| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | [**Class**](http://docs.google.com/java/awt/LayoutManager.html) | **Use** | [**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   NEXT | [**FRAMES**](http://docs.google.com/index.html?java/awt//class-useLayoutManager.html)    [**NO FRAMES**](http://docs.google.com/LayoutManager.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

**Uses of Interface**

**java.awt.LayoutManager**

| Packages that use [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | |
| --- | --- |
| [**java.awt**](#3znysh7) | Contains all of the classes for creating user interfaces and for painting graphics and images. |
| [**javax.swing**](#2et92p0) | Provides a set of "lightweight" (all-Java language) components that, to the maximum degree possible, work the same on all platforms. |
| [**javax.swing.plaf.basic**](#tyjcwt) | Provides user interface objects built according to the Basic look and feel. |
| [**javax.swing.plaf.metal**](#3dy6vkm) | Provides user interface objects built according to the Java look and feel (once codenamed *Metal*), which is the default look and feel. |

| Uses of [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) in [java.awt](http://docs.google.com/java/awt/package-summary.html) | |
| --- | --- |

| Subinterfaces of [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) in [java.awt](http://docs.google.com/java/awt/package-summary.html) | |
| --- | --- |
| interface | [**LayoutManager2**](http://docs.google.com/java/awt/LayoutManager2.html)            Defines an interface for classes that know how to layout Containers based on a layout constraints object. |

| Classes in [java.awt](http://docs.google.com/java/awt/package-summary.html) that implement [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | |
| --- | --- |
| class | [**BorderLayout**](http://docs.google.com/java/awt/BorderLayout.html)            A border layout lays out a container, arranging and resizing its components to fit in five regions: north, south, east, west, and center. |
| class | [**CardLayout**](http://docs.google.com/java/awt/CardLayout.html)            A CardLayout object is a layout manager for a container. |
| class | [**FlowLayout**](http://docs.google.com/java/awt/FlowLayout.html)            A flow layout arranges components in a directional flow, much like lines of text in a paragraph. |
| class | [**GridBagLayout**](http://docs.google.com/java/awt/GridBagLayout.html)            The GridBagLayout class is a flexible layout manager that aligns components vertically, horizontally or along their baseline without requiring that the components be of the same size. |
| class | [**GridLayout**](http://docs.google.com/java/awt/GridLayout.html)            The GridLayout class is a layout manager that lays out a container's components in a rectangular grid. |

| Methods in [java.awt](http://docs.google.com/java/awt/package-summary.html) that return [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | |
| --- | --- |
| [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | **Container.**[**getLayout**](http://docs.google.com/java/awt/Container.html#getLayout())()            Gets the layout manager for this container. |

| Methods in [java.awt](http://docs.google.com/java/awt/package-summary.html) with parameters of type [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | |
| --- | --- |
| void | **Container.**[**setLayout**](http://docs.google.com/java/awt/Container.html#setLayout(java.awt.LayoutManager))([LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) mgr)            Sets the layout manager for this container. |
| void | **ScrollPane.**[**setLayout**](http://docs.google.com/java/awt/ScrollPane.html#setLayout(java.awt.LayoutManager))([LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) mgr)            Sets the layout manager for this container. |

| Constructors in [java.awt](http://docs.google.com/java/awt/package-summary.html) with parameters of type [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | |
| --- | --- |
| [**Panel**](http://docs.google.com/java/awt/Panel.html#Panel(java.awt.LayoutManager))([LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) layout)            Creates a new panel with the specified layout manager. |

| Uses of [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) in [javax.swing](http://docs.google.com/javax/swing/package-summary.html) | |
| --- | --- |

