ToolDialog's currently selected tool, and handles zooming the view based off of a scaleFactor.

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Constructor Summary

public	ZoomablePanel (<u>AbstractModel</u> model) Constructs a new Zoomable Panel in a DrawnView.
--------	---

Method Summary

AbstractButton	<u>addMouseHandler</u> (<u>MouseHandler</u> handler) Adds the given handler to the list of zoomable panel handlers and Toolbox handlers.
----------------	--

void	<u>addNotify()</u> Initializes this panel in response to its addition to another component.
<u>BeanBox</u>	<u>getBeanBox()</u> The BeanBox contains all the components that are visible inside the DrawnView.
<u>DrawnView</u>	<u>getDrawnView()</u> Each Zoomable Panel appears inside a scroll panel in a DrawnView.
<u>GlassPanel</u>	<u>getGlassPane()</u> Access routine for the glass pane.
java.awt.Dimension	<u>getMaximumSize()</u> Return the maximum size of this component.
java.awt.Dimension	<u>getMinimumSize()</u> Return the minimum size of this component.
<u>MouseHandler</u>	<u>getMouseHandler()</u> Gets the currently active MouseHandler based on the current tool.
java.awt.Dimension	<u>getPanelSize()</u> The PanelSize is the size of the canvas below this zoomable panel.
java.awt.Dimension	<u>getPreferredSize()</u> Return the preferred size of this component.
double	<u>getScale()</u> The scale factor is the factor by which the current view is multiplied when zooming in or out.
JScrollPane	<u>getScrollPane()</u> Each Zoomable Panel appears inside a scroll panel in a DrawnView.
<u>ViewComponent</u>	<u>getViewComponent()</u> Retrieves the ViewComponent that corresponds with the DrawnView that contains this BeanBox.
java.awt.Point	<u>getViewportCenter()</u> Calculates the center of the currently visible position of the scrollpane containing this ZoomablePanel.
java.awt.Dimension	<u>getZoomSize()</u> Return the size of scaled components.
java.awt.Point	<u>inverseTransformPoint(java.awt.Point p1)</u> The reverse transform of a point backwards through the scaling factor.
void	<u>paintChildren(java.awt.Graphics g)</u>
void	<u>refresh()</u> Forces a repaint of all children.
void	<u>refreshCompBounds(java.awt.Rectangle componentBounds)</u> Repaints the given component-space bounds.

void	<u>removeMouseListener</u> (<u>MouseListener</u> handler) Removes the given handler from the list of zoomable panel handlers and Toolbox handlers.
void	<u>revalidate</u> ()
void	<u>setBackground</u> (java.awt.Color bg)
void	<u>setPanelSize</u> (java.awt.Dimension size) Sets the size of the canvas in the view.
void	<u>setScale</u> (double scale) Set the scaling factor property.
void	<u>setViewCenter</u> (java.awt.Point center) This sets the viewports center to the given Point.
void	<u>toolChanged</u> (int oldTool, int newTool) Responds to a notification from the Toolbox that the current tool has changed from oldTool to newTool by activating the new <u>MouseListener</u> , deactivating the old <u>MouseListener</u> , and updating the cursor.
java.awt.Point	<u>transformPoint</u> (java.awt.Point pl) Translate the coordinates of a point to account for the scaling factor.
void	<u>zoomToFit</u> (java.awt.Rectangle rect) This zooms the current view to fit the given rectangle.

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component


```
getTransferHandler
```

Methods inherited from interface `javax.accessibility.Accessible`

```
getAccessibleContext
```

Methods inherited from interface `com.cafean.client.ui.tools.ToolChangeListener`

```
toolChanged
```

Constructors

ZoomablePanel

```
public ZoomablePanel(AbstractModel model) ,
```

Constructs a new Zoomable Panel in a DrawnView.

Parameters:

`model` - the AbstractModel that contains the View that owns this panel.

Methods

paintChildren

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

setBackground

```
public void setBackground(java.awt.Color bg)
```

addNotify

```
public void addNotify()
```

Initializes this panel in response to its addition to another component.

getViewComponent

```
public ViewComponent getViewComponent()
```

Retrieves the ViewComponent that corresponds with the DrawnView that contains this BeanBox.

getBeanBox

```
public BeanBox getBeanBox()
```

The BeanBox contains all the components that are visible inside the DrawnView. All routines that manipulate those components, or detail what components appear in the view are ultimately controlled through the BeanBox.

Returns:

the BeanBox that contains all the components inside this zoomable panel.

getGlassPane

```
public GlassPanel getGlassPane()
```

Access routine for the glass pane.

Returns:

the GlassPanel that covers this zoomable panel.

getViewPortCenter

```
public java.awt.Point getViewPortCenter()
```

Calculates the center of the currently visible position of the scrollpane containing this ZoomablePanel.

Returns:

a Point containing the scaled viewport center coordinates.

toolChanged

```
public void toolChanged(int oldTool,  
                          int newTool)
```

Responds to a notification from the Toolbox that the current tool has changed from oldTool to newTool by activating the new MouseHandler, deactivating the old MouseHandler, and updating the cursor.

Tools are one of the TOOL_* enumerations in Toolbox.

Parameters:

oldTool - the int type of the old tool.
newTool - the int type of the new tool.

See Also:

Toolbox.getCurrentTool()

getMouseHandler

```
public MouseHandler getMouseHandler()
```

Gets the currently active MouseHandler based on the current tool.

Returns:

the MouseHandler used by the current tool.

addMouseHandler

```
public AbstractButton addMouseHandler(MouseHandler handler)
```

Adds the given handler to the list of zoomable panel handlers and Toolbox handlers. This also assigns a proper handler ID to the given handler. Note that this method also creates a toolbar button for the handler and adds the button to the same toolbar as the select and pan tools. The created button is then returned. To move this button to a different toolbar simply remove the button from its parent with `button.getParent().remove(button)`.

Parameters:

`handler` - the `MouseHandler` to add and assign an ID to.

Returns:

the `AbstractButton` created for the new handler in the toolbox.

Throws:

`IllegalArgumentException` - if the given mouse handler has a handler ID that is already in use.

removeMouseHandler

```
public void removeMouseHandler(MouseHandler handler)
```

Removes the given handler from the list of zoomable panel handlers and Toolbox handlers.

Parameters:

`handler` - the `MouseHandler` to remove

setPanelSize

```
public void setPanelSize(java.awt.Dimension size)
```

Sets the size of the canvas in the view.

Parameters:

`size` - the `Dimension` that will be the size of the canvas.

revalidate

```
public void revalidate()
```

refresh

```
public void refresh()
```

Forces a repaint of all children.

refreshCompBounds

```
public void refreshCompBounds(java.awt.Rectangle componentBounds)
```

Repaints the given component-space bounds. The given bounds are scaled appropriately for this panel's scale factor.
WARNING: the given rectangle will be modified

getPanelSize

```
public java.awt.Dimension getPanelSize()
```


The `PanelSize` is the size of the canvas below this zoomable panel. This defines the size of the white canvas inside a view.

Returns:

the `Dimension` of the panel.

getZoomSize

```
public java.awt.Dimension getZoomSize()
```

Return the size of scaled components. This is the panel size scaled by the current scale factor.

Returns:

A `Dimension` object indicating this component's preferred size.

getPreferredSize

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

Return the preferred size of this component. This is the panel size scaled by the current scale factor.

Returns:

A `Dimension` object indicating this component's preferred size.

getMaximumSize

```
public java.awt.Dimension getMaximumSize()
```

Return the maximum size of this component.

Returns:

A `Dimension` object indicating this component's maximum size.

See Also:

[getPreferredSize\(\)](#)

getMinimumSize

```
public java.awt.Dimension getMinimumSize()
```

Return the minimum size of this component.

Returns:

A `Dimension` object indicating this component's minimum size.

See Also:

[getPreferredSize\(\)](#)

setScale

```
public void setScale(double scale)
```

Set the scaling factor property.

Parameters:

scale - the new scaling factor.

getScale

```
public double getScale()
```

The scale factor is the factor by which the current view is multiplied when zooming in or out.

Returns:

the double that is the current scale factor.

inverseTransformPoint

```
public java.awt.Point inverseTransformPoint(java.awt.Point p1)
```

The reverse transform of a point backwards through the scaling factor.

Parameters:

p1 - the Point to be inverse transformed by the scaling factor.

Returns:

A Point that represents p1 inverse transformed by the scaling factor.

transformPoint

```
public java.awt.Point transformPoint(java.awt.Point p1)
```

Translate the coordinates of a point to account for the scaling factor.

Parameters:

p1 - the Point to be transformed by the scaling factor.

Returns:

A Point that represents p1 transformed by the scaling factor.

getDrawnView

```
public DrawnView getDrawnView()
```

Each Zoomable Panel appears inside a scroll panel in a DrawnView. This accessor finds the closest ancestor of this panel that is a DrawnView, and returns it.

Returns:

the DrawnView parent of this zoomable panel.

getScrollPane

```
public JScrollPane getScrollPane()
```

Each Zoomable Panel appears inside a scroll panel in a DrawnView. This accessor finds the closest ancestor of this panel that is a JScrollPane, and returns it.

Returns:

the JScrollPane parent of this zoomable panel.

setViewCenter

```
public void setViewCenter(java.awt.Point center)
```

This sets the viewports center to the given Point. This adds the `setViewPosition` to the event stack, which makes sure that all other current events are finished before the view's position gets set. This is to ensure that during a Zoom operation the viewport center gets set last.

Parameters:

`center` - the Point in current zoomed coordinates that should be the center.

zoomToFit

```
public void zoomToFit(java.awt.Rectangle rect)
```

This zooms the current view to fit the given rectangle. The viewport in the JScrollPane will be set to the center of the rectangle after the view is zoomed.

Parameters:

`rect` - the Rectangle in current zoomed coordinates.

Package

com.cafean.client.ui.annotation

This package contains the ModelEditor provided Annotation elements for views. Documentation for these classes is provided to allow for their use in generating Animation plug-in displays from plug-in specific DrawnComponent instances.

com.cafean.client.ui.annotation

Class Annotation

```
java.lang.Object
├-- java.awt.Component
│   └-- java.awt.Container
│       └-- javax.swing.JComponent
│           └-- javax.swing.JPanel
│               └-- com.cafean.client.ui.annotation.Annotation
```

All Implemented Interfaces:

PropertyController, Groupable, java.awt.event.MouseListener, java.io.Serializable, StateEditable, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible

Direct Known Subclasses:

ImageAnnotation, TextAnnotation, LineAnnotation, RectangularAnnotation, EllipticalAnnotation

public abstract class **Annotation**

extends JPanel

implements javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, StateEditable, java.io.Serializable, java.awt.event.MouseListener, Groupable, PropertyController

This Abstract class should be extended by any object that is used only to impart data to an analyst looking at a DrawnView.

Fields inherited from class <u>javax.swing.JComponent</u>
TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW
Fields inherited from class <u>java.awt.Component</u>
BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT
Fields inherited from interface <u>java.awt.image.ImageObserver</u>
ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS, WIDTH
Fields inherited from interface <u>javax.swing.undo.StateEditable</u>
RCSID
Fields inherited from interface <u>com.cafean.client.ui.beans.PropertyController</u>
<u>ALL</u> , <u>COLOR_OPTIONAL</u> , <u>DISABLED</u> , <u>NONE</u> , <u>OPTIONAL</u> , <u>REQUIRED</u>

Constructor Summary

public	<u>Annotation()</u> Creates a new instance of Annotation
--------	---

Method Summary

void	<u>addPopupMenuItems</u> (JPopupMenu menu, java.awt.event.MouseEvent evt)
int	<u>getAttributeIndex</u> (String propertyName) Returns a relative index that can be used to order property lists.
Border	<u>getBorder</u> ()
java.awt.Rectangle	<u>getBounds</u> ()
<u>DrawnView</u>	<u>getDrawnView</u> () Retrieves the DrawnView that contains this DrawnComponent or null if this DrawnComponent exists outside of a DrawnView.
int	<u>getGroupID</u> () Retrieves the ID of this object's visual group.
int	<u>getHeight</u> ()
int	<u>getWidth</u> ()
boolean	<u>isGroupIDValid</u> () Returns true if this object's visual group ID is valid.
boolean	<u>isPropertyActive</u> (String propertyName) Returns false if this object has a property with the given name that is considered inactive; otherwise true.
boolean	<u>isPropertyEnabled</u> (String propertyName) Returns false if this object has a property with the given name that has dependency code that fails; true otherwise
boolean	<u>isPropertyRequired</u> (String propertyName) Returns false if this object has a property with the given name that has requirement code that fails; true otherwise.
boolean	<u>isPropertyResizable</u> (String propertyName) Returns false if this object has an array property with the given name that should not normally be resizable.
boolean	<u>isPropertyRestartEditable</u> (String propertyName) Returns true if this object has a property with the given name that should be editable during a restart edit; false otherwise.
boolean	<u>isRestartResizable</u> (String propertyName) Returns false if this object has an array property with the given name that should not be resizable while editing a restart.

void	<u>mouseClicked</u> (java.awt.event.MouseEvent e)
void	<u>mouseEntered</u> (java.awt.event.MouseEvent e)
void	<u>mouseExited</u> (java.awt.event.MouseEvent e)
void	<u>mousePressed</u> (java.awt.event.MouseEvent e)
void	<u>mouseReleased</u> (java.awt.event.MouseEvent e)
void	<u>moveTo</u> (double x, double y, boolean last) Move the Annotation so the center is the specified position
abstract void	<u>popupEditor</u> () This is used for Annotations to generate their editing dialogs.
void	<u>print</u> (java.awt.Graphics g)
void	<u>refresh</u> (java.awt.Rectangle r) This refreshes a given java.awt.Rectangle that indicates a dirty region.
void	<u>repaint</u> () Repaints this component by calling <u>BeanBox.refresh(Rectangle)</u> .
abstract void	<u>resetSize</u> () This resets the current size of the annotation.
void	<u>restoreState</u> (Hashtable state) Restore the state of the bean from an earlier edit.
void	<u>setBorder</u> (Border border)
void	<u>setBounds</u> (java.awt.Rectangle bounds)
void	<u>setGroupID</u> (int groupID) Sets the ID of this object's visual group.
void	<u>setGroupIDValid</u> (boolean valid) Sets the flag that is used to determine if this object's visual group ID must be reconnected after a paste operation.
void	<u>setHeight</u> (int height)
void	<u>setWidth</u> (int width)
DrawnAnnotationRec	<u>store</u> ()
void	<u>storeState</u> (Hashtable state) Store the state of the bean to permit undo.

String	<u>toString()</u>
--------	-------------------

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener,
 addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener,
 addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener,
 addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds,
 checkImage, checkImage, contains, contains, createImage, createImage,
 createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent,
 doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange,
 firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
 getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline,
 getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt,
 getComponentAt, getComponentListeners, getComponentOrientation, getCursor,
 getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys,
 getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics,
 getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners,
 getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests,
 getKeyListeners, getListeners, getLocale, getLocation, getLocation, getLocationOnScreen,
 getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners,
 getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize,
 getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit,
 getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate,
 inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered,
 isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet,
 isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque,
 isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list,
 list, list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag,
 mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent,
 preferredSize, prepareImage, prepareImage, print, printAll, remove,
 removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,
 removeHierarchyListener, removeInputMethodListener, removeKeyListener,
 removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify,
 removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint,
 repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground,
 setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled,
 setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont,
 setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize,
 setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show,
 size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update,
 validate

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

getTransferHandler

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface javax.swing.undo.StateEditable

restoreState, storeState

Methods inherited from interface java.awt.event.MouseListener

mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased

Methods inherited from interface com.cafean.client.ui.util.Groupable

getGroupID, isGroupIDValid, setGroupID, setGroupIDValid

Methods inherited from interface com.cafean.client.ui.beans.PropertyController

getAttributeIndex, isPropertyActive, isPropertyEnabled, isPropertyRequired,
isPropertyResizable, isPropertyRestartEditable, isRestartResizable

Constructors

Annotation

```
public Annotation()
```

Creates a new instance of Annotation

Methods

print

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

getDrawnView

```
public DrawnView getDrawnView()
```

Retrieves the DrawnView that contains this DrawnComponent or null if this DrawnComponent exists outside of a DrawnView.

Returns:

the DrawnView at the top of the ancestor list.

getGroupID

```
public int getGroupID()
```

Retrieves the ID of this object's visual group.

setGroupID

```
public void setGroupID(int groupID)
```

Sets the ID of this object's visual group.

isGroupIDValid

```
public boolean isGroupIDValid()
```

Returns true if this object's visual group ID is valid. Valid visual group IDs are not reconnected during a paste operation.

setGroupIDValid

```
public void setGroupIDValid(boolean valid)
```

Sets the flag that is used to determine if this object's visual group ID must be reconnected after a paste operation.

getBorder

```
public Border getBorder()
```

setBorder

```
public void setBorder(Border border)
```

setHeight

```
public void setHeight(int height)
```

getHeight

```
public int getHeight()
```

getWidth

```
public int getWidth()
```

setWidth

```
public void setWidth(int width)
```

getBounds

```
public java.awt.Rectangle getBounds()
```

setBounds

```
public void setBounds(java.awt.Rectangle bounds)
```

store

```
public DrawnAnnotationRec store()
```

storeState

```
public void storeState(Hashtable state)
```

Store the state of the bean to permit undo. NOTE: If the component storing its state needs a deep copy that its clone() method does not provide, it must override storeState to find that functionality elsewhere.

Parameters:

state - A hash table containing modified parameters.

restoreState

```
public void restoreState(Hashtable state)
```

Restore the state of the bean from an earlier edit.

Parameters:

state - A hash table containing modified parameters.

popupEditor

```
public abstract void popupEditor()
```

This is used for Annotations to generate their editing dialogs. Since these are not components, they cannot use the Component View editor. This should handle creating the undo object and saving the current state before implementing changes

moveTo

```
public void moveTo(double x,  
    double y,  
    boolean last)
```

Move the Annotation so the center is the specified position

Parameters:

x - the new center x position
y - the new center y position
last - false while moving, true on the final move

resetSize

```
public abstract void resetSize()
```

This resets the current size of the annotation. This ensures that all annotations do not lose any data when the scale changes.

addPopupMenuItems

```
public void addPopupMenuItems(JPopupMenu menu,  
    java.awt.event.MouseEvent evt)
```

mouseClicked

```
public void mouseClicked(java.awt.event.MouseEvent e)
```

mouseEntered

```
public void mouseEntered(java.awt.event.MouseEvent e)
```

mouseExited

```
public void mouseExited(java.awt.event.MouseEvent e)
```

mousePressed

```
public void mousePressed(java.awt.event.MouseEvent e)
```

mouseReleased

```
public void mouseReleased(java.awt.event.MouseEvent e)
```

refresh

public void **refresh**(java.awt.Rectangle r)

This refreshes a given java.awt.Rectangle that indicates a dirty region.

Parameters:

r - the Rectangle indicating the dirty region to be refreshed.

See Also:

repaint

toString

public String **toString**()

repaint

public void **repaint**()

Repaints this component by calling [BeanBox.refresh\(Rectangle\)](#).

isPropertyEnabled

public boolean **isPropertyEnabled**(String propertyName)

Returns false if this object has a property with the given name that has dependency code that fails; true otherwise

Parameters:

propertyName - a String containing the property name to check

isPropertyRequired

public boolean **isPropertyRequired**(String propertyName)

Returns false if this object has a property with the given name that has requirement code that fails; true otherwise.

Parameters:

propertyName - a String containing the property name to check

isPropertyRestartEditable

public boolean **isPropertyRestartEditable**(String propertyName)

Returns true if this object has a property with the given name that should be editable during a restart edit; false otherwise.

Parameters:

propertyName - a String containing the property name to check

isPropertyActive

```
public boolean isPropertyActive(String propertyName)
```

Returns false if this object has a property with the given name that is considered inactive; otherwise true.

A property's active state is separate from its enabled state to allow for a namelist-like property that is actually a boolean paired with a property of another type.

Parameters:

propertyName - a String containing the name of the property to check

Returns:

false if the property is inactive, true otherwise

See Also:

NamelistEditor

getAttributeIndex

```
public int getAttributeIndex(String propertyName)
```

Returns a relative index that can be used to order property lists.

Parameters:

propertyName - a String containing the property name to check

isPropertyResizable

```
public boolean isPropertyResizable(String propertyName)
```

Returns false if this object has an array property with the given name that should not normally be resizable.

Parameters:

propertyName - a String containing the property name to check

isRestartResizable

```
public boolean isRestartResizable(String propertyName)
```

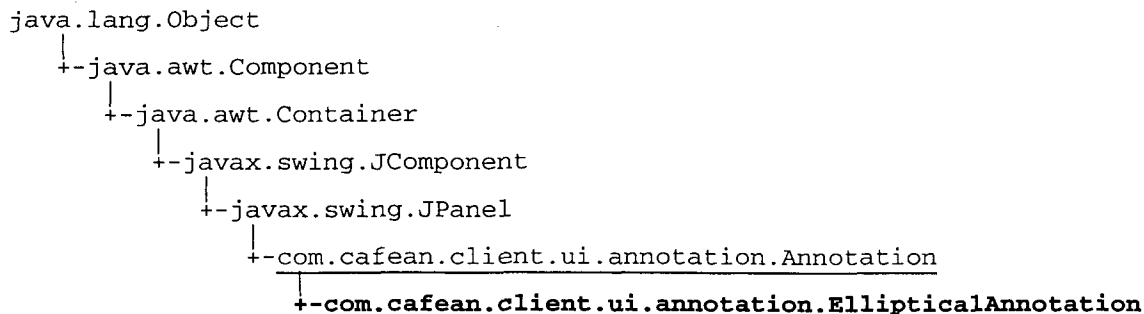
Returns false if this object has an array property with the given name that should not be resizable while editing a restart.

Parameters:

propertyName - a String containing the property name to check

com.cafean.client.ui.annotation

Class EllipticalAnnotation



All Implemented Interfaces:

Insertable, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible, PropertyController, Groupable, java.awt.event.MouseListener, java.io.Serializable, StateEditable

public class EllipticalAnnotation

extends Annotation

implements StateEditable, java.io.Serializable, java.awt.event.MouseListener, Groupable, PropertyController, javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, Insertable

A configurable drawn ellipse.

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Fields inherited from interface javax.swing.undo.StateEditable

RCSID

Fields inherited from interface com.cafean.client.ui.beans.PropertyController

ALL, COLOR_OPTIONAL, DISABLED, NONE, OPTIONAL, REQUIRED

Constructor Summary

public	<u>EllipticalAnnotation()</u> Creates a new instance of RectangularAnnotation
--------	--

Method Summary

java.awt.Color	<u>getBackground()</u>
java.awt.Color	<u>getForeground()</u>
int	<u>getLineThickness()</u> Getter for property lineThickness.
<u>AbstractInsertHandler</u>	<u>getNewInsertHandler(ZoomablePanel parent)</u>
boolean	<u>isFilled()</u>
void	<u>paintComponent(java.awt.Graphics g)</u>
void	<u>popupEditor()</u> This is used for Annotations to generate their editing dialogs. Since these are not components, they cannot use the Component View editor. This should handle creating the undo object and saving the current state before implementing changes
void	<u>resetSize()</u> This resets the current size of the annotation. This ensures that all annotations do not lose any data when the <u>scale</u> changes.
void	<u>restoreState(Hashtable state)</u> Restore the state of the bean from an earlier edit.
void	<u>setBackground(java.awt.Color bg)</u>
void	<u>setEqualTo(EllipticalAnnotation annotation)</u> Sets this annotation equal to the given annotation
void	<u>setFilled(boolean filled)</u>
void	<u>setForeground(java.awt.Color fg)</u>
void	<u>setLineThickness(int lineThickness)</u> Setter for property lineThickness.
void	<u>setOpaque(boolean filled)</u>
void	<u>storeState(Hashtable state)</u>

Methods inherited from class com.caféan.client.ui.annotation.Annotation

addPopupMenuItems, getAttributeIndex, getBorder, getBounds, getDrawnView, getGroupID, getHeight, getWidth, isGroupIDValid, isPropertyActive, isPropertyEnabled, isPropertyRequired, isPropertyResizable, isPropertyRestartEditable, isRestartResizable, mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased, moveTo, popupEditor, print, refresh, repaint, resetSize, restoreState, setBorder, setBounds, setGroupID, setGroupIDValid, setHeight, setWidth, store, storeState, toString

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

`getTransferHandler`

Methods inherited from interface `javax.accessibility.Accessible`

`getAccessibleContext`

Methods inherited from interface `javax.swing.undo.StateEditable`

`restoreState, storeState`

Methods inherited from interface `java.awt.event.MouseListener`

`mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased`

Methods inherited from interface `com.cafean.client.ui.util.Groupable`

`getGroupID, isGroupIDValid, setGroupID, setGroupIDValid`

Methods inherited from interface `com.cafean.client.ui.beans.PropertyController`

`getAttributeIndex, isPropertyActive, isPropertyEnabled, isPropertyRequired, isPropertyResizable, isPropertyRestartEditable, isRestartResizable`

Methods inherited from interface `com.cafean.client.ui.tools.insert.Insertable`

`getNewInsertHandler`

Constructors

EllipticalAnnotation

```
public EllipticalAnnotation()
```

Creates a new instance of RectangularAnnotation

Methods

setOpaque

```
public void setOpaque(boolean filled)
```

setFilled

```
public void setFilled(boolean filled)
```

isFilled

```
public boolean isFilled()
```

paintComponent

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

getForeground

```
public java.awt.Color getForeground()
```

getBackground

```
public java.awt.Color getBackground()
```

setForeground

```
public void setForeground(java.awt.Color fg)
```

setBackground

```
public void setBackground(java.awt.Color bg)
```

popupEditor

```
public void popupEditor()
```

This is used for Annotations to generate their editing dialogs. Since these are not components, they cannot use the Component View editor. This should handle creating the undo object and saving the current state before implementing changes

setEqualTo

```
public void setEqualTo(EllipticalAnnotation annotation)
```

Sets this annotation equal to the given annotation

storeState

```
public void storeState(Hashtable state).
```

Store the state of the bean to permit undo. NOTE: If the component storing its state needs a deep copy that its clone() method does not provide, it must override storeState to find that functionality elsewhere.

restoreState

```
public void restoreState (Hashtable state)
```

Restore the state of the bean from an earlier edit.

Parameters:

state - A hash table containing modified parameters.

resetSize

```
public void resetSize ()
```

This resets the current size of the annotation. This ensures that all annotations do not lose any data when the scale changes.

getLineThickness

```
public int getLineThickness ()
```

Getter for property lineThickness.

Returns:

Value of property lineThickness.

setLineThickness

```
public void setLineThickness (int lineThickness)
```

Setter for property lineThickness.

Parameters:

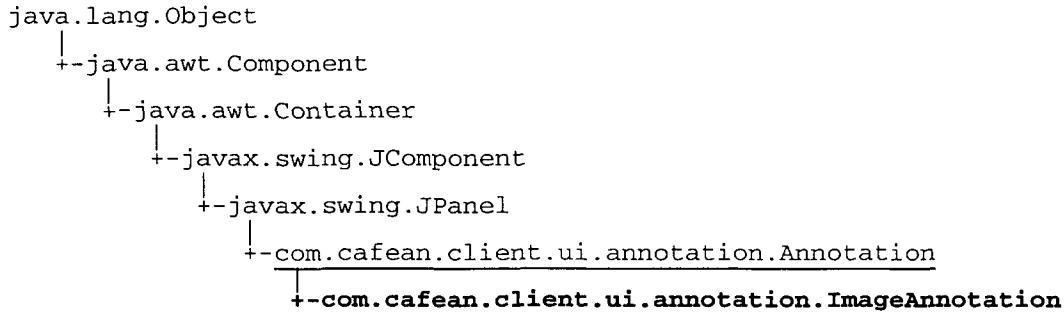
lineThickness - New value of property lineThickness.

getNewInsertHandler

```
public AbstractInsertHandler getNewInsertHandler (ZoomablePanel parent)
```

com.cafean.client.ui.annotation

Class ImageAnnotation



All Implemented Interfaces:

java.awt.event.ComponentListener, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible, PropertyController, Groupable, java.awt.event.MouseListener, java.io.Serializable, StateEditable

public class **ImageAnnotation**

extends Annotation

implements StateEditable, java.io.Serializable, java.awt.event.MouseListener, Groupable, PropertyController, javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, java.awt.event.ComponentListener

Fields inherited from class javax.swing.JComponent
TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW
Fields inherited from class java.awt.Component
BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT
Fields inherited from interface java.awt.image.ImageObserver
ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS, WIDTH
Fields inherited from interface javax.swing.undo.StateEditable
RCSID
Fields inherited from interface com.cafean.client.ui.beans.PropertyController
<u>ALL</u> , <u>COLOR_OPTIONAL</u> , <u>DISABLED</u> , <u>NONE</u> , <u>OPTIONAL</u> , <u>REQUIRED</u>

Constructor Summary

public	<u>ImageAnnotation()</u> Creates a new instance of DrawnComponentView
--------	--

Method Summary

void	<u>addPopupMenuItems</u> (JPopupMenu menu, java.awt.event.MouseEvent evt)
void	<u>componentHidden</u> (java.awt.event.ComponentEvent e)
void	<u>componentMoved</u> (java.awt.event.ComponentEvent e)
void	<u>componentResized</u> (java.awt.event.ComponentEvent e)
void	<u>componentShown</u> (java.awt.event.ComponentEvent e)
DrawnImageAnnotationR ec	<u>createPibBlock</u> ()
byte[]	<u>getImageData</u> () Retrieves this annotation's image data.
java.awt.Dimension	<u>getMinimumSize</u> ()
void	<u>paintComponent</u> (java.awt.Graphics g) Draw a simple X'd box if there is no image.
void	<u>popupEditor</u> ()
void	<u>reset</u> () Creates a draw view component and puts it in the drawing vectors.
void	<u>resetSize</u> ()
void	<u>restoreState</u> (Hashtable state) Restore the state of the bean from an earlier edit.
void	<u>setImageData</u> (byte[] imageData) Sets this annotation's image data and resizes to the size of the image in imageData.
void	<u>setImageData</u> (byte[] imageData, boolean resize) Sets this annotation's image data and optionally resizes to the size of the image in imageData.
void	<u>storeState</u> (Hashtable state) Store the state of the bean to permit undo.

Methods inherited from class com.cafean.client.ui.annotation.Annotation

addPopupMenuItems, getAttributeIndex, getBorder, getBounds, getDrawnView, getGroupID, getHeight, getWidth, isGroupIDValid, isPropertyActive, isPropertyEnabled, isPropertyRequired, isPropertyResizable, isPropertyRestartEditable, isRestartResizable, mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased, moveTo, popupEditor, print, refresh, repaint, resetSize, restoreState, setBorder, setBounds, setGroupID, setGroupIDValid, setHeight, setWidth, store, storeState, toString

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

getTransferHandler

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface javax.swing.undo.StateEditable

restoreState, storeState

Methods inherited from interface java.awt.event.MouseListener

mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased

Methods inherited from interface com.cafean.client.ui.util.Groupable

getGroupID, isGroupIDValid, setGroupID, setGroupIDValid

Methods inherited from interface com.cafean.client.ui.beans.PropertyController

getAttributeIndex, isPropertyActive, isPropertyEnabled, isPropertyRequired,
isPropertyResizable, isPropertyRestartEditable, isRestartResizable

Methods inherited from interface java.awt.event.ComponentListener

componentHidden, componentMoved, componentResized, componentShown

Constructors

ImageAnnotation

```
public ImageAnnotation()
```

Creates a new instance of DrawnComponentView

Methods

addPopupMenuItems

```
public void addPopupMenuItems(JPopupMenu menu,  
    java.awt.event.MouseEvent evt)
```

getMinimumSize

```
public java.awt.Dimension getMinimumSize()
```

reset

```
public void reset()
```

Creates a draw view component and puts it in the drawing vectors.

paintComponent

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

Draw a simple X'd box if there is no image.

componentResized

```
public void componentResized(java.awt.event.ComponentEvent e)
```

componentHidden

```
public void componentHidden(java.awt.event.ComponentEvent e)
```

componentMoved

```
public void componentMoved(java.awt.event.ComponentEvent e)
```

componentShown

```
public void componentShown(java.awt.event.ComponentEvent e)
```

popupEditor

```
public void popupEditor()
```

This is used for Annotations to generate their editing dialogs. Since these are not components, they cannot use the Component View editor. This should handle creating the undo object and saving the current state before implementing changes

resetSize

```
public void resetSize()
```

This resets the current size of the annotation. This ensures that all annotations do not lose any data when the scale changes.

storeState

```
public void storeState(Hashtable state)
```

Store the state of the bean to permit undo.

Parameters:

state - A hash table containing modified parameters.

restoreState

```
public void restoreState(Hashtable state)
```

Restore the state of the bean from an earlier edit.

Parameters:

state - A hash table containing modified parameters.

createPibBlock

```
public DrawnImageAnnotationRec createPibBlock()
```

setImageData

```
public void setImageData(byte[] imageData)
```

Sets this annotation's image data and resizes to the size of the image in imageData.

See Also:

[setImageData\(byte\[\], boolean\)](#)

setImageData

```
public void setImageData(byte[] imageData,  
                          boolean resize)
```

Sets this annotation's image data and optionally resizes to the size of the image in imageData.

Parameters:

imageData - a byte[] containing a Java-Readable image in appropriate for loading with `new ImageIcon(imageData)`;
resize - if true this annotation will adjust its size to that of the given image.

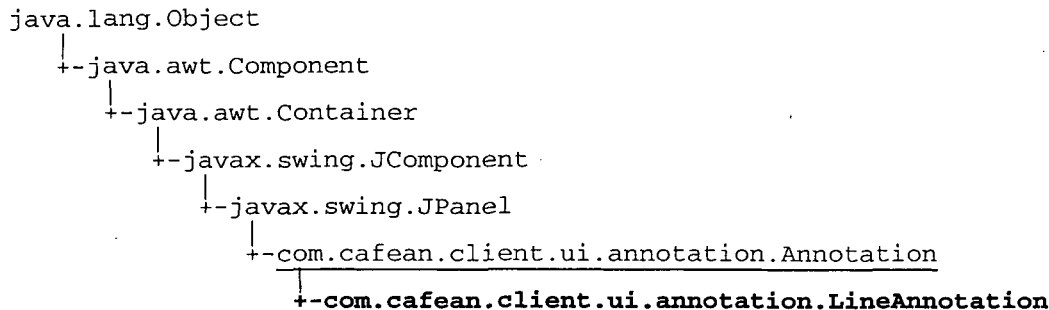
getImageData

```
public byte[] getImageData()
```

Retrieves this annotation's image data. Image data is the byte[] data read from file to create this annotation's image.

com.cafean.client.ui.annotation

Class LineAnnotation



All Implemented Interfaces:

Insertable, FullScreenDrawing, java.awt.event.MouseMotionListener, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible, PropertyController, Groupable, java.awt.event.MouseListener, java.io.Serializable, StateEditable

public class **LineAnnotation**

extends Annotation

implements StateEditable, java.io.Serializable, java.awt.event.MouseListener, Groupable, PropertyController, javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, java.awt.event.MouseMotionListener, FullScreenDrawing, Insertable

A configurable drawn line.

Field Summary	
public static final	<u>ARROW_FILLED</u> Value: 1
public static final	<u>ARROW_HOLLOW</u> Value: 2
public static final	<u>ARROW_LINE</u> Value: 4
public static final	<u>ARROW_NAMES</u>
public static final	<u>ARROW_NONE</u> Value: 0
public static final	<u>ARROW_TYPES</u>

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Fields inherited from interface javax.swing.undo.StateEditable

RCSID

Fields inherited from interface com.cafean.client.ui.beans.PropertyController

ALL, COLOR_OPTIONAL, DISABLED, NONE, OPTIONAL, REQUIRED

Constructor Summary

public	<u>LineAnnotation()</u> Creates a new instance of LineAnnotation
--------	---

Method Summary

boolean	<u>addPoint</u> (java.awt.Point p) Adds a path point at the given point, if the point falls on an existing line segment.
void	<u>addPopupMenuItems</u> (JPopupMenu menu, java.awt.event.MouseEvent evt)
boolean	<u>canAddPoint</u> (java.awt.Point p) Return true if a point can be added to the path.
boolean	<u>canRemovePoint</u> (java.awt.Point p) Return true if a point can be removed from the path.
boolean	<u>contains</u> (double x, double y)
boolean	<u>contains</u> (int x, int y)
boolean	<u>contains</u> (java.awt.Point p)
int[]	<u>getArrows</u> () Getter for property arrows.
float	<u>getArrowSize</u> () Getter for property arrowSize.
static String	<u>getArrowTypeName</u> (int type)

int	<u>getHead1()</u>
int	<u>getHead2()</u>
int	<u>getLineThickness()</u> Getter for property lineThickness.
<u>AbstractInsertHandler</u>	<u>getNewInsertHandler</u> (<u>ZoomablePanel</u> parent)
java.awt.Point[]	<u>getPath()</u> Retrieves a copy of the plotted path points that this DrawnConnection is painting.
java.awt.Rectangle	<u>getUsedBounds()</u>
boolean	<u>isDashed()</u> Getter for property dashed.
boolean	<u>isObjectInsideBounds</u> (java.awt.geom.Rectangle2D.Double rect)
void	<u>mouseClicked</u> (java.awt.event.MouseEvent e)
void	<u>mouseDragged</u> (java.awt.event.MouseEvent e) Handle mouseDragged events for segment and point manipulation
void	<u>mouseEntered</u> (java.awt.event.MouseEvent e)
void	<u>mouseExited</u> (java.awt.event.MouseEvent e)
void	<u>mouseMoved</u> (java.awt.event.MouseEvent e)
void	<u>mousePressed</u> (java.awt.event.MouseEvent e) Handle mousePressed events to support segment and point manipulation
void	<u>mouseReleased</u> (java.awt.event.MouseEvent e) Handle mouseReleased events to support segment and point manipulation
void	<u>moveTo</u> (double x, double y, boolean last) Move the Annotation so the center is the specified position
void	<u>paintComponent</u> (java.awt.Graphics g)
void	<u>popupEditor</u> ()
void	<u>removeClosestPoint</u> (java.awt.Point p) Attempts to remove the closest point in this DrawnConnection's set of points.
boolean	<u>removePoint</u> (java.awt.Point p) Attempts to remove the path point at the given location.

void	<u>repaint()</u>
void	<u>resetSize()</u>
void	<u>restoreState</u> (Hashtable state) Restore the state of the bean from an earlier edit.
void	<u>revalidate()</u>
void	<u>setArrows</u> (int[] arrows) Setter for property arrows.
void	<u>setArrowSize</u> (float arrowSize) Setter for property arrowSize.
void	<u>setDashed</u> (boolean dashed) Setter for property dashed.
void	<u>setEqualTo</u> (LineAnnotation annotation) Sets this annotation equal to the given annotation
void	<u>setHead1</u> (int head1)
void	<u>setHead2</u> (int head2)
void	<u>setLineThickness</u> (int lineThickness) Setter for property lineThickness.
void	<u>setPath</u> (java.awt.Point[] path) Sets the path points that this DrawnConnection will use for connecting.
void	<u>storeState</u> (Hashtable state) Store the state of the bean to permit undo.
void	<u>translate</u> (int dx, int dy)
void	<u>validate()</u>

Methods inherited from class com.cafean.client.ui.annotation.Annotation

addPopupMenuItems, getAttributeIndex, getBorder, getBounds, getDrawnView, getGroupID, getHeight, getWidth, isGroupIDValid, isPropertyActive, isPropertyEnabled, isPropertyRequired, isPropertyResizable, isPropertyRestartEditable, isRestartResizable, mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased, moveTo, popupEditor, print, refresh, repaint, resetSize, restoreState, setBorder, setBounds, setGroupID, setGroupIDValid, setHeight, setWidth, store, storeState, toString

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener,
 addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener,
 addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener,
 addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds,
 checkImage, checkImage, contains, contains, createImage, createImage,
 createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent,
 doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange,
 firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
 getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline,
 getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt,
 getComponentAt, getComponentListeners, getComponentOrientation, getCursor,
 getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys,
 getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics,
 getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners,
 getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests,
 getKeyListeners, getListeners, getLocale, getLocation, getLocation, getLocationOnScreen,
 getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners,
 getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize,
 getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit,
 getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate,
 inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered,
 isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet,
 isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque,
 isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list,
 list, list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag,
 mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent,
 preferredSize, prepareImage, prepareImage, print, printAll, remove,
 removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,
 removeHierarchyListener, removeInputMethodListener, removeKeyListener,
 removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify,
 removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint,
 repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground,
 setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled,
 setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont,
 setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize,
 setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show,
 size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update,
 validate

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

getTransferHandler

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface javax.swing.undo.StateEditable

restoreState, storeState

Methods inherited from interface java.awt.event.MouseListener

mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased

Methods inherited from interface com.cafean.client.ui.util.Groupable

getGroupID, isGroupIDValid, setGroupID, setGroupIDValid

Methods inherited from interface com.cafean.client.ui.beans.PropertyController

getAttributeIndex, isPropertyActive, isPropertyEnabled, isPropertyRequired,
isPropertyResizable, isPropertyRestartEditable, isRestartResizable

Methods inherited from interface java.awt.event.MouseMotionListener

mouseDragged, mouseMoved

Methods inherited from interface com.cafean.client.ui.FullScreenDrawing

getUsedBounds, translate

Methods inherited from interface com.cafean.client.ui.tools.insert.Insertable

getNewInsertHandler

Fields

ARROW_NONE

```
public static final int ARROW_NONE
```

Constant value: 0

ARROW_FILLED

```
public static final int ARROW_FILLED
```

Constant value: 1

ARROW_HOLLOW

```
public static final int ARROW_HOLLOW
```

Constant value: 2

ARROW_LINE

```
public static final int ARROW_LINE
```

Constant value: 4

ARROW_NAMES

```
public static final java.lang.String ARROW_NAMES
```

ARROW_TYPES

```
public static final int ARROW_TYPES
```

Constructors

LineAnnotation

```
public LineAnnotation()
```

Creates a new instance of LineAnnotation

Methods

getArrowTypeName

```
public static String getArrowTypeName(int type)
```

paintComponent

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

moveTo

```
public void moveTo(double x,  
                  double y,  
                  boolean last)
```

Move the Annotation so the center is the specified position

Parameters:

- x - the new center x position
- y - the new center y position
- last - false while moving, true on the final move

contains

```
public boolean contains(double x,  
                        double y)
```

contains

```
public boolean contains(java.awt.Point p)
```

contains

```
public boolean contains(int x,  
                        int y)
```

getPath

```
public java.awt.Point[] getPath()
```

Retrieves a copy of the plotted path points that this DrawnConnection is painting.

