| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-all.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/BreezySwing/Format.html)   [**NEXT CLASS**](http://docs.google.com/BreezySwing/GBDialog.html) | [**FRAMES**](http://docs.google.com/index.html)    [**NO FRAMES**](http://docs.google.com/GBApplet.html) |
| SUMMARY:  [INNER](#1fob9te) | [FIELD](#1t3h5sf) | [CONSTR](#17dp8vu) | [METHOD](#3rdcrjn) | DETAIL:  FIELD | [CONSTR](#z337ya) | [METHOD](#1y810tw) |

## **BreezySwing**

Class GBApplet

java.lang.Object  
 |  
 +--java.awt.Component  
 |  
 +--java.awt.Container  
 |  
 +--java.awt.Panel  
 |  
 +--java.applet.Applet  
 |  
 +--javax.swing.JApplet  
 |  
 +--**BreezySwing.GBApplet**

**All Implemented Interfaces:** javax.accessibility.Accessible, java.awt.image.ImageObserver, java.awt.MenuContainer, javax.swing.RootPaneContainer, java.io.Serializablepublic class **GBApplet**extends javax.swing.JApplet

The class GBApplet (short for Grid Bag Applet) provides a high-level applet window. The window comes with a built in GridBagLayout. Components are added to the window by specifying their row position, column position, width (in columns), and height (in rows)in the grid.

Events of different types, such as button clicks and list item selections, are handled by implementing the appropriate GBApplet methods in the application.

Unlike GBFrame, GBApplet does not support pull down menus.

Example use of GBApplet:

// Hello world applet with BreezyGUI.

import java.awt.\*;  
 import BreezyGUI.\*;

public class HelloWorld extends GBApplet{

// Add a labeled button to the window at row 1, column 1, width 1, height 1.  
 Button clickMe = addButton("Click me", 1, 1, 1, 1);

// Implement the method to handle the button click.  
 public void buttonClicked(Button buttonObj){  
 messageBox("Hello world!");  
 }  
 }

**See Also:** [Serialized Form](http://docs.google.com/serialized-form.html#BreezySwing.GBApplet)

| **Inner classes inherited from class javax.swing.JApplet** |
| --- |
| javax.swing.JApplet.AccessibleJApplet |

| **Inner classes inherited from class java.applet.Applet** |
| --- |
| java.applet.Applet.AccessibleApplet |

| **Inner classes inherited from class java.awt.Panel** |
| --- |
| java.awt.Panel.AccessibleAWTPanel |

| **Inner classes inherited from class java.awt.Container** |
| --- |
| java.awt.Container.AccessibleAWTContainer |

| **Inner classes inherited from class java.awt.Component** |
| --- |
| java.awt.Component.AccessibleAWTComponent |

| **Fields inherited from class javax.swing.JApplet** |
| --- |
| accessibleContext, rootPane, rootPaneCheckingEnabled |

| **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** | |
| --- | --- |
| [**GBApplet**](http://docs.google.com/BreezySwing/GBApplet.html#GBApplet())()            Creates a GBApplet. |

