| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Menu.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/java/awt/MediaTracker.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/Menu.AccessibleAWTMenu.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/Menu.html)    [**NO FRAMES**](http://docs.google.com/Menu.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: [NESTED](#3znysh7) | FIELD | [CONSTR](#3dy6vkm) | [METHOD](#1t3h5sf) | DETAIL: FIELD | [CONSTR](#26in1rg) | [METHOD](#44sinio) |

## **java.awt**

Class Menu

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 [java.awt.MenuComponent](http://docs.google.com/java/awt/MenuComponent.html)  
 [java.awt.MenuItem](http://docs.google.com/java/awt/MenuItem.html)  
 **java.awt.Menu**

**All Implemented Interfaces:** [MenuContainer](http://docs.google.com/java/awt/MenuContainer.html), [Serializable](http://docs.google.com/java/io/Serializable.html), [Accessible](http://docs.google.com/javax/accessibility/Accessible.html) **Direct Known Subclasses:** [PopupMenu](http://docs.google.com/java/awt/PopupMenu.html)

public class **Menu**extends [MenuItem](http://docs.google.com/java/awt/MenuItem.html)implements [MenuContainer](http://docs.google.com/java/awt/MenuContainer.html), [Accessible](http://docs.google.com/javax/accessibility/Accessible.html)

A Menu object is a pull-down menu component that is deployed from a menu bar.

A menu can optionally be a *tear-off* menu. A tear-off menu can be opened and dragged away from its parent menu bar or menu. It remains on the screen after the mouse button has been released. The mechanism for tearing off a menu is platform dependent, since the look and feel of the tear-off menu is determined by its peer. On platforms that do not support tear-off menus, the tear-off property is ignored.

Each item in a menu must belong to the MenuItem class. It can be an instance of MenuItem, a submenu (an instance of Menu), or a check box (an instance of CheckboxMenuItem).

**Since:** JDK1.0 **See Also:**[MenuItem](http://docs.google.com/java/awt/MenuItem.html), [CheckboxMenuItem](http://docs.google.com/java/awt/CheckboxMenuItem.html), [Serialized Form](http://docs.google.com/serialized-form.html#java.awt.Menu)

| **Nested Class Summary** | |
| --- | --- |
| protected  class | [**Menu.AccessibleAWTMenu**](http://docs.google.com/java/awt/Menu.AccessibleAWTMenu.html)            Inner class of Menu used to provide default support for accessibility. |

| **Nested classes/interfaces inherited from class java.awt.**[**MenuItem**](http://docs.google.com/java/awt/MenuItem.html) |
| --- |
| [MenuItem.AccessibleAWTMenuItem](http://docs.google.com/java/awt/MenuItem.AccessibleAWTMenuItem.html) |

| **Nested classes/interfaces inherited from class java.awt.**[**MenuComponent**](http://docs.google.com/java/awt/MenuComponent.html) |
| --- |
| [MenuComponent.AccessibleAWTMenuComponent](http://docs.google.com/java/awt/MenuComponent.AccessibleAWTMenuComponent.html) |

| **Constructor Summary** | |
| --- | --- |
| [**Menu**](http://docs.google.com/java/awt/Menu.html#Menu())()            Constructs a new menu with an empty label. |
| [**Menu**](http://docs.google.com/java/awt/Menu.html#Menu(java.lang.String))([String](http://docs.google.com/java/lang/String.html) label)            Constructs a new menu with the specified label. |
| [**Menu**](http://docs.google.com/java/awt/Menu.html#Menu(java.lang.String,%20boolean))([String](http://docs.google.com/java/lang/String.html) label, boolean tearOff)            Constructs a new menu with the specified label, indicating whether the menu can be torn off. |