Returns:

a Point[] containing the coordinates of each point.

setPath

```
public void setPath(java.awt.Point[] path)
```

Sets the path points that this DrawnConnection will use for connecting.

popupEditor

```
public void popupEditor()
```

This is used for Annotations to generate their editing dialogs. Since these are not components, they cannot use the Component View editor. This should handle creating the undo object and saving the current state before implementing changes

setEqualTo

```
public void setEqualTo(LineAnnotation annotation)
```

Sets this annotation equal to the given annotation

mousePressed

public void **mousePressed**(java.awt.event.MouseEvent e)

Handle mousePressed events to support segment and point manipulation

See Also:

[mouseReleased\(MouseEvent\)](#)

mouseClicked

public void **mouseClicked**(java.awt.event.MouseEvent e)

removeClosestPoint

public void **removeClosestPoint**(java.awt.Point p)

Attempts to remove the closest point in this DrawnConnection's set of points.

Parameters:

p - the Point to remove the closest path point.

removePoint

public boolean **removePoint**(java.awt.Point p)

Attempts to remove the path point at the given location.

Parameters:

p - the Point at which to delete a path point.

Returns:

true if the point was deleted.

canRemovePoint

public boolean **canRemovePoint**(java.awt.Point p)

Return true if a point can be removed from the path.

canAddPoint

public boolean **canAddPoint**(java.awt.Point p)

Return true if a point can be added to the path.

addPoint

public boolean **addPoint**(java.awt.Point p)

Adds a path point at the given point, if the point falls on an existing line segment.

Parameters:

p - the Point at which to add a path point.

Returns:

true if the point is actually added.

mouseReleased

```
public void mouseReleased(java.awt.event.MouseEvent e)
```

Handle mouseReleased events to support segment and point manipulation

See Also:

[mousePressed\(MouseEvent\)](#)

mouseDragged

```
public void mouseDragged(java.awt.event.MouseEvent e)
```

Handle mouseDragged events for segment and point manipulation

See Also:

[mousePressed\(MouseEvent\)](#)

mouseMoved

```
public void mouseMoved(java.awt.event.MouseEvent e)
```

mouseEntered

```
public void mouseEntered(java.awt.event.MouseEvent e)
```

mouseExited

```
public void mouseExited(java.awt.event.MouseEvent e)
```

isObjectInsideBounds

```
public boolean isObjectInsideBounds(java.awt.geom.Rectangle2D.Double rect)
```

repaint

```
public void repaint()
```

Repaints this component by calling [BeanBox.refresh\(Rectangle\)](#).

translate

```
public void translate(int dx,  
                      int dy)
```

getUsedBounds

```
public java.awt.Rectangle getUsedBounds()
```

resetSize

```
public void resetSize()
```

This resets the current size of the annotation. This ensures that all annotations do not lose any data when the scale changes.

getLineThickness

```
public int getLineThickness()
```

Getter for property lineThickness.

Returns:

Value of property lineThickness.

setLineThickness

```
public void setLineThickness(int lineThickness)
```

Setter for property lineThickness.

Parameters:

lineThickness - New value of property lineThickness.

addPopupMenuItems

```
public void addPopupMenuItems(JPopupMenu menu,  
                               java.awt.event.MouseEvent evt)
```

revalidate

```
public void revalidate()
```

validate

```
public void validate()
```

storeState

public void **storeState**(Hashtable state)

Store the state of the bean to permit undo.

Parameters:

state - A hash table containing modified parameters.

restoreState

public void **restoreState**(Hashtable state)

Restore the state of the bean from an earlier edit.

Parameters:

state - A hash table containing modified parameters.

getArrows

public int[] **getArrows**()

Getter for property arrows.

Returns:

Value of property arrows.

setArrows

public void **setArrows**(int[] arrows)

Setter for property arrows.

Parameters:

arrows - New value of property arrows.

getArrowSize

public float **getArrowSize**()

Getter for property arrowSize.

Returns:

Value of property arrowSize.

setArrowSize

public void **setArrowSize**(float arrowSize)

Setter for property arrowSize.

Parameters:

arrowSize - New value of property arrowSize.

isDashed

```
public boolean isDashed()
```

Getter for property dashed.

Returns:

Value of property dashed.

setDashed

```
public void setDashed(boolean dashed)
```

Setter for property dashed.

Parameters:

dashed - New value of property dashed.

getHead1

```
public int getHead1()
```

setHead1

```
public void setHead1(int head1)
```

getHead2

```
public int getHead2()
```

setHead2

```
public void setHead2(int head2)
```

getNewInsertHandler

```
public AbstractInsertHandler getNewInsertHandler(ZoomablePanel parent)
```

com.cafean.client.ui.annotation Class RectangularAnnotation

```
java.lang.Object
  |--java.awt.Component
    |--java.awt.Container
      |--javax.swing.JComponent
        |--javax.swing.JPanel
          |--com.cafean.client.ui.annotation.Annotation
            |--com.cafean.client.ui.annotation.RectangularAnnotation
```

All Implemented Interfaces:

Insertable, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible, PropertyController, Groupable, java.awt.event.MouseListener, java.io.Serializable, StateEditable

public class **RectangularAnnotation**

extends Annotation

implements StateEditable, java.io.Serializable, java.awt.event.MouseListener, Groupable, PropertyController, javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, Insertable

A configurable drawn rectangle with border, thickness and optional rounded corners.

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Fields inherited from interface javax.swing.undo.StateEditable

RCSID

Fields inherited from interface com.cafean.client.ui.beans.PropertyController

ALL, COLOR_OPTIONAL, DISABLED, NONE, OPTIONAL, REQUIRED

Constructor Summary

public	<u>RectangularAnnotation()</u> Creates a new instance of RectangularAnnotation
--------	---

Method Summary

double	<u>getArcHeight()</u> Getter for property arcHeight.
double	<u>getArcWidth()</u> Getter for property arcWidth.
java.awt.Color	<u>getBackground()</u>
java.awt.Color	<u>getForeground()</u>
int	<u>getLineThickness()</u> Getter for property lineThickness.
<u>AbstractInsertHandler</u>	<u>getNewInsertHandler(ZoomablePanel parent)</u>
boolean	<u>isFilled()</u>
boolean	<u>isOpaque()</u>
boolean	<u>isRounded()</u> Returns true if this annotation has rounded corners.
void	<u>paintComponent(java.awt.Graphics g)</u>
void	<u>popupEditor()</u>
void	<u>resetSize()</u> This resets the current size of the annotation. This ensures that all annotations do not lose any data when the <u>scale</u> changes.
void	<u>setArcHeight(double arcHeight)</u> Setter for property arcHeight.
void	<u>setArcWidth(double arcWidth)</u> Setter for property arcWidth.
void	<u>setBackground(java.awt.Color bg)</u>
void	<u>setEqualTo(RectangularAnnotation annotation)</u> Sets this annotation equal to the given annotation
void	<u>setFilled(boolean filled)</u>
void	<u>setForeground(java.awt.Color fg)</u>

void	<u>setLineThickness</u> (int lineThickness) Setter for property lineThickness.
void	<u>setRounded</u> (boolean rounded) Sets this annotations rounded corner property.

Methods inherited from class `com.cafean.client.ui.annotation.Annotation`

addPopupMenuItems, getAttributeIndex, getBorder, getBounds, getDrawnView, getGroupID, getHeight, getWidth, isGroupIDValid, isPropertyActive, isPropertyEnabled, isPropertyRequired, isPropertyResizable, isPropertyRestartEditable, isRestartResizable, mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased, moveTo, popupEditor, print, refresh, repaint, resetSize, restoreState, setBorder, setBounds, setGroupID, setGroupIDValid, setHeight, setWidth, store, storeState, toString

Methods inherited from class `javax.swing.JPanel`

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class `javax.swing.JComponent`

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPopupMenuLocation, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidateRoot, paint, 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, updateUI

Methods inherited from class `java.awt.Container`

add, add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

getTransferHandler

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface javax.swing.undo.StateEditable

restoreState, storeState

Methods inherited from interface java.awt.event.MouseListener

mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased

Methods inherited from interface com.cafean.client.ui.util.Groupable

getGroupID, isGroupIDValid, setGroupID, setGroupIDValid

Methods inherited from interface com.cafean.client.ui.beans.PropertyController

getAttributeIndex, isPropertyActive, isPropertyEnabled, isPropertyRequired,
isPropertyResizable, isPropertyRestartEditable, isRestartResizable

Methods inherited from interface com.cafean.client.ui.tools.insert.Insertable

getNewInsertHandler

Constructors

RectangularAnnotation

```
public RectangularAnnotation()
```

Creates a new instance of RectangularAnnotation

Methods

paintComponent

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

setFilled

```
public void setFilled(boolean filled)
```

isFilled

```
public boolean isFilled()
```

isOpaque

```
public boolean isOpaque()
```

getForeground

```
public java.awt.Color getForeground()
```

getBackground

```
public java.awt.Color getBackground()
```

setForeground

```
public void setForeground(java.awt.Color fg)
```

setBackground

```
public void setBackground(java.awt.Color bg)
```

popupEditor

```
public void popupEditor()
```

This is used for Annotations to generate their editing dialogs. Since these are not components, they cannot use the Component View editor. This should handle creating the undo object and saving the current state before implementing changes

setEqualTo

```
public void setEqualTo(RectangularAnnotation annotation)
```

Sets this annotation equal to the given annotation

resetSize

```
public void resetSize()
```

This resets the current size of the annotation. This ensures that all annotations do not lose any data when the scale changes.

isRounded

```
public boolean isRounded()
```

Returns true if this annotation has rounded corners.

setRounded

```
public void setRounded(boolean rounded)
```

Sets this annotations rounded corner property.

getArcWidth

```
public double getArcWidth()
```

Getter for property arcWidth.

Returns:

Value of property arcWidth.

setArcWidth

```
public void setArcWidth(double arcWidth)
```

Setter for property arcWidth.

Parameters:

arcWidth - New value of property arcWidth.

getArcHeight

```
public double getArcHeight()
```

Getter for property arcHeight.

Returns:

Value of property arcHeight.

setArcHeight

```
public void setArcHeight(double arcHeight)
```

Setter for property arcHeight.

Parameters:

arcHeight - New value of property arcHeight.

getLineThickness

```
public int getLineThickness()
```

Getter for property lineThickness.

Returns:

Value of property lineThickness.

setLineThickness

```
public void setLineThickness(int lineThickness)
```

Setter for property lineThickness.

Parameters:

lineThickness - New value of property lineThickness.

getNewInsertHandler

```
public AbstractInsertHandler getNewInsertHandler(ZoomablePanel parent)
```

com.cafean.client.ui.annotation Class TextAnnotation

```

java.lang.Object
  |-- java.awt.Component
      |-- java.awt.Container
          |-- javax.swing.JComponent
              |-- javax.swing.JPanel
                  |-- com.cafean.client.ui.annotation.Annotation
                      |-- com.cafean.client.ui.annotation.TextAnnotation

```

All Implemented Interfaces:

java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler,
 java.io.Serializable, javax.accessibility.Accessible, PropertyController, Groupable, java.awt.event.MouseListener,
 java.io.Serializable, StateEditable

```

public class TextAnnotation
  extends Annotation

```

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED,
 WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Fields inherited from interface javax.swing.undo.StateEditable

RCSID

Fields inherited from interface com.cafean.client.ui.beans.PropertyController

ALL, COLOR_OPTIONAL, DISABLED, NONE, OPTIONAL, REQUIRED

Constructor Summary

public	<u>TextAnnotation()</u> Creates a new instance of TextAnnotation
--------	---

Method Summary

void	<u>addNotify()</u>
void	<u>doLayout()</u> Resets the size of the label and the text annotation to be slightly larger than the preferred size of the label.
void	<u>ensureVersion21()</u> Updates the font, text and color values of this TextAnnotation to compensate for an older version which used only the JLabel properties.
java.awt.Color	<u>getBackground()</u>
java.awt.Color	<u>getForeground()</u>
JLabel	<u>getLabel()</u> Getter for property label.
String	<u>getText()</u>
int	<u>getTextMargin()</u> Getter for property textMargin.
boolean	<u>isFilled()</u> gets this annotation's "Fill Background" property
boolean	<u>isOpaque()</u> Returns false as this annotation must be treated as a non-opaque component by swing in paintImmediately.
static void	<u>main(String[] args)</u>
void	<u>popupEditor()</u>
void	<u>resetSize()</u>
void	<u>restoreState(Hashtable state)</u> Restore the state of the bean from an earlier edit.
void	<u>setBackground(java.awt.Color bg)</u>
void	<u>setFilled(boolean filled)</u> sets this annotation's "Fill Background" property
void	<u>setFont(java.awt.Font font)</u>
void	<u>setForeground(java.awt.Color fg)</u>
void	<u>setLabel(JLabel label)</u> Setter for property label.

void	<u>setOpaque</u> (boolean opaque) overrides setOpaque to set this annotation's "Fill Background" property
void	<u>setText</u> (String text)
void	<u>setTextMargin</u> (int textMargin) Setter for property textMargin.
void	<u>storeState</u> (Hashtable state) Store the state of the bean to permit undo.

Methods inherited from class com.cafean.client.ui.annotation.Annotation

addPopupMenuItems, getAttributeIndex, getBorder, getBounds, getDrawnView, getGroupID, getHeight, getWidth, isGroupIDValid, isPropertyActive, isPropertyEnabled, isPropertyRequired, isPropertyResizable, isPropertyRestartEditable, isRestartResizable, mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased, moveTo, popupEditor, print, refresh, repaint, resetSize, restoreState, setBorder, setBounds, setGroupID, setGroupIDValid, setHeight, setWidth, store, storeState, toString

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener,
 addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener,
 addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener,
 addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds,
 checkImage, checkImage, contains, contains, createImage, createImage,
 createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent,
 doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange,
 firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
 getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline,
 getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt,
 getComponentAt, getComponentListeners, getComponentOrientation, getCursor,
 getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys,
 getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics,
 getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners,
 getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests,
 getKeyListeners, getListeners, getLocale, getLocation, getLocation, getLocationOnScreen,
 getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners,
 getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize,
 getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit,
 getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate,
 inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered,
 isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet,
 isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque,
 isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list,
 list, list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag,
 mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent,
 preferredSize, prepareImage, prepareImage, print, printAll, remove,
 removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,
 removeHierarchyListener, removeInputMethodListener, removeKeyListener,
 removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify,
 removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint,
 repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground,
 setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled,
 setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont,
 setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize,
 setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show,
 size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update,
 validate

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

getTransferHandler

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface javax.swing.undo.StateEditable

restoreState, storeState

Methods inherited from interface java.awt.event.MouseListener

mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased

Methods inherited from interface com.cafean.client.ui.util.Groupable

getGroupID, isGroupIDValid, setGroupID, setGroupIDValid

Methods inherited from interface com.cafean.client.ui.beans.PropertyController

getAttributeIndex, isPropertyActive, isPropertyEnabled, isPropertyRequired,
isPropertyResizable, isPropertyRestartEditable, isRestartResizable

Constructors

TextAnnotation

```
public TextAnnotation()
```

Creates a new instance of TextAnnotation

Methods

storeState

```
public void storeState(Hashtable state)
```

Store the state of the bean to permit undo. NOTE: If the component storing its state needs a deep copy that its clone() method does not provide, it must override storeState to find that functionality elsewhere.

Parameters:

state - A hash table containing modified parameters.

restoreState

```
public void restoreState(Hashtable state)
```

Restore the state of the bean from an earlier edit.

Parameters:

state - A hash table containing modified parameters.

popupEditor

```
public void popupEditor()
```

This is used for Annotations to generate their editing dialogs. Since these are not components, they cannot use the Component View editor. This should handle creating the undo object and saving the current state before implementing changes

getText

```
public String getText()
```

main

```
public static void main(String[] args)
```

setText

```
public void setText(String text)
```

setFont

```
public void setFont(java.awt.Font font)
```

getForeground

```
public java.awt.Color getForeground()
```

getBackground

```
public java.awt.Color getBackground()
```

setForeground

```
public void setForeground(java.awt.Color fg)
```

setBackground

```
public void setBackground(java.awt.Color bg)
```

addNotify

public void **addNotify**()

getLabel

public JLabel **getLabel**()

Getter for property label.

Returns:

Value of property label.

setLabel

public void **setLabel**(JLabel label)

Setter for property label.

Parameters:

label - New value of property label.

doLayout

public void **doLayout**()

Resets the size of the label and the text annotation to be slightly larger than the preferred size of the label.

resetSize

public void **resetSize**()

This resets the current size of the annotation. This ensures that all annotations do not lose any data when the scale changes.

ensureVersion21

public void **ensureVersion21**()

Updates the font, text and color values of this TextAnnotation to compensate for an older version which used only the JLabel properties.

getTextMargin

public int **getTextMargin**()

Getter for property textMargin.

Returns:

Value of property textMargin.

setTextMargin

public void **setTextMargin**(int textMargin)

Setter for property textMargin.

Parameters:

textMargin - New value of property textMargin.

setFilled

public void **setFilled**(boolean filled)

sets this annotation's "Fill Background" property

isFilled

public boolean **isFilled**()

gets this annotation's "Fill Background" property

setOpaque

public void **setOpaque**(boolean opaque)

overrides setOpaque to set this annotation's "Fill Background" property

isOpaque

public boolean **isOpaque**()

Returns false as this annotation must be treated as a non-opaque component by swing in paintImmediately.

Package

com.cafean.client.ui.beans

This package contains the bean-based editors provided for use in plug-ins.

Plug-in writers should take note of the following classes before creating editors for particular types.

- BooleanEditor
- BorderStyleEditor
- ComponentSelectionEditor
- IntrospectingEditor
- NamedIntEditor
- PropertyController
- RealArrayEditor
- RealBeanEditor

com.cafean.client.ui.beans

Class BooleanEditor

```
java.lang.Object
├-- java.awt.Component
│   └-- java.awt.Container
│       └-- javax.swing.JComponent
│           └-- javax.swing.JPanel
│               └-- com.cafean.client.ui.beans.BooleanEditor
```

All Implemented Interfaces:

java.beans.PropertyEditor, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible

Direct Known Subclasses:

NamelistBooleanEditor

```
public class BooleanEditor
extends JPanel
implements javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler,
java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, java.beans.PropertyEditor
```

This is the radio-button form of a Boolean value editor used in the PropertySetPanel and its associated components. The layout logic for this editor will shorten each radio button's text to a single character when the editor's width is too narrow to display the full text.

Simple extensions of this editor can be created to change the text displayed on each radio button from "True"/"False" to strings that may be more appropriate for certain values such as "Yes"/"No" or "Enabled"/"Disabled".

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Constructor Summary

public	<code>BooleanEditor(String trueText, String falseText, char trueChar, char falseChar)</code>
--------	--

Creates a new instance of BooleanEditor displaying the given text.

public	<u>BooleanEditor</u> (String trueText, String falseText) Creates a new instance of BooleanEditor displaying the given text.
public	<u>BooleanEditor</u> () Creates a new instance of BooleanEditor displaying the text "True"/"False" and 'T'/F'.

Method Summary

String	<u>getAsText</u> ()
java.awt.Component	<u>getCustomEditor</u> ()
String	<u>getJavaInitializationString</u> () Does nothing, and returns null.
String[]	<u>getTags</u> () Does nothing, and returns null.
Object	<u>getValue</u> ()
boolean	<u>isPaintable</u> ()
void	<u>paintValue</u> (java.awt.Graphics gfx, java.awt.Rectangle box)
void	<u>setAsText</u> (String text)
void	<u>setValue</u> (Object value)
boolean	<u>supportsCustomEditor</u> ()

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener,
 addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener,
 addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener,
 addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds,
 checkImage, checkImage, contains, contains, createImage, createImage,
 createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent,
 doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange,
 firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
 getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline,
 getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt,
 getComponentAt, getComponentListeners, getComponentOrientation, getCursor,
 getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys,
 getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics,
 getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners,
 getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests,
 getKeyListeners, getListeners, getLocale, getLocation, getLocation, getLocationOnScreen,
 getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners,
 getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize,
 getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit,
 getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate,
 inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered,
 isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet,
 isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque,
 isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list,
 list, list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag,
 mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent,
 preferredSize, prepareImage, prepareImage, print, printAll, remove,
 removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,
 removeHierarchyListener, removeInputMethodListener, removeKeyListener,
 removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify,
 removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint,
 repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground,
 setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled,
 setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont,
 setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize,
 setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show,
 size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update,
 validate

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

```
getTransferHandler
```

Methods inherited from interface javax.accessibility.Accessible

```
getAccessibleContext
```

Methods inherited from interface java.beans.PropertyEditor

```
addPropertyChangeListener, getAsText, getCustomEditor, getJavaInitializationString,  
getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText,  
setValue, supportsCustomEditor
```

Constructors

BooleanEditor

```
public BooleanEditor(String trueText,  
                    String falseText,  
                    char trueChar,  
                    char falseChar)
```

Creates a new instance of BooleanEditor displaying the given text.

Parameters:

trueText - a String containing the text to display in the true/affirmative/yes button
falseText - a String containing the text to display in the true/affirmative/yes button
trueChar - the single character to display in the true/affirmative/yes button
falseChar - the single character to display in the false/negative/no button

BooleanEditor

```
public BooleanEditor(String trueText,  
                    String falseText)
```

Creates a new instance of BooleanEditor displaying the given text.

Parameters:

trueText - a String containing the text to display in the true/affirmative/yes button
falseText - a String containing the text to display in the true/affirmative/yes button

BooleanEditor

```
public BooleanEditor()
```

Creates a new instance of BooleanEditor displaying the text "True"/"False" and 'T'/'F'.

Methods

getAsText

```
public String getAsText ()
```

getCustomEditor

```
public java.awt.Component getCustomEditor()
```

getJavaInitializationString

```
public String getJavaInitializationString()
```

Does nothing, and returns null.

getTags

```
public String[] getTags()
```

Does nothing, and returns null.

getValue

```
public Object getValue()
```

isPaintable

```
public boolean isPaintable()
```

paintValue

```
public void paintValue(java.awt.Graphics gfx,  
                        java.awt.Rectangle box)
```

setAsText

```
public void setAsText(String text)
```

setValue

```
public void setValue(Object value)
```

supportsCustomEditor

```
public boolean supportsCustomEditor()
```

com.cafean.client.ui.beans

Class BorderStyleEditor

```

java.lang.Object
  |
  |--java.beans.PropertyEditorSupport
      |
      |--com.cafean.client.ui.beans.BorderStyleEditor
  
```

All Implemented Interfaces:
 java.awt.event.ItemListener, java.beans.PropertyEditor

public class BorderStyleEditor
 extends java.beans.PropertyEditorSupport
 implements java.beans.PropertyEditor, java.awt.event.ItemListener

Custom property editor to modify the component border properties.

Constructor Summary	
public	<u>BorderStyleEditor()</u> Constructor.

Method Summary	
void	<u>editorChangeValue</u> (Border newBorder) Update the user interface to reflect the edited border properties.
String	<u>getAsText</u> () The property value as a human editable string.
int	<u>getBorderType</u> (Border bord) Determine the border type for a given border.
java.awt.Component	<u>getCustomEditor</u> () A component that will allow direct editing of the current property value.
String	<u>getJavaInitializationString</u> () This method is intended for use when generating Java code to set the value of the property.
String[]	<u>getTags</u> () If the property value must be one of a set of known tagged values, then this method should return an array of the tags.
Object	<u>getValue</u> () Access routine for the channel name.
boolean	<u>isPaintable</u> () True if the class will honor the paintValue method.

void	<u>itemStateChanged</u> (java.awt.event.ItemEvent evt) Invoked when the combobox's state has been changed.
void	<u>paintValue</u> (java.awt.Graphics gfx, java.awt.Rectangle box) Paint a representation of the value into a given area of screen real estate.
void	<u>setAsText</u> (String s) Set the property value by parsing a given String.
void	<u>setValue</u> (Object o) Set (or change) the object that is to be edited.
boolean	<u>supportsCustomEditor</u> () True if the propertyEditor can provide a custom editor.

Methods inherited from class java.beans.PropertyEditorSupport

addPropertyChangeListener, firePropertyChange, getAsText, getCustomEditor, getJavaInitializationString, getSource, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setSource, setValue, supportsCustomEditor

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.beans.PropertyEditor

addPropertyChangeListener, getAsText, getCustomEditor, getJavaInitializationString, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setValue, supportsCustomEditor

Methods inherited from interface java.awt.event.ItemListener

itemStateChanged

Constructors

BorderStyleEditor

```
public BorderStyleEditor()
```

Constructor.

Methods

itemStateChanged

```
public void itemStateChanged(java.awt.event.ItemEvent evt)
```

Invoked when the combobox's state has been changed.

Parameters:

evt - The event object.

setValue

```
public void setValue(Object o)
```

Set (or change) the object that is to be edited.

Parameters:

o - The object to edit.

editorChangeValue

```
public void editorChangeValue(Border newBorder)
```

Update the user interface to reflect the edited border properties.

Parameters:

newBorder - The border to be used to update the user interface.

getBorderType

```
public int getBorderType(Border bord)
```

Determine the border type for a given border.

Parameters:

bord - The border to evaluate.

Returns:

The border type. 0=none, 1=Raised Bevel. 2=lowered bevel, 3=etched, 4=line, 5=empty.

getValue

```
public Object getValue()
```

Access routine for the channel name.

setAsText

```
public void setAsText(String s)  
throws IllegalArgumentException
```

Set the property value by parsing a given String.

Parameters:

s - The string to be parsed.

getJavaInitializationString

```
public String getJavaInitializationString()
```

This method is intended for use when generating Java code to set the value of the property.

Returns:

A fragment of Java code that can be used to initialize a variable with the current property value.

isPaintable

```
public boolean isPaintable()
```

True if the class will honor the `paintValue` method.

Returns:

false

paintValue

```
public void paintValue(java.awt.Graphics gfx,  
    java.awt.Rectangle box)
```

Paint a representation of the value into a given area of screen real estate. Not used here.

getAsText

```
public String getAsText()
```

The property value as a human editable string.

getTags

```
public String[] getTags()
```

If the property value must be one of a set of known tagged values, then this method should return an array of the tags. Not used here.

getCustomEditor

```
public java.awt.Component getCustomEditor()
```

A component that will allow direct editing of the current property value.

Returns:

this.

supportsCustomEditor

```
public boolean supportsCustomEditor()
```

True if the `propertyEditor` can provide a custom editor.

Returns:

true.

com.cafean.client.ui.beans

Class ComponentSelectionEditor

java.lang.Object

↳ **com.cafean.client.ui.beans.ComponentSelectionEditor**

All Implemented Interfaces:

java.beans.PropertyEditor, ModelDependent

```
public class ComponentSelectionEditor
extends Object
implements ModelDependent, java.beans.PropertyEditor
```

This bean editor contains a JPanel with a label and a button. This allows the user to select a component from the current model. Plugin specific extensions can be created that initialize the category value, which will limit the selection scope by that category.

Constructor Summary	
public	<u>ComponentSelectionEditor</u> (<u>Category</u> category, boolean allowEmpty) Creates a new instance of CellComponentSelector
public	<u>ComponentSelectionEditor</u> () Creates a new instance of CellComponentSelector

Method Summary	
void	<u>addPropertyChangeListener</u> (java.beans.PropertyChangeListener propertyChangeListener)
void	<u>firePropertyChange</u> (String propertyName, Object oldValue, Object newValue)
String	<u>getAsText</u> ()
<u>Category</u>	<u>getCategory</u> () Gets the Category for this ComponentSelectionEditor.
java.awt.Component	<u>getCustomEditor</u> ()
String	<u>getJavaInitializationString</u> () Does nothing, and returns null.
<u>AbstractModel</u>	<u>getModel</u> ()
java.beans.PropertyChangeListener	<u>getPropertyChangeListener</u> (int index) Returns the PropertyChangeListener at the given index.
int	<u>getPropertyChangeListenerCount</u> () Returns the number of property change listeners.

TableCellEditor	<u>getTableCellEditor()</u> Method allows this panel to be used in JTable as an editor
TableCellRenderer	<u>getTableCellRenderer()</u> Returns a TableCellRenderer that displays contents of this ComponentSelectionEditor.
String[]	<u>getTags()</u> Does nothing, and returns null.
Object	<u>getValue()</u>
boolean	<u>isCancelled()</u>
boolean	<u>isPaintable()</u>
void	<u>paintValue</u> (java.awt.Graphics gfx, java.awt.Rectangle box)
void	<u>removePropertyChangeListener</u> (java.beans.PropertyChangeListener propertyChangeListener)
void	<u>setAsText</u> (String text)
void	<u>setAvailable</u> (AbstractComponent[] components)
void	<u>setCategory</u> (Category category) Sets the Category for this ComponentSelectionEditor.
void	<u>setCreator</u> (ComponentCreator creator) This sets the ComponentCreator that can be used to create new instances of the AbstractComponent this selector is supposed to select between
void	<u>setEditable</u> (boolean e)
void	<u>setFont</u> (java.awt.Font font) Sets the font on the label for this ComponentSelectionEditor.
void	<u>setModel</u> (AbstractModel model)
void	<u>setValue</u> (Object value)
boolean	<u>supportsCustomEditor()</u>

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.cafean.client.analysis.ModelDependent

getModel, setModel

Methods inherited from interface `java.beans.PropertyEditor`

`addPropertyChangeListener`, `getAsText`, `getCustomEditor`, `getJavaInitializationString`, `getTags`, `getValue`, `isPaintable`, `paintValue`, `removePropertyChangeListener`, `setAsText`, `setValue`, `supportsCustomEditor`

Constructors

ComponentSelectionEditor

```
public ComponentSelectionEditor(Category category,  
                                boolean allowEmpty)
```

Creates a new instance of `CellComponentSelector`

ComponentSelectionEditor

```
public ComponentSelectionEditor()
```

Creates a new instance of `CellComponentSelector`

Methods

setAvailable

```
public void setAvailable(AbstractComponent[] components)
```

isCancelled

```
public boolean isCancelled()
```

setEditable

```
public void setEditable(boolean e)
```

getAsText

```
public String getAsText()
```

getCustomEditor

```
public java.awt.Component getCustomEditor()
```

getJavaInitializationString

public String **getJavaInitializationString**()

Does nothing, and returns null.

getTags

public String[] **getTags**()

Does nothing, and returns null.

getValue

public Object **getValue**()

isPaintable

public boolean **isPaintable**()

setFont

public void **setFont**(java.awt.Font font)

Sets the font on the label for this ComponentSelectionEditor.

setCreator

public void **setCreator**(ComponentCreator creator)

This sets the ComponentCreator that can be used to create new instances of the AbstractComponent this selector is supposed to select between

paintValue

public void **paintValue**(java.awt.Graphics gfx,
java.awt.Rectangle box)

setAsText

public void **setAsText**(String text)
throws IllegalArgumentException

setValue

```
public void setValue(Object value)
```

supportsCustomEditor

```
public boolean supportsCustomEditor()
```

getCategory

```
public Category getCategory()
```

Gets the Category for this ComponentSelectionEditor.

Returns:

the Category of the component reference.

setCategory

```
public void setCategory(Category category)
```

Sets the Category for this ComponentSelectionEditor.

Parameters:

category - the Category of the component reference.

getModel

```
public AbstractModel getModel()
```

setModel

```
public void setModel(AbstractModel model)
```

getTableCellEditor

```
public TableCellEditor getTableCellEditor()
```

Method allows this panel to be used in JTable as an editor

Returns:

TableCellEditor value to be used to edit JTable cells;

getTableCellRenderer

```
public TableCellRenderer getTableCellRenderer()
```


Returns a TableCellRenderer that displays contents of this ComponentSelectionEditor.

addPropertyChangeListener

```
public void addPropertyChangeListener(java.beans.PropertyChangeListener  
propertyChangeListener)
```

removePropertyChangeListener

```
public void removePropertyChangeListener(java.beans.PropertyChangeListener  
propertyChangeListener)
```

getPropertyChangeListener

```
public java.beans.PropertyChangeListener getPropertyChangeListener(int index)
```

Returns the PropertyChangeListener at the given index.

getPropertyChangeListenerCount

```
public int getPropertyChangeListenerCount()
```

Returns the number of property change listeners.

firePropertyChange

```
public void firePropertyChange(String propertyName,  
    Object oldValue,  
    Object newValue)
```

com.cafean.client.ui.beans Interface DecoratedBean

public interface **DecoratedBean**
extends

An interface describing a bean customized for display in a Navigator type list. The decorations include HTML (including font colors or styles) and the current icon for the bean.

Method Summary

ImageIcon	<u>getCurrentIcon()</u> Retrieves an appropriate icon for displaying the current state of this bean.
String	<u>toShortHtml()</u> Retrieves an HTML version of the toString of this bean for use in displaying this bean in the Navigator or other similar listings.

Methods

toShortHtml

public String **toShortHtml()**

Retrieves an HTML version of the toString of this bean for use in displaying this bean in the Navigator or other similar listings.

getCurrentIcon

public ImageIcon **getCurrentIcon()**

Retrieves an appropriate icon for displaying the current state of this bean.

com.cafean.client.ui.beans Class IntNonMultiEdit

```

java.lang.Object
  |-- java.awt.Component
    |-- java.awt.Container
      |-- javax.swing.JComponent
        |-- javax.swing.JPanel
          |-- com.cafean.client.ui.beans.IntNonMultiEdit

```

All Implemented Interfaces:

java.beans.PropertyEditor, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible

```

public class IntNonMultiEdit
  extends JPanel
  implements javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler,
  java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, java.beans.PropertyEditor

```

This editor allows the user edit a integer that can't be multi-edited. This includes component numbers.

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Constructor Summary

public	<u>IntNonMultiEdit()</u> Creates new form IntNonMultiEdit
--------	--

Method Summary

String	<u>getAsText()</u>
java.awt.Component	<u>getCustomEditor()</u>

String	<u>getJavaInitializationString()</u>
String[]	<u>getTags()</u>
Object	<u>getValue()</u>
boolean	<u>isPaintable()</u>
void	<u>paintValue</u> (java.awt.Graphics gfx, java.awt.Rectangle box)
void	<u>setAsText</u> (String text)
void	<u>setValue</u> (Object value)
boolean	<u>supportsCustomEditor()</u>

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener,
 addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener,
 addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener,
 addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds,
 checkImage, checkImage, contains, contains, createImage, createImage,
 createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent,
 doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange,
 firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
 getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline,
 getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt,
 getComponentAt, getComponentListeners, getComponentOrientation, getCursor,
 getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys,
 getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics,
 getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners,
 getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests,
 getListeners, getLocale, getLocation, getLocation, getLocationOnScreen,
 getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners,
 getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize,
 getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit,
 getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate,
 inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered,
 isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet,
 isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque,
 isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list,
 list, list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag,
 mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent,
 preferredSize, prepareImage, prepareImage, print, printAll, remove,
 removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,
 removeHierarchyListener, removeInputMethodListener, removeKeyListener,
 removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify,
 removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint,
 repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground,
 setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled,
 setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont,
 setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize,
 setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show,
 size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update,
 validate

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

getTransferHandler

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface java.beans.PropertyEditor

addPropertyChangeListener, getAsText, getCustomEditor, getJavaInitializationString, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setValue, supportsCustomEditor

Constructors

IntNonMultiEdit

```
public IntNonMultiEdit()
```

Creates new form IntNonMultiEdit

Methods

getAsText

```
public String getAsText()
```

getCustomEditor

```
public java.awt.Component getCustomEditor()
```

isPaintable

```
public boolean isPaintable()
```

getJavaInitializationString

```
public String getJavaInitializationString()
```

getTags

```
public String[] getTags()
```

paintValue

```
public void paintValue(java.awt.Graphics gfx,  
    java.awt.Rectangle box)
```

getValue

```
public Object getValue()
```

setAsText

```
public void setAsText(String text)  
    throws IllegalArgumentException
```

setValue

```
public void setValue(Object value)
```

supportsCustomEditor

```
public boolean supportsCustomEditor()
```


com.cafean.client.ui.beans Interface IntrospectingEditor

All Known Implementing Classes:

[LimitedLongStringEditor](#), [RealArrayEditor](#), [RealBeanEditor](#)

```
public interface IntrospectingEditor
extends java.beans.PropertyEditor
```

An interface for PropertyEditors that use introspection to initialize themselves and to create new instances of the property they edit.