| **Method Summary** | |
| --- | --- |
| javax.swing.JButton | [**addButton**](http://docs.google.com/BreezySwing/GBApplet.html#addButton(java.lang.String,%20int,%20int,%20int,%20int))(java.lang.String text, int row, int col, int width, int height)            Adds a JButton with the specified name to the specified position, with the specified width and height. |
| javax.swing.JCheckBox | [**addCheckBox**](http://docs.google.com/BreezySwing/GBApplet.html#addCheckBox(java.lang.String,%20int,%20int,%20int,%20int))(java.lang.String text, int row, int col, int width, int height)            Adds a JCheckBox to the specified position, with the specified width and height. |
| javax.swing.JComboBox | [**addComboBox**](http://docs.google.com/BreezySwing/GBApplet.html#addComboBox(int,%20int,%20int,%20int))(int row, int col, int width, int height)            Adds a JComboBox (pull down list) to the specified position, with the specified width and height. |
| [DoubleField](http://docs.google.com/BreezySwing/DoubleField.html) | [**addDoubleField**](http://docs.google.com/BreezySwing/GBApplet.html#addDoubleField(double,%20int,%20int,%20int,%20int))(double num, int row, int col, int width, int height)            Adds a DoubleField containing the specified number to the specified position, with the specified width and height. |
| [IntegerField](http://docs.google.com/BreezySwing/IntegerField.html) | [**addIntegerField**](http://docs.google.com/BreezySwing/GBApplet.html#addIntegerField(int,%20int,%20int,%20int,%20int))(int num, int row, int col, int width, int height)            Adds an IntegerField containing the specified integer to the specified position, with the specified width and height. |
| javax.swing.JLabel | [**addLabel**](http://docs.google.com/BreezySwing/GBApplet.html#addLabel(java.lang.String,%20int,%20int,%20int,%20int))(java.lang.String text, int row, int col, int width, int height)            Adds a label with the specified name to the specified position, with the specified width and height. |
| javax.swing.JList | [**addList**](http://docs.google.com/BreezySwing/GBApplet.html#addList(int,%20int,%20int,%20int))(int row, int col, int width, int height)            Adds a JList (a scrolling list) to the specified position, with the specified width and height. |
| [GBPanel](http://docs.google.com/BreezySwing/GBPanel.html) | [**addPanel**](http://docs.google.com/BreezySwing/GBApplet.html#addPanel(BreezySwing.GBPanel,%20int,%20int,%20int,%20int))([GBPanel](http://docs.google.com/BreezySwing/GBPanel.html) panel, int row, int col, int width, int height)            Adds a GBPanel to the specified position, with the specified width and height. |
| javax.swing.JRadioButton | [**addRadioButton**](http://docs.google.com/BreezySwing/GBApplet.html#addRadioButton(java.lang.String,%20int,%20int,%20int,%20int))(java.lang.String text, int row, int col, int width, int height)            Adds a JRadioButton to the specified position, with the specified width and height. |
| javax.swing.JTextArea | [**addTextArea**](http://docs.google.com/BreezySwing/GBApplet.html#addTextArea(java.lang.String,%20int,%20int,%20int,%20int))(java.lang.String text, int row, int col, int width, int height)            Adds a JTextArea containing the specified string to the specified position, with the specified width and height. |
| javax.swing.JTextField | [**addTextField**](http://docs.google.com/BreezySwing/GBApplet.html#addTextField(java.lang.String,%20int,%20int,%20int,%20int))(java.lang.String text, int row, int col, int width, int height)            Adds a JTextField containing the specified string to the specified position, with the specified width and height. |
| void | [**buttonClicked**](http://docs.google.com/BreezySwing/GBApplet.html#buttonClicked(javax.swing.JButton))(javax.swing.JButton buttonObj)            The application must implement this method in order to handle button clicks. |
| void | [**listDoubleClicked**](http://docs.google.com/BreezySwing/GBApplet.html#listDoubleClicked(javax.swing.JList,%20java.lang.String))(javax.swing.JList listObj, java.lang.String itemClicked)            The application must implement this method in order to handle a double click on an item in a scrolling list. |
| void | [**listItemSelected**](http://docs.google.com/BreezySwing/GBApplet.html#listItemSelected(javax.swing.JList))(javax.swing.JList listObj)            The application must implement this method in order to handle a selection (single click) on an item in a scrolling list. |
| void | [**messageBox**](http://docs.google.com/BreezySwing/GBApplet.html#messageBox(double))(double num)            Pops up a message box containing the number and an OK button. |
| void | [**messageBox**](http://docs.google.com/BreezySwing/GBApplet.html#messageBox(double,%20int,%20int))(double num, int width, int height) |
| void | [**messageBox**](http://docs.google.com/BreezySwing/GBApplet.html#messageBox(java.lang.Object))(java.lang.Object msg)            Pops up a message box containing the string representation of the object and an OK button. |
| void | [**messageBox**](http://docs.google.com/BreezySwing/GBApplet.html#messageBox(java.lang.Object,%20int,%20int))(java.lang.Object msg, int width, int height) |
| void | [**messageBox**](http://docs.google.com/BreezySwing/GBApplet.html#messageBox(java.lang.String))(java.lang.String msg)            Pops up a message box containing the string and an OK button. |
| void | [**messageBox**](http://docs.google.com/BreezySwing/GBApplet.html#messageBox(java.lang.String,%20int,%20int))(java.lang.String msg, int width, int height) |
| void | [**setLookAndFeel**](http://docs.google.com/BreezySwing/GBApplet.html#setLookAndFeel(java.lang.String))(java.lang.String type)            Allows the application to set the look and feel of the window and all its subcomponents to a platform-specific look and feel. |