| **Method Summary** | |
| --- | --- |
| [MenuItem](http://docs.google.com/java/awt/MenuItem.html) | [**add**](http://docs.google.com/java/awt/Menu.html#add(java.awt.MenuItem))([MenuItem](http://docs.google.com/java/awt/MenuItem.html) mi)            Adds the specified menu item to this menu. |
| void | [**add**](http://docs.google.com/java/awt/Menu.html#add(java.lang.String))([String](http://docs.google.com/java/lang/String.html) label)            Adds an item with the specified label to this menu. |
| void | [**addNotify**](http://docs.google.com/java/awt/Menu.html#addNotify())()            Creates the menu's peer. |
| void | [**addSeparator**](http://docs.google.com/java/awt/Menu.html#addSeparator())()            Adds a separator line, or a hypen, to the menu at the current position. |
| int | [**countItems**](http://docs.google.com/java/awt/Menu.html#countItems())()  **Deprecated.** *As of JDK version 1.1, replaced by getItemCount().* |
| [AccessibleContext](http://docs.google.com/javax/accessibility/AccessibleContext.html) | [**getAccessibleContext**](http://docs.google.com/java/awt/Menu.html#getAccessibleContext())()            Gets the AccessibleContext associated with this Menu. |
| [MenuItem](http://docs.google.com/java/awt/MenuItem.html) | [**getItem**](http://docs.google.com/java/awt/Menu.html#getItem(int))(int index)            Gets the item located at the specified index of this menu. |
| int | [**getItemCount**](http://docs.google.com/java/awt/Menu.html#getItemCount())()            Get the number of items in this menu. |
| void | [**insert**](http://docs.google.com/java/awt/Menu.html#insert(java.awt.MenuItem,%20int))([MenuItem](http://docs.google.com/java/awt/MenuItem.html) menuitem, int index)            Inserts a menu item into this menu at the specified position. |
| void | [**insert**](http://docs.google.com/java/awt/Menu.html#insert(java.lang.String,%20int))([String](http://docs.google.com/java/lang/String.html) label, int index)            Inserts a menu item with the specified label into this menu at the specified position. |
| void | [**insertSeparator**](http://docs.google.com/java/awt/Menu.html#insertSeparator(int))(int index)            Inserts a separator at the specified position. |
| boolean | [**isTearOff**](http://docs.google.com/java/awt/Menu.html#isTearOff())()            Indicates whether this menu is a tear-off menu. |
| [String](http://docs.google.com/java/lang/String.html) | [**paramString**](http://docs.google.com/java/awt/Menu.html#paramString())()            Returns a string representing the state of this Menu. |
| void | [**remove**](http://docs.google.com/java/awt/Menu.html#remove(int))(int index)            Removes the menu item at the specified index from this menu. |
| void | [**remove**](http://docs.google.com/java/awt/Menu.html#remove(java.awt.MenuComponent))([MenuComponent](http://docs.google.com/java/awt/MenuComponent.html) item)            Removes the specified menu item from this menu. |
| void | [**removeAll**](http://docs.google.com/java/awt/Menu.html#removeAll())()            Removes all items from this menu. |
| void | [**removeNotify**](http://docs.google.com/java/awt/Menu.html#removeNotify())()            Removes the menu's peer. |