This is a functional equivalent interface to the SwingEditorSupport base class.

See Also:

[javax.swing.beaninfo.SwingEditorSupport](#)

Method Summary

void	<code>init(java.beans.PropertyDescriptor descriptor)</code> For property editors that must be initialized with values from the property descriptor.
------	--

Methods inherited from interface java.beans.PropertyEditor

`addPropertyChangeListener`, `getAsText`, `getCustomEditor`, `getJavaInitializationString`, `getTags`, `getValue`, `isPaintable`, `paintValue`, `removePropertyChangeListener`, `setAsText`, `setValue`, `supportsCustomEditor`

Methods

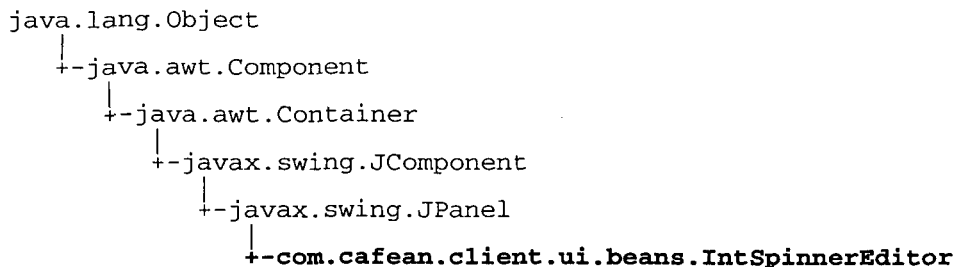
init

```
public void init(java.beans.PropertyDescriptor descriptor)
```

For property editors that must be initialized with values from the property descriptor.

com.cafean.client.ui.beans

Class IntSpinnerEditor



All Implemented Interfaces:

java.beans.PropertyEditor, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible

public class IntSpinnerEditor

extends JPanel

implements javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, java.beans.PropertyEditor

This simple editor allows the user to select within a range of integer values. The range is defined either with the constructor or with setter methods.

Fields inherited from class javax.swing.JComponent
TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component
BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

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

Constructor Summary

public	<u>IntSpinnerEditor()</u> Creates new form IntSpinnerEditor
public	<u>IntSpinnerEditor(int minimum, int maximum, int increment)</u> This creates a new IntSpinnerEditor with the given values.
public	<u>IntSpinnerEditor(int minimum, int maximum, int increment, boolean showSize)</u> This creates a new IntSpinnerEditor with the given values.

Method Summary

String	<u>getAsText()</u>
java.awt.Component	<u>getCustomEditor()</u>
String	<u>getJavaInitializationString()</u>
String[]	<u>getTags()</u>
Object	<u>getValue()</u>
boolean	<u>isPaintable()</u>
void	<u>paintValue</u> (java.awt.Graphics gfx, java.awt.Rectangle box)
void	<u>setAsText</u> (String text)
void	<u>setIncrement</u> (int increment) Sets the step size of the selection range.
void	<u>setMaximum</u> (int maximum) Sets the maximum value for the selection range.
void	<u>setMinimum</u> (int minimum) Sets the minimum value for the selection range.
void	<u>setShowSize</u> (boolean showSize) This flag hides or shows the label displaying the maximum allowable value for the spinner.
void	<u>setValue</u> (Object value)
boolean	<u>supportsCustomEditor()</u>

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener,
 addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener,
 addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener,
 addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds,
 checkImage, checkImage, contains, contains, createImage, createImage,
 createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent,
 doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange,
 firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
 getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline,
 getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt,
 getComponentAt, getComponentListeners, getComponentOrientation, getCursor,
 getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys,
 getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics,
 getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners,
 getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests,
 getKeyListeners, getListeners, getLocale, getLocation, getLocation, getLocationOnScreen,
 getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners,
 getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize,
 getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit,
 getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate,
 inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered,
 isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet,
 isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque,
 isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list,
 list, list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag,
 mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent,
 preferredSize, prepareImage, prepareImage, print, printAll, remove,
 removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,
 removeHierarchyListener, removeInputMethodListener, removeKeyListener,
 removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify,
 removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint,
 repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground,
 setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled,
 setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont,
 setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize,
 setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show,
 size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update,
 validate .

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

```
getTransferHandler
```

Methods inherited from interface javax.accessibility.Accessible

```
getAccessibleContext
```

Methods inherited from interface java.beans.PropertyEditor

```
addPropertyChangeListener, getAsText, getCustomEditor, getJavaInitializationString,  
getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText,  
setValue, supportsCustomEditor
```

Constructors

IntSpinnerEditor

```
public IntSpinnerEditor()
```

Creates new form IntSpinnerEditor

IntSpinnerEditor

```
public IntSpinnerEditor(int minimum,  
                        int maximum,  
                        int increment)
```

This creates a new IntSpinnerEditor with the given values. Note that PropertyEditor instances are created using the default no-arg constructor. To use this constructor a sub-class must be created and used as the editor.

Parameters:

- minimum - the minimum value for the selection.
- maximum - the maximum value for the selection.
- increment - the step size for the selection.

IntSpinnerEditor

```
public IntSpinnerEditor(int minimum,  
                        int maximum,  
                        int increment,  
                        boolean showSize)
```

This creates a new IntSpinnerEditor with the given values. Note that PropertyEditor instances are created using the default no-arg constructor. To use this constructor a sub-class must be created and used as the editor.

Parameters:

- minimum - the minimum value for the selection.
- maximum - the maximum value for the selection.
- increment - the step size for the selection.
- showSize - sets whether the label displaying the current size is visible.

Methods

setMinimum

```
public void setMinimum(int minimum)
```

Sets the minimum value for the selection range.

setMaximum

```
public void setMaximum(int maximum)
```

Sets the maximum value for the selection range. This also updates the size label to reflect the maximum value. If the maximum is set to Integer.MAX_VALUE the size label's text is set empty.

setShowSize

```
public void setShowSize(boolean showSize)
```

This flag hides or shows the label displaying the maximum allowable value for the spinner.

setIncrement

```
public void setIncrement(int increment)
```

Sets the step size of the selection range.

getValue

```
public Object getValue()
```

setValue

```
public void setValue(Object value)
```

getAsText

```
public String getAsText()
```

setAsText

```
public void setAsText(String text)  
    throws IllegalArgumentException
```

getJavaInitializationString

```
public String getJavaInitializationString()
```

getTags

```
public String[] getTags()
```

isPaintable

```
public boolean isPaintable()
```

paintValue

```
public void paintValue(java.awt.Graphics gfx,  
                        java.awt.Rectangle box)
```

getCustomEditor

```
public java.awt.Component getCustomEditor()
```

supportsCustomEditor

```
public boolean supportsCustomEditor()
```


com.cafean.client.ui.beans Class LimitedLongStringEditor

```

java.lang.Object
├-- java.awt.Component
│   ├── java.awt.Container
│   │   ├── javax.swing.JComponent
│   │   │   ├── javax.swing.JPanel
│   │   │   │   ├── com.cafean.client.ui.beans.PropertyEditorPanelSupport
│   │   │   │   │   └-- com.cafean.client.ui.beans.LimitedLongStringEditor

```

All Implemented Interfaces:

IntrospectingEditor, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible, java.awt.event.ActionListener, java.beans.PropertyEditor

```

public class LimitedLongStringEditor
extends PropertyEditorPanelSupport
implements java.beans.PropertyEditor, java.awt.event.ActionListener, javax.accessibility.Accessible,
java.io.Serializable, HasGetTransferHandler, java.awt.image.ImageObserver, java.awt.MenuContainer,
java.io.Serializable, IntrospectingEditor

```

This bean editor contains a JPanel with a label and a button. This allows the user to edit long strings in a text area, and displays the first 80 characters in the label.

This editor is considered limited in that it includes a maximum line length. Lines longer than this length will be wrapped.

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Constructor Summary

public	<p><u>LimitedLongStringEditor</u>(String title, int linelength)</p> <p>Creates a new instance of LimitedLongStringEditor with the given title and line length Note that PropertyEditor instances are created using the default no-arg constructor.</p>
--------	--

public	<u>LimitedLongStringEditor()</u> Creates a new instance of LimitedLongStringEditor with no title and a line length of 80
--------	---

Method Summary

void	<u>actionPerformed</u> (java.awt.event.ActionEvent e)
void	<u>init</u> (java.beans.PropertyDescriptor descriptor)
void	<u>updateLabel</u> ()

Methods inherited from class `com.cafean.client.ui.beans.PropertyEditorPanelSupport`

getAsText, getCustomEditor, getJavaInitializationString, getTags, getValue, isPaintable, paintValue, setAsText, setFont, setForeground, setTextLabelString, setValue, supportsCustomEditor, updateLabel, updateValue

Methods inherited from class `javax.swing.JPanel`

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class `javax.swing.JComponent`

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidateRoot, paint, 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, updateUI

Methods inherited from class `java.awt.Container`

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener,
 addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener,
 addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener,
 addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds,
 checkImage, checkImage, contains, contains, createImage, createImage,
 createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent,
 doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange,
 firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
 getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline,
 getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt,
 getComponentAt, getComponentListeners, getComponentOrientation, getCursor,
 getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys,
 getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics,
 getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners,
 getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests,
 getKeyListeners, getListeners, getLocale, getLocation, getLocation, getLocationOnScreen,
 getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners,
 getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize,
 getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit,
 getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate,
 inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered,
 isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet,
 isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque,
 isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list,
 list, list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag,
 mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent,
 preferredSize, prepareImage, prepareImage, print, printAll, remove,
 removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,
 removeHierarchyListener, removeInputMethodListener, removeKeyListener,
 removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify,
 removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint,
 repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground,
 setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled,
 setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont,
 setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize,
 setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show,
 size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update,
 validate

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

getTransferHandler

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface java.beans.PropertyEditor

addPropertyChangeListener, getAsText, getCustomEditor, getJavaInitializationString, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setValue, supportsCustomEditor

Methods inherited from interface java.awt.event.ActionListener

actionPerformed

Methods inherited from interface com.cafean.client.ui.beans.IntrospectingEditor

init

Methods inherited from interface java.beans.PropertyEditor

addPropertyChangeListener, getAsText, getCustomEditor, getJavaInitializationString, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setValue, supportsCustomEditor

Constructors

LimitedLongStringEditor

```
public LimitedLongStringEditor(String title,  
                               int linelength)
```

Creates a new instance of LimitedLongStringEditor with the given title and line length Note that PropertyEditor instances are created using the default no-arg constructor. To use this constructor a sub-class must be created and used as the editor.

LimitedLongStringEditor

```
public LimitedLongStringEditor()
```

Creates a new instance of LimitedLongStringEditor with no title and a line length of 80

Methods

actionPerformed

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

updateLabel

```
public void updateLabel()
```

Override this to customize the label text.

init

```
public void init(java.beans.PropertyDescriptor descriptor)
```

com.cafean.client.ui.beans

Class LongStringEditor

```
java.lang.Object
├-- java.beans.PropertyEditorSupport
│   └-- com.cafean.client.ui.beans.LongStringEditor
```

All Implemented Interfaces:
java.beans.PropertyEditor

```
public class LongStringEditor
extends java.beans.PropertyEditorSupport
```

This bean editor contains a JPanel with a label and a button. This allows the user to edit long strings in a text area, and displays the first 80 characters in the label.

Constructor Summary

public	<u>LongStringEditor</u> (String title) Creates a new instance of LongStringEditor with the given title
public	<u>LongStringEditor</u> () Creates a new instance of LongStringEditor with no title

Method Summary

void	<u>addPropertyChangeListener</u> (java.beans.PropertyChangeListener listener)
java.awt.Component	<u>getCustomEditor</u> ()
String	<u>getJavaInitializationString</u> ()
String[]	<u>getTags</u> ()
Object	<u>getValue</u> ()
boolean	<u>isPaintable</u> ()
void	<u>paintValue</u> (java.awt.Graphics gfx, java.awt.Rectangle box)
void	<u>removePropertyChangeListener</u> (java.beans.PropertyChangeListener listener)
void	<u>setAsText</u> (String text)
void	<u>setValue</u> (Object value)

boolean	<code>supportsCustomEditor()</code>
---------	-------------------------------------

Methods inherited from class `java.beans.PropertyEditorSupport`

`addPropertyChangeListener`, `firePropertyChange`, `getAsText`, `getCustomEditor`, `getJavaInitializationString`, `getSource`, `getTags`, `getValue`, `isPaintable`, `paintValue`, `removePropertyChangeListener`, `setAsText`, `setSource`, `setValue`, `supportsCustomEditor`

Methods inherited from class `java.lang.Object`

`equals`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Methods inherited from interface `java.beans.PropertyEditor`

`addPropertyChangeListener`, `getAsText`, `getCustomEditor`, `getJavaInitializationString`, `getTags`, `getValue`, `isPaintable`, `paintValue`, `removePropertyChangeListener`, `setAsText`, `setValue`, `supportsCustomEditor`

Constructors

LongStringEditor

```
public LongStringEditor(String title)
```

Creates a new instance of `LongStringEditor` with the given title

LongStringEditor

```
public LongStringEditor()
```

Creates a new instance of `LongStringEditor` with no title

Methods

addPropertyChangeListener

```
public void addPropertyChangeListener(java.beans.PropertyChangeListener listener)
```

getCustomEditor

```
public java.awt.Component getCustomEditor()
```

getJavaInitializationString

```
public String getJavaInitializationString()
```

getTags

```
public String[] getTags()
```

getValue

```
public Object getValue()
```

isPaintable

```
public boolean isPaintable()
```

paintValue

```
public void paintValue(java.awt.Graphics gfx,  
    java.awt.Rectangle box)
```

removePropertyChangeListener

```
public void removePropertyChangeListener(java.beans.PropertyChangeListener listener)
```

setAsText

```
public void setAsText(String text)
```

setValue

```
public void setValue(Object value)
```

supportsCustomEditor

```
public boolean supportsCustomEditor()
```

com.cafean.client.ui.beans

Class NamedIntEditor

```
java.lang.Object
|
+--java.beans.PropertyEditorSupport
|
+--com.cafean.client.ui.beans.NamedIntEditor
```

All Implemented Interfaces:

ModelDependent, java.awt.event.ItemListener, java.beans.PropertyEditor

Direct Known Subclasses:

NamedIntEditor

```
public class NamedIntEditor
extends java.beans.PropertyEditorSupport
implements java.beans.PropertyEditor, java.awt.event.ItemListener, ModelDependent
```

This bean editor contains a JComboBox for selecting between named integers.

Example:

```
public class OnOffSelEditor
    extends NamedIntEditor
{
    // the option values
    private static final int[] optVal = {0, 1};
    // the option descriptions
    private static final String[] optStr = {"Off", "On"};
    // Creates a new instance of OnOffSelEditor
    public OnOffSelEditor() {
        super( optStr, optVal );
        setShowNumbers(false);
    }
}
```

Field Summary

public static final	<u>DIFF_VAL</u> Value: -2147483647
public static final	<u>INACTIVE</u> Value: -2147483648

public static final	<u>UNKNOWN</u> Value: 2147483647
---------------------	--

Constructor Summary

public	<u>NamedIntEditor()</u> Creates a new instance of NamedIntEditor
public	<u>NamedIntEditor(String[] strings, int[] numbers)</u> Creates a new instance of NamedIntEditor for use in editing the given set of enumerated integers and their associated string descriptions.

Method Summary

String	<u>getAsText()</u>
java.awt.Component	<u>getCustomEditor()</u>
String	<u>getJavaInitializationString()</u> Does nothing, and returns null.
<u>AbstractModel</u>	<u>getModel()</u>
String[]	<u>getTags()</u> Does nothing, and returns null.
Object	<u>getValue()</u>
boolean	<u>isPaintable()</u>
boolean	<u>isShowNumbers()</u> Getter for property showNumbers.
void	<u>itemStateChanged(java.awt.event.ItemEvent e)</u>
void	<u>paintValue(java.awt.Graphics gfx, java.awt.Rectangle box)</u>
void	<u>setAsText(String text)</u>
void	<u>setContext(PropertyController owner, java.beans.PropertyDescriptor descriptor)</u> Sets the owner and the description of the property currently being edited by this editor.
void	<u>setFireGlobalEvents(boolean fire)</u> If set to true this editor will call <u>AbstractComponent.fireComponentChanged()</u> and create an undoable edit when the active value is changed.
void	<u>setModel(AbstractModel model)</u>

void	<u>setShowNumbers</u> (boolean showNumbers) Setter for property showNumbers.
void	<u>setValue</u> (Object value)
boolean	<u>supportsCustomEditor</u> ()

Methods inherited from class java.beans.PropertyEditorSupport

addPropertyChangeListener, firePropertyChange, getAsText, getCustomEditor, getJavaInitializationString, getSource, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setSource, setValue, supportsCustomEditor

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.beans.PropertyEditor

addPropertyChangeListener, getAsText, getCustomEditor, getJavaInitializationString, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setValue, supportsCustomEditor

Methods inherited from interface java.awt.event.ItemListener

itemStateChanged

Methods inherited from interface com.cafean.client.analysis.ModelDependent

getModel, setModel

Fields

DIFF_VAL

public static final int **DIFF_VAL**

Constant value: **-2147483647**

UNKNOWN

public static final int **UNKNOWN**

Constant value: **2147483647**

INACTIVE

public static final int **INACTIVE**

Constant value: -2147483648

Constructors

NamedIntEditor

```
public NamedIntEditor()
```

Creates a new instance of NamedIntEditor

NamedIntEditor

```
public NamedIntEditor(String[] strings,  
                      int[] numbers)
```

Creates a new instance of NamedIntEditor for use in editing the given set of enumerated integers and their associated string descriptions.

Methods

setFireGlobalEvents

```
public void setFireGlobalEvents(boolean fire)
```

If set to true this editor will call `AbstractComponent.fireComponentChanged()` and create an undoable edit when the active value is changed.

Parameters:

fire - true or false; defaults to false

setContext

```
public void setContext(PropertyController owner,  
                      java.beans.PropertyDescriptor descriptor)
```

Sets the owner and the description of the property currently being edited by this editor. Extensions of this editor that require the namelist functionality must implement `NamelistEditor`.

Parameters:

owner - the PropertyController that owns the property being edited by this editor. This may be null.

descriptor - a PropertyDescriptor describing the property being edited by this editor.

itemStateChanged

```
public void itemStateChanged(java.awt.event.ItemEvent e)
```

getAsText

```
public String getAsText()
```

getCustomEditor

```
public java.awt.Component getCustomEditor()
```

getJavaInitializationString

```
public String getJavaInitializationString()
```

Does nothing, and returns null.

getTags

```
public String[] getTags()
```

Does nothing, and returns null.

getValue

```
public Object getValue()
```

isPaintable

```
public boolean isPaintable()
```

paintValue

```
public void paintValue(java.awt.Graphics gfx,  
    java.awt.Rectangle box)
```

setAsText

```
public void setAsText(String text)  
    throws IllegalArgumentException
```

setValue

```
public void setValue(Object value)
```

supportsCustomEditor

```
public boolean supportsCustomEditor()
```

isShowNumbers

public boolean **isShowNumbers**()

Getter for property showNumbers.

Returns:

Value of property showNumbers.

setShowNumbers

public void **setShowNumbers**(boolean showNumbers)

Setter for property showNumbers.

Parameters:

showNumbers - New value of property showNumbers.

getModel

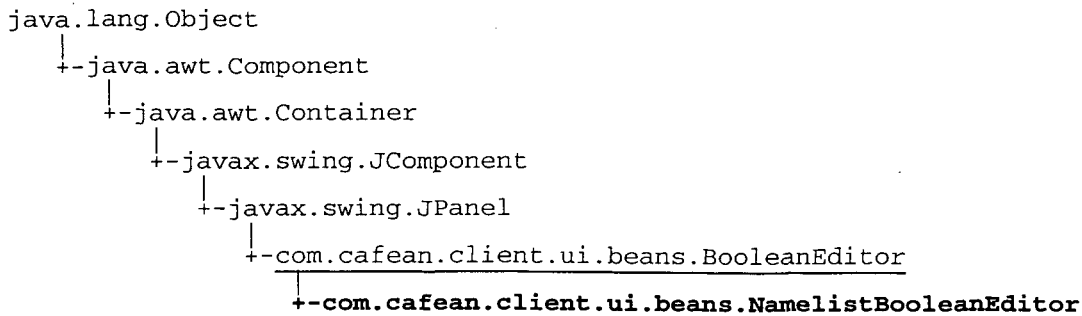
public AbstractModel **getModel**()

setModel

public void **setModel**(AbstractModel model)

com.cafean.client.ui.beans

Class NamelistBooleanEditor



All Implemented Interfaces:

ModelDependent, java.awt.event.ItemListener, NamelistEditor, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible, java.beans.PropertyEditor

public class **NamelistBooleanEditor**
 extends BooleanEditor
 implements java.beans.PropertyEditor, javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, NamelistEditor, java.awt.event.ItemListener, ModelDependent

This is an editor for a namelist style boolean value that can be activated and deactivated.

Fields inherited from class <u>javax.swing.JComponent</u>
TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW
Fields inherited from class <u>java.awt.Component</u>
BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT
Fields inherited from interface <u>java.awt.image.ImageObserver</u>
ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS, WIDTH

Constructor Summary	
public	<u>NamelistBooleanEditor()</u> Creates a new instance of NamelistBooleanEditor
public	<u>NamelistBooleanEditor(String trueText, String falseText)</u> Creates a new instance of NamelistBooleanEditor

Method Summary

void	<u>firePropertyChange()</u> Report that we have been modified to any interested listeners.
<u>AbstractModel</u>	<u>getModel()</u>
void	<u>itemStateChanged(java.awt.event.ItemEvent e)</u>
void	<u>setContext(PropertyController owner, java.beans.PropertyDescriptor descriptor)</u> Sets the owner and the description of the property currently being edited by this editor.
void	<u>setFireGlobalEvents(boolean fire)</u> If set to true this editor will call <u>AbstractComponent.fireComponentChanged()</u> and create an undoable edit when the active value is changed.
void	<u>setModel(AbstractModel model)</u>
void	<u>setValue(Object value)</u>

Methods inherited from class com.cafean.client.ui.beans.BooleanEditor

getAsText, getCustomEditor, getJavaInitializationString, getTags, getValue, isPaintable, paintValue, setAsText, setValue, supportsCustomEditor

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener,
 addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener,
 addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener,
 addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds,
 checkImage, checkImage, contains, contains, createImage, createImage,
 createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent,
 doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange,
 firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
 getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline,
 getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt,
 getComponentAt, getComponentListeners, getComponentOrientation, getCursor,
 getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys,
 getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics,
 getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners,
 getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests,
 getKeyListeners, getListeners, getLocale, getLocation, getLocation, getLocationOnScreen,
 getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners,
 getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize,
 getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit,
 getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate,
 inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered,
 isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet,
 isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque,
 isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list,
 list, list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag,
 mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent,
 preferredSize, prepareImage, prepareImage, print, printAll, remove,
 removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,
 removeHierarchyListener, removeInputMethodListener, removeKeyListener,
 removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify,
 removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint,
 repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground,
 setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled,
 setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont,
 setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize,
 setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show,
 size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update,
 validate

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

getTransferHandler

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface java.beans.PropertyEditor

addPropertyChangeListener, getAsText, getCustomEditor, getJavaInitializationString, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setValue, supportsCustomEditor

Methods inherited from interface com.cafean.client.ui.beans.NamelistEditor

setContext

Methods inherited from interface java.awt.event.ItemListener

itemStateChanged

Methods inherited from interface com.cafean.client.analysis.ModelDependent

getModel, setModel

Constructors

NamelistBooleanEditor

```
public NamelistBooleanEditor()
```

Creates a new instance of NamelistBooleanEditor

NamelistBooleanEditor

```
public NamelistBooleanEditor(String trueText,  
                             String falseText)
```

Creates a new instance of NamelistBooleanEditor

Methods

setFireGlobalEvents

```
public void setFireGlobalEvents(boolean fire)
```

If set to true this editor will call [AbstractComponent.fireComponentChanged\(\)](#) and create an undoable edit when the active value is changed.

Parameters:

fire - true or false; defaults to false

setValue

public void **setValue**(Object value)

setContext

public void **setContext**(PropertyController owner,
java.beans.PropertyDescriptor descriptor)

Sets the owner and the description of the property currently being edited by this editor.

Parameters:

owner - the PropertyController that owns the property being edited by this editor. This may be null.

descriptor - a PropertyDescriptor describing the property being edited by this editor.

itemStateChanged

public void **itemStateChanged**(java.awt.event.ItemEvent e)

firePropertyChange

public void **firePropertyChange**()

Report that we have been modified to any interested listeners.

getModel

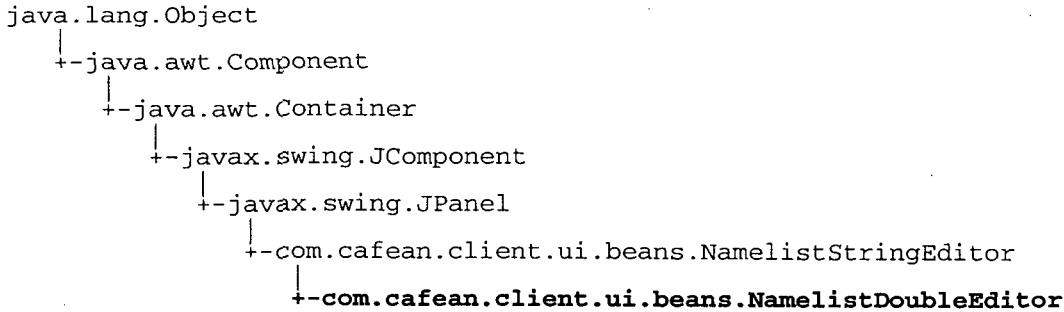
public AbstractModel **getModel**()

setModel

public void **setModel**(AbstractModel model)

com.cafean.client.ui.beans

Class NamelistDoubleEditor



All Implemented Interfaces:

ModelDependent, java.awt.event.ItemListener, NamelistEditor, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible, java.awt.event.ItemListener, java.beans.PropertyEditor, NamelistEditor

public class **NamelistDoubleEditor**

extends NamelistStringEditor

implements NamelistEditor, java.beans.PropertyEditor, java.awt.event.ItemListener, javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, NamelistEditor, java.awt.event.ItemListener, ModelDependent

This is an editor for a namelist style double value that can be activated and deactivated.

See Also:

NamelistEditor

Fields inherited from class <u>javax.swing.JComponent</u>
TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class <u>java.awt.Component</u>
BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface <u>java.awt.image.ImageObserver</u>
ABORT, ALLBITS, ERROR, FRAMEBITS, HEIGHT, PROPERTIES, SOMEBITS, WIDTH

Constructor Summary	
public	<u>NamelistDoubleEditor()</u> Creates a new <u>NamelistIntEditor</u>

Method Summary

Object	<u>getValue()</u> Gets the value of the property.
--------	--

Methods inherited from class com.cafean.client.ui.beans.NamelistStringEditor

getAsText, getCustomEditor, getJavaInitializationString, getModel, getTags, getValue, init, isPaintable, itemStateChanged, paintValue, setAsText, setContext, setEnabled, setFireGlobalEvents, setForeground, setModel, setValue, supportsCustomEditor

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener,
 addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener,
 addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener,
 addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds,
 checkImage, checkImage, contains, contains, createImage, createImage,
 createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent,
 doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange,
 firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
 getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline,
 getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt,
 getComponentAt, getComponentListeners, getComponentOrientation, getCursor,
 getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys,
 getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics,
 getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners,
 getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests,
 getListeners, getLocale, getLocation, getLocation, getLocationOnScreen,
 getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners,
 getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize,
 getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit,
 getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate,
 inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered,
 isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet,
 isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque,
 isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list,
 list, list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag,
 mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent,
 preferredSize, prepareImage, prepareImage, print, printAll, remove,
 removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,
 removeHierarchyListener, removeInputMethodListener, removeKeyListener,
 removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify,
 removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint,
 repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground,
 setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled,
 setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont,
 setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize,
 setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show,
 size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update,
 validate

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

`getTransferHandler`

Methods inherited from interface `javax.accessibility.Accessible`

`getAccessibleContext`

Methods inherited from interface `com.cafean.client.ui.beans.NamelistEditor`

`setContext`

Methods inherited from interface `java.beans.PropertyEditor`

`addPropertyChangeListener`, `getAsText`, `getCustomEditor`, `getJavaInitializationString`, `getTags`, `getValue`, `isPaintable`, `paintValue`, `removePropertyChangeListener`, `setAsText`, `setValue`, `supportsCustomEditor`

Methods inherited from interface `java.awt.event.ItemListener`

`itemStateChanged`

Methods inherited from interface `com.cafean.client.ui.beans.NamelistEditor`

`setContext`

Methods inherited from interface `java.awt.event.ItemListener`

`itemStateChanged`

Methods inherited from interface `com.cafean.client.analysis.ModelDependent`

`getModel`, `setModel`

Constructors

NamelistDoubleEditor

```
public NamelistDoubleEditor()
```

Creates a new NamelistIntEditor

Methods

getValue

```
public Object getValue()
```

Gets the value of the property.

Returns:

the value of the property.

com.cafean.client.ui.beans Interface NamelistEditor

All Known Implementing Classes:

NamelistBooleanEditor, NamelistRealEditor, NamelistIntEditor, NamelistDoubleEditor, NamelistNamedIntEditor

public interface **NamelistEditor**

extends

An interface describing an editor for a property that conforms to the namelist variable concept in which a property is actually a combination of a property and a boolean activation state.

Editors of this type assume that the following method is implemented in the object being edited:

```
void setPropertyActive( String propertyName )
```

See Also:

PropertyController.isPropertyActive(String)

Method Summary

void	<code>setContext(<u>PropertyController</u> owner, java.beans.PropertyDescriptor descriptor)</code> Sets the owner and the description of the property currently being edited by this editor.
------	---

Methods

setContext

```
public void setContext(PropertyController owner,  
java.beans.PropertyDescriptor descriptor)
```

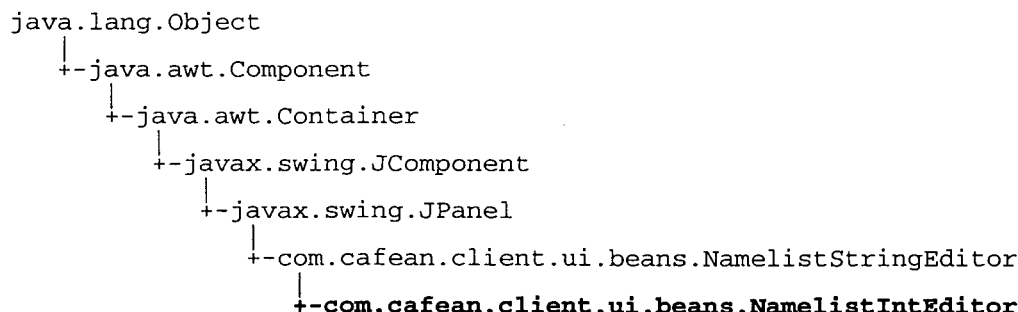
Sets the owner and the description of the property currently being edited by this editor.

Parameters:

owner - the PropertyController that owns the property being edited by this editor. This may be null.
descriptor - a PropertyDescriptor describing the property being edited by this editor.

com.cafean.client.ui.beans

Class NamelistIntEditor



All Implemented Interfaces:

ModelDependent, java.awt.event.ItemListener, NamelistEditor, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible, java.awt.event.ItemListener, java.beans.PropertyEditor, NamelistEditor

public class **NamelistIntEditor**

extends NamelistStringEditor

implements NamelistEditor, java.beans.PropertyEditor, java.awt.event.ItemListener, javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, NamelistEditor, java.awt.event.ItemListener, ModelDependent

This is an editor for a namelist style integer value that can be activated and deactivated.

See Also:

NamelistEditor

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Constructor Summary

public	<u>NamelistIntEditor()</u> Creates a new NamelistIntEditor
--------	---

Method Summary

Object

getValue()

Gets the value of the property.

Methods inherited from class `com.cafean.client.ui.beans.NamelistStringEditor`

`getAsText`, `getCustomEditor`, `getJavaInitializationString`, `getModel`, `getTags`, `getValue`, `init`, `isPaintable`, `itemStateChanged`, `paintValue`, `setAsText`, `setContext`, `setEnabled`, `setFireGlobalEvents`, `setForeground`, `setModel`, `setValue`, `supportsCustomEditor`

Methods inherited from class `javax.swing.JPanel`

`getAccessibleContext`, `getUI`, `getUIClassID`, `setUI`, `updateUI`

Methods inherited from class `javax.swing.JComponent`

`addAncestorListener`, `addNotify`, `addVetoableChangeListener`, `computeVisibleRect`, `contains`, `createToolTip`, `disable`, `enable`, `firePropertyChange`, `firePropertyChange`, `firePropertyChange`, `getAccessibleContext`, `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`, `getPreferredSize`, `getRegisteredKeyStrokes`, `getRootPane`, `getSize`, `getToolTipLocation`, `getToolTipText`, `getToolTipText`, `getTopLevelAncestor`, `getTransferHandler`, `getUIClassID`, `getVerifyInputWhenFocusTarget`, `getVetoableChangeListeners`, `getVisibleRect`, `getWidth`, `getX`, `getY`, `grabFocus`, `isDoubleBuffered`, `isLightweightComponent`, `isManagingFocus`, `isOpaque`, `isOptimizedDrawingEnabled`, `isPaintingForPrint`, `isPaintingTile`, `isRequestFocusEnabled`, `isValidRoot`, `paint`, `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`, `updateUI`

Methods inherited from class `java.awt.Container`

add, add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener,
 addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener,
 addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener,
 addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds,
 checkImage, checkImage, contains, contains, createImage, createImage,
 createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent,
 doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange,
 firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
 getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline,
 getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt,
 getComponentAt, getComponentListeners, getComponentOrientation, getCursor,
 getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys,
 getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics,
 getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners,
 getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests,
 getKeyListeners, getListeners, getLocale, getLocation, getLocation, getLocationOnScreen,
 getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners,
 getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize,
 getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit,
 getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate,
 inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered,
 isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet,
 isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque,
 isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list,
 list, list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag,
 mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent,
 preferredSize, prepareImage, prepareImage, print, printAll, remove,
 removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,
 removeHierarchyListener, removeInputMethodListener, removeKeyListener,
 removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify,
 removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint,
 repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground,
 setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled,
 setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont,
 setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize,
 setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show,
 size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update,
 validate

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

getTransferHandler

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface com.cafean.client.ui.beans.NamelistEditor

setContext

Methods inherited from interface java.beans.PropertyEditor

addPropertyChangeListener, getAsText, getCustomEditor, getJavaInitializationString, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setValue, supportsCustomEditor

Methods inherited from interface java.awt.event.ItemListener

itemStateChanged

Methods inherited from interface com.cafean.client.ui.beans.NamelistEditor

setContext

Methods inherited from interface java.awt.event.ItemListener

itemStateChanged

Methods inherited from interface com.cafean.client.analysis.ModelDependent

getModel, setModel

Constructors

NamelistIntEditor

```
public NamelistIntEditor()
```

Creates a new NamelistIntEditor

Methods

getValue

```
public Object getValue()
```

Gets the value of the property.

Returns:

the value of the property.

com.cafean.client.ui.beans Class NamelistNamedIntEditor

```
java.lang.Object
├-- java.beans.PropertyEditorSupport
│   └-- com.cafean.client.ui.beans.NamelistNamedIntEditor
│       └-- com.cafean.client.ui.beans.NamelistNamedIntEditor
```

All Implemented Interfaces:

NamelistEditor, java.beans.PropertyEditor, ModelDependent, java.awt.event.ItemListener

public class **NamelistNamedIntEditor**

extends NamelistEditor

implements java.awt.event.ItemListener, ModelDependent, java.beans.PropertyEditor, NamelistEditor

An enumeration editor for values that also include an *Active* state as described in NamelistEditor.

Fields inherited from class com.cafean.client.ui.beans.NamelistEditor

DIFF_VAL, INACTIVE, UNKNOWN

Constructor Summary

public	<u>NamelistNamedIntEditor</u> (String[] strings, int[] numbers) Creates a new instance of <u>NamelistNamedIntEditor</u>
--------	--

Methods inherited from class com.cafean.client.ui.beans.NamelistEditor

getAsText, getCustomEditor, getJavaInitializationString, getModel, getTags, getValue, isPaintable, isShowNumbers, itemStateChanged, paintValue, setAsText, setContext, setFireGlobalEvents, setModel, setShowNumbers, setValue, supportsCustomEditor

Methods inherited from class java.beans.PropertyEditorSupport

addPropertyChangeListener, firePropertyChange, getAsText, getCustomEditor, getJavaInitializationString, getSource, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setSource, setValue, supportsCustomEditor

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.beans.PropertyEditor

addPropertyChangeListener, getAsText, getCustomEditor, getJavaInitializationString, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setValue, supportsCustomEditor

Methods inherited from interface `java.awt.event.ItemListener``itemStateChanged`**Methods inherited from interface** `com.cafean.client.analysis.ModelDependent``getModel`, `setModel`**Methods inherited from interface** `com.cafean.client.ui.beans.NamelistEditor``setContext`

Constructors

NamelistNamedIntEditor

```
public NamelistNamedIntEditor(String[] strings,  
                               int[] numbers)
```

Creates a new instance of `NamelistNamedIntEditor`

com.cafean.client.ui.beans Class NamelistRealEditor

```

java.lang.Object
  |-- java.awt.Component
      |-- java.awt.Container
          |-- javax.swing.JComponent
              |-- javax.swing.JPanel
                  |-- com.cafean.client.ui.beans.RealBeanEditor
                      |-- com.cafean.client.ui.beans.NamelistRealEditor
  
```

All Implemented Interfaces:

java.awt.event.ItemListener, NamelistEditor, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible, ModelDependent, IntrospectingEditor

public class **NamelistRealEditor**

extends RealBeanEditor

implements IntrospectingEditor, ModelDependent, javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, NamelistEditor, java.awt.event.ItemListener

An editor for values of type Real that also include an *Active* state as described in NamelistEditor.