| **Methods inherited from class javax.swing.JApplet** |
| --- |
| addImpl, createRootPane, getAccessibleContext, getContentPane, getGlassPane, getJMenuBar, getLayeredPane, getRootPane, isRootPaneCheckingEnabled, paramString, processKeyEvent, remove, setContentPane, setGlassPane, setJMenuBar, setLayeredPane, setLayout, setRootPane, setRootPaneCheckingEnabled, update |

| **Methods inherited from class java.applet.Applet** |
| --- |
| destroy, getAppletContext, getAppletInfo, getAudioClip, getAudioClip, getCodeBase, getDocumentBase, getImage, getImage, getLocale, getParameter, getParameterInfo, init, isActive, newAudioClip, play, play, resize, resize, setStub, showStatus, start, stop |

| **Methods inherited from class java.awt.Panel** |
| --- |
| addNotify |

| **Methods inherited from class java.awt.Container** |
| --- |
| add, add, add, add, add, addContainerListener, countComponents, deliverEvent, doLayout, findComponentAt, findComponentAt, getAlignmentX, getAlignmentY, getComponent, getComponentAt, getComponentAt, getComponentCount, getComponents, getInsets, getLayout, getListeners, getMaximumSize, getMinimumSize, getPreferredSize, insets, invalidate, isAncestorOf, layout, list, list, locate, minimumSize, paint, paintComponents, preferredSize, print, printComponents, processContainerEvent, processEvent, remove, removeAll, removeContainerListener, removeNotify, setFont, validate, validateTree |

| **Methods inherited from class java.awt.Component** |
| --- |
| action, add, addComponentListener, addFocusListener, addHierarchyBoundsListener, addHierarchyListener, addInputMethodListener, addKeyListener, addMouseListener, addMouseMotionListener, addPropertyChangeListener, addPropertyChangeListener, bounds, checkImage, checkImage, coalesceEvents, contains, contains, createImage, createImage, disable, disableEvents, dispatchEvent, enable, enable, enableEvents, enableInputMethods, firePropertyChange, getBackground, getBounds, getBounds, getColorModel, getComponentOrientation, getCursor, getDropTarget, getFont, getFontMetrics, getForeground, getGraphics, getGraphicsConfiguration, getHeight, getInputContext, getInputMethodRequests, getLocation, getLocation, getLocationOnScreen, getName, getParent, getPeer, getSize, getSize, getToolkit, getTreeLock, getWidth, getX, getY, gotFocus, handleEvent, hasFocus, hide, imageUpdate, inside, isDisplayable, isDoubleBuffered, isEnabled, isFocusTraversable, isLightweight, isOpaque, isShowing, isValid, isVisible, keyDown, keyUp, list, list, list, location, lostFocus, mouseDown, mouseDrag, mouseEnter, mouseExit, mouseMove, mouseUp, move, nextFocus, paintAll, postEvent, prepareImage, prepareImage, printAll, processComponentEvent, processFocusEvent, processHierarchyBoundsEvent, processHierarchyEvent, processInputMethodEvent, processMouseEvent, processMouseMotionEvent, remove, removeComponentListener, removeFocusListener, removeHierarchyBoundsListener, removeHierarchyListener, removeInputMethodListener, removeKeyListener, removeMouseListener, removeMouseMotionListener, removePropertyChangeListener, removePropertyChangeListener, repaint, repaint, repaint, repaint, requestFocus, reshape, setBackground, setBounds, setBounds, setComponentOrientation, setCursor, setDropTarget, setEnabled, setForeground, setLocale, setLocation, setLocation, setName, setSize, setSize, setVisible, show, show, size, toString, transferFocus |

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

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

### GBApplet

public **GBApplet**()

Creates a GBApplet.

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

### messageBox

public void **messageBox**(double num)

Pops up a message box containing the number and an OK button.

### messageBox

public void **messageBox**(java.lang.String msg)

Pops up a message box containing the string and an OK button.