| **Methods inherited from class java.awt.**[**MenuItem**](http://docs.google.com/java/awt/MenuItem.html) |
| --- |
| [addActionListener](http://docs.google.com/java/awt/MenuItem.html#addActionListener(java.awt.event.ActionListener)), [deleteShortcut](http://docs.google.com/java/awt/MenuItem.html#deleteShortcut()), [disable](http://docs.google.com/java/awt/MenuItem.html#disable()), [disableEvents](http://docs.google.com/java/awt/MenuItem.html#disableEvents(long)), [enable](http://docs.google.com/java/awt/MenuItem.html#enable()), [enable](http://docs.google.com/java/awt/MenuItem.html#enable(boolean)), [enableEvents](http://docs.google.com/java/awt/MenuItem.html#enableEvents(long)), [getActionCommand](http://docs.google.com/java/awt/MenuItem.html#getActionCommand()), [getActionListeners](http://docs.google.com/java/awt/MenuItem.html#getActionListeners()), [getLabel](http://docs.google.com/java/awt/MenuItem.html#getLabel()), [getListeners](http://docs.google.com/java/awt/MenuItem.html#getListeners(java.lang.Class)), [getShortcut](http://docs.google.com/java/awt/MenuItem.html#getShortcut()), [isEnabled](http://docs.google.com/java/awt/MenuItem.html#isEnabled()), [processActionEvent](http://docs.google.com/java/awt/MenuItem.html#processActionEvent(java.awt.event.ActionEvent)), [processEvent](http://docs.google.com/java/awt/MenuItem.html#processEvent(java.awt.AWTEvent)), [removeActionListener](http://docs.google.com/java/awt/MenuItem.html#removeActionListener(java.awt.event.ActionListener)), [setActionCommand](http://docs.google.com/java/awt/MenuItem.html#setActionCommand(java.lang.String)), [setEnabled](http://docs.google.com/java/awt/MenuItem.html#setEnabled(boolean)), [setLabel](http://docs.google.com/java/awt/MenuItem.html#setLabel(java.lang.String)), [setShortcut](http://docs.google.com/java/awt/MenuItem.html#setShortcut(java.awt.MenuShortcut)) |

| **Methods inherited from class java.awt.**[**MenuComponent**](http://docs.google.com/java/awt/MenuComponent.html) |
| --- |
| [dispatchEvent](http://docs.google.com/java/awt/MenuComponent.html#dispatchEvent(java.awt.AWTEvent)), [getFont](http://docs.google.com/java/awt/MenuComponent.html#getFont()), [getName](http://docs.google.com/java/awt/MenuComponent.html#getName()), [getParent](http://docs.google.com/java/awt/MenuComponent.html#getParent()), [getPeer](http://docs.google.com/java/awt/MenuComponent.html#getPeer()), [getTreeLock](http://docs.google.com/java/awt/MenuComponent.html#getTreeLock()), [postEvent](http://docs.google.com/java/awt/MenuComponent.html#postEvent(java.awt.Event)), [setFont](http://docs.google.com/java/awt/MenuComponent.html#setFont(java.awt.Font)), [setName](http://docs.google.com/java/awt/MenuComponent.html#setName(java.lang.String)), [toString](http://docs.google.com/java/awt/MenuComponent.html#toString()) |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [clone](http://docs.google.com/java/lang/Object.html#clone()), [equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [hashCode](http://docs.google.com/java/lang/Object.html#hashCode()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [wait](http://docs.google.com/java/lang/Object.html#wait()), [wait](http://docs.google.com/java/lang/Object.html#wait(long)), [wait](http://docs.google.com/java/lang/Object.html#wait(long,%20int)) |

| **Methods inherited from interface java.awt.**[**MenuContainer**](http://docs.google.com/java/awt/MenuContainer.html) |
| --- |
| [getFont](http://docs.google.com/java/awt/MenuContainer.html#getFont()), [postEvent](http://docs.google.com/java/awt/MenuContainer.html#postEvent(java.awt.Event)) |

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

### Menu

public **Menu**()  
 throws [HeadlessException](http://docs.google.com/java/awt/HeadlessException.html)

Constructs a new menu with an empty label. This menu is not a tear-off menu.

**Throws:** [HeadlessException](http://docs.google.com/java/awt/HeadlessException.html) - if GraphicsEnvironment.isHeadless() returns true.**Since:** JDK1.1 **See Also:**[GraphicsEnvironment.isHeadless()](http://docs.google.com/java/awt/GraphicsEnvironment.html#isHeadless())

### Menu

public **Menu**([String](http://docs.google.com/java/lang/String.html) label)  
 throws [HeadlessException](http://docs.google.com/java/awt/HeadlessException.html)

Constructs a new menu with the specified label. This menu is not a tear-off menu.