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Constructor Summary

public	<u>NamelistRealEditor()</u> Creates a new instance of DefaultableRealEditor
--------	--

Method Summary

void	<u>itemStateChanged</u> (java.awt.event.ItemEvent e)
------	--

void	<u>setContext</u> (<u>PropertyController</u> owner, java.beans. <u>PropertyDescriptor</u> descriptor) Sets the owner and the description of the property currently being edited by this editor.
void	<u>setFireGlobalEvents</u> (boolean fire) If set to true this editor will call <u>AbstractComponent.fireComponentChanged()</u> and create an undoable edit when the active value is changed.
void	<u>setValue</u> (Object value)

Methods inherited from class com.cafean.client.ui.beans.RealBeanEditor

firePropertyChange, getAsText, getCustomEditor, getJavaInitializationString, getModel, getTags, getValue, init, isPaintable, paintValue, setAsText, setForeground, setModel, setValue, supportsCustomEditor

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidateRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener,
 addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener,
 addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener,
 addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds,
 checkImage, checkImage, contains, contains, createImage, createImage,
 createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent,
 doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange,
 firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
 getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline,
 getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt,
 getComponentAt, getComponentListeners, getComponentOrientation, getCursor,
 getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys,
 getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics,
 getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners,
 getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests,
 getKeyListeners, getListeners, getLocale, getLocation, getLocation, getLocationOnScreen,
 getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners,
 getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize,
 getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit,
 getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate,
 inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered,
 isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet,
 isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque,
 isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list,
 list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag,
 mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent,
 preferredSize, prepareImage, prepareImage, print, printAll, remove,
 removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,
 removeHierarchyListener, removeInputMethodListener, removeKeyListener,
 removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify,
 removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint,
 repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground,
 setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled,
 setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont,
 setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize,
 setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show,
 size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update,
 validate

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

`getTransferHandler`

Methods inherited from interface `javax.accessibility.Accessible`

`getAccessibleContext`

Methods inherited from interface `com.cafean.client.ui.beans.IntrospectingEditor`

`init`

Methods inherited from interface `java.beans.PropertyEditor`

`addPropertyChangeListener`, `getAsText`, `getCustomEditor`, `getJavaInitializationString`, `getTags`, `getValue`, `isPaintable`, `paintValue`, `removePropertyChangeListener`, `setAsText`, `setValue`, `supportsCustomEditor`

Methods inherited from interface `com.cafean.client.analysis.ModelDependent`

`getModel`, `setModel`

Methods inherited from interface `com.cafean.client.ui.beans.NamelistEditor`

`setContext`

Methods inherited from interface `java.awt.event.ItemListener`

`itemStateChanged`

Constructors

NamelistRealEditor

```
public NamelistRealEditor()
```

Creates a new instance of `DefaultableRealEditor`

Methods

setFireGlobalEvents

```
public void setFireGlobalEvents(boolean fire)
```

If set to true this editor will call `AbstractComponent.fireComponentChanged()` and create an undoable edit when the active value is changed.

Parameters:

`fire` - true or false; defaults to false

setValue

```
public void setValue(Object value)
```

setContext

```
public void setContext(PropertyController owner,  
    java.beans.PropertyDescriptor descriptor)
```

Sets the owner and the description of the property currently being edited by this editor.

Parameters:

`owner` - the PropertyController that owns the property being edited by this editor. This may be null.

`descriptor` - a PropertyDescriptor describing the property being edited by this editor.

itemStateChanged

```
public void itemStateChanged(java.awt.event.ItemEvent e)
```


com.cafean.client.ui.beans Interface PropertyController

All Known Implementing Classes:

Annotation, SnapPreferences, UserDefinedConstant, UserDefinedVariable, ViewComponent

```
public interface PropertyController  
extends
```

An interface describing an object that has methods to determine if one of its properties is enabled or disabled, and optional or required at the current moment.

This interface is used extensively in the Properties View to limit the properties displayed to those actually needed by the analyst.

Field Summary	
public static final	<u>ALL</u> the group containing all properties, be they disabled required or optional. Value: 7
public static final	<u>COLOR_OPTIONAL</u> the foreground color for optional properties
public static final	<u>DISABLED</u> the group containing only disabled properties. Value: 4
public static final	<u>NONE</u> the group containing no properties. Value: 0
public static final	<u>OPTIONAL</u> the group containing only optional properties. Value: 2
public static final	<u>REQUIRED</u> the group containing only required properties. Value: 1

Method Summary	
int	<u>getAttributeIndex</u> (String propertyName) Returns a relative index that can be used to order property lists.
boolean	<u>isPropertyActive</u> (String propertyName) Returns false if this object has a property with the given name that is considered inactive; otherwise true.

boolean	<u>isPropertyEnabled</u> (String propertyName) Returns false if this object has a property with the given name that has dependency code that fails; true otherwise
boolean	<u>isPropertyRequired</u> (String propertyName) Returns false if this object has a property with the given name that has requirement code that fails; true otherwise.
boolean	<u>isPropertyResizable</u> (String propertyName) Returns false if this object has an array property with the given name that should not normally be resizable.
boolean	<u>isPropertyRestartEditable</u> (String propertyName) Returns true if this object has a property with the given name that should be editable during a restart edit; false otherwise.
boolean	<u>isRestartResizable</u> (String propertyName) Returns false if this object has an array property with the given name that should not be resizable while editing a restart.

Fields

COLOR_OPTIONAL

```
public static final java.awt.Color COLOR_OPTIONAL
```

the foreground color for optional properties

NONE

```
public static final int NONE
```

the group containing no properties.
Constant value: 0

REQUIRED

```
public static final int REQUIRED
```

the group containing only required properties.
Constant value: 1

OPTIONAL

```
public static final int OPTIONAL
```

the group containing only optional properties.
Constant value: 2

DISABLED

```
public static final int DISABLED
```

the group containing only disabled properties.
Constant value: **4**

ALL

public static final int **ALL**

the group containing all properties, be they disabled required or optional.
Constant value: **7**

Methods

isPropertyEnabled

public boolean **isPropertyEnabled**(String propertyName)

Returns false if this object has a property with the given name that has dependency code that fails; true otherwise

Parameters:

propertyName - a String containing the property name to check

isPropertyRequired

public boolean **isPropertyRequired**(String propertyName)

Returns false if this object has a property with the given name that has requirement code that fails; true otherwise.

Parameters:

propertyName - a String containing the property name to check

isPropertyRestartEditable

public boolean **isPropertyRestartEditable**(String propertyName)

Returns true if this object has a property with the given name that should be editable during a restart edit; false otherwise.

Parameters:

propertyName - a String containing the property name to check

isPropertyActive

public boolean **isPropertyActive**(String propertyName)

Returns false if this object has a property with the given name that is considered inactive; otherwise true.

A property's active state is separate from its enabled state to allow for a namelist-like property that is actually a boolean paired with a property of another type.

Parameters:

propertyName - a String containing the name of the property to check

Returns:

false if the property is inactive, true otherwise

See Also:

getAttributeIndex

```
public int getAttributeIndex(String propertyName)
```

Returns a relative index that can be used to order property lists.

Parameters:

propertyName - a String containing the property name to check

isPropertyResizable

```
public boolean isPropertyResizable(String propertyName)
```

Returns false if this object has an array property with the given name that should not normally be resizable.

Parameters:

propertyName - a String containing the property name to check

isRestartResizable

```
public boolean isRestartResizable(String propertyName)
```

Returns false if this object has an array property with the given name that should not be resizable while editing a restart.

Parameters:

propertyName - a String containing the property name to check

com.cafean.client.ui.beans Class PropertyEditorPanelSupport

```

java.lang.Object
|
|--java.awt.Component
|   |--java.awt.Container
|       |--javax.swing.JComponent
|           |--javax.swing.JPanel
|               +--com.cafean.client.ui.beans.PropertyEditorPanelSupport

```

All Implemented Interfaces:

java.awt.event.ActionListener, java.beans.PropertyEditor, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible

Direct Known Subclasses:

LimitedLongStringEditor

public abstract class **PropertyEditorPanelSupport**

extends JPanel

implements javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, java.beans.PropertyEditor, java.awt.event.ActionListener

Abstract Bean property editor containing a JPanel with a label and a button.

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Constructor Summary

public	<u>PropertyEditorPanelSupport</u> () Creates new form PropertyEditorPanelSupport
--------	--

Method Summary

String	<u>getAsText</u> () Gets the property value as a string suitable for presentation to a human to edit.
--------	---

java.awt.Component	<u>getCustomEditor()</u> A PropertyEditor may chose to make available a full custom Component that edits its property value.
String	<u>getJavaInitializationString()</u> This method is intended for use when generating Java code to set the value of the property.
String[]	<u>getTags()</u> If the property value must be one of a set of known tagged values, then this method should return an array of the tag values.
Object	<u>getValue()</u> Gets the value of the property.
boolean	<u>isPaintable()</u> Determines whether the class will honor the painValue method.
void	<u>paintValue(java.awt.Graphics gfx, java.awt.Rectangle box)</u> Paint a representation of the value into a given area of screen real estate.
void	<u>setAsText(String text)</u> Sets the property value by parsing a given String.
void	<u>setFont(java.awt.Font font)</u>
void	<u>setForeground(java.awt.Color fg)</u>
void	<u>setTextLabelString(String text)</u> Set the labels text.
void	<u>setValue(Object value)</u> Set (or change) the object that is to be edited.
boolean	<u>supportsCustomEditor()</u> Determines whether the propertyEditor can provide a custom editor.
abstract void	<u>updateLabel()</u> Override this to customize the label text.
void	<u>updateValue(Object value)</u> Non-overriden version of setValue().

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener,
 addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener,
 addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener,
 addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds,
 checkImage, checkImage, contains, contains, createImage, createImage,
 createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent,
 doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange,
 firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
 getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline,
 getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt,
 getComponentAt, getComponentListeners, getComponentOrientation, getCursor,
 getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys,
 getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics,
 getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners,
 getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests,
 getKeyListeners, getListeners, getLocale, getLocation, getLocation, getLocationOnScreen,
 getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners,
 getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize,
 getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit,
 getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate,
 inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered,
 isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet,
 isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque,
 isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list,
 list, list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag,
 mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent,
 preferredSize, prepareImage, prepareImage, print, printAll, remove,
 removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,
 removeHierarchyListener, removeInputMethodListener, removeKeyListener,
 removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify,
 removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint,
 repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground,
 setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled,
 setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont,
 setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize,
 setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show,
 size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update,
 validate

Methods inherited from class java.lang.Object:

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

getTransferHandler

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface java.beans.PropertyEditor

addPropertyChangeListener, getAsText, getCustomEditor, getJavaInitializationString, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setValue, supportsCustomEditor

Methods inherited from interface java.awt.event.ActionListener

actionPerformed

Constructors

PropertyEditorPanelSupport

```
public PropertyEditorPanelSupport()
```

Creates new form PropertyEditorPanelSupport

Methods

updateLabel

```
public abstract void updateLabel()
```

Override this to customize the label text.

setTextLabelString

```
public void setTextLabelString(String text)
```

Set the labels text.

Parameters:

text - The text to use.

setForeground

```
public void setForeground(java.awt.Color fg)
```

setFont

```
public void setFont(java.awt.Font font)
```

updateValue

public void **updateValue**(Object value)

Non-overriden version of setValue().

setValue

public void **setValue**(Object value)

Set (or change) the object that is to be edited.

Parameters:

value - The new target object to be edited. Note that this object should not be modified by the PropertyEditor, rather the PropertyEditor should create a new object to hold any modified value.

getValue

public Object **getValue**()

Gets the value of the property.

Returns:

The value of the property.

isPaintable

public boolean **isPaintable**()

Determines whether the class will honor the paintValue method.

Returns:

True if the class will honor the paintValue method.

paintValue

public void **paintValue**(java.awt.Graphics gfx,
java.awt.Rectangle box)

Paint a representation of the value into a given area of screen real estate. Note that the propertyEditor is responsible for doing its own clipping so that it fits into the given rectangle.

If the PropertyEditor doesn't honor paint requests (see isPaintable) this method should be a silent noop.

Parameters:

gfx - Graphics object to paint into.

box - Rectangle within graphics object into which we should paint.

getJavaInitializationString

public String **getJavaInitializationString**()

This method is intended for use when generating Java code to set the value of the property. It should return a fragment of Java code that can be used to initialize a variable with the current property value.

Example results are "2", "new Color(127,127,34)", "Color.orange", etc.

Returns:

A fragment of Java code representing an initializer for the current value.

getAsText

```
public String getAsText()
```

Gets the property value as a string suitable for presentation to a human to edit.

Returns:

The property value as a string suitable for presentation to a human to edit.

Returns "null" if the value can't be expressed as a string.

If a non-null value is returned, then the PropertyEditor should be prepared to parse that string back in setAsText().

setAsText

```
public void setAsText(String text)  
throws IllegalArgumentException
```

Sets the property value by parsing a given String. May raise java.lang.IllegalArgumentException if either the String is badly formatted or if this kind of property can't be expressed as text.

Parameters:

text - The string to be parsed.

getTags

```
public String[] getTags()
```

If the property value must be one of a set of known tagged values, then this method should return an array of the tag values. This can be used to represent (for example) enum values. If a PropertyEditor supports tags, then it should support the use of setAsText with a tag value as a way of setting the value.

Returns:

The tag values for this property. May be null if this property cannot be represented as a tagged value.

getCustomEditor

```
public java.awt.Component getCustomEditor()
```

A PropertyEditor may choose to make available a full custom Component that edits its property value. It is the responsibility of the PropertyEditor to hook itself up to its editor Component itself and to report property value changes by firing a PropertyChangeEvent.

The higher-level code that calls getCustomEditor may either embed the Component in some larger property sheet, or it may put it in its own individual dialog, or ...

Returns:

A java.awt.Component that will allow a human to directly edit the current property value. May be null if this is not supported.

supportsCustomEditor

public boolean **supportsCustomEditor**()

Determines whether the propertyEditor can provide a custom editor.

Returns:

True if the propertyEditor can provide a custom editor.

com.cafean.client.ui.beans Class RealArrayEditor

```

java.lang.Object
  |
  +- java.beans.PropertyEditorSupport
      |
      +- com.cafean.client.ui.beans.RealArrayEditor
  
```

All Implemented Interfaces:

ModelDependent, IntrospectingEditor, java.beans.PropertyEditor

```

public class RealArrayEditor
  extends java.beans.PropertyEditorSupport
  implements java.beans.PropertyEditor, IntrospectingEditor, ModelDependent
  
```

This bean editor contains a label and a button for editing an array of Real values. This can be either an array of fixed size, or an array that can be redimensioned. The button launches a RealArrayDialog that actually performs the editing.

Constructor Summary

public	<u>RealArrayEditor</u> (boolean fixedDimension, int dimension) This creates a new instance of RealArrayEditor that has a fixed dimension
public	<u>RealArrayEditor</u> () Creates a new instance of RealArrayEditor, and creates the action listener on the button.

Method Summary

void	<u>addPropertyChangeListener</u> (java.beans.PropertyChangeListener listener)
String	<u>getAsText</u> ()
java.awt.Component	<u>getCustomEditor</u> ()
String	<u>getJavaInitializationString</u> () Does nothing, and returns null.
<u>AbstractModel</u>	<u>getModel</u> ()
String[]	<u>getTags</u> () Does nothing, and returns null.
Object	<u>getValue</u> ()
void	<u>init</u> (java.beans.PropertyDescriptor descriptor)
boolean	<u>isPaintable</u> ()

void	<u>paintValue</u> (java.awt.Graphics gfx, java.awt.Rectangle box)
void	<u>removePropertyChangeListener</u> (java.beans.PropertyChangeListener listener)
void	<u>setAsText</u> (String text)
void	<u>setDimension</u> (int dimension) Sets the dimension on a given array.
void	<u>setModel</u> (AbstractModel model)
void	<u>setValue</u> (Object value) If this array is of fixed width.
boolean	<u>supportsCustomEditor</u> ()

Methods inherited from class java.beans.PropertyEditorSupport

addPropertyChangeListener, firePropertyChange, getAsText, getCustomEditor, getJavaInitializationString, getSource, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setSource, setValue, supportsCustomEditor

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.beans.PropertyEditor

addPropertyChangeListener, getAsText, getCustomEditor, getJavaInitializationString, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setValue, supportsCustomEditor

Methods inherited from interface com.cafean.client.ui.beans.IntrospectingEditor

init

Methods inherited from interface java.beans.PropertyEditor

addPropertyChangeListener, getAsText, getCustomEditor, getJavaInitializationString, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setValue, supportsCustomEditor

Methods inherited from interface com.cafean.client.analysis.ModelDependent

getModel, setModel

Constructors

RealArrayEditor

```
public RealArrayEditor(boolean fixedDimension,  
                       int dimension)
```

This creates a new instance of RealArrayEditor that has a fixed dimension

RealArrayEditor

```
public RealArrayEditor()
```

Creates a new instance of RealArrayEditor, and creates the action listener on the button.

Methods

addPropertyChangeListener

```
public void addPropertyChangeListener(java.beans.PropertyChangeListener listener)
```

getAsText

```
public String getAsText()
```

getCustomEditor

```
public java.awt.Component getCustomEditor()
```

getJavaInitializationString

```
public String getJavaInitializationString()
```

Does nothing, and returns null.

getTags

```
public String[] getTags()
```

Does nothing, and returns null.

getValue

```
public Object getValue()
```

isPaintable

```
public boolean isPaintable()
```

paintValue

```
public void paintValue(java.awt.Graphics gfx,  
    java.awt.Rectangle box)
```

removePropertyChangeListener

```
public void removePropertyChangeListener(java.beans.PropertyChangeListener listener)
```

setAsText

```
public void setAsText(String text)  
    throws IllegalArgumentException
```

init

```
public void init(java.beans.PropertyDescriptor descriptor)
```

setValue

```
public void setValue(Object value)
```

If this array is of fixed width. This will adjust the passed value to fit the given dimension.

supportsCustomEditor

```
public boolean supportsCustomEditor()
```

setDimension

```
public void setDimension(int dimension)
```

Sets the dimension on a given array. This also sets the editor to be fixed dimensioned, and resizes the array to match the new dimension.

getModel

```
public AbstractModel getModel()
```

setModel

```
public void setModel(AbstractModel model)
```

com.cafean.client.ui.beans Class RealBeanEditor

```

java.lang.Object
  |-- java.awt.Component
      |-- java.awt.Container
          |-- javax.swing.JComponent
              |-- javax.swing.JPanel
                  |-- com.cafean.client.ui.beans.RealBeanEditor
  
```

All Implemented Interfaces:

ModelDependent, IntrospectingEditor, java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible

Direct Known Subclasses:

NamelistRealEditor

public class RealBeanEditor

extends JPanel

implements javax.accessibility.Accessible, java.io.Serializable, HasGetTransferHandler, java.awt.image.ImageObserver, java.awt.MenuContainer, java.io.Serializable, IntrospectingEditor, ModelDependent

A PropertyEditor wrapper for a RealTextField used when editing a property of type Real of a JavaBean.

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Constructor Summary

public	<u>RealBeanEditor()</u> Creates new form RealBeanEditor
--------	--

Method Summary

void	<u>firePropertyChange()</u> Report that we have been modified to any interested listeners.
------	---

String	<u>getAsText()</u>
java.awt.Component	<u>getCustomEditor()</u>
String	<u>getJavaInitializationString()</u>
<u>AbstractModel</u>	<u>getModel()</u>
String[]	<u>getTags()</u>
Object	<u>getValue()</u>
void	<u>init</u> (java.beans.PropertyDescriptor descriptor)
boolean	<u>isPaintable()</u>
void	<u>paintValue</u> (java.awt.Graphics gfx, java.awt.Rectangle box)
void	<u>setAsText</u> (String text)
void	<u>setForeground</u> (java.awt.Color fg)
void	<u>setModel</u> (<u>AbstractModel</u> model)
void	<u>setValue</u> (Object value)
boolean	<u>supportsCustomEditor()</u>

Methods inherited from class javax.swing.JPanel

getAccessibleContext, getUI, getUIClassID, setUI, updateUI

Methods inherited from class javax.swing.JComponent

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component

action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener,
 addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener,
 addMouseMotionListener, addMouseWheelListener, addNotify, addPropertyChangeListener,
 addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, bounds,
 checkImage, checkImage, contains, contains, createImage, createImage,
 createVolatileImage, createVolatileImage, deliverEvent, disable, dispatchEvent,
 doLayout, enable, enable, enableInputMethods, firePropertyChange, firePropertyChange,
 firePropertyChange, firePropertyChange, firePropertyChange, firePropertyChange,
 getAccessibleContext, getAlignmentX, getAlignmentY, getBackground, getBaseline,
 getBaselineResizeBehavior, getBounds, getBounds, getColorModel, getComponentAt,
 getComponentAt, getComponentListeners, getComponentOrientation, getCursor,
 getDropTarget, getFocusCycleRootAncestor, getFocusListeners, getFocusTraversalKeys,
 getFocusTraversalKeysEnabled, getFont, getFontMetrics, getForeground, getGraphics,
 getGraphicsConfiguration, getHeight, getHierarchyBoundsListeners, getHierarchyListeners,
 getIgnoreRepaint, getInputContext, getInputMethodListeners, getInputMethodRequests,
 getKeyListeners, getListeners, getLocale, getLocation, getLocation, getLocationOnScreen,
 getMaximumSize, getMinimumSize, getMouseListeners, getMouseMotionListeners,
 getMousePosition, getMouseWheelListeners, getName, getParent, getPeer, getPreferredSize,
 getPropertyChangeListeners, getPropertyChangeListeners, getSize, getSize, getToolkit,
 getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate,
 inside, invalidate, isBackgroundSet, isCursorSet, isDisplayable, isDoubleBuffered,
 isEnabled, isFocusable, isFocusCycleRoot, isFocusOwner, isFocusTraversable, isFontSet,
 isForegroundSet, isLightweight, isMaximumSizeSet, isMinimumSizeSet, isOpaque,
 isPreferredSizeSet, isShowing, isValid, isVisible, keyDown, keyUp, layout, list, list,
 list, list, list, locate, location, lostFocus, minimumSize, mouseDown, mouseDrag,
 mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paint, paintAll, postEvent,
 preferredSize, prepareImage, prepareImage, print, printAll, remove,
 removeComponentListener, removeFocusListener, removeHierarchyBoundsListener,
 removeHierarchyListener, removeInputMethodListener, removeKeyListener,
 removeMouseListener, removeMouseMotionListener, removeMouseWheelListener, removeNotify,
 removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint,
 repaint, requestFocus, requestFocusInWindow, reshape, resize, resize, setBackground,
 setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled,
 setFocusable, setFocusTraversalKeys, setFocusTraversalKeysEnabled, setFont,
 setForeground, setIgnoreRepaint, setLocale, setLocation, setLocation, setMaximumSize,
 setMinimumSize, setName, setPreferredSize, setSize, setSize, setVisible, show, show,
 size, toString, transferFocus, transferFocusBackward, transferFocusUpCycle, update,
 validate

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.image.ImageObserver

imageUpdate

Methods inherited from interface java.awt.MenuContainer

getFont, postEvent, remove

Methods inherited from interface javax.swing.TransferHandler.HasGetTransferHandler

getTransferHandler

Methods inherited from interface javax.accessibility.Accessible

getAccessibleContext

Methods inherited from interface com.cafean.client.ui.beans.IntrospectingEditor

init

Methods inherited from interface java.beans.PropertyEditor

addPropertyChangeListener, getAsText, getCustomEditor, getJavaInitializationString, getTags, getValue, isPaintable, paintValue, removePropertyChangeListener, setAsText, setValue, supportsCustomEditor

Methods inherited from interface com.cafean.client.analysis.ModelDependent

getModel, setModel

Constructors

RealBeanEditor

```
public RealBeanEditor()
```

Creates new form RealBeanEditor

Methods

setForeground

```
public void setForeground(java.awt.Color fg)
```

getAsText

```
public String getAsText()
```

setAsText

```
public void setAsText(String text)  
    throws IllegalArgumentException
```

init

```
public void init(java.beans.PropertyDescriptor descriptor)
```

getValue

```
public Object getValue()
```

setValue

```
public void setValue(Object value)
```

isPaintable

```
public boolean isPaintable()
```

getJavaInitializationString

```
public String getJavaInitializationString()
```

getTags

```
public String[] getTags()
```

paintValue

```
public void paintValue(java.awt.Graphics gfx,  
                        java.awt.Rectangle box)
```

getCustomEditor

```
public java.awt.Component getCustomEditor()
```

supportsCustomEditor

```
public boolean supportsCustomEditor()
```

firePropertyChange

```
public void firePropertyChange()
```

Report that we have been modified to any interested listeners.

getModel

```
public AbstractModel getModel()
```

setModel

```
public void setModel(AbstractModel model)
```


Package

com.cafean.client.ui.tools

com.cafean.client.ui.tools Class AnnotationAction

```
java.lang.Object
  |
  +- javax.swing.AbstractAction
    |
    +- com.cafean.client.ui.tools.ToolboxAction
      |
      +- com.cafean.client.ui.tools.AnnotationAction
```

All Implemented Interfaces:

java.io.Serializable, Cloneable, Action

public abstract class **AnnotationAction**
extends ToolboxAction

A ToolboxAction derivative used to create various Annotations.

Fields inherited from interface javax.swing.Action

ACCELERATOR_KEY, ACTION_COMMAND_KEY, DEFAULT, DISPLAYED_MNEMONIC_INDEX_KEY, LARGE_ICON_KEY, LONG_DESCRIPTION, MNEMONIC_KEY, NAME, SELECTED_KEY, SHORT_DESCRIPTION, SMALL_ICON

Constructor Summary

public	<u>AnnotationAction</u> (<u>Toolbox</u> toolbox, String name, Icon icon, String description) Creates a new action for the given toolbox.
--------	--

Method Summary

abstract JComponent	<u>createComponent</u> () Creates a new instance of this action's Annotation type.
---------------------	---

Methods inherited from class com.cafean.client.ui.tools.ToolboxAction

actionPerformed, getDescription, getIcon, getName

Methods inherited from class javax.swing.AbstractAction

addPropertyChangeListener, getKeys, getPropertyChangeListeners, getValue, isEnabled, putValue, removePropertyChangeListener, setEnabled

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface javax.swing.Action

```
addPropertyChangeListener, getValue, isEnabled, putValue, removePropertyChangeListener,
setEnabled
```

Methods inherited from interface `java.awt.event.ActionListener`

```
actionPerformed
```

Constructors

AnnotationAction

```
public AnnotationAction(Toolbox toolbox,
                        String name,
                        Icon icon,
                        String description)
```

Creates a new action for the given toolbox.

Parameters:

`toolbox` - the Toolbox that is using this action

`name` - a String containing the display name of this action

`description` - a String containing a description of this action suitable for use as a tooltip for a menu item or button.

Methods

createComponent

```
public abstract JComponent createComponent()
```

Creates a new instance of this action's Annotation type.

com.cafean.client.ui.tools

Class BeanAction

```

java.lang.Object
  |
  +-- javax.swing.AbstractAction
        |
        +-- com.cafean.client.ui.tools.ToolboxAction
              |
              +-- com.cafean.client.ui.tools.BeanAction
  
```

All Implemented Interfaces:

java.io.Serializable, Cloneable, Action

```

public class BeanAction
extends ToolboxAction
  
```

A ToolboxAction derivative used to create any kind of bean. The bean's BeanInfo is used to determine its name, icon and description.

Fields inherited from interface javax.swing.Action:

ACCELERATOR_KEY, ACTION_COMMAND_KEY, DEFAULT, DISPLAYED_MNEMONIC_INDEX_KEY, LARGE_ICON_KEY, LONG_DESCRIPTION, MNEMONIC_KEY, NAME, SELECTED_KEY, SHORT_DESCRIPTION, SMALL_ICON

Constructor Summary

public	BeanAction (<u>Toolbox</u> toolbox, Class beanClass) Creates a new action for creating the given bean.
--------	---

Method Summary

JComponent	<u>createComponent</u> () Creates a new instance of the bean this action represents.
------------	---

Methods inherited from class com.cafean.client.ui.tools.ToolboxAction

actionPerformed, getDescription, getIcon, getName

Methods inherited from class javax.swing.AbstractAction

addPropertyChangeListener, getKeys, getPropertyChangeListeners, getValue, isEnabled, putValue, removePropertyChangeListener, setEnabled

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface javax.swing.Action

addPropertyChangeListener, getValue, isEnabled, putValue, removePropertyChangeListener, setEnabled

Methods inherited from interface `java.awt.event.ActionListener`

`actionPerformed`

Constructors

BeanAction

```
public BeanAction(Toolbox toolbox,  
                  Class beanClass)
```

Creates a new action for creating the given bean.

Parameters:

`beanClass` - the Class of the bean to be created by this action

Methods

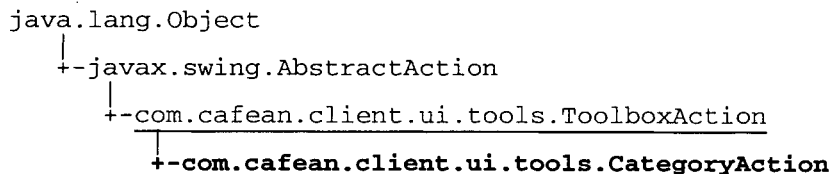
createComponent

```
public JComponent createComponent()
```

Creates a new instance of the bean this action represents.

com.cafean.client.ui.tools

Class CategoryAction



All Implemented Interfaces:
 java.io.Serializable, Cloneable, Action

public class **CategoryAction**
 extends ToolboxAction

A ToolboxAction derivative used to create AbstractComponent instances from a Category.

Fields inherited from interface javax.swing.Action	
ACCELERATOR_KEY, ACTION_COMMAND_KEY, DEFAULT, DISPLAYED_MNEMONIC_INDEX_KEY, LARGE_ICON_KEY, LONG_DESCRIPTION, MNEMONIC_KEY, NAME, SELECTED_KEY, SHORT_DESCRIPTION, SMALL_ICON	

Constructor Summary	
public	<u>CategoryAction</u> (<u>Toolbox</u> toolbox, <u>Category</u> category) creates a new CategoryAction for the given toolbox with the given Category

Method Summary	
<u>Category</u>	<u>getCategory</u> () Retrieves the Category of component that this action will be used to create.

Methods inherited from class com.cafean.client.ui.tools.ToolboxAction	
<u>actionPerformed</u> , <u>getDescription</u> , <u>getIcon</u> , <u>getName</u>	

Methods inherited from class javax.swing.AbstractAction	
addPropertyChangeListener, getKeys, getPropertyChangeListeners, getValue, isEnabled, putValue, removePropertyChangeListener, setEnabled	

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

Methods inherited from interface javax.swing.Action	
addPropertyChangeListener, getValue, isEnabled, putValue, removePropertyChangeListener, setEnabled	

Methods inherited from interface `java.awt.event.ActionListener`

`actionPerformed`

Constructors

CategoryAction

```
public CategoryAction(Toolbox toolbox,  
                       Category category)
```

creates a new `CategoryAction` for the given toolbox with the given `Category`

Methods

getCategory

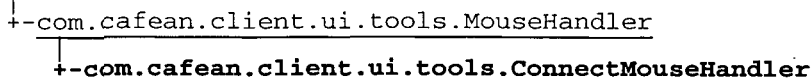
```
public Category getCategory()
```

Retrieves the `Category` of component that this action will be used to create.

com.cafean.client.ui.tools

Class ConnectMouseHandler

java.lang.Object



All Implemented Interfaces:

java.awt.event.MouseMotionListener, java.awt.event.MouseListener

public class **ConnectMouseHandler**
 extends MouseHandler

A MouseHandler for Connection events on the ZoomablePanel

Field Summary

public static final	<u>CURSOR_CONNECT</u> The cursor for the connect tool
public static final	<u>CURSOR_CONNECT_COMPLETE</u> The cursor for the connect tool when connection completion is possible
public static final	<u>CURSOR_CONNECT_OFF</u> The cursor for the connect tool when no connection is possible

Constructor Summary

public	<u>ConnectMouseHandler</u> (<u>ZoomablePanel</u> parent) Creates a new mouse handler with the given parent
--------	--

Method Summary

void	<u>activate</u> () Sets up this MouseHandler to be ready to receive MouseEvents
void	<u>completeConnection</u> (<u>DrawnComponent</u> targetDrawing, <u>ConnectingPt</u> point) Completes the current connection.
void	<u>deactivate</u> () Deactivates this MouseHandler and cleans up any current operations.
ImageIcon	<u>getButtonIcon</u> () Returns the icon for use in creating an activation toolbar button for this handler.
<u>AbstractComponent</u>	<u>getConnectionSource</u> () Returns the AbstractComponent that started the connection.

java.awt.Cursor	<u>getCurrentCursor</u> (java.awt.event.MouseEvent evt) Retrieves the cursor for the views based off of the currently selected tool.
java.awt.Cursor	<u>getCursor</u> (java.awt.event.MouseEvent evt) Retrieves the cursor for this MouseHandler within the context of the given MouseEvent
String	<u>getTooltipText</u> () returns the tooltip text to use for this MouseHandler's toggle button or null if no text is desired.
boolean	<u>isInProgress</u> () Returns true if a connection draw is in progress.
void	<u>mouseClicked</u> (java.awt.event.MouseEvent orig_evt) When inactive, mouse events are forwarded as appropriate either to the UI to activate the frame or to the underlying child component.
void	<u>mouseDragged</u> (java.awt.event.MouseEvent orig_evt)
void	<u>mouseMoved</u> (java.awt.event.MouseEvent orig_evt)
void	<u>mousePressed</u> (java.awt.event.MouseEvent orig_evt) When inactive, mouse events are forwarded as appropriate either to the UI to activate the frame or to the underlying child component.
void	<u>mouseReleased</u> (java.awt.event.MouseEvent orig_evt)
boolean	<u>requiresTarget</u> () Determines if the ConnectingPt that started this connection requires a connection point for its target.
void	<u>setConnectionStart</u> (java.awt.Point start, <u>DrawnComponent</u> comp, <u>ConnectingPt</u> point)
String	<u>toString</u> () returns a string representation of this handler

Methods inherited from class com.cafean.client.ui.tools.MouseHandler

activate, deactivate, getButtonIcon, getCurrentCursor, getCursor, getHandlerID, getTooltipText, mouseClicked, mouseEntered, mouseExited, mouseMoved, setHandlerID, toString

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.event.MouseListener

mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased

Methods inherited from interface java.awt.event.MouseMotionListener

mouseDragged, mouseMoved

Fields

CURSOR_CONNECT

```
public static final java.awt.Cursor CURSOR_CONNECT
```

The cursor for the connect tool

CURSOR_CONNECT_OFF

```
public static final java.awt.Cursor CURSOR_CONNECT_OFF
```

The cursor for the connect tool when no connection is possible

CURSOR_CONNECT_COMPLETE

```
public static final java.awt.Cursor CURSOR_CONNECT_COMPLETE
```

The cursor for the connect tool when connection completion is possible

Constructors

ConnectMouseHandler

```
public ConnectMouseHandler(ZoomablePanel parent)
```

Creates a new mouse handler with the given parent

Methods

getButtonIcon

```
public ImageIcon getButtonIcon()
```

Returns the icon for use in creating an activation toolbar button for this handler. The returned icon need not be cached as this method will only be called once per instance.

Returns:

the javax.swing.ImageIcon to be used as this handler's toggle button icon.

toString

```
public String toString()
```

returns a string representation of this handler

getTooltipText

```
public String getTooltipText()
```

returns the tooltip text to use for this MouseHandler's toggle button or null if no text is desired.

activate

```
public void activate()
```

Sets up this `MouseListener` to be ready to receive `MouseEvent`s

deactivate

```
public void deactivate()
```

Deactivates this `MouseListener` and cleans up any current operations.

isInProgress

```
public boolean isInProgress()
```

Returns true if a connection draw is in progress.

getCurrentCursor

```
public java.awt.Cursor getCurrentCursor(java.awt.event.MouseEvent evt)
```

Retrieves the cursor for the views based off of the currently selected tool.

getCursor

```
public java.awt.Cursor getCursor(java.awt.event.MouseEvent evt)
```

Retrieves the cursor for this `MouseListener` within the context of the given `MouseEvent`

mousePressed

```
public void mousePressed(java.awt.event.MouseEvent orig_evt)
```

When inactive, mouse events are forwarded as appropriate either to the UI to activate the frame or to the underlying child component.

mouseClicked

```
public void mouseClicked(java.awt.event.MouseEvent orig_evt)
```

When inactive, mouse events are forwarded as appropriate either to the UI to activate the frame or to the underlying child component.

mouseDragged

```
public void mouseDragged(java.awt.event.MouseEvent orig_evt)
```

mouseMoved

```
public void mouseMoved(java.awt.event.MouseEvent orig_evt)
```

Forward the mouseMoved event to the underlying child container. Change the cursor as it moves over selected components.

mouseReleased

```
public void mouseReleased(java.awt.event.MouseEvent orig_evt)
```

setConnectionStart

```
public void setConnectionStart(java.awt.Point start,  
    DrawnComponent comp,  
    ConnectingPt point)
```

completeConnection

```
public void completeConnection(DrawnComponent targetDrawing,  
    ConnectingPt point)
```

Completes the current connection.

Parameters:

targetDrawing - the DrawnComponent to connect to the component of
point - the ConnectingPt the connection ended on

See Also:

setConnectionStart(Point, DrawnComponent, ConnectingPt)

requiresTarget

```
public boolean requiresTarget()
```

Determines if the ConnectingPt that started this connection requires a connection point for its target.

getConnectionSource

```
public AbstractComponent getConnectionSource()
```

Returns the AbstractComponent that started the connection.

com.cafean.client.ui.tools

Class InsertMouseHandler

```

java.lang.Object
|
+-com.cafean.client.ui.tools.MouseHandler
   |
   +-com.cafean.client.ui.tools.InsertMouseHandler

```

All Implemented Interfaces:

java.awt.event.MouseMotionListener, java.awt.event.MouseListener

```

public class InsertMouseHandler
extends MouseHandler

```

The Insert Tool, a MouseHandler for insertion into a ZoomablePanel. Handles the creation and insertion of new components and the management of AbstractInsertHandler instances used to create and dimension various Insertable components.

See Also:

Insertable, AbstractInsertHandler

Constructor Summary

public	<u>InsertMouseHandler</u> (<u>ZoomablePanel</u> parent) Creates a new mouse handler with the given parent
--------	---

Method Summary

void	<u>cancelInsert</u> () Cancels the current insertion
void	<u>finishInsert</u> (java.awt.event.MouseEvent orig_evt) Completes the current insertion by adding the component and initializing it.
java.awt.Cursor	<u>getCurrentCursor</u> (java.awt.event.MouseEvent evt) Retrieves the cursor for the views based off of the currently selected tool.
void	<u>mouseClicked</u> (java.awt.event.MouseEvent orig_evt) Handles mouse clicked events by inserting a new component.
void	<u>mouseDragged</u> (java.awt.event.MouseEvent orig_evt) Forwards mouseDragged events to the child AbstractInsertHandler, if one is currently in use.
void	<u>mouseMoved</u> (java.awt.event.MouseEvent orig_evt) Forwards mouseMoved events to the child AbstractInsertHandler, if one is currently in use.
void	<u>mousePressed</u> (java.awt.event.MouseEvent orig_evt) the mouse pressed event is not handled by this tool but is instead forwarded.
void	<u>mouseReleased</u> (java.awt.event.MouseEvent orig_evt) Forwards mouseReleased events to the child AbstractInsertHandler, if one is currently in use, otherwise events are forwarded via <u>MouseHandler.forwardMouseEvent</u> (MouseEvent).