### messageBox

public void **messageBox**(java.lang.Object msg)

Pops up a message box containing the string representation of the object and an OK button.

### messageBox

public void **messageBox**(double num,  
 int width,  
 int height)

### messageBox

public void **messageBox**(java.lang.String msg,  
 int width,  
 int height)

### messageBox

public void **messageBox**(java.lang.Object msg,  
 int width,  
 int height)

### setLookAndFeel

public void **setLookAndFeel**(java.lang.String type)

Allows the application to set the look and feel of the window and all its subcomponents to a platform-specific look and feel. If no event handling is desired, this method need not be implemented. **Parameters:**type - A String, either "METAL", "MOTIF", or "OTHER"

### listItemSelected

public void **listItemSelected**(javax.swing.JList listObj)

The application must implement this method in order to handle a selection (single click) on an item in a scrolling list. If no event handling is desired, this method need not be implemented. **Parameters:**listObj - The JList in which the selection occurred.

### buttonClicked

public void **buttonClicked**(javax.swing.JButton buttonObj)

The application must implement this method in order to handle button clicks. If no buttons are added to the window, this method need not be implemented. **Parameters:**buttonObj - The JButton in which the click occurred. Example:

// Add the buttons to the window.  
 JButton okButton = addButton("OK", 1, 1, 1, 1);  
 JButton cancelButton = addButton("Cancel", 1, 2, 1, 1);  
 // Handle the button selection.  
 public void buttonClicked(JButton buttonObj){  
 if (buttonObj == okButton)  
 messageBox("OK selected");  
 else  
 messageBox("Cancel selected");  
 }

### listDoubleClicked

public void **listDoubleClicked**(javax.swing.JList listObj,  
 java.lang.String itemClicked)

The application must implement this method in order to handle a double click on an item in a scrolling list. If no double click is anticipated, this method need not be implemented. **Parameters:**listObj - The JList in which the double click occurred.itemClicked - The string selected by the double click.

### addLabel

public javax.swing.JLabel **addLabel**(java.lang.String text,  
 int row,  
 int col,  
 int width,  
 int height)

Adds a label with the specified name to the specified position, with the specified width and height. **Parameters:**text - The name of the label.row - The beginning row (starting from 1) of the window's grid in which the label is displayed.col - The beginning column (starting from 1) of the window's grid in which the label is displayed.width - The number of columns of the window's grid occuppied by the label.height - The number of rows of the window's grid occuppied by the label.**Returns:**the JLabel

### addButton

public javax.swing.JButton **addButton**(java.lang.String text,  
 int row,  
 int col,  
 int width,  
 int height)

Adds a JButton with the specified name to the specified position, with the specified width and height. **Parameters:**text - The name of the Button.row - The beginning row (starting from 1) of the window's grid in which the Button is displayed.col - The beginning column (starting from 1) of the window's grid in which the Button is displayed.width - The number of columns of the window's grid occuppied by the Button.height - The number of rows of the window's grid occuppied by the Button.**Returns:**the button. Example:

JButton okButton = addButton("OK", 1, 1, 1, 1);  
 // Adds a button at position row 1, column 1,  
 // with a width of 1 column and a height of one row.

### addTextField

public javax.swing.JTextField **addTextField**(java.lang.String text,  
 int row,  
 int col,  
 int width,  
 int height)

Adds a JTextField containing the specified string to the specified position, with the specified width and height. **Parameters:**text - The string to be displayed initially.row - The beginning row (starting from 1) of the window's grid in which the JTextField is displayed.col - The beginning column (starting from 1) of the window's grid in which the JTextField is displayed.width - The number of columns of the window's grid occuppied by the JTextField.height - The number of rows of the window's grid occuppied by the JTextField.**Returns:**the JTextField.

### addTextArea

public javax.swing.JTextArea **addTextArea**(java.lang.String text,  
 int row,  
 int col,  
 int width,  
 int height)

Adds a JTextArea containing the specified string to the specified position, with the specified width and height. **Parameters:**text - The string to be displayed initially.row - The beginning row (starting from 1) of the window's grid in which the JTextArea is displayed.col - The beginning column (starting from 1) of the window's grid in which the JTextArea is displayed.width - The number of columns of the window's grid occuppied by the JTextArea.height - The number of rows of the window's grid occuppied by the JTextArea.**Returns:**the TextArea.