| Classes in [javax.swing](http://docs.google.com/javax/swing/package-summary.html) that implement [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | |
| --- | --- |
| class | [**BoxLayout**](http://docs.google.com/javax/swing/BoxLayout.html)            A layout manager that allows multiple components to be laid out either vertically or horizontally. |
| class | [**GroupLayout**](http://docs.google.com/javax/swing/GroupLayout.html)            GroupLayout is a LayoutManager that hierarchically groups components in order to position them in a Container. |
| protected  class | [**JRootPane.RootLayout**](http://docs.google.com/javax/swing/JRootPane.RootLayout.html)            A custom layout manager that is responsible for the layout of layeredPane, glassPane, and menuBar. |
| static class | [**JSpinner.DateEditor**](http://docs.google.com/javax/swing/JSpinner.DateEditor.html)            An editor for a JSpinner whose model is a SpinnerDateModel. |
| static class | [**JSpinner.DefaultEditor**](http://docs.google.com/javax/swing/JSpinner.DefaultEditor.html)            A simple base class for more specialized editors that displays a read-only view of the model's current value with a JFormattedTextField. |
| static class | [**JSpinner.ListEditor**](http://docs.google.com/javax/swing/JSpinner.ListEditor.html)            An editor for a JSpinner whose model is a SpinnerListModel. |
| static class | [**JSpinner.NumberEditor**](http://docs.google.com/javax/swing/JSpinner.NumberEditor.html)            An editor for a JSpinner whose model is a SpinnerNumberModel. |
| class | [**OverlayLayout**](http://docs.google.com/javax/swing/OverlayLayout.html)            A layout manager to arrange components over the top of each other. |
| class | [**ScrollPaneLayout**](http://docs.google.com/javax/swing/ScrollPaneLayout.html)            The layout manager used by JScrollPane. |
| static class | [**ScrollPaneLayout.UIResource**](http://docs.google.com/javax/swing/ScrollPaneLayout.UIResource.html)            The UI resource version of ScrollPaneLayout. |
| class | [**SpringLayout**](http://docs.google.com/javax/swing/SpringLayout.html)            A SpringLayout lays out the children of its associated container according to a set of constraints. |
| class | [**ViewportLayout**](http://docs.google.com/javax/swing/ViewportLayout.html)            The default layout manager for JViewport. |

| Methods in [javax.swing](http://docs.google.com/javax/swing/package-summary.html) that return [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | |
| --- | --- |
| protected  [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | **JViewport.**[**createLayoutManager**](http://docs.google.com/javax/swing/JViewport.html#createLayoutManager())()            Subclassers can override this to install a different layout manager (or null) in the constructor. |
| protected  [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | **JRootPane.**[**createRootLayout**](http://docs.google.com/javax/swing/JRootPane.html#createRootLayout())()            Called by the constructor methods to create the default layoutManager. |

| Methods in [javax.swing](http://docs.google.com/javax/swing/package-summary.html) with parameters of type [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | |
| --- | --- |
| void | **JToolBar.**[**setLayout**](http://docs.google.com/javax/swing/JToolBar.html#setLayout(java.awt.LayoutManager))([LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) mgr) |
| void | **JInternalFrame.**[**setLayout**](http://docs.google.com/javax/swing/JInternalFrame.html#setLayout(java.awt.LayoutManager))([LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) manager)            Ensures that, by default, the layout of this component cannot be set. |
| void | **Box.**[**setLayout**](http://docs.google.com/javax/swing/Box.html#setLayout(java.awt.LayoutManager))([LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) l)            Throws an AWTError, since a Box can use only a BoxLayout. |
| void | **JDialog.**[**setLayout**](http://docs.google.com/javax/swing/JDialog.html#setLayout(java.awt.LayoutManager))([LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) manager)            Sets the LayoutManager. |
| void | **JApplet.**[**setLayout**](http://docs.google.com/javax/swing/JApplet.html#setLayout(java.awt.LayoutManager))([LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) manager)            Sets the LayoutManager. |
| void | **JWindow.**[**setLayout**](http://docs.google.com/javax/swing/JWindow.html#setLayout(java.awt.LayoutManager))([LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) manager)            Sets the LayoutManager. |
| void | **JScrollPane.**[**setLayout**](http://docs.google.com/javax/swing/JScrollPane.html#setLayout(java.awt.LayoutManager))([LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) layout)            Sets the layout manager for this JScrollPane. |
| void | **AbstractButton.**[**setLayout**](http://docs.google.com/javax/swing/AbstractButton.html#setLayout(java.awt.LayoutManager))([LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) mgr)            Sets the layout manager for this container, refer to [Container.setLayout(LayoutManager)](http://docs.google.com/java/awt/Container.html#setLayout(java.awt.LayoutManager)) for a complete description of this method. |
| void | **JFrame.**[**setLayout**](http://docs.google.com/javax/swing/JFrame.html#setLayout(java.awt.LayoutManager))([LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) manager)            Sets the LayoutManager. |