Methods inherited from class `com.cafean.client.ui.tools.MouseHandler`

`activate`, `deactivate`, `getButtonIcon`, `getCurrentCursor`, `getCursor`, `getHandlerID`,
`getTooltipText`, `mouseClicked`, `mouseEntered`, `mouseExited`, `mouseMoved`, `setHandlerID`,
`toString`

Methods inherited from class `java.lang.Object`

`equals`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Methods inherited from interface `java.awt.event.MouseListener`

`mouseClicked`, `mouseEntered`, `mouseExited`, `mousePressed`, `mouseReleased`

Methods inherited from interface `java.awt.event.MouseMotionListener`

`mouseDragged`, `mouseMoved`

Constructors

InsertMouseHandler

```
public InsertMouseHandler(ZoomablePanel parent)
```

Creates a new mouse handler with the given parent

Methods

getCurrentCursor

```
public java.awt.Cursor getCurrentCursor(java.awt.event.MouseEvent evt)
```

Retrieves the cursor for the views based off of the currently selected tool.

mousePressed

```
public void mousePressed(java.awt.event.MouseEvent orig_evt)
```

the mouse pressed event is not handled by this tool but is instead forwarded.

mouseMoved

```
public void mouseMoved(java.awt.event.MouseEvent orig_evt)
```

Forwards mouseMoved events to the child `AbstractInsertHandler`, if one is currently in use.

mouseDragged

```
public void mouseDragged(java.awt.event.MouseEvent orig_evt)
```

Forwards mouseDragged events to the child `AbstractInsertHandler`, if one is currently in use.

mouseReleased

```
public void mouseReleased(java.awt.event.MouseEvent orig_evt)
```

Forwards mouseReleased events to the child AbstractInsertHandler, if one is currently in use, otherwise events are forwarded via `MouseListener.forwardMouseEvent(MouseEvent)`.

mouseClicked

```
public void mouseClicked(java.awt.event.MouseEvent orig_evt)
```

Handles mouse clicked events by inserting a new component. If a child AbstractInsertHandler is in use, this event is forwarded to it instead of being handled here.

See Also:

[mousePressed\(MouseEvent\)](#)

finishInsert

```
public void finishInsert(java.awt.event.MouseEvent orig_evt)
```

Completes the current insertion by adding the component and initializing it.

cancelInsert

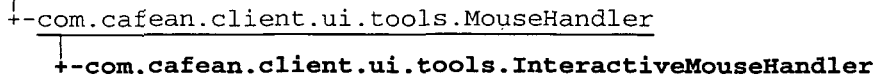
```
public void cancelInsert()
```

Cancels the current insertion

com.cafean.client.ui.tools

Class InteractiveMouseHandler

java.lang.Object



All Implemented Interfaces:

java.awt.event.MouseMotionListener, java.awt.event.MouseListener

public class **InteractiveMouseHandler**
 extends MouseHandler

A MouseHandler for interactive handling of events on the ZoomablePanel

Constructor Summary

public	<u>InteractiveMouseHandler</u> (<u>ZoomablePanel</u> parent) Creates a new mouse handler with the given parent
--------	--

Method Summary

void	<u>activate</u> ()
ImageIcon	<u>getButtonIcon</u> () Returns the icon for use in creating an activation toolbar button for this handler.
String	<u>getTooltipText</u> () returns the tooltip text to use for this MouseHandler's toggle button or null if no text is desired.
void	<u>mouseDragged</u> (java.awt.event.MouseEvent orig_evt)
void	<u>mousePressed</u> (java.awt.event.MouseEvent orig_evt)
void	<u>mouseReleased</u> (java.awt.event.MouseEvent orig_evt)

Methods inherited from class com.cafean.client.ui.tools.MouseHandler

activate, deactivate, getButtonIcon, getCurrentCursor, getCursor, getHandlerID, getTooltipText, mouseClicked, mouseEntered, mouseExited, mouseMoved, setHandlerID, toString

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.awt.event.MouseListener`

`mouseClicked`, `mouseEntered`, `mouseExited`, `mousePressed`, `mouseReleased`

Methods inherited from interface `java.awt.event.MouseMotionListener`

`mouseDragged`, `mouseMoved`

Constructors

InteractiveMouseHandler

```
public InteractiveMouseHandler(ZoomablePanel parent)
```

Creates a new mouse handler with the given parent

Methods

activate

```
public void activate()
```

Sets up this `MouseHandler` to be ready to receive `MouseEvents`

getButtonIcon

```
public ImageIcon getButtonIcon()
```

Returns the icon for use in creating an activation toolbar button for this handler. The returned icon need not be cached as this method will only be called once per instance.

Returns:

the `javax.swing.ImageIcon` to be used as this handler's toggle button icon.

getTooltipText

```
public String getTooltipText()
```

returns the tooltip text to use for this `MouseHandler`'s toggle button or null if no text is desired.

mousePressed

```
public void mousePressed(java.awt.event.MouseEvent orig_evt)
```

mouseDragged

```
public void mouseDragged(java.awt.event.MouseEvent orig_evt)
```

mouseReleased

```
public void mouseReleased(java.awt.event.MouseEvent orig_evt)
```

com.cafean.client.ui.tools

Class MouseHandler

java.lang.Object

└--com.cafean.client.ui.tools.MouseHandler

All Implemented Interfaces:

java.awt.event.MouseMotionListener, java.awt.event.MouseListener

Direct Known Subclasses:

SelectMouseHandler, ZoomMouseHandler, InsertMouseHandler, InteractiveMouseHandler, PanMouseHandler, ConnectMouseHandler

public abstract class **MouseHandler**

extends Object

implements java.awt.event.MouseListener, java.awt.event.MouseMotionListener

The base class for the MouseListeners/MouseMotionListeners in a DrawnView that correspond directly to the "Tool" buttons (select, pan, zoom, etc.)

These tools all have a unique ID that in many places to determine the proper path for event dispatching. This ID is allocated and managed automatically by ZoomablePanel's addMouseHandler method and should not be altered.

This base class provides a key handler to disable this handler and switch to the select handler. To preserve this behavior ensure that the MouseHandler methods activate() and deactivate() are called when overridden. Further customization of this cancelling behavior can be achieved by overriding escapePressed() and performing additional operations before calling the base implementation.

Extensions of this class should override the necessary MouseListener and MouseMotionListener methods to achive the desired mouse feedback.

See Also:

ZoomablePanel.addMouseHandler(MouseHandler), ZoomablePanel.removeMouseHandler(MouseHandler)

Constructor Summary

public	<u>MouseHandler</u> (ZoomablePanel parent) Creates a new instance of MouseHandler
--------	--

Method Summary

void	<u>activate</u> () Sets up this MouseHandler to be ready to recieve MouseEvents
------	--

void	<u>deactivate</u> () Deactivates this MouseHandler and cleans up any current operations.
------	---

ImageIcon	<u>getButtonIcon</u> () Returns the icon for use in creating an activation toolbar button for this handler.
-----------	--

java.awt.Cursor	<u>getCurrentCursor</u> (java.awt.event.MouseEvent evt) Retrieves the cursor for the views based off of the currently selected tool.
-----------------	---

java.awt.Cursor	<u>getCursor</u> (java.awt.event.MouseEvent evt) Retrieves the cursor for this MouseHandler within the context of the given MouseEvent.
int	<u>getHandlerID</u> () Gets this handler's ID.
String	<u>getTooltipText</u> () returns the tooltip text to use for this MouseHandler's toggle button or null if no text is desired.
void	<u>mouseClicked</u> (java.awt.event.MouseEvent orig_evt) Forward the mouseClicked event to the underlying child container.
void	<u>mouseEntered</u> (java.awt.event.MouseEvent orig_evt) Forward the mouseEntered event to the underlying child container.
void	<u>mouseExited</u> (java.awt.event.MouseEvent orig_evt) Forward the mouseExited event to the underlying child container.
void	<u>mouseMoved</u> (java.awt.event.MouseEvent orig_evt) Forward the mouseMoved event to the underlying child container.
void	<u>setHandlerID</u> (int id) Sets this handler's ID.
String	<u>toString</u> () returns a string representation of this handler including its class name and handler id.

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.event.MouseListener

mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased

Methods inherited from interface java.awt.event.MouseMotionListener

mouseDragged, mouseMoved

Constructors

MouseHandler

```
public MouseHandler(ZoomablePanel parent)
```

Creates a new instance of MouseHandler

Methods

activate

```
public void activate()
```

Sets up this MouseHandler to be ready to receive MouseEvents

deactivate

```
public void deactivate()
```

Deactivates this MouseHandler and cleans up any current operations.

getCurrentCursor

```
public java.awt.Cursor getCurrentCursor(java.awt.event.MouseEvent evt)
```

Retrieves the cursor for the views based off of the currently selected tool.

getCursor

```
public java.awt.Cursor getCursor(java.awt.event.MouseEvent evt)
```

Retrieves the cursor for this MouseHandler within the context of the given MouseEvent.

Parameters:

evt - the MouseEvent corresponding to the current Cursor change. **May be null!**

getButtonIcon

```
public ImageIcon getButtonIcon()
```

Returns the icon for use in creating an activation toolbar button for this handler. The returned icon need not be cached as this method will only be called once per instance. The default implementation simply returns null.

Returns:

the javax.swing.ImageIcon to be used as this handler's toggle button icon.

setHandlerID

```
public final void setHandlerID(int id)
```

Sets this handler's ID. This ID is generated at view creation time by ZoomablePanel and should not be stored, cached or changed.

getHandlerID

```
public final int getHandlerID()
```

Gets this handler's ID. This ID is generated at view creation time by ZoomablePanel and should not be stored, cached or changed.

mouseClicked

```
public void mouseClicked(java.awt.event.MouseEvent orig_evt)
```

Forward the mouseClicked event to the underlying child container.

See Also:

```
MouseListener.mousePressed(java.awt.event.MouseEvent)
```

mouseEntered

```
public void mouseEntered(java.awt.event.MouseEvent orig_evt)
```

Forward the mouseEntered event to the underlying child container.

See Also:

```
MouseListener.mousePressed(java.awt.event.MouseEvent)
```

mouseMoved

```
public void mouseMoved(java.awt.event.MouseEvent orig_evt)
```

Forward the mouseMoved event to the underlying child container. Change the cursor as it moves over selected components.

See Also:

```
MouseListener.mousePressed(java.awt.event.MouseEvent)
```

mouseExited

```
public void mouseExited(java.awt.event.MouseEvent orig_evt)
```

Forward the mouseExited event to the underlying child container.

See Also:

```
MouseListener.mousePressed(java.awt.event.MouseEvent)
```

toString

```
public String toString()
```

returns a string representation of this handler including its class name and handler id.

getTooltipText

```
public String getTooltipText()
```

returns the tooltip text to use for this MouseHandler's toggle button or null if no text is desired.

com.cafean.client.ui.tools Class PanMouseHandler

java.lang.Object

+ com.cafean.client.ui.tools.MouseHandler

+ **com.cafean.client.ui.tools.PanMouseHandler**

All Implemented Interfaces:

java.awt.event.MouseMotionListener, java.awt.event.MouseListener

public class **PanMouseHandler**
extends MouseHandler

A MouseHandler for Pan events on the ZoomablePanel

Field Summary

public static final	<u>CURSOR_PAN</u> The cursor for the pan tool, when a mouse button is not being pressed
public static final	<u>CURSOR_PAN_GRIP</u> The cursor for the pan tool, while a mouse button is being pressed

Constructor Summary

public	<u>PanMouseHandler</u> (<u>ZoomablePanel</u> parent) Creates a new mouse handler with the given parent
--------	--

Method Summary

ImageIcon	<u>getButtonIcon</u> () Returns the icon for use in creating an activation toolbar button for this handler.
java.awt.Cursor	<u>getCurrentCursor</u> (java.awt.event.MouseEvent evt) Retrieves the cursor for the views based off of the currently selected tool.
String	<u>getTooltipText</u> () returns the tooltip text to use for this MouseHandler's toggle button or null if no text is desired.
void	<u>mouseClicked</u> (java.awt.event.MouseEvent orig_evt)
void	<u>mouseDragged</u> (java.awt.event.MouseEvent orig_evt) Handle mouseDragged events for move and resize operations.
void	<u>mousePressed</u> (java.awt.event.MouseEvent orig_evt) When inactive, mouse events are forwarded as appropriate either to the UI to activate the frame or to the underlying child component.

void	<u>mouseReleased</u> (java.awt.event.MouseEvent orig_evt)
String	<u>toString</u> () returns a string representation of this handler

Methods inherited from class `com.cafean.client.ui.tools.MouseHandler`

activate, deactivate, getButtonIcon, getCurrentCursor, getCursor, getHandlerID, getTooltipText, mouseClicked, mouseEntered, mouseExited, mouseMoved, setHandlerID, toString

Methods inherited from class `java.lang.Object`

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.awt.event.MouseListener`

mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased

Methods inherited from interface `java.awt.event.MouseMotionListener`

mouseDragged, mouseMoved

Fields

CURSOR_PAN

public static final java.awt.Cursor **CURSOR_PAN**

The cursor for the pan tool, when a mouse button is not being pressed

CURSOR_PAN_GRIP

public static final java.awt.Cursor **CURSOR_PAN_GRIP**

The cursor for the pan tool, while a mouse button is being pressed

Constructors

PanMouseHandler

public **PanMouseHandler**(ZoomablePanel parent)

Creates a new mouse handler with the given parent

Methods

getButtonIcon

public ImageIcon **getButtonIcon**()

Returns the icon for use in creating an activation toolbar button for this handler. The returned icon need not be cached as this method will only be called once per instance.

Returns:

the `javax.swing.ImageIcon` to be used as this handler's toggle button icon.

toString

```
public String toString()
```

returns a string representation of this handler

getTooltipText

```
public String getTooltipText()
```

returns the tooltip text to use for this `MouseListener`'s toggle button or null if no text is desired.

mousePressed

```
public void mousePressed(java.awt.event.MouseEvent orig_evt)
```

When inactive, mouse events are forwarded as appropriate either to the UI to activate the frame or to the underlying child component.

mouseDragged

```
public void mouseDragged(java.awt.event.MouseEvent orig_evt)
```

Handle `mouseDragged` events for move and resize operations.

See Also:

[mousePressed\(MouseEvent\)](#)

mouseReleased

```
public void mouseReleased(java.awt.event.MouseEvent orig_evt)
```

mouseClicked

```
public void mouseClicked(java.awt.event.MouseEvent orig_evt)
```

Forward the `mouseClicked` event to the underlying child container.

getCurrentCursor

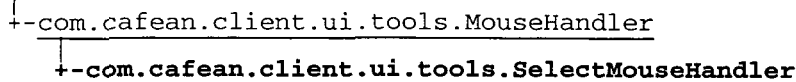
```
public java.awt.Cursor getCurrentCursor(java.awt.event.MouseEvent evt)
```

Retrieves the cursor for the views based off of the currently selected tool.

com.cafean.client.ui.tools

Class SelectMouseHandler

java.lang.Object



All Implemented Interfaces:

java.awt.event.MouseMotionListener, java.awt.event.MouseListener

```

public class SelectMouseHandler
extends MouseHandler
  
```

A MouseHandler for the Select Tool, handling typical movement and resizing manipulation in the ZoomablePanel.

Constructor Summary	
public	<u>SelectMouseHandler</u> (<u>ZoomablePanel</u> parent) Creates a new mouse handler with the given parent

Method Summary	
static boolean	<u>canBeResized</u> (java.awt.Component component) Returns true if the given component can be resized by this handler.
void	<u>deactivate</u> ()
ImageIcon	<u>getButtonIcon</u> () Returns the icon for use in creating an activation toolbar button for this handler.
java.awt.Cursor	<u>getCurrentCursor</u> (java.awt.event.MouseEvent evt) Retrieves the cursor for the views based off of the currently selected tool.
java.awt.Cursor	<u>getCursor</u> (java.awt.event.MouseEvent orig_evt)
String	<u>getTooltipText</u> () returns the tooltip text to use for this MouseHandler's toggle button or null if no text is desired.
void	<u>mouseDragged</u> (java.awt.event.MouseEvent orig_evt) Handle mouseDragged events for move and resize operations.
void	<u>mousePressed</u> (java.awt.event.MouseEvent orig_evt) When inactive, mouse events are forwarded as appropriate either to the UI to activate the frame or to the underlying child component.
void	<u>mouseReleased</u> (java.awt.event.MouseEvent orig_evt) Handle mouseReleased events to support move, resize, select operations.

String	<code>toString()</code> returns a string representation of this handler
--------	--

Methods inherited from class `com.cafean.client.ui.tools.MouseHandler`:

`activate`, `deactivate`, `getButtonIcon`, `getCurrentCursor`, `getCursor`, `getHandlerID`, `getTooltipText`, `mouseClicked`, `mouseEntered`, `mouseExited`, `mouseMoved`, `setHandlerID`, `toString`

Methods inherited from class `java.lang.Object`:

`equals`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Methods inherited from interface `java.awt.event.MouseListener`:

`mouseClicked`, `mouseEntered`, `mouseExited`, `mousePressed`, `mouseReleased`

Methods inherited from interface `java.awt.event.MouseMotionListener`:

`mouseDragged`, `mouseMoved`

Constructors

SelectMouseHandler

```
public SelectMouseHandler(ZoomablePanel parent)
```

Creates a new mouse handler with the given parent

Methods

deactivate

```
public void deactivate()
```

Deactivates this `MouseHandler` and cleans up any current operations.

getButtonIcon

```
public ImageIcon getButtonIcon()
```

Returns the icon for use in creating an activation toolbar button for this handler. The returned icon need not be cached as this method will only be called once per instance.

Returns:

the `javax.swing.ImageIcon` to be used as this handler's toggle button icon.

toString

```
public String toString()
```

returns a string representation of this handler

getTooltipText

```
public String getTooltipText()
```

returns the tooltip text to use for this MouseHandler's toggle button or null if no text is desired.

mousePressed

```
public void mousePressed(java.awt.event.MouseEvent orig_evt)
```

When inactive, mouse events are forwarded as appropriate either to the UI to activate the frame or to the underlying child component.

mouseDragged

```
public void mouseDragged(java.awt.event.MouseEvent orig_evt)
```

Handle mouseDragged events for move and resize operations.

See Also:

[mousePressed\(MouseEvent\)](#)

mouseReleased

```
public void mouseReleased(java.awt.event.MouseEvent orig_evt)
```

Handle mouseReleased events to support move, resize, select operations. Forward the mouseExited event to the underlying child container.

See Also:

[mousePressed\(MouseEvent\)](#)

canBeResized

```
public static boolean canBeResized(java.awt.Component component)
```

Returns true if the given component can be resized by this handler.

getCurrentCursor

```
public java.awt.Cursor getCurrentCursor(java.awt.event.MouseEvent evt)
```

Retrieves the cursor for the views based off of the currently selected tool.

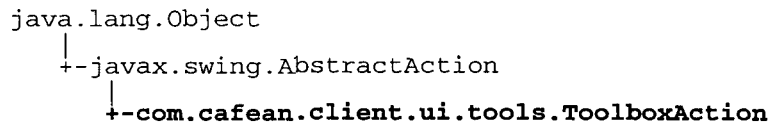
getCursor

```
public java.awt.Cursor getCursor(java.awt.event.MouseEvent orig_evt)
```

Retrieves the cursor for this MouseHandler within the context of the given MouseEvent.

com.cafean.client.ui.tools

Class ToolboxAction



All Implemented Interfaces:
 java.io.Serializable, Cloneable, Action

Direct Known Subclasses:
BeanAction, AnnotationAction, CategoryAction

public abstract class **ToolboxAction**
 extends AbstractAction

The base class for all Action objects used in the Toolbox to create components, beans, or annotations.

Fields inherited from interface javax.swing.Action
ACCELERATOR_KEY, ACTION_COMMAND_KEY, DEFAULT, DISPLAYED_MNEMONIC_INDEX_KEY, LARGE_ICON_KEY, LONG_DESCRIPTION, MNEMONIC_KEY, NAME, SELECTED_KEY, SHORT_DESCRIPTION, SMALL_ICON

Constructor Summary	
public	ToolboxAction(<u>Toolbox</u> toolbox, String name, Icon icon, String description) Creates a new ToolboxAction with the given toolbox.

Method Summary	
void	<u>actionPerformed</u> (java.awt.event.ActionEvent e) Responds to ActionEvents by setting this as the current ToolboxAction in this action's Toolbox.
String	<u>getDescription</u> () Retrieves this action's description.
Icon	<u>getIcon</u> () Retrieves this action's icon.
String	<u>getName</u> () Retrieves this action's name.

Methods inherited from class javax.swing.AbstractAction
addPropertyChangeListener, getKeys, getPropertyChangeListeners, getValue, isEnabled, putValue, removePropertyChangeListener, setEnabled

Methods inherited from class `java.lang.Object`

`equals`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Methods inherited from interface `javax.swing.Action`

`addPropertyChangeListener`, `getValue`, `isEnabled`, `putValue`, `removePropertyChangeListener`, `setEnabled`

Methods inherited from interface `java.awt.event.ActionListener`

`actionPerformed`

Constructors

ToolboxAction

```
public ToolboxAction(Toolbox toolbox,  
                    String name,  
                    Icon icon,  
                    String description)
```

Creates a new `ToolboxAction` with the given toolbox. The given name, icon and description are passed to the super class via `AbstractAction.putValue(java.lang.String, java.lang.Object)`.

Parameters:

`toolbox` - the `Toolbox` that is using this action

`name` - a `String` containing the display name of this action

`description` - a `String` containing a description of this action suitable for use as a tooltip for a menu item or button.

Methods

actionPerformed

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

Responds to `ActionEvents` by setting this as the current `ToolboxAction` in this action's `Toolbox`.

getName

```
public String getName()
```

Retrieves this action's name.

getDescription

```
public String getDescription()
```

Retrieves this action's description.

getIcon

```
public Icon getIcon()
```

Retrieves this action's icon.

com.cafean.client.ui.tools

Interface ToolChangeListener

All Known Implementing Classes:
[ZoomablePanel](#)

public interface **ToolChangeListener**
extends

An interface describing a listener for changes in the current tool.

Method Summary

void	<u>toolChanged</u> (int oldTool, int newTool) Notifies this listener that the current tool has changed from the old tool to the new tool.
------	--

Methods

toolChanged

public void **toolChanged**(int oldTool,
int newTool)

Notifies this listener that the current tool has changed from the old tool to the new tool. Tools are one of the TOOL_* enumerations in Toolbox.

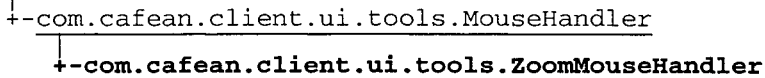
See Also:

[Toolbox](#)

com.cafean.client.ui.tools

Class ZoomMouseHandler

java.lang.Object



All Implemented Interfaces:

java.awt.event.MouseMotionListener, java.awt.event.MouseListener

```
public class ZoomMouseHandler
extends MouseHandler
```

A MouseHandler for Zoom events on the ZoomablePanel

Field Summary

public static final	<u>CURSOR_ZOOM_IN</u> The cursor for the Zoom Tool
public static final	<u>CURSOR_ZOOM_OUT</u> The cursor for the Zoom Tool

Constructor Summary

public	<u>ZoomMouseHandler</u> (<u>ZoomablePanel</u> parent) Creates a new mouse handler with the given parent
--------	---

Method Summary

void	<u>activate</u> ()
void	<u>deactivate</u> ()
ImageIcon	<u>getButtonIcon</u> () Returns the icon for use in creating an activation toolbar button for this handler.
java.awt.Cursor	<u>getCurrentCursor</u> (java.awt.event.MouseEvent evt) Retrieves the cursor for the views based off of the currently selected tool.
String	<u>getTooltipText</u> () returns the tooltip text to use for this MouseHandler's toggle button or null if no text is desired.
void	<u>mouseDragged</u> (java.awt.event.MouseEvent evt) Handle mouseDragged events for move and resize operations.
void	<u>mousePressed</u> (java.awt.event.MouseEvent orig_evt)

void	<u>mouseReleased</u> (java.awt.event.MouseEvent orig_evt) Handle mouseReleased events to support move, resize, select operations.
String	<u>toString</u> () returns a string representation of this handler

Methods inherited from class `com.cafean.client.ui.tools.MouseHandler`

activate, deactivate, getButtonIcon, getCurrentCursor, getCursor, getHandlerID, getTooltipText, mouseClicked, mouseEntered, mouseExited, mouseMoved, setHandlerID, toString

Methods inherited from class `java.lang.Object`

`equals`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Methods inherited from interface `java.awt.event.MouseListener`

`mouseClicked`, `mouseEntered`, `mouseExited`, `mousePressed`, `mouseReleased`

Methods inherited from interface `java.awt.event.MouseMotionListener`

`mouseDragged`, `mouseMoved`

Fields

CURSOR_ZOOM_IN

`public static final java.awt.Cursor CURSOR_ZOOM_IN`

The cursor for the Zoom Tool

CURSOR_ZOOM_OUT

`public static final java.awt.Cursor CURSOR_ZOOM_OUT`

The cursor for the Zoom Tool

Constructors

ZoomMouseHandler

`public ZoomMouseHandler(ZoomablePanel parent)`

Creates a new mouse handler with the given parent

Methods

getCurrentCursor

`public java.awt.Cursor getCurrentCursor(java.awt.event.MouseEvent evt)`

Retrieves the cursor for the views based off of the currently selected tool.

getButtonIcon

public ImageIcon **getButtonIcon**()

Returns the icon for use in creating an activation toolbar button for this handler. The returned icon need not be cached as this method will only be called once per instance.

Returns:

the javax.swing.ImageIcon to be used as this handler's toggle button icon.

toString

public String **toString**()

returns a string representation of this handler

getTooltipText

public String **getTooltipText**()

returns the tooltip text to use for this MouseHandler's toggle button or null if no text is desired.

activate

public void **activate**()

Sets up this MouseHandler to be ready to receive MouseEvents

deactivate

public void **deactivate**()

Deactivates this MouseHandler and cleans up any current operations.

mousePressed

public void **mousePressed**(java.awt.event.MouseEvent orig_evt)

mouseDragged

public void **mouseDragged**(java.awt.event.MouseEvent evt)

Handle mouseDragged events for move and resize operations.

See Also:

[mousePressed\(MouseEvent\)](#)

mouseReleased

```
public void mouseReleased(java.awt.event.MouseEvent orig_evt)
```

Handle mouseReleased events to support move, resize, select operations. Forward the mouseExited event to the underlying child container.

See Also:

[mousePressed\(MouseEvent\)](#)

Package

com.cafean.client.ui.tools.insert

com.cafean.client.ui.tools.insert

Class AbstractInsertHandler

java.lang.Object

↳ **com.cafean.client.ui.tools.insert.AbstractInsertHandler**

All Implemented Interfaces:

java.awt.event.MouseMotionListener, java.awt.event.MouseListener

Direct Known Subclasses:

RectangularInsertHandler, AbstractPathHandler

public abstract class **AbstractInsertHandler**

extends Object

implements java.awt.event.MouseListener, java.awt.event.MouseMotionListener

The base class of a mouse handler used to control the insertion of a bean, annotation, etc.

Constructor Summary

public	<u>AbstractInsertHandler</u> (<u>ZoomablePanel</u> parent) Creates a new instance of <u>MouseHandler</u>
--------	--

Method Summary

void	<u>cancelInsert</u> () Cancels the insertion by calling <u>InsertMouseHandler.finishInsert</u> (<u>MouseEvent</u>).
void	<u>finishInsert</u> (java.awt.event. <u>MouseEvent</u> orig_evt) Completes the insertion by calling <u>InsertMouseHandler.finishInsert</u> (<u>MouseEvent</u>).
java.awt. <u>Cursor</u>	<u>getCurrentCursor</u> () Retrieves the cursor for the views based off of the currently selected tool.
void	<u>mouseClicked</u> (java.awt.event. <u>MouseEvent</u> orig_evt) This handler ignores mouse clicked events
void	<u>mouseEntered</u> (java.awt.event. <u>MouseEvent</u> orig_evt) sets the zoomable panel's cursor to the handler's current cursor
void	<u>mouseExited</u> (java.awt.event. <u>MouseEvent</u> orig_evt) sets the zoomable panel's cursor to the handler's current cursor
void	<u>mouseMoved</u> (java.awt.event. <u>MouseEvent</u> orig_evt) sets the zoomable panel's cursor to the handler's current cursor

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.awt.event.MouseListener`

`mouseClicked`, `mouseEntered`, `mouseExited`, `mousePressed`, `mouseReleased`

Methods inherited from interface `java.awt.event.MouseMotionListener`

`mouseDragged`, `mouseMoved`

Constructors

AbstractInsertHandler

```
public AbstractInsertHandler(ZoomablePanel parent)
```

Creates a new instance of `MouseHandler`

Methods

finishInsert

```
public void finishInsert(java.awt.event.MouseEvent orig_evt)
```

Completes the insertion by calling `InsertMouseHandler.finishInsert(MouseEvent)`.

Parameters:

`orig_evt` - the `MouseEvent` passed from the `GlassPane`, untransformed

cancelInsert

```
public void cancelInsert()
```

Cancels the insertion by calling `InsertMouseHandler.finishInsert(MouseEvent)`.

Parameters:

`orig_evt` - the `MouseEvent` passed from the `GlassPane`, untransformed

getCurrentCursor

```
public java.awt.Cursor getCurrentCursor()
```

Retrieves the cursor for the views based off of the currently selected tool.

mouseClicked

```
public void mouseClicked(java.awt.event.MouseEvent orig_evt)
```

This handler ignores mouse clicked events

mouseEntered

```
public void mouseEntered(java.awt.event.MouseEvent orig_evt)
```

sets the zoomable panel's cursor to the handler's current cursor

See Also:

[getCurrentCursor\(\)](#)

mouseMoved

```
public void mouseMoved(java.awt.event.MouseEvent orig_evt)
```

sets the zoomable panel's cursor to the handler's current cursor

See Also:

[getCurrentCursor\(\)](#)

mouseExited

```
public void mouseExited(java.awt.event.MouseEvent orig_evt)
```

sets the zoomable panel's cursor to the handler's current cursor

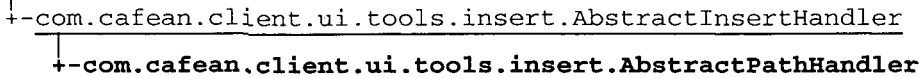
See Also:

[getCurrentCursor\(\)](#)

com.cafean.client.ui.tools.insert

Class AbstractPathHandler

java.lang.Object



All Implemented Interfaces:

java.awt.event.MouseMotionListener, java.awt.event.MouseListener

public abstract class **AbstractPathHandler**
 extends AbstractInsertHandler

A base class for insert handlers that are based on a path of points.

See Also:

com.cafean.client.ui.tools.insert.LineAnnotInsertHandler,
 com.cafean.client.ui.tools.insert.PolygonInsertHandler

Field Summary

public static final	<u>TOLERANCE</u> The number of pixels the mouse is required to move before another point can be added. Value: 5
---------------------	---

Constructor Summary

public	<u>AbstractPathHandler</u> (<u>ZoomablePanel</u> parent) Creates a new mouse handler with the given parent
--------	--

Method Summary

void	<u>mouseClicked</u> (java.awt.event.MouseEvent orig_evt) This insert handler ignores mouseClicked eventss
void	<u>mouseDragged</u> (java.awt.event.MouseEvent orig_evt) Handles mouse moved events by repainting the current rubber bands.
void	<u>mouseMoved</u> (java.awt.event.MouseEvent orig_evt) Handles mouse dragged events by repainting the current rubber bands.
void	<u>mousePressed</u> (java.awt.event.MouseEvent orig_evt) When inactive, mouse events are forwarded as appropriate either to the UI to activate the frame or to the underlying child component.
void	<u>mouseReleased</u> (java.awt.event.MouseEvent orig_evt) Handles mouse released events by adding points to the path (left button) or removing points from the path (right button).

Methods inherited from class com.cafean.client.ui.tools.insert.AbstractInsertHandler

cancelInsert, finishInsert, getCurrentCursor, mouseClicked, mouseEntered, mouseExited, mouseMoved

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.event.MouseListener

mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased

Methods inherited from interface java.awt.event.MouseMotionListener

mouseDragged, mouseMoved

Fields

TOLERANCE

```
public static final int TOLERANCE
```

The number of pixels the mouse is required to move before another point can be added.
Constant value: 5

Constructors

AbstractPathHandler

```
public AbstractPathHandler(ZoomablePanel parent)
```

Creates a new mouse handler with the given parent

Methods

mousePressed

```
public void mousePressed(java.awt.event.MouseEvent orig_evt)
```

When inactive, mouse events are forwarded as appropriate either to the UI to activate the frame or to the underlying child component.

mouseClicked

```
public void mouseClicked(java.awt.event.MouseEvent orig_evt)
```

This insert handler ignores mouseClicked events

mouseDragged

```
public void mouseDragged(java.awt.event.MouseEvent orig_evt)
```

Handles mouse moved events by repainting the current rubber bands. This implementation simply calls [mouseMoved\(MouseEvent\)](#)

Parameters:

`orig_event` - the `MouseEvent` fired by the glass pane, untransformed

See Also:

[mouseMoved\(MouseEvent\)](#)

mouseMoved

```
public void mouseMoved(java.awt.event.MouseEvent orig_evt)
```

Handles mouse dragged events by repainting the current rubber bands.

Parameters:

`orig_event` - the `MouseEvent` fired by the glass pane, untransformed

mouseReleased

```
public void mouseReleased(java.awt.event.MouseEvent orig_evt)
```

Handles mouse released events by adding points to the path (left button) or removing points from the path (right button).

Parameters:

`orig_event` - the `MouseEvent` fired by the glass pane, untransformed

com.cafean.client.ui.tools.insert Interface Insertable

All Known Implementing Classes:

LineAnnotation, RectangularAnnotation, EllipticalAnnotation

public interface **Insertable**
extends

An interface describing JComponents that can be inserted using an AbstractInsertHandler derivative to guide the dimensioning etc.

Method Summary

AbstractInsertHandler

getNewInsertHandler (ZoomablePanel parent)

Creates a new insert handler appropriate for handling the mouse events required to properly insert this insertable object into the given parent.

Methods

getNewInsertHandler

public AbstractInsertHandler **getNewInsertHandler** (ZoomablePanel parent)

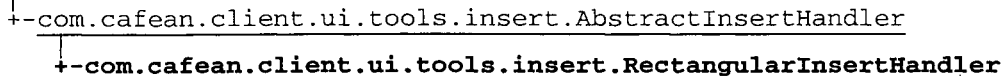
Creates a new insert handler appropriate for handling the mouse events required to properly insert this insertable object into the given parent.

Returns:

an AbstractInsertHandler properly configured for handling the insertion of this component; or null if none is appropriate

com.cafean.client.ui.tools.insert Class RectangularInsertHandler

java.lang.Object



All Implemented Interfaces:

java.awt.event.MouseMotionListener, java.awt.event.MouseListener

public class **RectangularInsertHandler**
extends AbstractInsertHandler

An insertion handler intended for inserting JComponent derivatives that have rectangular bounds. This handler requires the user to draw a rectangular rubber box, the box is then used to dimension the created JComponent.

Constructor Summary

public	<u>RectangularInsertHandler</u> (<u>ZoomablePanel</u> parent, JComponent comp) Creates a new instance of RectangularInsertHandler
--------	---

Method Summary

void	<u>mouseClicked</u> (java.awt.event.MouseEvent orig_evt) Completes the insertion by setting the location of the component to the clicked location and calling finishInsert.
void	<u>mouseDragged</u> (java.awt.event.MouseEvent orig_evt) Continues the process of drawing the rubber band rectangle for bounds selection.
void	<u>mousePressed</u> (java.awt.event.MouseEvent orig_evt) Begins the process of drawing the rubber band rectangle for bounds selection.
void	<u>mouseReleased</u> (java.awt.event.MouseEvent orig_evt) Completes the process of drawing the rubber band rectangle for bounds selection.

Methods inherited from class com.cafean.client.ui.tools.insert.AbstractInsertHandler

cancelInsert, finishInsert, getCurrentCursor, mouseClicked, mouseEntered, mouseExited, mouseMoved

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.awt.event.MouseListener

mouseClicked, mouseEntered, mouseExited, mousePressed, mouseReleased

Methods inherited from interface `java.awt.event.MouseMotionListener`

`mouseDragged`, `mouseMoved`

Constructors

RectangularInsertHandler

```
public RectangularInsertHandler(ZoomablePanel parent,  
                               JComponent comp)
```

Creates a new instance of `RectangularInsertHandler`

Methods

mouseClicked

```
public void mouseClicked(java.awt.event.MouseEvent orig_evt)
```

Completes the insertion by setting the location of the component to the clicked location and calling `finishInsert`.

mousePressed

```
public void mousePressed(java.awt.event.MouseEvent orig_evt)
```

Begins the process of drawing the rubber band rectangle for bounds selection.

mouseDragged

```
public void mouseDragged(java.awt.event.MouseEvent orig_evt)
```

Continues the process of drawing the rubber band rectangle for bounds selection.

mouseReleased

```
public void mouseReleased(java.awt.event.MouseEvent orig_evt)
```

Completes the process of drawing the rubber band rectangle for bounds selection. `setBounds` is then called on the component with the selected rubber band rectangle.

Package

com.cafean.CodePlugins

com.cafean.CodePlugins

Class MECodePlugin

```
java.lang.Object
  |
  +--com.cafean.CodePlugins.MEPlugin
        |
        +--com.cafean.CodePlugins.MECodePlugin
```

public abstract class **MECodePlugin**
extends MEPlugin

This is used to implement a new analysis code in the model editor. MECodePlugins contain all the functions common between analysis code plugins.

The following is an example implementation of submitModel (AbstractModel, boolean).


```

public void submitModel(AbstractModel model)
{
    File tmpFile;
    File tmpSaveFile;
    try {
        tmpFile = File.createTempFile("snap", ".inp");
        tmpSaveFile = File.createTempFile("snap", ".sam");
    } catch( java.io.IOException ioe ) {
        ioe.printStackTrace();
        OptionPane.showMessageDialog( MainFrame.instance,
                                     "Unable to create required temporary files.",
                                     "Submit Failed",
                                     OptionPane.ERROR_MESSAGE );

        return;
    }

    String oldSaveName = model.getSaveFileName();
    model.setSaveFileName( tmpSaveFile.getPath() );
    model.saveModel();
    model.setSaveFileName( oldSaveName );

    boolean success = exportASCII( model, tmpFile );

    if( success ) {
        SubmitDialog dialog = new SubmitDialog( MainFrame.instance,
                                                MainFrame.instance.getOrb(),
                                                getPluginId(),
                                                tmpFile,
                                                tmpSaveFile,
                                                MainFrame.instance.getPrefs() );

        dialog.setVisible(true);
    }
    tmpFile.delete();
    tmpSaveFile.delete();
}

```

Fields inherited from class com.cafean.CodePlugins.MEPlugin

TYPE_CODE_PLUGIN, TYPE_FEATURE_PLUGIN

Constructor Summary

public	<u>MECodePlugin</u> (String name) Creates a new MECodePlugin with the given name.
--------	--

Method Summary

abstract <u>AbstractModel</u>	<u>createNewModel</u> (boolean initNew) Creates a new instance of the AbstractModel defined by this plugin.
java.io.PrintWriter	<u>getAsciiPrintWriter</u> (java.io.Writer output) Retrieves an appropriately configured print writer for use in writing an ASCII representation of individual components.
StyledDocument	<u>getAsciiStyledDocument</u> (Writeable writeable) Retrieves a StyledDocument suitable for displaying the written ASCII of the given Writeable component.
String	<u>getLabel</u> () Retrieves a short string that describes a singular unit of this plugin.
String	<u>getLabelPlural</u> () Retrieves a short string that describes multiple units of this plugin.
ImageIcon	<u>getPluginIcon</u> () Retrieves the icon associated with this plugin.
int	<u>getPluginType</u> ()
abstract String	<u>getSamPackage</u> () This returns the package name of the SAM files for this plugin.
String	<u>getSamPackage</u> (java.io.File f) This returns the package name of the SAM files for this plugin.
boolean	<u>isAnimatable</u> () Returns true if this MECodePlugin includes support for View animation.
boolean	<u>isBeanBased</u> () Returns true if this MECodePlugin's design is based on the JavaBeans architecture.
abstract <u>AbstractModel</u>	<u>open</u> (java.io.File file) Loads a new AbstractModel from the given local File.
abstract void	<u>submitModel</u> (AbstractModel model, boolean local) Submits an AbstractModel to the Calculation Server for execution.