### addList

public javax.swing.JList **addList**(int row,  
 int col,  
 int width,  
 int height)

Adds a JList (a scrolling list) to the specified position, with the specified width and height. **Parameters:**row - The beginning row (starting from 1) of the window's grid in which the JList is displayed.col - The beginning column (starting from 1) of the window's grid in which the JList is displayed.width - The number of columns of the window's grid occuppied by the JList.height - The number of rows of the window's grid occuppied by the JList.**Returns:**the JList

### addComboBox

public javax.swing.JComboBox **addComboBox**(int row,  
 int col,  
 int width,  
 int height)

Adds a JComboBox (pull down list) to the specified position, with the specified width and height. **Parameters:**row - The beginning row (starting from 1) of the window's grid in which the JComboBox is displayed.col - The beginning column (starting from 1) of the window's grid in which the JComboBox is displayed.width - The number of columns of the window's grid occuppied by the JComboBox.height - The number of rows of the window's grid occuppied by the JComboBox.**Returns:**the JComboBox.

### addIntegerField

public [IntegerField](http://docs.google.com/BreezySwing/IntegerField.html) **addIntegerField**(int num,  
 int row,  
 int col,  
 int width,  
 int height)

Adds an IntegerField containing the specified integer to the specified position, with the specified width and height. **Parameters:**num - The integer to be displayed initially.row - The beginning row (starting from 1) of the window's grid in which the IntegerField is displayed.col - The beginning column (starting from 1) of the window's grid in which the IntegerField is displayed.width - The number of columns of the window's grid occuppied by the IntegerField.height - The number of rows of the window's grid occuppied by the IntegerField.

### addDoubleField

public [DoubleField](http://docs.google.com/BreezySwing/DoubleField.html) **addDoubleField**(double num,  
 int row,  
 int col,  
 int width,  
 int height)

Adds a DoubleField containing the specified number to the specified position, with the specified width and height. **Parameters:**num - The number to be displayed initially.row - The beginning row (starting from 1) of the window's grid in which the DoubleField is displayed.col - The beginning column (starting from 1) of the window's grid in which the DoubleField is displayed.width - The number of columns of the window's grid occuppied by the DoubleField.height - The number of rows of the window's grid occuppied by the DoubleField.

### addCheckBox

public javax.swing.JCheckBox **addCheckBox**(java.lang.String text,  
 int row,  
 int col,  
 int width,  
 int height)

Adds a JCheckBox to the specified position, with the specified width and height. **Parameters:**row - The beginning row (starting from 1) of the window's grid in which the JCheckBox is displayed.col - The beginning column (starting from 1) of the window's grid in which the JCheckBox is displayed.width - The number of columns of the window's grid occuppied by the JCheckBox.height - The number of rows of the window's grid occuppied by the JCheckBox.**Returns:**the JCheckBox.

### addRadioButton

public javax.swing.JRadioButton **addRadioButton**(java.lang.String text,  
 int row,  
 int col,  
 int width,  
 int height)

Adds a JRadioButton to the specified position, with the specified width and height. **Parameters:**row - The beginning row (starting from 1) of the window's grid in which the JRadioButton is displayed.col - The beginning column (starting from 1) of the window's grid in which the JRadioButton is displayed.width - The number of columns of the window's grid occuppied by the JRadioButton.height - The number of rows of the window's grid occuppied by the JRadioButton.**Returns:**the JRadioButton.

### addPanel

public [GBPanel](http://docs.google.com/BreezySwing/GBPanel.html) **addPanel**([GBPanel](http://docs.google.com/BreezySwing/GBPanel.html) panel,  
 int row,  
 int col,  
 int width,  
 int height)

Adds a GBPanel to the specified position, with the specified width and height. **Parameters:**row - The beginning row (starting from 1) of the window's grid in which the GBPanel is displayed.col - The beginning column (starting from 1) of the window's grid in which the GBPanel is displayed.width - The number of columns of the window's grid occuppied by the GBPanel.height - The number of rows of the window's grid occuppied by the GBPanel.**Returns:**the GBPanel.

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-all.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
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