| Constructors in [javax.swing](http://docs.google.com/javax/swing/package-summary.html) with parameters of type [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | |
| --- | --- |
| [**JPanel**](http://docs.google.com/javax/swing/JPanel.html#JPanel(java.awt.LayoutManager))([LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) layout)            Create a new buffered JPanel with the specified layout manager |
| [**JPanel**](http://docs.google.com/javax/swing/JPanel.html#JPanel(java.awt.LayoutManager,%20boolean))([LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) layout, boolean isDoubleBuffered)            Creates a new JPanel with the specified layout manager and buffering strategy. |

| Uses of [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) in [javax.swing.plaf.basic](http://docs.google.com/javax/swing/plaf/basic/package-summary.html) | |
| --- | --- |

| Classes in [javax.swing.plaf.basic](http://docs.google.com/javax/swing/plaf/basic/package-summary.html) that implement [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | |
| --- | --- |
| class | [**BasicComboBoxUI.ComboBoxLayoutManager**](http://docs.google.com/javax/swing/plaf/basic/BasicComboBoxUI.ComboBoxLayoutManager.html)            This layout manager handles the 'standard' layout of combo boxes. |
| class | [**BasicInternalFrameTitlePane.TitlePaneLayout**](http://docs.google.com/javax/swing/plaf/basic/BasicInternalFrameTitlePane.TitlePaneLayout.html)            This class should be treated as a "protected" inner class. |
| class | [**BasicInternalFrameUI.InternalFrameLayout**](http://docs.google.com/javax/swing/plaf/basic/BasicInternalFrameUI.InternalFrameLayout.html) |
| static class | [**BasicOptionPaneUI.ButtonAreaLayout**](http://docs.google.com/javax/swing/plaf/basic/BasicOptionPaneUI.ButtonAreaLayout.html)            ButtonAreaLayout behaves in a similar manner to FlowLayout. |
| class | [**BasicScrollBarUI**](http://docs.google.com/javax/swing/plaf/basic/BasicScrollBarUI.html)            Implementation of ScrollBarUI for the Basic Look and Feel |
| protected  class | [**BasicSplitPaneDivider.DividerLayout**](http://docs.google.com/javax/swing/plaf/basic/BasicSplitPaneDivider.DividerLayout.html)            Used to layout a BasicSplitPaneDivider. |
| class | [**BasicSplitPaneUI.BasicHorizontalLayoutManager**](http://docs.google.com/javax/swing/plaf/basic/BasicSplitPaneUI.BasicHorizontalLayoutManager.html)            LayoutManager for JSplitPanes that have an orientation of HORIZONTAL\_SPLIT. |
| class | [**BasicSplitPaneUI.BasicVerticalLayoutManager**](http://docs.google.com/javax/swing/plaf/basic/BasicSplitPaneUI.BasicVerticalLayoutManager.html)            LayoutManager used for JSplitPanes with an orientation of VERTICAL\_SPLIT. |
| class | [**BasicTabbedPaneUI.TabbedPaneLayout**](http://docs.google.com/javax/swing/plaf/basic/BasicTabbedPaneUI.TabbedPaneLayout.html)            This class should be treated as a "protected" inner class. |
| class | [**DefaultMenuLayout**](http://docs.google.com/javax/swing/plaf/basic/DefaultMenuLayout.html)            The default layout manager for Popup menus and menubars. |