Methods inherited from class com.cafean.CodePlugins.MEPlugin

addCurrentExportItems, addCurrentToolsItems, getName, getPluginHelpSet, getPluginId, getPluginInfo, getPluginPreferences, getPluginPrereqs, getPluginType, getVersion, loadMainMenuItems, loadSettings, loadViewMenuItems, processCommand, setName, storeSettings, toString

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

MECodePlugin

```
public MECodePlugin(String name)
```

Creates a new MECodePlugin with the given name.

Methods

getPluginType

```
public final int getPluginType()
```

This returns the static type flag that indicates what type of plugin this is.

createNewModel

```
public abstract AbstractModel createNewModel(boolean initNew)
```

Creates a new instance of the AbstractModel defined by this plugin. This is a clean model with no components or properties set.

Parameters:

initNew - if true, the newly created model should be initialized as if just created by the user.

Returns:

an AbstractModel created by this plugin.

open

```
public abstract AbstractModel open(java.io.File file)
```

Loads a new AbstractModel from the given local File.

Parameters:

file - the File being read in.

Returns:

an AbstractModel created by this plugin and loaded from file.

getSamPackage

```
public abstract String getSamPackage()
```

This returns the package name of the SAM files for this plugin. This is used to determine which plugin a SAM file is specifying.

Returns:

String containing the package of the SAM definitions.

getSamPackage

```
public String getSamPackage(java.io.File f)
```

This returns the package name of the SAM files for this plugin. This is used to determine which plugin a SAM file is specifying.

Parameters:

f - the SAM File being opened

Returns:

String containing the package of the SAM definitions.

submitModel

```
public abstract void submitModel(AbstractModel model,  
    boolean local)
```

Submits an AbstractModel to the Calculation Server for execution.

Parameters:

model - the AbstractModel to submit.

local - TRUE if this is a local submission.

See Also:

com.cafean.utils.SubmitDialog

isBeanBased

```
public boolean isBeanBased()
```

Returns true if this MECodePlugin's design is based on the JavaBeans architecture.

isAnimatable

```
public boolean isAnimatable()
```

Returns true if this MECodePlugin includes support for View animation. This method is used to enable or disable the playback controls and animated display bean toolbars, as well as other source manager related functionality.

getAsciiStyledDocument

```
public StyledDocument getAsciiStyledDocument(Writeable writeable)
```

Retrieves a StyledDocument suitable for displaying the written ASCII of the given Writeable component.

Parameters:

writeable - the Writeable component to retrieve an appropriate document for

Returns:

the StyledDocument to use when displaying ASCII for the given Writeable

getAsciiPrintWriter

```
public java.io.PrintWriter getAsciiPrintWriter(java.io.Writer output)
```

Retrieves an appropriately configured print writer for use in writing an ASCII representation of individual components. Plugins may choose to override this method to create derivative PrintWriters that allow for different formatting.

Parameters:

output - the java.io.Writer that the returned PrintWriter will use for it's output.

Returns:

a java.io.PrintWriter suitable for printing ASCII representations of this plugin's data.

getPluginIcon

```
public ImageIcon getPluginIcon()
```

Retrieves the icon associated with this plugin.

getLabel

```
public String getLabel()
```

Retrieves a short string that describes a singular unit of this plugin. This is used as the label associated with this plugin in the new file dialog. The default is the ID of the plugin followed by the word "model".

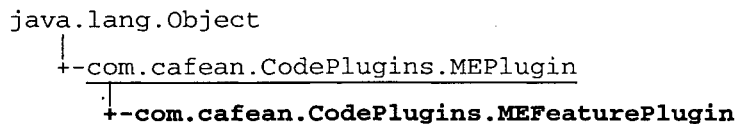
getLabelPlural

```
public String getLabelPlural()
```

Retrieves a short string that describes multiple units of this plugin. This is used as the label associated with this plugin in the navigator. The default is the ID of the plugin followed by the word "models".

com.cafean.CodePlugins

Class MEFeaturePlugin



public abstract class **MEFeaturePlugin**
 extends MEPlugin

This is used to implement a new feature plugin for the model editor. It contains all of the functions common between feature plugins in the model editor.

Fields inherited from class com.cafean.CodePlugins.MEPlugin

TYPE_CODE_PLUGIN, TYPE_FEATURE_PLUGIN

Constructor Summary

public	<u>MEFeaturePlugin</u> (String name) Creates a new instance of MEFeaturePlugin
--------	---

Method Summary

int	<u>getPluginType</u> ()
-----	-------------------------

abstract boolean	<u>isAssociated</u> (<u>AbstractModel</u> model) This returns true if this plugin contains data that should be saved in the same SAM file as the given model.
------------------	---

abstract void	<u>load</u> (<u>AbstractModel</u> loadedModel, com.appt.xdr.PibFile pibfile) This is called on all Feature plugins when a model has been loaded.
---------------	--

abstract void	<u>modelAdded</u> (<u>AbstractModel</u> model) This is called on all Feature plugins when a new model has been added to the model editor.
---------------	---

abstract void	<u>modelRemoved</u> (<u>AbstractModel</u> model)
---------------	---

abstract void	<u>save</u> (<u>AbstractModel</u> savedModel, com.appt.xdr.PibFile pibfile) This is called on all Feature plugins when a model has been stored.
---------------	---

Methods inherited from class com.cafean.CodePlugins.MEPlugin

addCurrentExportItems, addCurrentToolsItems, getName, getPluginHelpSet, getPluginId, getPluginInfo, getPluginPreferences, getPluginPrereqs, getPluginType, getVersion, loadMainMenuItems, loadSettings, loadViewMenuItems, processCommand, setName, storeSettings, toString

Methods inherited from class java.lang.Object

`equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Constructors

MEFeaturePlugin

```
public MEFeaturePlugin(String name)
```

Creates a new instance of MEFeaturePlugin

Methods

getPluginType

```
public final int getPluginType()
```

This returns the static type flag that indicates what type of plugin this is.

load

```
public abstract void load(AbstractModel loadedModel,  
    com.apt.xdr.PibFile pibfile)
```

This is called on all Feature plugins when a model has been loaded. This allows feature plugins that need to load local data associated with that model to read that data from the end of the file.

Parameters:

`loadedModel` - the AbstractModel that has just been loaded from disk.
`pibfile` - the local file that is being read in.

save

```
public abstract void save(AbstractModel savedModel,  
    com.apt.xdr.PibFile pibfile)
```

This is called on all Feature plugins when a model has been stored. This allows feature plugins that need to store local data associated with that model to append the data to the end of the file.

Parameters:

`savedModel` - the AbstractModel that has just been saved to disk.
`pibfile` - the local file that is being written out.

modelRemoved

```
public abstract void modelRemoved(AbstractModel model)
```

modelAdded

```
public abstract void modelAdded(AbstractModel model)
```

This is called on all Feature plugins when a new model has been added to the model editor. This allows all plugins that need to store local data associated with that type of model to initialize any data they need.

Parameters:

model - the AbstractModel just added to the model Editor.

isAssociated

```
public abstract boolean isAssociated(AbstractModel model)
```

This returns true if this plugin contains data that should be saved in the same SAM file as the given model.

Parameters:

model - the AbstractModel to check association with

Returns:

true if this plugin has data that needs to save in the sam file as the model.

com.cafean.CodePlugins

Class MEPlugin

java.lang.Object

└-com.cafean.CodePlugins.MEPlugin

Direct Known Subclasses:

MECodePlugin, MEFeaturePlugin

public abstract class **MEPlugin**
extends Object

The base class for a Model Editor plugin. User defined plugins should not extend this class, but rather extend either MECodePlugin or MEFeaturePlugin.

Field Summary

public static final	<u>TYPE_CODE_PLUGIN</u> the typecode for analysis code support plugins Value: 1
public static final	<u>TYPE_FEATURE_PLUGIN</u> the typecode for feature addition plugins Value: 2

Constructor Summary

public	<u>MEPlugin</u> (String name) Creates a new MEPlugin with the given name.
--------	--

Method Summary

void	<u>addCurrentExportItems</u> (JMenu menu) Adds appropriate export menu items to the given JMenu with respect to the type and state of the <u>current model</u> .
void	<u>addCurrentToolsItems</u> (JMenu menu) Adds appropriate Tools menu items to the given JMenu with respect to the type and state of the <u>current model</u> .
String	<u>getName</u> () This returns the descriptive name of this plugin.
javax.help.HelpSet	<u>getPluginHelpSet</u> () Retrieves the HelpSet for this plug-in, if one is available.
abstract String	<u>getPluginId</u> () This returns the static plugin id.

abstract String	<u>getPluginInfo()</u> Returns the information about this plugin that will appear in the Plugins dialog.
Object	<u>getPluginPreferences()</u> Retrieves an Object that follows the Java Beans design paradigm that contains the preferences for this plugin.
String[]	<u>getPluginPrereqs()</u> Returns the names and versions of the plugins this plugin depends upon.
abstract int	<u>getPluginType()</u> This returns the static type flag that indicates what type of plugin this is.
String	<u>getVersion()</u> Returns the version number of this plugin as a String.
abstract void	<u>loadMainMenuItems()</u> Loads this plugin's menu items into the <u>MainFrame</u> menu bar.
abstract void	<u>loadSettings(Configurator config)</u> Loads user settings for this plugin from the configuration file.
abstract void	<u>loadViewMenuItems(DrawnView view)</u> Loads this plugin's menu items into a <u>DrawnView's</u> Tools menu.
abstract void	<u>processCommand(Vector command)</u> Processes the given batch command.
void	<u>setName(String name)</u> This sets the descriptive name of this plugin.
abstract void	<u>storeSettings(Configurator config)</u> Stores user settings for this plugin into the configuration file.
String	<u>toString()</u> returns the plug-in id of this plug-in

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

TYPE_CODE_PLUGIN

public static final int **TYPE_CODE_PLUGIN**

the typecode for analysis code support plugins
Constant value: 1

TYPE_FEATURE_PLUGIN

```
public static final int TYPE_FEATURE_PLUGIN
```

the typecode for feature addition plugins
Constant value: 2

Constructors

MEPlugin

```
public MEPlugin(String name)
```

Creates a new MEPlugin with the given name.

Parameters:

name - a String containing the new name.

Methods

getName

```
public String getName()
```

This returns the descriptive name of this plugin.

Returns:

The Descriptive name of this plugin.

setName

```
public void setName(String name)
```

This sets the descriptive name of this plugin.

Parameters:

name - The Descriptive name of this plugin.

getPluginId

```
public abstract String getPluginId()
```

This returns the static plugin id. This is used to clearly and easily differentiate between plugins.

Returns:

The short identifier for this plugin.

getPluginType

```
public abstract int getPluginType()
```

This returns the static type flag that indicates what type of plugin this is.

See Also:

TYPE_CODE_PLUGIN
TYPE_FEATURE_PLUGIN

processCommand

public abstract void **processCommand**(Vector command)
throws java.io.IOException

Processes the given batch command. This method should assume that the plugin id prefix has been removed from the command before passing to processCommand.

Parameters:

command - a Vector of Strings containing the batch command to be executed.

Throws:

IOException - on failure to process the command.

loadMainMenuItems

public abstract void **loadMainMenuItems**()

Loads this plugin's menu items into the MainFrame menu bar.

Use the menu insertion function in MainFrame to add new JMenuItem's to the toolbar's menus.

See Also:

MainFrame.addImportItem(JMenuItem)
MainFrame.addExportItem(JMenuItem)
MainFrame.addMenuItem(JMenuItem, String)

loadViewMenuItems

public abstract void **loadViewMenuItems**(DrawnView view)

Loads this plugin's menu items into a DrawnView's Tools menu.

Use DrawnView.addMenuItem(JMenuItem) to add new JMenuItem's to tools menu.

See Also:

DrawnView.addMenuItem(JMenuItem)

addCurrentExportItems

public void **addCurrentExportItems**(JMenu menu)

Adds appropriate export menu items to the given JMenu with respect to the type and state of the current model.

Note: This is called each time the export menu is selected. To add permanent items use MainFrame.addExportItem(JMenuItem).

Parameters:

menu - the JMenu to add export related items to.

addCurrentToolsItems

```
public void addCurrentToolsItems(JMenu menu)
```

Adds appropriate Tools menu items to the given JMenu with respect to the type and state of the current model.

Note: This is called each time the Tools menu is selected.

Parameters:

menu - the JMenu to add tool related items to.

loadSettings

```
public abstract void loadSettings(Configurator config)
```

Loads user settings for this plugin from the configuration file.

Parameters:

config - the Configurator used to access the locally stored settings.

storeSettings

```
public abstract void storeSettings(Configurator config)
```

Stores user settings for this plugin into the configuration file.

Parameters:

config - the Configurator used to access the locally stored settings.

getVersion

```
public String getVersion()
```

Returns the version number of this plugin as a String. The returned version number should be formatted as: [major].[minor].[bugfix]. For example: 1.0.2.

This base implementation attempts to retrieve the plug-in version from the plug-in's JAR file manifest by retrieving the "MEPluginData-Version" property. Extensions of this class may choose to override this to handle version access in other ways.

Returns:

a String containing the version number.

getPluginPrereqs

```
public String[] getPluginPrereqs()
```

Returns the names and versions of the plugins this plugin depends upon. Each dependency is formatted as: [plugin id]:[version] where the version is considered the minimum acceptable version.

For example: RELAP5:0.1.0

This base implementation attempts to retrieve the plug-in prerequisites from the "MEPluginData-RequiredPlugins" property of the plug-in's JAR file manifest as a '|' separated list of [PLUGIN]:[VERSION] as shown above. NOTE: Colons must be escaped in java manifest files, thus: "RELAP5\0.1.0"

Extensions of this class may choose to override this to handle prerequisite access in other ways.

Returns:

a String[] containing all the plugins this depends upon.

getPluginInfo

```
public abstract String getPluginInfo()
```

Returns the information about this plugin that will appear in the Plugins dialog. This should be either unformatted text, or alternatively, HTML to be placed between existing <HTML> and <BODY> tags.

Returns:

a String containing a description of this plugin.

getPluginPreferences

```
public Object getPluginPreferences()
```

Retrieves an Object that follows the Java Beans design paradigm that contains the preferences for this plugin. These preferences must be stored along with other plugin values.

Returns:

an Object that contains the plugin's preferences.

getPluginHelpSet

```
public javax.help.HelpSet getPluginHelpSet()
```

Retrieves the HelpSet for this plug-in, if one is available. Plug-in helpsets are assumed to be located in: `i18n/[locale]/[plug-in id]`. For example: `i18n/en/MyPlugin` would refer to the english documentation for the plug-in called MyPlugin.

This method will print an error message to STDERR when the debug flag is on if no help set is found in the expected location. The MyPlugin online help is not available. `[i18n/en/MyPlugin]`

Plug-ins that place the plug-in help set in a different location may override this method to return an appropriate HelpSet.

Returns:

a javax.help.HelpSet properly configured for the javahelp for this plug-in.

toString

```
public String toString()
```

returns the plug-in id of this plug-in

com.cafean.CodePlugins

Class MEPluginData

java.lang.Object

└--com.cafean.CodePlugins.MEPluginData

public abstract class **MEPluginData**
extends Object

The MEPluginData is used to hold all the data necessary to determine when and how the plugin should be read in. This allows the plugin loader to determine if the appropriate prerequisite plugins have been loaded, and that the necessary classes are available.

Constructor Summary

public	<u>MEPluginData()</u> Creates a new instance of MEPluginData
--------	---

Method Summary

String[]	<u>getClassPrereqs()</u> Returns the name of any specific classes required by this plugin that are not included in the main ModelEditor distribution, the standard Java distribution or this plugin.
abstract String	<u>getPluginClass()</u> Returns the absolute path to the primary class for the plugin in string form.
abstract String	<u>getPluginId()</u> Returns this plugin's plugin-id.
String[]	<u>getPluginPrereqs()</u> Returns the names and versions of the plugins this plugin depends upon.
String	<u>getVersion()</u> Returns the current plugin version.
abstract <u>MEPlugin</u>	<u>loadPlugin()</u> Creates an instance of the MEPlugin that is described by this MEPluginData object.

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

MEPluginData

public **MEPluginData()**

Creates a new instance of MEPluginData

Methods

getPluginClass

```
public abstract String getPluginClass()
```

Returns the absolute path to the primary class for the plugin in string form. This is used to tell the plugin manager which class in the plugin extends MEPlugin.

Returns:

a String containing the path to the plugin class.

getPluginId

```
public abstract String getPluginId()
```

Returns this plugin's plugin-id. The value returned should be the same statically declared value returned by the plugin's `MEPlugin.getPluginId()` and the model's `getPluginId`.

Returns:

a String containing the plugin-id

getVersion

```
public String getVersion()
```

Returns the current plugin version. The returned version number should be formatted as: [major].[minor].[bugfix]. For example: 1.0.2.

This is used by the plugin manager to determine whether a dependent plugin will work with this version.

This base implementation attempts to retrieve the plug-in version from the plug-in's JAR file manifest by retrieving the "MEPluginData-Version" property. Extensions of this class may choose to override this to handle version access in other ways.

Returns:

a String containing the current version of this plugin.

getPluginPrereqs

```
public String[] getPluginPrereqs()
```

Returns the names and versions of the plugins this plugin depends upon. Each dependency is formatted as: [plugin id]:[version] where the version is considered the minimum acceptable version.

For example: RELAP5:0.1.0

This base implementation attempts to retrieve the plug-in prerequisites from the "MEPluginData-RequiredPlugins" property of the plug-in's JAR file manifest as a '|' separated list of [PLUGIN]:[VERSION] as shown above. NOTE: Colons must be escaped in java manifest files, thus: "RELAP5\0.1.0"

Extensions of this class may choose to override this to handle prerequisite access in other ways.

Returns:

a String[] containing all the plugins this depends upon.

getClassPrereqs

```
public String[] getClassPrereqs()
```

Returns the name of any specific classes required by this plugin that are not included in the main ModelEditor distribution, the standard Java distribution or this plugin.

For example: RELAP5:0.1.0

This base implementation attempts to retrieve the plug-in class prerequisites from the "MEPluginData-RequiredClasses" property of the plug-in's JAR file manifest as a '|' separated list of class names.

Extensions of this class may choose to override this to handle prerequisite class name access in other ways.

Returns:

a String[] containing the full path of each Class required by this plugin.

loadPlugin

```
public abstract MEPlugin loadPlugin()
```

Creates an instance of the MEPlugin that is described by this MEPluginData object.

Any initialization required by MEPlugin subclasses (except for MEPlugin.loadMainMenuItems() and MEPlugin.loadSettings(Configurator) which are called after the plugin is loaded), should be done at this time.

Returns:

an MEPlugin instance loaded with this MEPluginData's classloader.

Package

com.cafean.Number

Provides classes for handling various types of numbers as mutable wrappers. Wrappers are provided for real numbers as a double precision float as well as integers and booleans.

Each class handles conversion between SI and English units and stores all data in SI units internally.

Various number related utility classes have been provided, such as IntegerArray.

com.cafean.Number

Class Angle

```
java.lang.Object
  |
  +-com.cafean.Number.BaseNumber
    |
    +-com.cafean.Number.Real
      |
      +-com.cafean.Number.Angle
```

All Implemented Interfaces:

Cloneable, java.awt.datatransfer.Transferable, Comparable, Cloneable

```
public class Angle
extends Real
```

A Real derivative for storing angle values. Stores radians internally and degrees externally.

English Units: degrees, SI Units: degrees.

Field Summary

public static final	<u>halfPI</u> Value: 1.5707963267948966
---------------------	--

Fields inherited from class com.cafean.Number.Real

Unknown

Fields inherited from class com.cafean.Number.BaseNumber

BRITISH, SI, UNIT_NAMES

Constructor Summary

public	<u>Angle()</u> Creates a new instance with an unknown value.
--------	---

public	<u>Angle(double d)</u> Creates a new instance initialized to a value.
--------	--

Method Summary

void	<u>convert(double d)</u> Converts the double given into the global units, and sets the result as the value of this Real.
------	---

void	<u>convert</u> (Number n) Converts the doubleValue of the Number given to the global units. The result of the conversion is set as the current value of this Real.
double	<u>getConversionFactor</u> () Retrieves the conversion factor used to convert this Real's value from SI to British units.
double	<u>getDisplayValue</u> (int unittypes)
String	<u>getENG_Units</u> () Retrieves a String representation of this Real's English unit type.
java.text.DecimalFormat	<u>getFormat</u> (double value) Return the format used to represent a value.
String	<u>getSI_Units</u> () Retrieves a String representation of this Real's SI unit type.
boolean	<u>isMostlyVerticalDown</u> () Return true if the angle is < -45 degrees.
boolean	<u>isMostlyVerticalUp</u> () Return true if the angle is > 45 degrees.
boolean	<u>isVerticalDown</u> () Return true if the angle is close to -180 degrees.
boolean	<u>isVerticalUp</u> () Return true if the angle is close to 180 degrees.

Methods inherited from class com.cafean.Number.Real

abs, add, add, arraysEqual, clone, compareTo, convert, convert, convert, convert, convert, divide, divide, divideby, divideby, equals, equals, equals, equals, getConversionFactor, getCurrentDisplayValue, getDataValue, getDisplayName, getDoubleValue, getENG_Units, getFormat, getHtmlUnits, getHtmlUnits, getLoadFormat, getName, getReferencedValue, getSI_Units, getSignificantFigs, getStrippedValue, getTransferData, getTransferDataFlavors, getUnitName, getUnits, getValue, greaterthan, greaterthan, isDataFlavorSupported, isKnown, isUnknown, lessthan, lessthan, lockToString, multiply, multiply, normalizeArray, restoreState, setDataValue, setSignificantFigs, setUnknown, setValue, setValue, setValue, setValue, sortParallelRealArrays, sqrt, storeState, subtract, subtract, toLoadString, toLoadString, toString, toString, unlockToString

Methods inherited from class com.cafean.Number.BaseNumber

clone, compareDouble, convert, getENG_Units, getFormat, getSI_Units, getUnits, getUnitType, isKnown, isUnknown, setKnown, setUnitType, setUnknown, setValue, setValue, toString

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.lang.Comparable`

`compareTo`

Methods inherited from interface `java.awt.datatransfer.Transferable`

`getTransferData`, `getTransferDataFlavors`, `isDataFlavorSupported`

Fields

halfPI

```
public static final double halfPI
```

Constant value: **1.5707963267948966**

Constructors

Angle

```
public Angle()
```

Creates a new instance with an unknown value.

Angle

```
public Angle(double d)
```

Creates a new instance initialized to a value.

Parameters:

d - The initial value.

Methods

getConversionFactor

```
public double getConversionFactor()
```

Retrieves the conversion factor used to convert this Real's value from SI to British units.

getSI_Units

```
public String getSI_Units()
```

Retrieves a String representation of this Real's SI unit type.

getENG_Units

```
public String getENG_Units()
```

Retrieves a String representation of this Real's English unit type.

convert

public void **convert**(Number n)

Converts the doubleValue of the Number given to the global units. The result of the conversion is set as the current value of this Real.

convert

public void **convert**(double d)

Converts the double given into the global units, and sets the result as the value of this Real.

getFormat

public java.text.DecimalFormat **getFormat**(double value)

Return the format used to represent a value.

getDisplayValue

public double **getDisplayValue**(int unittypes)

Returns the value to display. This gets the numerical value and converts it if the given unittype is BRITISH.

isVerticalUp

public boolean **isVerticalUp**()

Return true if the angle is close to 180 degrees.

isVerticalDown

public boolean **isVerticalDown**()

Return true if the angle is close to -180 degrees.

isMostlyVerticalDown

public boolean **isMostlyVerticalDown**()

Return true if the angle is < -45 degrees.

isMostlyVerticalUp

public boolean **isMostlyVerticalUp**()

Return true if the angle is > 45 degrees.

com.cafean.Number

Class BaseNumber

java.lang.Object

└─com.cafean.Number.BaseNumber

All Implemented Interfaces:

Cloneable

Direct Known Subclasses:

Real, Int

public abstract class **BaseNumber**

extends Object

implements Cloneable

BaseNumber is the abstract class used to represent all numbers in the ModelEditor.

Field Summary

public static final	<u>BRITISH</u> The enumeration value for British units. Value: 1
public static final	<u>SI</u> The enumeration value for SI units. Value: 0
public static final	<u>UNIT_NAMES</u> A list of supported unit Types and their labels.

Constructor Summary

public	<u>BaseNumber()</u> Creates a new instance of a BaseNumber.
--------	--

Method Summary

Object	<u>clone()</u>
static boolean	<u>compareDouble</u> (double a, double b, double eps) Compares two doubles to see if they are within epsilon of each other.
abstract void	<u>convert</u> (Number n) convert set the object to a value using the current unit type conversion.
abstract String	<u>getENG_Units()</u> Return the string used to represent BRITISH units.

abstract java.text.DecimalFormat	<u>getFormat</u> (double value) Return the format used to represent a value.
abstract String	<u>getSI_Units</u> () Return the string used to represent SI units.
String	<u>getUnits</u> () Retrieves a string representation of the current units.
static int	<u>getUnitType</u> () Retrieves the global default unit type
boolean	<u>isKnown</u> () Return true if the value is known, otherwise return false.
boolean	<u>isUnknown</u> ()
void	<u>setKnown</u> () Set the unknown flag to false.
static void	<u>setUnitType</u> (int t) Sets the global default unit type
void	<u>setUnknown</u> () Set the unknown flag to true.
abstract void	<u>setValue</u> (BaseNumber n) setValue sets the object to a value from another BaseNumber.
abstract void	<u>setValue</u> (Number n) setValue sets the object to a value without unit type conversion.
abstract String	<u>toString</u> () toString translates the internal value to a string in the current unit type.

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

UNIT_NAMES

```
public static final java.lang.String UNIT_NAMES
```

A list of supported unit Types and their labels.

SI

```
public static final int SI
```

The enumeration value for SI units.

Constant value: 0

BRITISH

```
public static final int BRITISH
```

The enumeration value for British units.
Constant value: 1

Constructors

BaseNumber

```
public BaseNumber()
```

Creates a new instance of a BaseNumber.

Methods

getUnitType

```
public static int getUnitType()
```

Retrieves the global default unit type

Returns:

SI or BRITISH.

setUnitType

```
public static void setUnitType(int t)
```

Sets the global default unit type

Parameters:

t - SI or BRITISH.

getSI_Units

```
public abstract String getSI_Units()
```

Return the string used to represent SI units.

Returns:

The SI unit label.

getENG_Units

```
public abstract String getENG_Units()
```

Return the string used to represent BRITISH units.

Returns:

The BRITISH unit label.

setUnknown

public void **setUnknown**()

Set the unknown flag to true.

setKnown

public void **setKnown**()

Set the unknown flag to false.

isUnknown

public boolean **isUnknown**()

isKnown

public boolean **isKnown**()

Return true if the value is known, otherwise return false.

Returns:

true if the value is known, otherwise return false.

toString

public abstract String **toString**()

toString translates the internal value to a string in the current unit type.

setValue

public abstract void **setValue**(Number n)

setValue sets the object to a value without unit type conversion.

setValue

public abstract void **setValue**(BaseNumber n)

setValue sets the object to a value from another BaseNumber.

Parameters:

n - The base number that the value will be copied from.

convert

public abstract void **convert**(Number n)

convert set the object to a value using the current unit type conversion.

getFormat

```
public abstract java.text.DecimalFormat getFormat(double value)
```

Return the format used to represent a value.

Parameters:

value - The number to be formatted.

Returns:

The format.

clone

```
public Object clone()
```

getUnits

```
public String getUnits()
```

Retrieves a string representation of the current units.

compareDouble

```
public static boolean compareDouble(double a,  
    double b,  
    double eps)
```

Compares two doubles to see if they are within epsilon of each other.

Parameters:

a - the first number
b - the second number
eps - epsilon

Returns:

true if a and b are within eps of each other, false otherwise.

com.cafean.Number

Class Dimless

```

java.lang.Object
|
|--com.cafean.Number.BaseNumber
|   |--com.cafean.Number.Real
|       |--com.cafean.Number.Dimless

```

All Implemented Interfaces:

Cloneable, java.awt.datatransfer.Transferable, Comparable, Cloneable

```

public class Dimless
extends Real

```

A mutable dimensionless value.

Fields inherited from class com.cafean.Number.Real

Unknown

Fields inherited from class com.cafean.Number.BaseNumber

BRITISH, SI, UNIT_NAMES

Constructor Summary

public	<u>Dimless()</u> Creates a new instance with an unknown value.
public	<u>Dimless(double d)</u> Creates a new instance initialized to a value.

Method Summary

double	<u>getConversionFactor()</u> Retrieves the conversion factor used to convert this Real's value from SI to British units.
String	<u>getENG_Units()</u> Retrieves a String representation of this Real's English unit type.
String	<u>getSI_Units()</u> Retrieves a String representation of this Real's SI unit type.
static <u>Dimless[]</u>	<u>makeArray(double[] dArray)</u> Create an array of Dimless objects from an array of doubles.
static <u>Dimless[]</u>	<u>makeArray(Vector vector)</u> Create an array of Dimless objects from a vector of Dimless.

Methods inherited from class `com.cafean.Number.Real`

abs, add, add, arraysEqual, clone, compareTo, convert, convert, convert, convert, convert, divide, divide, divide, divideby, divideby, equals, equals, equals, equals, equals, getConversionFactor, getCurrentDisplayValue, getDataValue, getDisplayName, getDoubleValue, getENG_Units, getFormat, getHtmlUnits, getHtmlUnits, getLoadFormat, getName, getReferencedValue, getSI_Units, getSignificantFigs, getStrippedValue, getTransferData, getTransferDataFlavors, getUnitName, getUnits, getValue, greaterthan, greaterthan, isDataFlavorSupported, isKnown, isUnknown, lessthan, lessthan, lockToString, multiply, multiply, normalizeArray, restoreState, setDataValue, setSignificantFigs, setUnknown, setValue, setValue, setValue, setValue, sortParallelRealArrays, sqrt, storeState, subtract, subtract, toLoadString, toLoadString, toString, toString, unlockToString

Methods inherited from class `com.cafean.Number.BaseNumber`

clone, compareDouble, convert, getENG_Units, getFormat, getSI_Units, getUnits, getUnitType, isKnown, isUnknown, setKnown, setUnitType, setUnknown, setValue, setValue, toString

Methods inherited from class `java.lang.Object`

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.lang.Comparable`

compareTo

Methods inherited from interface `java.awt.datatransfer.Transferable`

getTransferData, getTransferDataFlavors, isDataFlavorSupported

Constructors

Dimless

```
public Dimless()
```

Creates a new instance with an unknown value.

Dimless

```
public Dimless(double d)
```

Creates a new instance initialized to a value.

Parameters:

d - The initial value.

Methods

getConversionFactor

```
public double getConversionFactor()
```

Retrieves the conversion factor used to convert this Real's value from SI to British units.

getSI_Units

```
public String getSI_Units()
```

Retrieves a String representation of this Real's SI unit type.

getENG_Units

```
public String getENG_Units()
```

Retrieves a String representation of this Real's English unit type.

makeArray

```
public static Dimless[] makeArray(double[] dArray)
```

Create an array of Dimless objects from an array of doubles.

Parameters:

dArray - The array of doubles.

Returns:

An array of Dimless initialized to the values in dArray.

makeArray

```
public static Dimless[] makeArray(Vector vector)
```

Create an array of Dimless objects from a vector of Dimless.

Parameters:

vector - The vector of Dimless objects.

Returns:

An array of Dimless initialized to the values in vector.

com.cafean.Number Class DoubleArray

java.lang.Object

└-com.cafean.Number.DoubleArray

All Implemented Interfaces:

Cloneable

```
public class DoubleArray
extends Object
implements Cloneable
```

An unsynchronized dynamically sized array of double.

Constructor Summary

public	<u>DoubleArray</u> (int capacity) Creates a new DoubleArray with the given initial capacity.
public	<u>DoubleArray</u> (double[] array)

Method Summary

void	<u>add</u> (double value) Appends the given double to the DoubleArray's data.
void	<u>add</u> (double[] values) Appends the given data to the DoubleArray's data.
int	<u>capacity</u> () Returns this DoubleArray's current capacity.
void	<u>clear</u> () Sets this DoubleArray empty.
Object	<u>clone</u> ()
boolean	<u>contains</u> (double value) Returns true if the given value is contained in this DoubleArray.
double	<u>get</u> (int index) Returns the value of the double at the given index.
int	<u>indexOf</u> (double value) Retrieves the index of the first occurrence of the given value in this DoubleArray.
static void	<u>main</u> (String[] args) Performs a thorough test of the DoubleArray's functionality.

void	<u>remove</u> (int index) Removes the double at the given index.
void	<u>set</u> (int index, double value) Sets the given value at the given index.
int	<u>size</u> () Returns the number of ints stored in this DoubleArray
void	<u>sort</u> () Sorts this DoubleArray via <code>java.util.Arrays.sort()</code> .
double[]	<u>toArray</u> () Returns an double array containing only the used elements of this DoubleArray.
void	<u>trimToSize</u> () Trims the capacity of this DoubleArray instance to be the list's current size.

Methods inherited from class `java.lang.Object`

`equals`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Constructors

DoubleArray

```
public DoubleArray(int capacity)
```

Creates a new DoubleArray with the given initial capacity.

DoubleArray

```
public DoubleArray(double[] array)
```

Methods

clear

```
public void clear()
```

Sets this DoubleArray empty.

clone

```
public Object clone()
```


contains

```
public boolean contains(double value)
```

Returns true if the given value is contained in this DoubleArray.

add

```
public void add(double value)
```

Appends the given double to the DoubleArray's data. NOTE: Expected O(1), Worst case O(n) complexity (resize)

add

```
public void add(double[] values)
```

Appends the given data to the DoubleArray's data. If size is currently 0, the values given are cloned. NOTE: Expected O(1), Worst case O(n) complexity (resize)

main

```
public static void main(String[] args)
```

Performs a thorough test of the DoubleArray's functionality.

indexOf

```
public int indexOf(double value)
```

Retrieves the index of the first occurrence of the given value in this DoubleArray.

remove

```
public void remove(int index)
```

Removes the double at the given index.

NOTE: O(n) complexity.

get

```
public double get(int index)
```

Returns the value of the double at the given index. NOTE: O(1) complexity.

set

```
public void set(int index,  
               double value)
```

Sets the given value at the given index.

size

```
public final int size()
```

Returns the number of ints stored in this DoubleArray

capacity

```
public final int capacity()
```

Returns this DoubleArray's current capacity.

sort

```
public void sort()
```

Sorts this DoubleArray via `java.util.Arrays.sort()`. First calls `trimToSize()`.

trimToSize

```
public void trimToSize()
```

Trims the capacity of this DoubleArray instance to be the list's current size. An application can use this operation to minimize the storage of an DoubleArray instance.

toArray

```
public double[] toArray()
```

Returns an double array containing only the used elements of this DoubleArray.

NOTE: This is a defensive copy, even if sizes match.

com.cafean.Number Class FloatArray

java.lang.Object

└--com.cafean.Number.FloatArray

All Implemented Interfaces:

Cloneable

public class **FloatArray**

extends Object

implements Cloneable

An unsynchronized dynamically sized array of float.

Constructor Summary

public	<u>FloatArray</u> (int capacity) Creates a new FloatArray with the given initial capacity.
--------	---

public	<u>FloatArray</u> (float[] array)
--------	-----------------------------------

Method Summary

void	<u>add</u> (float value) Appends the given float to the FloatArray's data.
------	---

void	<u>add</u> (float[] values) Appends the given data to the FloatArray's data.
------	---

int	<u>capacity</u> () Returns this FloatArray's current capacity.
-----	---

void	<u>clear</u> () Sets this FloatArray empty.
------	--

Object	<u>clone</u> ()
--------	-----------------

boolean	<u>contains</u> (float value) Returns true if the given value is contained in this FloatArray.
---------	---

float	<u>get</u> (int index) Returns the value of the float at the given index.
-------	--

int	<u>indexOf</u> (float value) Retrieves the index of the first occurrence of the given value in this FloatArray.
-----	--

static void	<u>main</u> (String[] args) Performs a thorough test of the FloatArray's functionality.
-------------	--

void	<u>remove</u> (int index) Removes the float at the given index.
void	<u>set</u> (int index, float value) Sets the given value at the given index.
int	<u>size</u> () Returns the number of ints stored in this FloatArray
void	<u>sort</u> () Sorts this FloatArray via <code>java.util.Arrays.sort()</code> .
float[]	<u>toArray</u> () Returns an float array containing only the used elements of this FloatArray.
void	<u>trimToSize</u> () Trims the capacity of this FloatArray instance to be the list's current size.

Methods inherited from class `java.lang.Object`

`equals`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Constructors

FloatArray

```
public FloatArray(int capacity)
```

Creates a new FloatArray with the given initial capacity.

FloatArray

```
public FloatArray(float[] array)
```

Methods

clear

```
public void clear()
```

Sets this FloatArray empty.

clone

```
public Object clone()
```

contains

```
public boolean contains(float value)
```

Returns true if the given value is contained in this FloatArray.

add

```
public void add(float value)
```

Appends the given float to the FloatArray's data. NOTE: Expected O(1), Worst case O(n) complexity (resize)

add

```
public void add(float[] values)
```

Appends the given data to the FloatArray's data. If size is currently 0, the values given are cloned. NOTE: Expected O(1), Worst case O(n) complexity (resize)

main

```
public static void main(String[] args)
```

Performs a thorough test of the FloatArray's functionality.

indexOf

```
public int indexOf(float value)
```

Retrieves the index of the first occurrence of the given value in this FloatArray.

remove

```
public void remove(int index)
```

Removes the float at the given index.

NOTE: O(n) complexity.

get

```
public float get(int index)
```

Returns the value of the float at the given index. NOTE: O(1) complexity.

set

```
public void set(int index,  
                float value)
```

Sets the given value at the given index.

size

```
public final int size()
```

Returns the number of ints stored in this FloatArray

capacity

```
public final int capacity()
```

Returns this FloatArray's current capacity.

sort

```
public void sort()
```

Sorts this FloatArray via `java.util.Arrays.sort()`. First calls `trimToSize()`.

trimToSize

```
public void trimToSize()
```

Trims the capacity of this FloatArray instance to be the list's current size. An application can use this operation to minimize the storage of an FloatArray instance.

toArray

```
public float[] toArray()
```

Returns an float array containing only the used elements of this FloatArray.

NOTE: This is a defensive copy, even if sizes match.

com.cafean.Number

Class Int

java.lang.Object

└-com.cafean.Number.BaseNumber

└-com.cafean.Number.Int

All Implemented Interfaces:
Comparable, Cloneable

public class Int
extends BaseNumber
implements Cloneable, Comparable

A mutable wrapper for an int.