**Parameters:**label - the menu's label in the menu bar, or in another menu of which this menu is a submenu. **Throws:** [HeadlessException](http://docs.google.com/java/awt/HeadlessException.html) - if GraphicsEnvironment.isHeadless() returns true.**See Also:**[GraphicsEnvironment.isHeadless()](http://docs.google.com/java/awt/GraphicsEnvironment.html#isHeadless())

### Menu

public **Menu**([String](http://docs.google.com/java/lang/String.html) label,  
 boolean tearOff)  
 throws [HeadlessException](http://docs.google.com/java/awt/HeadlessException.html)

Constructs a new menu with the specified label, indicating whether the menu can be torn off.

Tear-off functionality may not be supported by all implementations of AWT. If a particular implementation doesn't support tear-off menus, this value is silently ignored.

**Parameters:**label - the menu's label in the menu bar, or in another menu of which this menu is a submenu.tearOff - if true, the menu is a tear-off menu. **Throws:** [HeadlessException](http://docs.google.com/java/awt/HeadlessException.html) - if GraphicsEnvironment.isHeadless() returns true.**Since:** JDK1.0. **See Also:**[GraphicsEnvironment.isHeadless()](http://docs.google.com/java/awt/GraphicsEnvironment.html#isHeadless())

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

### addNotify

public void **addNotify**()

Creates the menu's peer. The peer allows us to modify the appearance of the menu without changing its functionality.

**Overrides:**[addNotify](http://docs.google.com/java/awt/MenuItem.html#addNotify()) in class [MenuItem](http://docs.google.com/java/awt/MenuItem.html)

### removeNotify

public void **removeNotify**()

Removes the menu's peer. The peer allows us to modify the appearance of the menu without changing its functionality.

**Overrides:**[removeNotify](http://docs.google.com/java/awt/MenuComponent.html#removeNotify()) in class [MenuComponent](http://docs.google.com/java/awt/MenuComponent.html)

### isTearOff

public boolean **isTearOff**()

Indicates whether this menu is a tear-off menu.

Tear-off functionality may not be supported by all implementations of AWT. If a particular implementation doesn't support tear-off menus, this value is silently ignored.

**Returns:**true if this is a tear-off menu; false otherwise.

### getItemCount

public int **getItemCount**()

Get the number of items in this menu.

**Returns:**the number of items in this menu.**Since:** JDK1.1

### countItems

[@Deprecated](http://docs.google.com/java/lang/Deprecated.html)  
public int **countItems**()

**Deprecated.** *As of JDK version 1.1, replaced by getItemCount().*

### getItem

public [MenuItem](http://docs.google.com/java/awt/MenuItem.html) **getItem**(int index)

Gets the item located at the specified index of this menu.

**Parameters:**index - the position of the item to be returned. **Returns:**the item located at the specified index.

### add

public [MenuItem](http://docs.google.com/java/awt/MenuItem.html) **add**([MenuItem](http://docs.google.com/java/awt/MenuItem.html) mi)

Adds the specified menu item to this menu. If the menu item has been part of another menu, removes it from that menu.

**Parameters:**mi - the menu item to be added **Returns:**the menu item added**See Also:**[insert(java.lang.String, int)](http://docs.google.com/java/awt/Menu.html#insert(java.lang.String,%20int)), [insert(java.awt.MenuItem, int)](http://docs.google.com/java/awt/Menu.html#insert(java.awt.MenuItem,%20int))

### add

public void **add**([String](http://docs.google.com/java/lang/String.html) label)

Adds an item with the specified label to this menu.

**Parameters:**label - the text on the item**See Also:**[insert(java.lang.String, int)](http://docs.google.com/java/awt/Menu.html#insert(java.lang.String,%20int)), [insert(java.awt.MenuItem, int)](http://docs.google.com/java/awt/Menu.html#insert(java.awt.MenuItem,%20int))

### insert

public void **insert**([MenuItem](http://docs.google.com/java/awt/MenuItem.html) menuitem,  
 int index)

Inserts a menu item into this menu at the specified position.