| Fields in [javax.swing.plaf.basic](http://docs.google.com/javax/swing/plaf/basic/package-summary.html) declared as [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | |
| --- | --- |
| protected  [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | **BasicInternalFrameUI.**[**internalFrameLayout**](http://docs.google.com/javax/swing/plaf/basic/BasicInternalFrameUI.html#internalFrameLayout) |

| Methods in [javax.swing.plaf.basic](http://docs.google.com/javax/swing/plaf/basic/package-summary.html) that return [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | |
| --- | --- |
| protected  [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | **BasicSpinnerUI.**[**createLayout**](http://docs.google.com/javax/swing/plaf/basic/BasicSpinnerUI.html#createLayout())()            Create a LayoutManager that manages the editor, nextButton, and previousButton children of the JSpinner. |
| protected  [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | **BasicInternalFrameTitlePane.**[**createLayout**](http://docs.google.com/javax/swing/plaf/basic/BasicInternalFrameTitlePane.html#createLayout())() |
| protected  [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | **BasicTabbedPaneUI.**[**createLayoutManager**](http://docs.google.com/javax/swing/plaf/basic/BasicTabbedPaneUI.html#createLayoutManager())()            Invoked by installUI to create a layout manager object to manage the JTabbedPane. |
| protected  [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | **BasicOptionPaneUI.**[**createLayoutManager**](http://docs.google.com/javax/swing/plaf/basic/BasicOptionPaneUI.html#createLayoutManager())() |
| protected  [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | **BasicInternalFrameUI.**[**createLayoutManager**](http://docs.google.com/javax/swing/plaf/basic/BasicInternalFrameUI.html#createLayoutManager())() |
| protected  [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | **BasicComboBoxUI.**[**createLayoutManager**](http://docs.google.com/javax/swing/plaf/basic/BasicComboBoxUI.html#createLayoutManager())()            Creates a layout manager for managing the components which make up the combo box. |

| Uses of [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) in [javax.swing.plaf.metal](http://docs.google.com/javax/swing/plaf/metal/package-summary.html) | |
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| Classes in [javax.swing.plaf.metal](http://docs.google.com/javax/swing/plaf/metal/package-summary.html) that implement [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | |
| --- | --- |
| class | [**MetalComboBoxUI.MetalComboBoxLayoutManager**](http://docs.google.com/javax/swing/plaf/metal/MetalComboBoxUI.MetalComboBoxLayoutManager.html)            This inner class is marked "public" due to a compiler bug. |
| class | [**MetalScrollBarUI**](http://docs.google.com/javax/swing/plaf/metal/MetalScrollBarUI.html)            Implementation of ScrollBarUI for the Metal Look and Feel |
| class | [**MetalTabbedPaneUI.TabbedPaneLayout**](http://docs.google.com/javax/swing/plaf/metal/MetalTabbedPaneUI.TabbedPaneLayout.html)            This inner class is marked "public" due to a compiler bug. |

| Methods in [javax.swing.plaf.metal](http://docs.google.com/javax/swing/plaf/metal/package-summary.html) that return [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | |
| --- | --- |
| protected  [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | **MetalInternalFrameTitlePane.**[**createLayout**](http://docs.google.com/javax/swing/plaf/metal/MetalInternalFrameTitlePane.html#createLayout())() |
| protected  [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | **MetalTabbedPaneUI.**[**createLayoutManager**](http://docs.google.com/javax/swing/plaf/metal/MetalTabbedPaneUI.html#createLayoutManager())() |
| protected  [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) | **MetalComboBoxUI.**[**createLayoutManager**](http://docs.google.com/javax/swing/plaf/metal/MetalComboBoxUI.html#createLayoutManager())() |

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | [**Class**](http://docs.google.com/java/awt/LayoutManager.html) | **Use** | [**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   NEXT | [**FRAMES**](http://docs.google.com/index.html?java/awt//class-useLayoutManager.html)    [**NO FRAMES**](http://docs.google.com/LayoutManager.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

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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