Field Summary

public static final	<u>Unknown</u> Value: -99119900
public	<u>value</u>

Fields inherited from class com.cafean.Number.BaseNumber

BRITISH, SI, UNIT_NAMES

Constructor Summary

public	<u>Int</u> ()
public	<u>Int</u> (int aInt)
public	<u>Int</u> (<u>Int</u> aInt)

Method Summary

<u>Int</u>	<u>add</u> (int x)
<u>Int</u>	<u>add</u> (<u>Int</u> aInt)
int	<u>compareTo</u> (Object o)
void	<u>convert</u> (Long n)

void	<u>convert</u> (Number n)
void	<u>convert</u> (String s)
<u>Int</u>	<u>divide</u> (<u>Int</u> aInt)
boolean	<u>equals</u> (int aInt)
boolean	<u>equals</u> (<u>Int</u> aInt)
boolean	<u>equals</u> (Object o)
int	<u>getConversionFactor</u> ()
String	<u>getENG_Units</u> ()
java.text.DecimalFormat	<u>getFormat</u> ()
java.text.DecimalFormat	<u>getFormat</u> (double d)
String	<u>getSI_Units</u> ()
int	<u>getValue</u> ()
boolean	<u>greaterthan</u> (int aInt)
boolean	<u>greaterthan</u> (<u>Int</u> aInt)
int	<u>hashCode</u> ()
boolean	<u>lessthan</u> (int aInt)
boolean	<u>lessthan</u> (<u>Int</u> aInt)
<u>Int</u>	<u>multiply</u> (<u>Int</u> aInt)
void	<u>setValue</u> (<u>BaseNumber</u> a)
void	<u>setValue</u> (int aInt)
void	<u>setValue</u> (Number n)
void	<u>setValue</u> (String aString)

<u>Int</u>	<u>sqrt()</u>
<u>Int</u>	<u>subtract(int x)</u>
<u>Int</u>	<u>subtract(Int aInt)</u>
String	<u>toString()</u>

Methods inherited from class com.cafean.Number.BaseNumber

clone, compareDouble, convert, getENG_Units, getFormat, getSI_Units, getUnits, getUnitType, isKnown, isUnknown, setKnown, setUnitType, setUnknown, setValue, setValue, toString

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.lang.Comparable

compareTo

Fields

value
public int **value**

Unknown
public static final int **Unknown**

Constant value: -99119900

Constructors

Int
public **Int**()

Int
public **Int**(int aInt)

Int

public **Int**(Int aInt)

Methods

getConversionFactor

public int **getConversionFactor**()

getSI_Units

public String **getSI_Units**()

Return the string used to represent SI units.

getENG_Units

public String **getENG_Units**()

Return the string used to represent BRITISH units.

setValue

public void **setValue**(BaseNumber a)

setValue sets the object to a value from another BaseNumber.

setValue

public void **setValue**(String aString)

setValue

public void **setValue**(int aInt)

setValue

public void **setValue**(Number n)

setValue sets the object to a value without unit type conversion.

getValue

```
public int getValue()
```

convert

```
public void convert(Number n)
```

convert set the object to a value using the current unit type conversion.

convert

```
public void convert(Long n)
```

convert

```
public void convert(String s)
```

toString

```
public String toString()
```

toString translates the internal value to a string in the current unit type.

getFormat

```
public java.text.DecimalFormat getFormat(double d)
```

Return the format used to represent a value.

getFormat

```
public java.text.DecimalFormat getFormat()
```

hashCode

```
public int hashCode()
```

compareTo

```
public int compareTo(Object o)
```

equals

```
public boolean equals(int aInt)
```

equals

```
public boolean equals(Int aInt)
```

equals

```
public boolean equals(Object o)
```

lessthan

```
public boolean lessthan(Int aInt)
```

lessthan

```
public boolean lessthan(int aInt)
```

greaterthan

```
public boolean greaterthan(Int aInt)
```

greaterthan

```
public boolean greaterthan(int aInt)
```

add

```
public Int add(Int aInt)
```

add

```
public Int add(int x)
```

subtract

```
public Int subtract(Int aInt)
```

subtract

```
public Int subtract(int x)
```

multiply

```
public Int multiply(Int aInt)
```

divide

```
public Int divide(Int aInt)
```

sqrt

```
public Int sqrt()
```

com.cafean.Number Class IntegerArray

java.lang.Object

└--com.cafean.Number.IntegerArray

All Implemented Interfaces:

Cloneable

public class **IntegerArray**

extends Object

implements Cloneable

An unsynchronized dynamically sized array of int.

Constructor Summary

public	<u>IntegerArray</u> (int capacity) Creates a new IntegerArray with the given initial capacity.
public	<u>IntegerArray</u> (int[] array)

Method Summary

void	<u>add</u> (int value) Appends the given int to the IntegerArray's data.
void	<u>add</u> (int[] values) Appends the given data to the IntegerArray's data.
int	<u>capacity</u> () Returns this IntegerArray's current capacity.
void	<u>clear</u> () Sets this IntegerArray empty.
Object	<u>clone</u> ()
boolean	<u>contains</u> (int value) Returns true if the given value is contained in this IntegerArray.
int	<u>get</u> (int index) Returns the value of the int at the given index.
int	<u>indexOf</u> (int value) Retrieves the index of the first occurrence of the given value in this IntegerArray.
static void	<u>main</u> (String[] args) Performs a thorough test of the IntegerArray's functionality.

void	<u>remove</u> (int index) Removes the int at the given index.
void	<u>set</u> (int index, int value) Sets the given value at the given index.
int	<u>size</u> () Returns the number of ints stored in this IntegerArray
void	<u>sort</u> () Sorts this IntegerArray via <code>java.util.Arrays.sort()</code> .
int[]	<u>toArray</u> () Returns an int array containing only the used elements of this IntegerArray.
void	<u>trimToSize</u> () Trims the capacity of this IntegerArray instance to be the list's current size.

Methods inherited from class `java.lang.Object`

`equals`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Constructors

IntegerArray

```
public IntegerArray(int capacity)
```

Creates a new IntegerArray with the given initial capacity.

IntegerArray

```
public IntegerArray(int[] array)
```

Methods

clear

```
public void clear()
```

Sets this IntegerArray empty.

clone

```
public Object clone()
```

contains

```
public boolean contains(int value)
```

Returns true if the given value is contained in this IntegerArray.

add

```
public void add(int value)
```

Appends the given int to the IntegerArray's data. NOTE: Expected O(1), Worst case O(n) complexity (resize)

add

```
public void add(int[] values)
```

Appends the given data to the IntegerArray's data. If size is currently 0, the values given are cloned. NOTE: Expected O(1), Worst case O(n) complexity (resize)

main

```
public static void main(String[] args)
```

Performs a thorough test of the IntegerArray's functionality.

indexOf

```
public int indexOf(int value)
```

Retrieves the index of the first occurrence of the given value in this IntegerArray.

remove

```
public void remove(int index)
```

Removes the int at the given index.

NOTE: O(n) complexity.

get

```
public int get(int index)
```

Returns the value of the int at the given index. NOTE: O(1) complexity.

set

```
public void set(int index,  
                int value)
```

Sets the given value at the given index.

size

```
public final int size()
```

Returns the number of ints stored in this IntegerArray

capacity

```
public final int capacity()
```

Returns this IntegerArray's current capacity.

sort

```
public void sort()
```

Sorts this IntegerArray via `java.util.Arrays.sort()`. First calls `trimToSize()`.

trimToSize

```
public void trimToSize()
```

Trims the capacity of this IntegerArray instance to be the list's current size. An application can use this operation to minimize the storage of an IntegerArray instance.

toArray

```
public int[] toArray()
```

Returns an int array containing only the used elements of this IntegerArray.

NOTE: This is a defensive copy, even if sizes match.

com.cafean.Number Class LongArray

java.lang.Object

└-com.cafean.Number.LongArray

All Implemented Interfaces:
Cloneable

```
public class LongArray
extends Object
implements Cloneable
```

An unsynchronized dynamically sized array of long.

Constructor Summary

public	<u>LongArray</u> (int capacity) Creates a new LongArray with the given initial capacity.
public	<u>LongArray</u> (long[] array)

Method Summary

void	<u>add</u> (long value) Appends the given long to the LongArray's data.
void	<u>add</u> (long[] values) Appends the given data to the LongArray's data.
int	<u>capacity</u> () Returns this LongArray's current capacity.
void	<u>clear</u> () Sets this LongArray empty.
Object	<u>clone</u> ()
boolean	<u>contains</u> (long value) Returns true if the given value is contained in this LongArray.
long	<u>get</u> (int index) Returns the value of the long at the given index.
int	<u>indexOf</u> (long value) Retrieves the index of the first occurrence of the given value in this LongArray.
static void	<u>main</u> (String[] args) Performs a thorough test of the LongArray's functionality.

void	<u>remove</u> (int index) Removes the long at the given index.
void	<u>set</u> (int index, long value) Sets the given value at the given index.
int	<u>size</u> () Returns the number of ints stored in this LongArray
void	<u>sort</u> () Sorts this LongArray via <code>java.util.Arrays.sort()</code> .
long[]	<u>toArray</u> () Returns an long array containing only the used elements of this LongArray.
void	<u>trimToSize</u> () Trims the capacity of this LongArray instance to be the list's current size.

Methods inherited from class `java.lang.Object`

`equals`, `getClass`, `hashCode`, `notify`, `notifyAll`, `toString`, `wait`, `wait`, `wait`

Constructors

LongArray

```
public LongArray(int capacity)
```

Creates a new LongArray with the given initial capacity.

LongArray

```
public LongArray(long[] array)
```

Methods

clear

```
public void clear()
```

Sets this LongArray empty.

clone

```
public Object clone()
```

contains

```
public boolean contains(long value)
```

Returns true if the given value is contained in this LongArray.

add

```
public void add(long value)
```

Appends the given long to the LongArray's data. NOTE: Expected O(1), Worst case O(n) complexity (resize)

add

```
public void add(long[] values)
```

Appends the given data to the LongArray's data. If size is currently 0, the values given are cloned. NOTE: Expected O(1), Worst case O(n) complexity (resize)

main

```
public static void main(String[] args)
```

Performs a thorough test of the LongArray's functionality.

indexOf

```
public int indexOf(long value)
```

Retrieves the index of the first occurrence of the given value in this LongArray.

remove

```
public void remove(int index)
```

Removes the long at the given index.

NOTE: O(n) complexity.

get

```
public long get(int index)
```

Returns the value of the long at the given index. NOTE: O(1) complexity.

set

```
public void set(int index,  
                long value)
```

Sets the given value at the given index.

size

```
public final int size()
```

Returns the number of ints stored in this LongArray

capacity

```
public final int capacity()
```

Returns this LongArray's current capacity.

sort

```
public void sort()
```

Sorts this LongArray via `java.util.Arrays.sort()`. First calls `trimToSize()`.

trimToSize

```
public void trimToSize()
```

Trims the capacity of this LongArray instance to be the list's current size. An application can use this operation to minimize the storage of an LongArray instance.

toArray

```
public long[] toArray()
```

Returns an long array containing only the used elements of this LongArray.

NOTE: This is a defensive copy, even if sizes match.

com.cafean.Number

Class Real

java.lang.Object

+ com.cafean.Number.BaseNumber

+ **com.cafean.Number.Real**

All Implemented Interfaces:

java.awt.datatransfer.Transferable, Comparable, Cloneable, Cloneable

Direct Known Subclasses:

Time, Dimless, Angle

public class **Real**

extends BaseNumber

implements Cloneable, Cloneable, Comparable, java.awt.datatransfer.Transferable

Real is base class for all ModelEditor floating point numbers.

Field Summary

public static final	<u>Unknown</u> Value: -1.0E30
---------------------	---

Fields inherited from class com.cafean.Number.BaseNumber

<u>BRITISH</u> , <u>SI</u> , <u>UNIT_NAMES</u>
--

Constructor Summary

public	<u>Real</u> () Creates a new instance of Real with an unknown value.
public	<u>Real</u> (double aDouble) Creates a new instance of Real initialized to a value.
public	<u>Real</u> (<u>Real</u> aReal) Creates a new instance of Real by copying another.

Method Summary

<u>Real</u>	<u>abs</u> ()
<u>Real</u>	<u>add</u> (double aDouble)
<u>Real</u>	<u>add</u> (<u>Real</u> aReal)

static boolean	<u>arraysEqual</u> (<u>Real</u> [] a, <u>Real</u> [] b)
Object	<u>clone</u> ()
int	<u>compareTo</u> (Object o)
void	<u>convert</u> (double d) Converts the double given into the global units, and sets the result as the value of this Real.
void	<u>convert</u> (double d, int unitType) Converts the double given into the units requested, and sets the result as the value for this Real.
void	<u>convert</u> (Number n) Converts the doubleValue of the Number given to the global units.
void	<u>convert</u> (String aString) Converts the String given into the global units, and sets the result as the value for this Real.
void	<u>convert</u> (String aString, int unitType) Converts the String given into the units requested, and sets the result as the value for this Real.
<u>Real</u>	<u>divide</u> (double aDouble)
<u>Real</u>	<u>divide</u> (<u>Real</u> aReal)
<u>Real</u>	<u>divideby</u> (double aDouble)
<u>Real</u>	<u>divideby</u> (<u>Real</u> aReal)
boolean	<u>equals</u> (double aDouble)
static boolean	<u>equals</u> (double a, double b) Returns true if the given doubles differ by less than 5E-9.
static boolean	<u>equals</u> (double a, double b, double delta) Returns true if the given doubles differ by less than the given (a + b) * delta.
boolean	<u>equals</u> (Object o)
boolean	<u>equals</u> (<u>Real</u> aReal) NOTE: This does not get called instead of Object.equals
double	<u>getConversionFactor</u> () Retrieves the conversion factor used to convert this Real's value from SI to British units.
double	<u>getCurrentDisplayValue</u> (int unittypes) Returns the value to display.
double	<u>getDataValue</u> () This is a root value getter.

String	<u>getDisplayName()</u> Retrieves a Display name for this unit.
double	<u>getDoubleValue()</u> Returns the numerical value of this Real in SI units.
String	<u>getENG_Units()</u> Retrieves a String representation of this Real's English unit type.
java.text.DecimalFormat	<u>getFormat(double value)</u>
String	<u>getHtmlUnits()</u> Returns the current global units formatted for HTML
String	<u>getHtmlUnits(int units)</u> Returns the units requested formatted for HTML.
java.text.DecimalFormat	<u>getLoadFormat(double value)</u> Decides what DecimalFormat to use to display the given value in 12 characters.
String	<u>getName()</u> Returns the name of this Real.
static double	<u>getReferencedValue(double value)</u>
String	<u>getSI_Units()</u> Retrieves a String representation of this Real's SI unit type.
int	<u>getSignificantFigs()</u> Getter for property significantFigs.
static double	<u>getStrippedValue(double value)</u>
Object	<u>getTransferData(java.awt.datatransfer.DataFlavor flavor)</u> Returns an object which represents the data to be transferred.
java.awt.datatransfer.DataFlavor[]	<u>getTransferDataFlavors()</u> Returns an array of DataFlavor objects indicating the flavors the data can be provided in.
String	<u>getUnitName()</u> Returns the name of this Real value
String	<u>getUnits(int units)</u> Returns this real's units in the given format.
double	<u>getValue()</u> Returns the current value of this Real in SI units.
boolean	<u>greaterthan(double aDouble)</u>
boolean	<u>greaterthan(Real aReal)</u>

boolean	<u>isDataFlavorSupported</u> (java.awt.datatransfer.DataFlavor flavor) Returns whether or not the specified data flavor is supported for this object.
boolean	<u>isKnown</u> () Return true if the value is known, otherwise return false.
boolean	<u>isUnknown</u> () Determines whether this value has been specified to a value or is not a number.
boolean	<u>lessthan</u> (double aDouble)
boolean	<u>lessthan</u> (Real aReal)
static void	<u>lockToString</u> (Thread t) Locks Real's toString() method for use only by the given thread.
Real	<u>multiply</u> (double aDouble)
Real	<u>multiply</u> (Real aReal)
static void	<u>normalizeArray</u> (Real[] array)
void	<u>restoreState</u> (String prefix, Hashtable state) Restore the state of the Real from an earlier edit.
void	<u>setDataValue</u> (double val_) This is a root value getter.
void	<u>setSignificantFigs</u> (int significantFigs) Setter for property significantFigs.
void	<u>setUnknown</u> ()
void	<u>setValue</u> (BaseNumber a)
void	<u>setValue</u> (double aDouble) Sets the current value of this Real.
void	<u>setValue</u> (Number n)
void	<u>setValue</u> (UserDefinedValue input) Sets the current value to a reference to a given UserDefinedValue.
static void	<u>sortParallelRealArrays</u> (Real[][] arrays) Sorts the given parallel arrays by the values in the first array.
Real	<u>sqrt</u> ()
void	<u>storeState</u> (String prefix, Hashtable state) Store the state of the Real to permit undo.

<u>Real</u>	<u>subtract</u> (double aDouble)
<u>Real</u>	<u>subtract</u> (<u>Real</u> aReal)
String	<u>toLoadString</u> () Returns a formatted string for this Real in the current global units that is limited to 12 characters in length.
String	<u>toLoadString</u> (int unitType) Returns a formatted string for this Real in the requested units that is limited to 12 characters in length.
String	<u>toString</u> ()
String	<u>toString</u> (int unitType) Returns a formatted string containing the current value of this Real.
static void	<u>unlockToString</u> () Unlocks toString() to be used by any thread.

Methods inherited from class `com.cafean.Number.BaseNumber`

clone, compareDouble, convert, getENG_Units, getFormat, getSI_Units, getUnits, getUnitType, isKnown, isUnknown, setKnown, setUnitType, setUnknown, setValue, setValue, toString

Methods inherited from class `java.lang.Object`

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.lang.Comparable`

compareTo

Methods inherited from interface `java.awt.datatransfer.Transferable`

getTransferData, getTransferDataFlavors, isDataFlavorSupported

Fields

Unknown

public static final double **Unknown**

Constant value: **-1.0E30**

Constructors

Real

```
public Real()
```

Creates a new instance of Real with an unknown value.

Real

```
public Real(double aDouble)
```

Creates a new instance of Real initialized to a value.

Parameters:

aDouble - The floating point value represented by this real.

Real

```
public Real(Real aReal)
```

Creates a new instance of Real by copying another.

Parameters:

aReal - The Real being copied.

Methods

lockToString

```
public static void lockToString(Thread t)
```

Locks Real's toString() method for use only by the given thread.

unlockToString

```
public static void unlockToString()
```

Unlocks toString() to be used by any thread.

getConversionFactor

```
public double getConversionFactor()
```

Retrieves the conversion factor used to convert this Real's value from SI to British units.

getDisplayname

```
public String getDisplayname()
```

Retrieves a Display name for this unit.

getSI_Units

```
public String getSI_Units()
```

Retrieves a String representation of this Real's SI unit type.

getENG_Units

```
public String getENG_Units()
```

Retrieves a String representation of this Real's English unit type.

getHtmlUnits

```
public String getHtmlUnits()
```

Returns the current global units formatted for HTML.

getHtmlUnits

```
public String getHtmlUnits(int units)
```

Returns the units requested formatted for HTML.

Parameters:

units - the unit type requested.

getUnits

```
public String getUnits(int units)
```

Returns this real's units in the given format.

setValue

```
public void setValue(Number n)
```

setValue sets the object to a value without unit type conversion.

setValue

```
public void setValue(BaseNumber a)
```

setValue sets the object to a value from another BaseNumber.

setValue

```
public void setValue(double aDouble)
```

Sets the current value of this Real.

setValue

```
public void setValue(UserDefinedValue input)
```

Sets the current value to a reference to a given UserDefinedValue.

convert

```
public void convert(Number n)
```

Converts the doubleValue of the Number given to the global units. The result of the conversion is set as the current value of this Real.

convert

```
public void convert(String aString)
```

Converts the String given into the global units, and sets the result as the value for this Real.

convert

```
public void convert(String aString,  
                    int unitType)
```

Converts the String given into the units requested, and sets the result as the value for this Real.

convert

```
public void convert(double d)
```

Converts the double given into the global units, and sets the result as the value of this Real.

convert

```
public void convert(double d,  
                    int unitType)
```

Converts the double given into the units requested, and sets the result as the value for this Real.

getValue

```
public double getValue()
```

Returns the current value of this Real in SI units. If this Real refers to a UserDefinedValue, this will return the reference.

getDoubleValue

```
public double getDoubleValue()
```

Returns the numerical value of this Real in SI units. If this Real uses a UserDefinedValue, the numerical value of that UserDefinedValue is returned. This method should be used for mathematical functions.

getFormat

```
public java.text.DecimalFormat getFormat(double value)
```

Return the format used to represent a value.

toString

```
public String toString()
```

toString translates the internal value to a string in the current unit type.

getLoadFormat

```
public java.text.DecimalFormat getLoadFormat(double value)
```

Decides what DecimalFormat to use to display the given value in 12 characters.

toLoadString

```
public String toLoadString()
```

Returns a formatted string for this Real in the current global units that is limited to 12 characters in length. The format is chosen so that no numerical precision is lost through this formatting.

toLoadString

```
public String toLoadString(int unitType)
```

Returns a formatted string for this Real in the requested units that is limited to 12 characters in length. The format is chosen so that no numerical precision is lost through this formatting.

getUnitName

```
public String getUnitName()
```

Returns the name of this Real value

toString

```
public String toString(int unitType)
```

Returns a formatted string containing the current value of this Real. If this real uses a user defined numeric, the name of that numeric is returned unless the current mode is MODE_EXPORT_ASCII. The units for the formatted string are passed in.

getCurrentDisplayValue

```
public double getCurrentDisplayValue(int unittypes)
```

Returns the value to display. This gets the numerical value and converts it if the given unittype is BRITISH.

clone

```
public Object clone()
```

setUnknown

```
public void setUnknown()
```

Set the unknown flag to true.

compareTo

```
public int compareTo(Object o)
```

equals

```
public boolean equals(Object o)
```

equals

```
public boolean equals(Real aReal)
```

NOTE: This does not get called instead of Object.equals

equals

```
public boolean equals(double aDouble)
```

equals

```
public static boolean equals(double a,  
double b)
```

Returns true if the given doubles differ by less than 5E-9.

equals

```
public static boolean equals(double a,  
double b,  
double delta)
```

Returns true if the given doubles differ by less than the given $(a + b) * delta$.

lessthan

```
public boolean lessthan(Real aReal)
```

lessthan

```
public boolean lessthan(double aDouble)
```

greaterthan

```
public boolean greaterthan(Real aReal)
```

greaterthan

```
public boolean greaterthan(double aDouble)
```

arraysEqual

```
public static boolean arraysEqual(Real[] a,  
    Real[] b)
```

add

```
public Real add(Real aReal)
```

add

```
public Real add(double aDouble)
```

subtract

```
public Real subtract(Real aReal)
```

subtract

```
public Real subtract(double aDouble)
```

multiply

```
public Real multiply(Real aReal)
```

multiply

```
public Real multiply(double aDouble)
```

divideby

```
public Real divideby(Real aReal)
```

divide

```
public Real divide(Real aReal)
```

divideby

```
public Real divideby(double aDouble)
```

divide

```
public Real divide(double aDouble)
```

sqrt

```
public Real sqrt()
```

abs

```
public Real abs()
```

getStrippedValue

```
public static double getStrippedValue(double value)
```

getReferencedValue

```
public static double getReferencedValue(double value)
```

getTransferDataFlavors

```
public java.awt.datatransfer.DataFlavor[] getTransferDataFlavors()
```

Returns an array of DataFlavor objects indicating the flavors the data can be provided in. The array should be ordered according to preference for providing the data (from most richly descriptive to least descriptive).

Returns:

an array of data flavors in which this data can be transferred

isDataFlavorSupported

```
public boolean isDataFlavorSupported(java.awt.datatransfer.DataFlavor flavor)
```

Returns whether or not the specified data flavor is supported for this object.

Parameters:

flavor - the requested flavor for the data

Returns:

boolean indicating whether or not the data flavor is supported

getTransferData

```
public Object getTransferData(java.awt.datatransfer.DataFlavor flavor)  
throws java.awt.datatransfer.UnsupportedFlavorException,  
       java.io.IOException
```

Returns an object which represents the data to be transferred. The class of the object returned is defined by the representation class of the flavor.

Parameters:

flavor - the requested flavor for the data

Throws:

IOException - if the data is no longer available in the requested flavor.

UnsupportedFlavorException - if the requested data flavor is not supported.

See Also:

DataFlavor.getRepresentationClass()

getSignificantFigs

```
public int getSignificantFigs()
```

Getter for property significantFigs.

Returns:

Value of property significantFigs.

setSignificantFigs

```
public void setSignificantFigs(int significantFigs)
```

Setter for property significantFigs.

Parameters:

significantFigs - New value of property significantFigs.

sortParallelRealArrays

```
public static void sortParallelRealArrays(Real[][] arrays)
```

Sorts the given parallel arrays by the values in the first array.

normalizeArray

```
public static void normalizeArray(Real[] array)
```

isUnknown

```
public boolean isUnknown()
```

Determines whether this value has been specified to a value or is not a number.

isKnown

```
public boolean isKnown()
```

Return true if the value if known, otherwise return false.

Returns:

true if the value if known, otherwise return false.

storeState

```
public void storeState(String prefix,  
    Hashtable state)
```

Store the state of the Real to permit undo.

Parameters:

state - a Hashtable containing modified parameters.

prefix - a String containing the prefix for hash entries.

restoreState

```
public void restoreState(String prefix,  
    Hashtable state)
```

Restore the state of the Real from an earlier edit.

Parameters:

state - a Hashtable containing modified parameters.

prefix - a String containing the prefix for hash entries.

getName

```
public String getName()
```

Returns the name of this Real.

getDataValue

```
public final double getDataValue()
```

This is a root value getter. This performs no error checking, or modifications to value before returning.

setDataValue

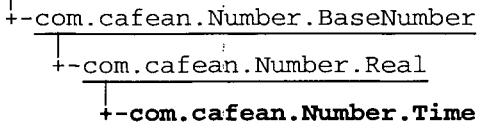
```
public final void setDataValue(double val_)
```

This is a root value setter. This performs no error checking, or modifications to value before setting the value.

com.cafean.Number

Class Time

java.lang.Object



All Implemented Interfaces:

Cloneable, java.awt.datatransfer.Transferable, Comparable, Cloneable

```
public class Time
extends Real
```

A representation of time in seconds. English Units: s, SI Units: s.

Fields inherited from class com.cafean.Number.Real

Unknown

Fields inherited from class com.cafean.Number.BaseNumber

BRITISH, SI, UNIT_NAMES

Constructor Summary

public Time()

public Time(double d)

Method Summary

double getConversionFactor()

String getENG_Units()

java.text.DecimalForm
at getFormat(double value)

String getSI_Units()

static Time[] makeArray(double[] dArray)

static Time[] makeArray(Vector vector)

Methods inherited from class `com.cafean.Number.Real`

abs, add, add, arraysEqual, clone, compareTo, convert, convert, convert, convert, convert, convert, divide, divide, divideby, divideby, equals, equals, equals, equals, equals, getConversionFactor, getCurrentDisplayValue, getDataValue, getDisplayName, getDoubleValue, getENG_Units, getFormat, getHtmlUnits, getHtmlUnits, getLoadFormat, getName, getReferencedValue, getSI_Units, getSignificantFigs, getStrippedValue, getTransferData, getTransferDataFlavors, getUnitName, getUnits, getValue, greaterthan, greaterthan, isDataFlavorSupported, isKnown, isUnknown, lessthan, lessthan, lockToString, multiply, multiply, normalizeArray, restoreState, setDataValue, setSignificantFigs, setUnknown, setValue, setValue, setValue, setValue, sortParallelRealArrays, sqrt, storeState, subtract, subtract, toLoadString, toLoadString, toString, toString, unlockToString

Methods inherited from class `com.cafean.Number.BaseNumber`

clone, compareDouble, convert, getENG_Units, getFormat, getSI_Units, getUnits, getUnitType, isKnown, isUnknown, setKnown, setUnitType, setUnknown, setValue, setValue, toString

Methods inherited from class `java.lang.Object`

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.lang.Comparable`

compareTo

Methods inherited from interface `java.awt.datatransfer.Transferable`

getTransferData, getTransferDataFlavors, isDataFlavorSupported

Constructors

Time

```
public Time()
```

Time

```
public Time(double d)
```

Methods

getConversionFactor

```
public double getConversionFactor()
```

Retrieves the conversion factor used to convert this Real's value from SI to British units.

getSI_Units

```
public String getSI_Units()
```

Retrieves a String representation of this Real's SI unit type.

getENG_Units

```
public String getENG_Units()
```

Retrieves a String representation of this Real's English unit type.

makeArray

```
public static Time[] makeArray(double[] dArray)
```

makeArray

```
public static Time[] makeArray(Vector vector)
```

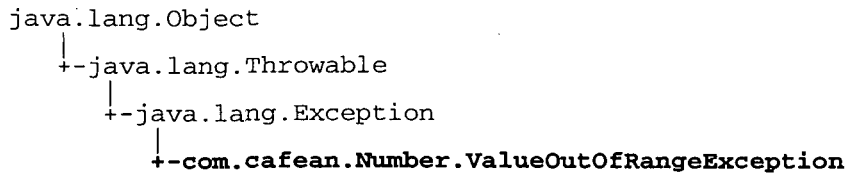
getFormat

```
public java.text.DecimalFormat getFormat(double value)
```

Return the format used to represent a value.

com.cafean.Number

Class ValueOutOfRangeException



All Implemented Interfaces:
 java.io.Serializable

```

public class ValueOutOfRangeException
extends Exception
  
```

An Exception representing a checked value that is outside of its acceptable range.

Constructor Summary

public	<u>ValueOutOfRangeException()</u> Creates a new ValueOutOfRangeException with no message
public	<u>ValueOutOfRangeException(String message)</u> Creates a new ValueOutOfRangeException with the given message
public	<u>ValueOutOfRangeException(String name, int minVal, int maxVal, int val)</u> Creates a new ValueOutOfRangeException with the given values.
public	<u>ValueOutOfRangeException(String name, double minVal, double maxVal, double val)</u> Creates a new ValueOutOfRangeException with the given values.
public	<u>ValueOutOfRangeException(String s, Real minVal, Real maxVal, Real val)</u> Creates a new ValueOutOfRangeException with the given values.

Methods inherited from class java.lang.Throwable

fillInStackTrace, getCause, getLocalizedMessage, getMessage, getStackTrace, initCause, printStackTrace, printStackTrace, printStackTrace, setStackTrace, toString

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

ValueOutOfRangeException

```
public ValueOutOfRangeException()
```

Creates a new ValueOutOfRangeException with no message

ValueOutOfRangeException

```
public ValueOutOfRangeException(String message)
```

Creates a new ValueOutOfRangeException with the given message

Parameters:

message - a String containing the message for this exception.

ValueOutOfRangeException

```
public ValueOutOfRangeException(String name,  
                               int minVal,  
                               int maxVal,  
                               int val)
```

Creates a new ValueOutOfRangeException with the given values.

Parameters:

name - a String containing the name of the value that is out of range.

minVal - the minimum value of the checked range.

maxVal - the maximum value of the checked range.

val - the value checked.

ValueOutOfRangeException

```
public ValueOutOfRangeException(String name,  
                               double minVal,  
                               double maxVal,  
                               double val)
```

Creates a new ValueOutOfRangeException with the given values.

Parameters:

name - a String containing the name of the value that is out of range.

minVal - the minimum value of the checked range.

maxVal - the maximum value of the checked range.

val - the value checked.

ValueOutOfRangeException

```
public ValueOutOfRangeException(String s,  
                               Real minVal,  
                               Real maxVal,  
                               Real val)
```

Creates a new ValueOutOfRangeException with the given values.

Parameters:

`name` - a String containing the name of the value that is out of range.
`minVal` - a Real containing the minimum value of the checked range.
`maxVal` - a Real containing the maximum value of the checked range.
`val` - the Real value checked.

Package
com.cafean.utils

com.cafean.utils Class Configurator

java.lang.Object

└--com.cafean.utils.Configurator

Direct Known Subclasses:
SnapPreferences

public class **Configurator**
extends Object

A utility class for maintaining a set of properties sorted by module and stored in an XML file in the current user's home directory.

Settings are organized by Module, which indicates which application a particular setting is for. This allows for different packages to use the same setting name without overwriting each other's data.

The most commonly used methods are save(), getGeometry(String, Window), and setGeometry(String, Window).

Constructor Summary

public	<u>Configurator()</u> Creates a instance of Configurator and loads in configuration data from either \$HOME/.snaprc or a blank copy.
public	<u>Configurator(String module)</u> Creates a instance of Configurator and loads in configuration data from either \$HOME/.snaprc or a blank copy.

Method Summary

boolean	<u>addCodeInfos(CodeInfo s)</u> Adds a CodeInfo server to the ExecutionMonitor module list.
boolean	<u>addServer(Server s)</u> Adds a calculation server to the global module.
void	<u>destroy()</u> Cleans up all object references inside Configurator.
Vector	<u>getCodeInfos()</u> Retrieves the list of codeinfo's from the ExecutionMonitor module.
java.awt.Color	<u>getColor(String name)</u> Retrieves the color stored with the given name from the current module.
java.awt.Color	<u>getColor(String name, java.awt.Color def)</u> Retrieves the color stored with the given name from the current module.
java.awt.Color	<u>getColor(String moduleName, String name)</u> Retrieves the color stored with the given name from the current module.

java.awt.Color	<u>getColor</u> (String moduleName, String name, java.awt.Color def) Retrieves the color stored with the given name from the current module.
String	<u>getConfigFileDir</u> () Gets the full path from to the directory that contains the .snaprc file.
String	<u>getConfigFileName</u> () Retrieves the name and location of this Configurator's config file.
void	<u>getDividerLocation</u> (String name, JSplitPane pane, int location) Loads the divider location stored under the given keyword in the current module to the javax.swing.JSplitPane provided.
void	<u>getDividerLocation</u> (String moduleName, String name, JSplitPane pane, int location) Loads the divider location stored under the given keyword in the given module to the javax.swing.JSplitPane provided.
java.awt.Font	<u>getFont</u> (String name) Retreives the font stored with the given name inside the current module.
java.awt.Font	<u>getFont</u> (String name, String family, String size, String style) Retrieves a named Font from the current module.
java.awt.Font	<u>getFont</u> (String moduleName, String name, String family, String size, String style) Retrieves a named Font from the current module.
void	<u>getGeometry</u> (String windowName, javax.help.HelpBroker broker) Loads the geometry for a specified help window in the current module from the SNAP Config file into the javax.help.HelpBroker provided.
void	<u>getGeometry</u> (String windowName, javax.help.HelpBroker broker, int height, int width) Loads the geometry for a specified help window in the current module from the SNAP Config file into the javax.help.HelpBroker provided.
void	<u>getGeometry</u> (String moduleName, String windowName, javax.help.HelpBroker broker, int height, int width) Loads the geometry for a specified help window in the current module from the SNAP Config file into the javax.help.HelpBroker provided.
void	<u>getGeometry</u> (String moduleName, String windowName, java.awt.Window frame, int height, int width, int x, int y) Loads the geometry for a specified help window in the given module from the SNAP Config file into the frame provided.
void	<u>getGeometry</u> (String windowName, java.awt.Window frame) Loads the geometry for a specified help window in the current module from the SNAP Config file into the frame provided.
void	<u>getGeometry</u> (String windowName, java.awt.Window frame, int height, int width) Loads the geometry for a specified help window in the current module from the SNAP Config file into the frame provided.

void	<u>getGeometry</u> (String windowName, java.awt.Window frame, int height, int width, int x, int y) Loads the geometry for a specified help window in the current module from the SNAP Config file into the frame provided.
Server	<u>getLocalServer</u> () retrieves an appropriate Server instance for contacting the local instance of the Calculation Server
Server	<u>getNrcDBServer</u> () Retrieves the NRC Databank server information from the Global module.
String	<u>getProperty</u> (String propertyName) Retrieves a named property from the current module.
String	<u>getProperty</u> (String name, String def) Retrieves a named property from the current module.
String	<u>getProperty</u> (String moduleName, String propertyName, String def) Retrieves a named property from the given module without affecting the current module setting.
LinkedList	<u>getServers</u> () Retrieves the list of servers from the Global module.
WebSupport	<u>getWebSupport</u> () Retrieves the Web support configuration from the Global module.
static boolean	<u>reDirectStdErrOut</u> (String prefix) Redirects stderr & stdout to a file in the users \$HOME/.snap/ directory named [prefix].screen.
void	<u>removeAllCodeInfos</u> () Removes all CodeInfo from the ExecutionMonitor module list in preparation for re-creating the list from a modified copy.
void	<u>removeAllServers</u> () Removes all calculation server entities from the global list preparation for re-creating the list from a modified copy.
void	<u>removeProperty</u> (String name) Removes the property with the given name from the current module.
void	<u>removeProperty</u> (String moduleName, String name) Removes the property with the given name from the given module.
boolean	<u>removeServer</u> (String name) Removes a calculation server from the Global module.
boolean	<u>save</u> () Saves the currently loaded configuration to the user's .snaprc.
void	<u>setColor</u> (String name, java.awt.Color color) Stores the given java.awt.Color with the the given name inside the current module.

void	<u>setColor</u> (String moduleName, String name, java.awt.Color color) Stores the given java.awt.Color with the the given name inside the current module.
void	<u>setDividerLocation</u> (String keyword, JSplitPane pane) Saves the divider location for the given javax.swing.JSplitPane under the given keyword in the current module to the SNAP Config file.
void	<u>setDividerLocation</u> (String moduleName, String keyword, JSplitPane pane) Saves the divider location for the given javax.swing.JSplitPane under the given keyword in the given module to the SNAP Config file.
void	<u>setFont</u> (String name, java.awt.Font font) Stores the given font with the the given name inside the current module.
void	<u>setFont</u> (String moduleName, String name, java.awt.Font font) Stores the given font with the the given name inside the current module.
void	<u>setGeometry</u> (String windowName, javax.help.HelpBroker broker) Saves the geometry for a specified help window in the current module to the SNAP Config file from the javax.help.HelpBroker provided.
void	<u>setGeometry</u> (String moduleName, String windowName, java.awt.Window frame) Saves the geometry for a specified window in the current module to the SNAP Config file from the frame provided.
void	<u>setGeometry</u> (String windowName, java.awt.Window frame) Saves the geometry for a specified window in the current module to the SNAP Config file from the frame provided.
void	<u>setLookAndFeel</u> (String lafStr) Deprecated. 0.26.1
void	<u>setModule</u> (String moduleName) Sets the Configurator's current module to the one provided.
void	<u>setNrcDBServer</u> (Server s) Sets the given NRC Databank Server info into the Global module.
void	<u>setProperty</u> (String name, String propertyValue) Assigns a property to be saved under the given name inside the current module.
void	<u>setProperty</u> (String moduleName, String name, String propertyValue) Assigns a property to be saved under the given name inside the given module.
void	<u>setWebSupport</u> (WebSupport s) Sets the given Web support configuration into the Global module.
int	<u>updateAvailable</u> (String application) Retrieves an XML document from the SNAP web server and compares version information contained in the document with current version information.
void	<u>updateLookAndFeel</u> () Updates the current look and feel to use the currently selected L&F based on the "Use System Look And Feel" property.

Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

Configurator

```
public Configurator()
```

Creates a instance of Configurator and loads in configuration data from either \$HOME/.snaprc or a blank copy. Also sets the current module to "Global".

Configurator

```
public Configurator(String module)
```

Creates a instance of Configurator and loads in configuration data from either \$HOME/.snaprc or a blank copy. This sets the current module to the given value.

Parameters:

module - a String containing the module to set initially.

Methods

getConfigFileName

```
public String getConfigFileName()
```

Retrieves the name and location of this Configurator's config file.

getConfigFileDir

```
public String getConfigFileDir()
```

Gets the full path from to the directory that contains the .snaprc file.