**Parameters:**menuitem - the menu item to be inserted.index - the position at which the menu item should be inserted. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if the value of index is less than zero**Since:** JDK1.1 **See Also:**[add(java.lang.String)](http://docs.google.com/java/awt/Menu.html#add(java.lang.String)), [add(java.awt.MenuItem)](http://docs.google.com/java/awt/Menu.html#add(java.awt.MenuItem))

### insert

public void **insert**([String](http://docs.google.com/java/lang/String.html) label,  
 int index)

Inserts a menu item with the specified label into this menu at the specified position. This is a convenience method for insert(menuItem, index).

**Parameters:**label - the text on the itemindex - the position at which the menu item should be inserted **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if the value of index is less than zero**Since:** JDK1.1 **See Also:**[add(java.lang.String)](http://docs.google.com/java/awt/Menu.html#add(java.lang.String)), [add(java.awt.MenuItem)](http://docs.google.com/java/awt/Menu.html#add(java.awt.MenuItem))

### addSeparator

public void **addSeparator**()

Adds a separator line, or a hypen, to the menu at the current position.

**See Also:**[insertSeparator(int)](http://docs.google.com/java/awt/Menu.html#insertSeparator(int))

### insertSeparator

public void **insertSeparator**(int index)

Inserts a separator at the specified position.

**Parameters:**index - the position at which the menu separator should be inserted. **Throws:** [IllegalArgumentException](http://docs.google.com/java/lang/IllegalArgumentException.html) - if the value of index is less than 0.**Since:** JDK1.1 **See Also:**[addSeparator()](http://docs.google.com/java/awt/Menu.html#addSeparator())

### remove

public void **remove**(int index)

Removes the menu item at the specified index from this menu.

**Parameters:**index - the position of the item to be removed.

### remove

public void **remove**([MenuComponent](http://docs.google.com/java/awt/MenuComponent.html) item)

Removes the specified menu item from this menu.

**Specified by:**[remove](http://docs.google.com/java/awt/MenuContainer.html#remove(java.awt.MenuComponent)) in interface [MenuContainer](http://docs.google.com/java/awt/MenuContainer.html) **Parameters:**item - the item to be removed from the menu. If item is null or is not in this menu, this method does nothing.

### removeAll

public void **removeAll**()

Removes all items from this menu.

**Since:** JDK1.0.

### paramString

public [String](http://docs.google.com/java/lang/String.html) **paramString**()

Returns a string representing the state of this Menu. This method is intended to be used only for debugging purposes, and the content and format of the returned string may vary between implementations. The returned string may be empty but may not be null.

**Overrides:**[paramString](http://docs.google.com/java/awt/MenuItem.html#paramString()) in class [MenuItem](http://docs.google.com/java/awt/MenuItem.html) **Returns:**the parameter string of this menu

### getAccessibleContext

public [AccessibleContext](http://docs.google.com/javax/accessibility/AccessibleContext.html) **getAccessibleContext**()

Gets the AccessibleContext associated with this Menu. For menus, the AccessibleContext takes the form of an AccessibleAWTMenu. A new AccessibleAWTMenu instance is created if necessary.

**Specified by:**[getAccessibleContext](http://docs.google.com/javax/accessibility/Accessible.html#getAccessibleContext()) in interface [Accessible](http://docs.google.com/javax/accessibility/Accessible.html)**Overrides:**[getAccessibleContext](http://docs.google.com/java/awt/MenuItem.html#getAccessibleContext()) in class [MenuItem](http://docs.google.com/java/awt/MenuItem.html) **Returns:**an AccessibleAWTMenu that serves as the AccessibleContext of this Menu**Since:** 1.3

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Menu.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
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| SUMMARY: [NESTED](#3znysh7) | FIELD | [CONSTR](#3dy6vkm) | [METHOD](#1t3h5sf) | DETAIL: FIELD | [CONSTR](#26in1rg) | [METHOD](#44sinio) |

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For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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