Returns:

the full path to the .snap directory.

save

```
public boolean save()
```

Saves the currently loaded configuration to the user's .snaprc. Only modules that have data that changed are saved.

Returns:

the boolean success or failure of the save.

destroy

```
public void destroy()
```


Cleans up all object references inside Configurator. This is done to clear up the memory used by the Configurator.

setModule

```
public void setModule(String moduleName)
```

Sets the Configurator's current module to the one provided. If this module isn't found in the configuration file, a blank one is created.

Parameters:

moduleName - the String containing the name of the desired module.

setGeometry

```
public void setGeometry(String windowName,  
    javax.help.HelpBroker broker)
```

Saves the geometry for a specified help window in the current module to the SNAP Config file from the javax.help.HelpBroker provided.

Parameters:

windowName - the String that contains the keyword to save the data under. For example: Veda's main window's keyword is "main."
broker - the HelpBroker to save geometry from.

setGeometry

```
public void setGeometry(String windowName,  
    java.awt.Window frame)
```

Saves the geometry for a specified window in the current module to the SNAP Config file from the frame provided.

Parameters:

windowName - the String that contains the keyword to save the data under. For example: Veda's main window's keyword is "main."
frame - the java.awt.Frame (or derivative) to save geometry from.

setGeometry

```
public void setGeometry(String moduleName,  
    String windowName,  
    java.awt.Window frame)
```

Saves the geometry for a specified window in the current module to the SNAP Config file from the frame provided.

Parameters:

moduleName - the String containing the name of the desired module.
windowName - the String that contains the keyword to save the data under.
frame - the java.awt.Frame (or derivative) to save geometry from.

getGeometry

```
public void getGeometry(String windowName,  
    javax.help.HelpBroker broker)
```

Loads the geometry for a specified help window in the current module from the SNAP Config file into the `javax.help.HelpBroker` provided. If no geometry is loaded, or an exception results, the broker is set to 640x480 at the center of the screen.

Parameters:

`moduleName` - the String containing the name of the desired module.
`windowName` - the String that contains the keyword the data was saved under.
`broker` - the `HelpBroker` to retrieve geometry for.

getGeometry

```
public void getGeometry(String windowName,  
    javax.help.HelpBroker broker,  
    int height,  
    int width)
```

Loads the geometry for a specified help window in the current module from the SNAP Config file into the `javax.help.HelpBroker` provided. If no geometry is loaded, or an exception results, the broker is set to the given default dimensions at the center of the screen.

Parameters:

`windowName` - the String that contains the keyword the data was saved under.
`broker` - the `HelpBroker` to retrieve geometry for.
`height` - the default Height for the broker if none is found
`width` - the default width for the broker if none is found

getGeometry

```
public void getGeometry(String moduleName,  
    String windowName,  
    javax.help.HelpBroker broker,  
    int height,  
    int width)
```

Loads the geometry for a specified help window in the current module from the SNAP Config file into the `javax.help.HelpBroker` provided. If no geometry is loaded, or an exception results, the broker is set to the given default dimensions at the center of the screen.

Parameters:

`moduleName` - the String containing the name of the desired module.
`windowName` - the String that contains the keyword the data was saved under.
`broker` - the `HelpBroker` to retrieve geometry for.
`height` - the default Height for the broker if none is found
`width` - the default width for the broker if none is found

getGeometry

```
public void getGeometry(String windowName,  
    java.awt.Window frame)
```

Loads the geometry for a specified help window in the current module from the SNAP Config file into the `frame` provided. If no geometry is loaded, or an exception results, the broker is set to 640x480 at the center of the screen.

Parameters:

`windowName` - the String that contains the keyword the data was saved under. For example: Veda's main window's keyword is "main."
`frame` - the `java.awt.Window` to retrieve geometry for.

getGeometry

```
public void getGeometry(String windowName,  
    java.awt.Window frame,  
    int height,  
    int width,  
    int x,  
    int y)
```

Loads the geometry for a specified help window in the current module from the SNAP Config file into the *frame* provided. If no geometry is loaded, or an exception results, the frame is set to the given default dimensions at the center of the screen.

Parameters:

windowName - the String that contains the keyword the data was saved under.
frame - the java.awt.Window to retrieve geometry for.
height - the default Height for the frame if none is found
width - the default width for the frame if none is found

getGeometry

```
public void getGeometry(String moduleName,  
    String windowName,  
    java.awt.Window frame,  
    int height,  
    int width,  
    int x,  
    int y)
```

Loads the geometry for a specified help window in the given module from the SNAP Config file into the *frame* provided. If no geometry is loaded, or an exception results, the frame is set to the given default dimensions at the center of the screen.

Parameters:

moduleName - the String containing the name of the desired module.
windowName - the String that contains the keyword the data was saved under.
frame - the java.awt.Window to retrieve geometry for.
height - the default Height for the frame if none is found
width - the default width for the frame if none is found

getGeometry

```
public void getGeometry(String windowName,  
    java.awt.Window frame,  
    int height,  
    int width)
```

Loads the geometry for a specified help window in the current module from the SNAP Config file into the *frame* provided. If no geometry is loaded, or an exception results, the frame is set to the given default dimensions at the center of the screen.

Parameters:

windowName - the String that contains the keyword the data was saved under.
frame - the java.awt.Window to retrieve geometry for.
height - the default Height for the frame if none is found
width - the default width for the frame if none is found

setDividerLocation

```
public void setDividerLocation(String keyword,  
    JSplitPane pane)
```

Saves the divider location for the given `javax.swing.JSplitPane` under the given keyword in the current module to the SNAP Config file.

Parameters:

keyword - the String that contains the keyword the data was saved under.
pane - the `JSplitPane` (or derivative).

setDividerLocation

```
public void setDividerLocation(String moduleName,  
    String keyword,  
    JSplitPane pane)
```

Saves the divider location for the given `javax.swing.JSplitPane` under the given keyword in the given module to the SNAP Config file.

Parameters:

moduleName - the String containing the name of the desired module.
keyword - the String that contains the keyword the data was saved under.
pane - the `JSplitPane` (or derivative).

getDividerLocation

```
public void getDividerLocation(String name,  
    JSplitPane pane,  
    int location)
```

Loads the divider location stored under the given keyword in the current module to the `javax.swing.JSplitPane` provided. If the divider location is not found, it will be set to the given default value.

Parameters:

name - a String containing the name of the divider.
pane - the `JSplitPane` to retrieve a divider location for.
location - the default location.

getDividerLocation

```
public void getDividerLocation(String moduleName,  
    String name,  
    JSplitPane pane,  
    int location)
```

Loads the divider location stored under the given keyword in the given module to the `javax.swing.JSplitPane` provided. If the divider location is not found, it will be set to the given default value.

Parameters:

moduleName - the String containing the name of the desired module.
name - a String containing the name of the divider.
pane - the `JSplitPane` to retrieve a divider location for.
location - the default location.

setProperty

```
public void setProperty(String name,  
                        String propertyValue)
```

Assigns a property to be saved under the given name inside the current module. If the property already exists inside that module, the data already stored gets overwritten by the new value.

Parameters:

name - the String that contains the name of the property to be saved
propertyValue - the value to assign to the given property

setProperty

```
public void setProperty(String moduleName,  
                        String name,  
                        String propertyValue)
```

Assigns a property to be saved under the given name inside the given module. If the property already exists inside that module, the data already stored gets overwritten by the new value.

Parameters:

moduleName - the String containing the name of the desired module.
name - the String that contains the name of the property to be saved
propertyValue - the value to assign to the given property

removeProperty

```
public void removeProperty(String name)
```

Removes the property with the given name from the current module.

removeProperty

```
public void removeProperty(String moduleName,  
                        String name)
```

Removes the property with the given name from the given module.

getColor

```
public java.awt.Color getColor(String name,  
                               java.awt.Color def)
```

Retrieves the color stored with the given name from the current module. If no color is found with the given name, the default value is returned.

Parameters:

name - a String containing the name of the desired color.
def - the Color to return if no Color is found.

Returns:

the Color stored with the given name, or def, if no such color is found.

getColor

```
public java.awt.Color getColor(String moduleName,  
    String name,  
    java.awt.Color def)
```

Retrieves the color stored with the given name from the current module. If no color is found with the given name, the default value is returned.

Parameters:

moduleName - a String containing the name of the module.
name - a String containing the name of the desired color.
def - the Color to return if no Color is found.

Returns:

the Color stored with the given name, or def, if no such color is found.

getColor

```
public java.awt.Color getColor(String name)
```

Retrieves the color stored with the given name from the current module.

Parameters:

name - a String containing the name of the desired color.

Returns:

the Color stored with the given name, or def, if no such color is found.

getColor

```
public java.awt.Color getColor(String moduleName,  
    String name)
```

Retrieves the color stored with the given name from the current module.

Parameters:

moduleName - a String containing the name of the module.
name - a String containing the name of the desired color.

Returns:

the Color stored with the given name, or def, if no such color is found.

setColor

```
public void setColor(String name,  
    java.awt.Color color)
```

Stores the given `java.awt.Color` with the the given name inside the current module. Colors are stored by storing the RGB value as a string inside the `.snaprc` file. If a property already exists with the given name, the given Color's RGB replaces the current data.

Parameters:

name - a String containing the name of the desired color.
color - the Color to store. If this Color is null, nothing is saved.

setColor

```
public void setColor(String moduleName,  
    String name,  
    java.awt.Color color)
```

Stores the given `java.awt.Color` with the the given name inside the current module. Colors are stored by storing the RGB value as a string inside the `.snaprc` file. If a property already exists with the given name, the given `Color`'s RGB replaces the current data.

Parameters:

`moduleName` - a `String` containing the name of the module.
`name` - a `String` containing the name of the desired color.
`color` - the `Color` to store. If this `Color` is null, nothing is saved.

setFont

```
public void setFont(String name,  
    java.awt.Font font)
```

Stores the given font with the the given name inside the current module. Fonts are stored by saving the `Font`'s Family, Size and Style strings to the `.snaprc`. If a `Fonate` already exists with the the given name, the stored data will be replaced with the new data.

Parameters:

`name` - the `String` that contains the name of the given font
`font` - the `Font` to store family, size and style data for.

setFont

```
public void setFont(String moduleName,  
    String name,  
    java.awt.Font font)
```

Stores the given font with the the given name inside the current module. Fonts are stored by saving the `Font`'s Family, Size and Style strings to the `.snaprc`. If a `Fonate` already exists with the the given name, the stored data will be replaced with the new data.

Parameters:

`moduleName` - a `String` containing the name of the module.
`name` - the `String` that contains the name of the given font
`font` - the `Font` to store family, size and style data for.

getFont

```
public java.awt.Font getFont(String name)
```

Retrieves the font stored with the given name inside the current module. If there is no font stored with that name a monospaced font size 12 will be returned instead.

Parameters:

`name` - the `String` that contains the name of the desired font.

Returns:

a `Font` containing the requested property value; If no `Font` with the given name is stored, monospaced size 12 with a style of 0 will be returned.

getFont

```
public java.awt.Font getFont(String name,  
    String family,  
    String size,  
    String style)
```

Retrieves a named Font from the current module.

Parameters:

name - the name of the requested Font
family - the default family attribute of the requested Font
size - the default size attribute of the requested Font
style - the default style attribute of the requested Font

Returns:

a Font containing the requested property value; If no Font with the given name is stored, the default values are used.

getFont

```
public java.awt.Font getFont(String moduleName,  
    String name,  
    String family,  
    String size,  
    String style)
```

Retrieves a named Font from the current module.

Parameters:

moduleName - a String containing the name of the module.
name - the name of the requested Font
family - the default family attribute of the requested Font
size - the default size attribute of the requested Font
style - the default style attribute of the requested Font

Returns:

a Font containing the requested property value; If no Font with the given name is stored, the default values are used.

getCodeInfos

```
public Vector getCodeInfos()
```

Retrieves the list of codeinfo's from the ExecutionMonitor module.

Returns:

a java.util.Vector of com.cafean.utils.CodeInfo enumerating the executables defined for each code plugin; will never be null;

removeAllCodeInfos

```
public void removeAllCodeInfos()
```

Removes all CodeInfo from the ExecutionMonitor module list in preparation for re-creating the list from a modified copy.

addCodeInfos

```
public boolean addCodeInfos (CodeInfo s)
```

Adds a CodeInfo server to the ExecutionMonitor module list.

Parameters:

s - the com.cafean.utils.CodeInfo containing the codeinfo to add to the given configuration Element.

Returns:

the success or failure of the addition.

getProperty

```
public String getProperty (String name,  
                          String def)
```

Retrieves a named property from the current module.

Parameters:

name - the name of the requested property

def - the value to return if the specified property is not available.

Returns:

a String containing the requested property value or def if no such value is found.

getProperty

```
public String getProperty (String propertyName)
```

Retrieves a named property from the current module.

Parameters:

propertyName - the name of the requested property

Returns:

a String containing the requested property value or null if no such value is found.

getProperty

```
public String getProperty (String moduleName,  
                          String propertyName,  
                          String def)
```

Retrieves a named property from the given module without affecting the current module setting.

Parameters:

moduleName - a String containing the name of the module.

propertyName - the name of the requested property

Returns:

a String containing the requested property value or null if no such value is found.

getNrcDBServer

```
public Server getNrcDBServer()
```

Retrieves the NRC Databank server information from the Global module.

Returns:

an com.cafean.utils.Server containing the databank server info; if none found, returns a new server: ("NONE","5007","");

setNrcDBServer

```
public void setNrcDBServer(Server s)
```

Sets the given NRC Databank Server info into the Global module.

Parameters:

s - the com.cafean.utils.Server containing the databank server info to save.

Returns:

the success or failure of the insertion.

getWebSupport

```
public WebSupport getWebSupport()
```

Retrieves the Web support configuration from the Global module.

Returns:

an com.cafean.utils.WebSupport containing the databank server info; if none found, returns a default object;

setWebSupport

```
public void setWebSupport(WebSupport s)
```

Sets the given Web support configuration into the Global module.

Parameters:

s - the com.cafean.utils.WebSupport containing the connection info to save.

Returns:

the success or failure of the insertion.

removeServer

```
public boolean removeServer(String name)
```

Removes a calculation server from the Global module.

Parameters:

name - a String containing the name of the server to remove from the Global module.

Returns:

the success or failure of the removal.

getLocalServer

```
public Server getLocalServer()
```

retrieves an appropriate Server instance for contacting the local instance of the Calculation Server

getServers

```
public LinkedList getServers()
```

Retrieves the list of servers from the Global module.

Returns:

a java.util.LinkedList of com.cafean.utils.Server enumerating the server elements contained in global. will never be null;

removeAllServers

```
public void removeAllServers()
```

Removes all calculation server entities from the global list preparation for re-creating the list from a modified copy.

addServer

```
public boolean addServer(Server s)
```

Adds a calculation server to the global module. Will not add any Server that is not "From File". (e.g. Those loaded from the database.)

Parameters:

s - the com.cafean.utils.Server containing the server info to add to the given configuration Element.

Returns:

the success or failure of the addition.

setLookAndFeel

```
public void setLookAndFeel(String lafStr)
```

Deprecated. 0.26.1

Set the Look-and-feel for the user interface to Windows, Motif, Mac, or the Java Look and Feel.

Valid names are: Windows, Metal, Macintosh and Motif. Of these, only Metal is available on all platforms.

Parameters:

lafStr - A string identifying the new look and feel.

updateLookAndFeel

```
public void updateLookAndFeel()
```

Updates the current look and feel to use the currently selected L&F based on the "Use System Look And Feel" property.

reDirectStdErrOut

```
public static boolean reDirectStdErrOut(String prefix)
```

Redirects stderr & stdout to a file in the users \$HOME/.snap/ directory named [prefix].screen.

Parameters:

prefix - a String containing the desired prefix for the .screen file.

Returns:

true for success

updateAvailable

```
public int updateAvailable(String application)
```

Retrieves an XML document from the SNAP web server and compares version information contained in the document with current version information.

Parameters:

application - a String containing the name of the application

Returns:

1 if a newer version is available 0 if versions match -1 on network error -2 on parser error -3 on data error -4 on unknown error

com.cafean.utils Class OptionPane

```

java.lang.Object
  |
  +- java.awt.Component
      |
      +- java.awt.Container
          |
          +- javax.swing.JComponent
              |
              +- javax.swing.JOptionPane
                  |
                  +- com.cafean.utils.OptionPane
  
```

All Implemented Interfaces:

java.io.Serializable, java.awt.MenuContainer, java.awt.image.ImageObserver, HasGetTransferHandler, java.io.Serializable, javax.accessibility.Accessible

```

public class OptionPane
extends JOptionPane
  
```

OptionPane Extension of JOptionPane, overridden to center dialogs on the display if the parent is the application's mainframe.

Fields inherited from class javax.swing.JOptionPane

CANCEL_OPTION, CLOSED_OPTION, DEFAULT_OPTION, ERROR_MESSAGE, ICON_PROPERTY, INFORMATION_MESSAGE, INITIAL_SELECTION_VALUE_PROPERTY, INITIAL_VALUE_PROPERTY, INPUT_VALUE_PROPERTY, MESSAGE_PROPERTY, MESSAGE_TYPE_PROPERTY, NO_OPTION, OK_CANCEL_OPTION, OK_OPTION, OPTION_TYPE_PROPERTY, OPTIONS_PROPERTY, PLAIN_MESSAGE, QUESTION_MESSAGE, SELECTION_VALUES_PROPERTY, UNINITIALIZED_VALUE, VALUE_PROPERTY, WANTS_INPUT_PROPERTY, WARNING_MESSAGE, YES_NO_CANCEL_OPTION, YES_NO_OPTION, YES_OPTION

Fields inherited from class javax.swing.JComponent

TOOL_TIP_TEXT_KEY, UNDEFINED_CONDITION, WHEN_ANCESTOR_OF_FOCUSED_COMPONENT, WHEN_FOCUSED, WHEN_IN_FOCUSED_WINDOW

Fields inherited from class java.awt.Component

BOTTOM_ALIGNMENT, CENTER_ALIGNMENT, LEFT_ALIGNMENT, RIGHT_ALIGNMENT, TOP_ALIGNMENT

Fields inherited from interface java.awt.image.ImageObserver

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

Constructor Summary

public	<u>OptionPane()</u> Creates a OptionPane with a test message.
--------	--

public	<u>OptionPane</u> (Object message) Creates a instance of <code>OptionPane</code> to display a message using the plain-message message type and the default options delivered by the UI.
public	<u>OptionPane</u> (Object message, int messageType) Creates an instance of <code>OptionPane</code> to display a message with the specified message type and the default options,
public	<u>OptionPane</u> (Object message, int messageType, int optionType) Creates an instance of <code>OptionPane</code> to display a message with the specified message type and options.
public	<u>OptionPane</u> (Object message, int messageType, int optionType, Icon icon) Creates an instance of <code>OptionPane</code> to display a message with the specified message type, options, and icon.
public	<u>OptionPane</u> (Object message, int messageType, int optionType, Icon icon, Object[] options) Creates an instance of <code>OptionPane</code> to display a message with the specified message type, icon, and options.
public	<u>OptionPane</u> (Object message, int messageType, int optionType, Icon icon, Object[] options, Object initialValue) Creates an instance of <code>OptionPane</code> to display a message with the specified message type, icon, and options, with the initially-selected option specified.

Method Summary

JDialog	<u>createDialog</u> (java.awt.Component parentComponent, String title)
static java.awt.Window	<u>getWindowForComponent</u> (java.awt.Component parentComponent) Returns the specified component's toplevel Frame or Dialog.
static int	<u>showConfirmDialog</u> (java.awt.Component parentComponent, Object message)
static int	<u>showConfirmDialog</u> (java.awt.Component parentComponent, Object message, String title, int optionType)
static int	<u>showConfirmDialog</u> (java.awt.Component parentComponent, Object message, String title, int optionType, int messageType)
static int	<u>showConfirmDialog</u> (java.awt.Component parentComponent, Object message, String title, int optionType, int messageType, Icon icon)
static String	<u>showInputDialog</u> (java.awt.Component parentComponent, Object message)
static String	<u>showInputDialog</u> (java.awt.Component parentComponent, Object message, Object initialSelectionValue)
static String	<u>showInputDialog</u> (java.awt.Component parentComponent, Object message, String title, int messageType)

addAncestorListener, addNotify, addVetoableChangeListener, computeVisibleRect, contains, createToolTip, disable, enable, firePropertyChange, firePropertyChange, firePropertyChange, getAccessibleContext, 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, getPreferredSize, getRegisteredKeyStrokes, getRootPane, getSize, getToolTipLocation, getToolTipText, getToolTipText, getTopLevelAncestor, getTransferHandler, getUIClassID, getVerifyInputWhenFocusTarget, getVetoableChangeListeners, getVisibleRect, getWidth, getX, getY, grabFocus, isDoubleBuffered, isLightweightComponent, isManagingFocus, isOpaque, isOptimizedDrawingEnabled, isPaintingForPrint, isPaintingTile, isRequestFocusEnabled, isValidRoot, paint, 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, updateUI

Methods inherited from class java.awt.Container

add, add, add, add, add, addContainerListener, addNotify, addPropertyChangeListener, addPropertyChangeListener, applyComponentOrientation, areFocusTraversalKeysSet, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getComponentZOrder, getContainerListeners, getFocusTraversalKeys, getFocusTraversalPolicy, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getMousePosition, getPreferredSize, insets, invalidate, isAncestorOf, isFocusCycleRoot, isFocusCycleRoot, isFocusTraversalPolicyProvider, isFocusTraversalPolicySet, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, remove, remove, removeAll, removeContainerListener, removeNotify, setComponentZOrder, setFocusCycleRoot, setFocusTraversalKeys, setFocusTraversalPolicy, setFocusTraversalPolicyProvider, setFont, setLayout, transferFocusBackward, transferFocusDownCycle, update, validate

Methods inherited from class java.awt.Component


```
getTransferHandler
```

Methods inherited from interface `javax.accessibility.Accessible`

```
getAccessibleContext
```

Constructors

OptionPane

```
public OptionPane()
```

Creates a `OptionPane` with a test message.

OptionPane

```
public OptionPane(Object message)
```

Creates a instance of `OptionPane` to display a message using the `plain-message` message type and the default options delivered by the UI.

Parameters:

message - the Object to display

OptionPane

```
public OptionPane(Object message,  
                  int messageType)
```

Creates an instance of `OptionPane` to display a message with the specified message type and the default options,

Parameters:

message - the Object to display

messageType - the type of message to be displayed: `ERROR_MESSAGE`, `INFORMATION_MESSAGE`, `WARNING_MESSAGE`, `QUESTION_MESSAGE`, or `PLAIN_MESSAGE`

OptionPane

```
public OptionPane(Object message,  
                  int messageType,  
                  int optionType)
```

Creates an instance of `OptionPane` to display a message with the specified message type and options.

Parameters:

message - the Object to display

messageType - the type of message to be displayed: `ERROR_MESSAGE`, `INFORMATION_MESSAGE`, `WARNING_MESSAGE`, `QUESTION_MESSAGE`, or `PLAIN_MESSAGE`

optionType - the options to display in the pane: `DEFAULT_OPTION`, `YES_NO_OPTION`, `YES_NO_CANCEL_OPTION`, `OK_CANCEL_OPTION`

OptionPane

```
public OptionPane(Object message,  
                  int messageType,  
                  int optionType,  
                  Icon icon)
```

Creates an instance of `OptionPane` to display a message with the specified message type, options, and icon.

Parameters:

`message` - the Object to display
`messageType` - the type of message to be displayed: `ERROR_MESSAGE`, `INFORMATION_MESSAGE`, `WARNING_MESSAGE`, `QUESTION_MESSAGE`, or `PLAIN_MESSAGE`
`optionType` - the options to display in the pane: `DEFAULT_OPTION`, `YES_NO_OPTION`, `YES_NO_CANCEL_OPTION`, `OK_CANCEL_OPTION`
`icon` - the Icon image to display

OptionPane

```
public OptionPane(Object message,  
                  int messageType,  
                  int optionType,  
                  Icon icon,  
                  Object[] options)
```

Creates an instance of `OptionPane` to display a message with the specified message type, icon, and options. None of the options is initially selected.

The options objects should contain either instances of `Components`, (which are added directly) or `Strings` (which are wrapped in a `JButton`). If you provide `Components`, you must ensure that when the `Component` is clicked it messages `setValue` in the created `OptionPane`.

Parameters:

`message` - the Object to display
`messageType` - the type of message to be displayed: `ERROR_MESSAGE`, `INFORMATION_MESSAGE`, `WARNING_MESSAGE`, `QUESTION_MESSAGE`, or `PLAIN_MESSAGE`
`optionType` - the options to display in the pane: `DEFAULT_OPTION`, `YES_NO_OPTION`, `YES_NO_CANCEL_OPTION`, `OK_CANCEL_OPTION`
`icon` - the Icon image to display
`options` - the choices the user can select

OptionPane

```
public OptionPane(Object message,  
                  int messageType,  
                  int optionType,  
                  Icon icon,  
                  Object[] options,  
                  Object initialValue)
```

Creates an instance of `OptionPane` to display a message with the specified message type, icon, and options, with the initially-selected option specified.

Parameters:

`message` - the Object to display
`messageType` - the type of message to be displayed: `ERROR_MESSAGE`, `INFORMATION_MESSAGE`, `WARNING_MESSAGE`, `QUESTION_MESSAGE`, or `PLAIN_MESSAGE`
`optionType` - the options to display in the pane: `DEFAULT_OPTION`, `YES_NO_OPTION`, `YES_NO_CANCEL_OPTION`, `OK_CANCEL_OPTION`
`icon` - the Icon image to display

options - the choices the user can select

initialValue - the choice that is initially selected; if null, then nothing will be initially selected; only meaningful if options is used

Methods

showMessageDialog

```
public static void showMessageDialog(java.awt.Component parentComponent,  
    Object message)  
    throws java.awt.HeadlessException
```

showMessageDialog

```
public static void showMessageDialog(java.awt.Component parentComponent,  
    Object message,  
    String title,  
    int messageType)  
    throws java.awt.HeadlessException
```

showMessageDialog

```
public static void showMessageDialog(java.awt.Component parentComponent,  
    Object message,  
    String title,  
    int messageType,  
    Icon icon)  
    throws java.awt.HeadlessException
```

showConfirmDialog

```
public static int showConfirmDialog(java.awt.Component parentComponent,  
    Object message)  
    throws java.awt.HeadlessException
```

showConfirmDialog

```
public static int showConfirmDialog(java.awt.Component parentComponent,  
    Object message,  
    String title,  
    int optionType)  
    throws java.awt.HeadlessException
```

showConfirmDialog

```
public static int showConfirmDialog(java.awt.Component parentComponent,  
    Object message,  
    String title,  
    int optionType,  
    int messageType)  
    throws java.awt.HeadlessException
```

showConfirmDialog

```
public static int showConfirmDialog(java.awt.Component parentComponent,  
    Object message,  
    String title,  
    int optionType,  
    int messageType,  
    Icon icon)  
    throws java.awt.HeadlessException
```

showInputDialog

```
public static String showInputDialog(Object message)  
    throws java.awt.HeadlessException
```

showInputDialog

```
public static String showInputDialog(Object message,  
    Object initialSelectionValue)
```

showInputDialog

```
public static String showInputDialog(java.awt.Component parentComponent,  
    Object message)  
    throws java.awt.HeadlessException
```

showInputDialog

```
public static String showInputDialog(java.awt.Component parentComponent,  
    Object message,  
    Object initialSelectionValue)
```

showInputDialog

```
public static String showInputDialog(java.awt.Component parentComponent,  
    Object message,  
    String title,  
    int messageType)  
throws java.awt.HeadlessException
```

showInputDialog

```
public static Object showInputDialog(java.awt.Component parentComponent,  
    Object message,  
    String title,  
    int messageType,  
    Icon icon,  
    Object[] selectionValues,  
    Object initialValue)  
throws java.awt.HeadlessException
```

showOptionDialog

```
public static int showOptionDialog(java.awt.Component parentComponent,  
    Object message,  
    String title,  
    int optionType,  
    int messageType,  
    Icon icon,  
    Object[] options,  
    Object initialValue)  
throws java.awt.HeadlessException
```

Brings up a dialog with a specified icon, where the initial choice is determined by the `initialValue` parameter and the number of choices is determined by the `optionType` parameter.

If `optionType` is `YES_NO_OPTION`, or `YES_NO_CANCEL_OPTION` and the `options` parameter is `null`, then the options are supplied by the look and feel.

The `messageType` parameter is primarily used to supply a default icon from the look and feel.

Parameters:

`parentComponent` - determines the `Frame` in which the dialog is displayed; if `null`, or if the `parentComponent` has no `Frame`, a default `Frame` is used
`message` - the `Object` to display
`title` - the title string for the dialog
`optionType` - an integer designating the options available on the dialog: `YES_NO_OPTION`, or `YES_NO_CANCEL_OPTION`
`messageType` - an integer designating the kind of message this is, primarily used to determine the icon from the pluggable `Look and Feel`: `ERROR_MESSAGE`, `INFORMATION_MESSAGE`, `WARNING_MESSAGE`, `QUESTION_MESSAGE`, or `PLAIN_MESSAGE`
`icon` - the icon to display in the dialog
`options` - an array of objects indicating the possible choices the user can make; if the objects are components, they are rendered properly; non-string objects are rendered using their `toString` methods; if this parameter is `null`, the options are determined by the `Look and Feel`
`initialValue` - the object that represents the default selection for the dialog; only meaningful if `options` is used; can be `null`

Returns:

an integer indicating the option chosen by the user, or CLOSED_OPTION if the user closed the dialog

Throws:

HeadlessException - if GraphicsEnvironment.isHeadless returns true

See Also:

GraphicsEnvironment.isHeadless()

createDialog

```
public JDialog createDialog(java.awt.Component parentComponent,  
    String title)  
    throws java.awt.HeadlessException
```

getWindowForComponent

```
public static java.awt.Window getWindowForComponent(java.awt.Component parentComponent)  
    throws java.awt.HeadlessException
```

Returns the specified component's toplevel Frame or Dialog.

Parameters:

parentComponent - the Component to check for a Frame or Dialog

Returns:

the Frame or Dialog that contains the component, or the default frame if the component is null, or does not have a valid Frame or Dialog parent

Throws:

HeadlessException - if GraphicsEnvironment.isHeadless returns true

See Also:

GraphicsEnvironment.isHeadless()

com.cafean.utils Class Version

java.lang.Object

└--com.cafean.utils.Version

All Implemented Interfaces:

Comparable

public class **Version**
extends Object
implements Comparable

A class representing a Version id as a convenient way to compare, load, and store Version information. Originally intended for use as an immutable data structure. Converted to a JavaBean to be able to load/save with the archiver classes.

Field Summary

public static final	<u>DEMO</u> Value: false
---------------------	------------------------------------

Constructor Summary

public	<u>Version()</u> Creates a new Version instance initialized to 0.0.0
public	<u>Version(int major, int minor, int bugfix)</u> Creates a new Version instance initialized to the given version numbers.
public	<u>Version(int major, int minor, int bugfix, String title, String date, String prefix)</u> Creates a new Version instance initialized to the given version numbers.

Method Summary

int	<u>compareTo(Object o)</u> Compares this object with the specified object for order.
boolean	<u>equals(Object o)</u> Returns true if and only if the given Object is equivalent to this Version.
int	<u>getBugfix()</u> returns the bugfix revision number.
static <u>Version</u>	<u>getCurrent()</u> Returns the current version.
String	<u>getDate()</u> Returns the release date for this Version.

int	<u>getMajor()</u> returns the major revision number.
int	<u>getMinor()</u> returns the minor revision number.
String	<u>getPrefix()</u> Returns the prefix or connotation for this Version.
String	<u>getTitle()</u> returns this Version's title.
String	<u>getVersionString()</u>
int	<u>hashCode()</u> Generates an integer hash code for this Version.
boolean	<u>isDemo()</u> returns true if this Version is a demo.
static void	<u>main(String[] args)</u> Tests the capabilities of this Version class.
static <u>Version</u>	<u>parseVersion(String version)</u> Creates a Version instance parsed from the given String.
void	<u>setBugfix(int bugfix)</u> Sets this Version's Bugfix Revision Number.
void	<u>setDate(String date)</u> Sets this Version's release date.
void	<u>setDemo(boolean demo)</u> determines whether this Version is a demo;
void	<u>setMajor(int major)</u> Sets this Version's Major Revision Number.
void	<u>setMinor(int minor)</u> Sets this Version's Minor Revision Number.
void	<u>setPrefix(String prefix)</u> Sets this Versions prefix or connotation.
void	<u>setTitle(String title)</u> Sets this Version's application title.
static void	<u>showDemoMessage(java.awt.Component parent)</u> A convinience method for telling the user that something is not usable in a demonstration version.
String	<u>toString()</u> Creates a String representation of this Version.

Methods inherited from class java.lang.Object.

equals, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface java.lang.Comparable

compareTo

Fields

DEMO

```
public static final boolean DEMO
```

Constant value: **false**

Constructors

Version

```
public Version()
```

Creates a new Version instance initialized to 0.0.0

Version

```
public Version(int major,  
               int minor,  
               int bugfix)
```

Creates a new Version instance initialized to the given version numbers.

Version

```
public Version(int major,  
               int minor,  
               int bugfix,  
               String title,  
               String date,  
               String prefix)
```

Creates a new Version instance initialized to the given version numbers.

Methods

getCurrent

```
public static Version getCurrent()
```

Returns the current version.

getMajor

```
public int getMajor()
```

returns the major revision number.

getMinor

```
public int getMinor()
```

returns the minor revision number.

getBugfix

```
public int getBugfix()
```

returns the bugfix revision number.

getTitle

```
public String getTitle()
```

returns this Version's title.

getDate

```
public String getDate()
```

Returns the release date for this Version. Should probably return a Date or Calendar instead.

getPrefix

```
public String getPrefix()
```

Returns the prefix or connotation for this Version.

isDemo

```
public boolean isDemo()
```

returns true if this Version is a demo.

setMajor

```
public void setMajor(int major)
```

Sets this Version's Major Revision Number.

setMinor

```
public void setMinor(int minor)
```

Sets this Version's Minor Revision Number.

setBugfix

```
public void setBugfix(int bugfix)
```

Sets this Version's Bugfix Revision Number.

setTitle

```
public void setTitle(String title)
```

Sets this Version's application title.

setDate

```
public void setDate(String date)
```

Sets this Version's release date.

setPrefix

```
public void setPrefix(String prefix)
```

Sets this Versions prefix or connotation.

setDemo

```
public void setDemo(boolean demo)
```

determines whether this Version is a demo;

getVersionString

```
public String getVersionString()
```

toString

```
public String toString()
```

Creates a String representation of this Version.

parseVersion

```
public static Version parseVersion(String version)
```

Creates a Version instance parsed from the given String.

Returns:

a Version parsed from the given String

main

```
public static void main(String[] args)
```

Tests the capabilities of this Version class.

equals

```
public boolean equals(Object o)
```

Returns true if and only if the given Object is equivalent to this Version.

hashCode

```
public int hashCode()
```

Generates an integer hash code for this Version.

compareTo

```
public int compareTo(Object o)
```

Compares this object with the specified object for order. Returns a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

showDemoMessage

```
public static void showDemoMessage(java.awt.Component parent)
```

A convenience method for telling the user that something is not usable in a demonstration version.

com.cafean.utils Interface WriteMetrics

public interface WriteMetrics
extends

Method Summary

boolean	<code>writeMetrics(java.io.PrintWriter pw)</code> Write the data block metrics to an XML file.
---------	---

Methods

writeMetrics

public boolean **writeMetrics**(java.io.PrintWriter pw)

Write the data block metrics to an XML file.

Parameters:

pw - the file to write the entry.

Returns:

true - success, false - failure.

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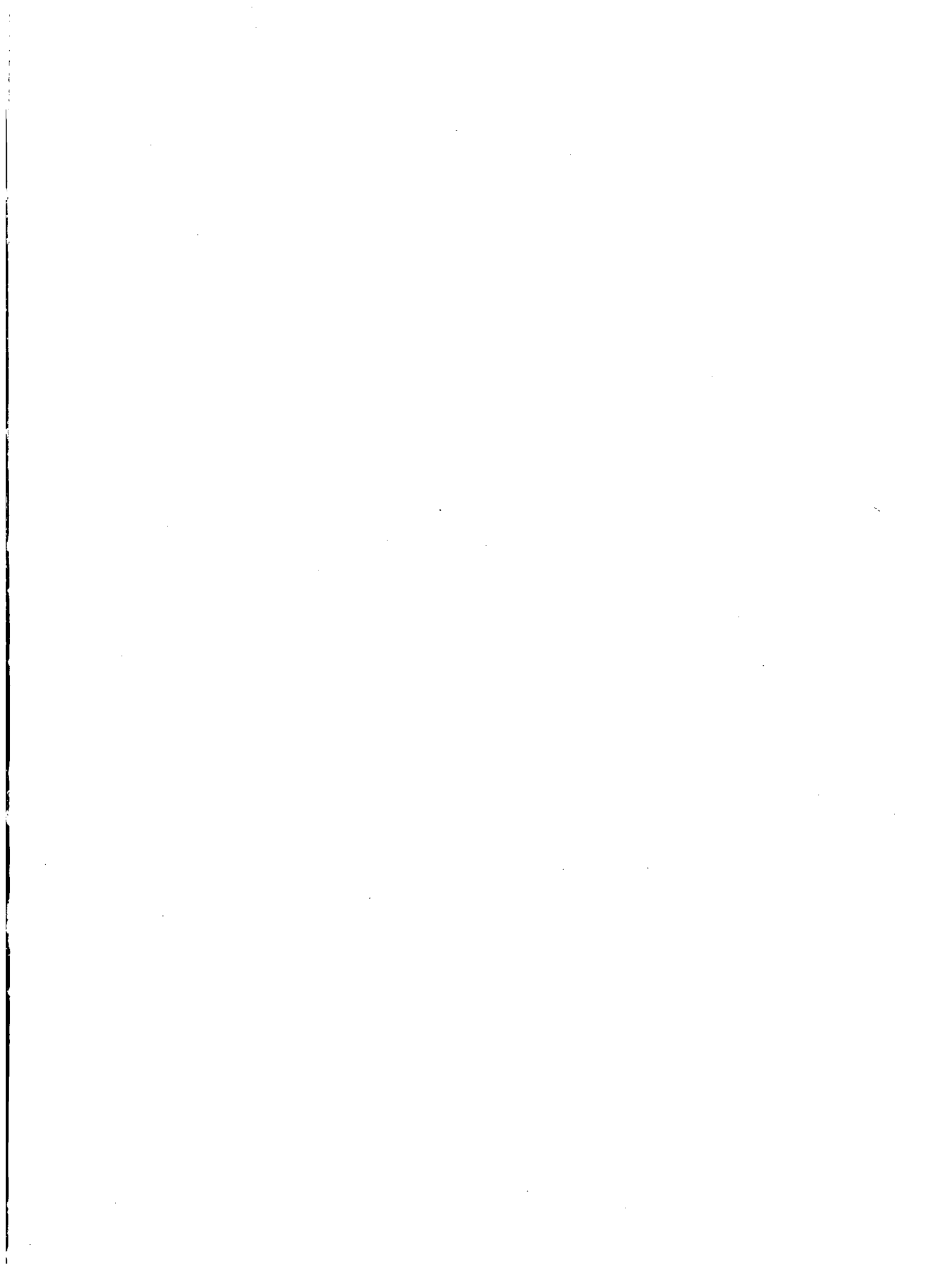
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