| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/LayoutManager2.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/LayoutManager.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/LinearGradientPaint.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/LayoutManager2.html)    [**NO FRAMES**](http://docs.google.com/LayoutManager2.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#3znysh7) | DETAIL: FIELD | CONSTR | [METHOD](#tyjcwt) |

## **java.awt**

Interface LayoutManager2

**All Superinterfaces:** [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html) **All Known Implementing Classes:** [BasicSplitPaneUI.BasicHorizontalLayoutManager](http://docs.google.com/javax/swing/plaf/basic/BasicSplitPaneUI.BasicHorizontalLayoutManager.html), [BasicSplitPaneUI.BasicVerticalLayoutManager](http://docs.google.com/javax/swing/plaf/basic/BasicSplitPaneUI.BasicVerticalLayoutManager.html), [BorderLayout](http://docs.google.com/java/awt/BorderLayout.html), [BoxLayout](http://docs.google.com/javax/swing/BoxLayout.html), [CardLayout](http://docs.google.com/java/awt/CardLayout.html), [DefaultMenuLayout](http://docs.google.com/javax/swing/plaf/basic/DefaultMenuLayout.html), [GridBagLayout](http://docs.google.com/java/awt/GridBagLayout.html), [GroupLayout](http://docs.google.com/javax/swing/GroupLayout.html), [JRootPane.RootLayout](http://docs.google.com/javax/swing/JRootPane.RootLayout.html), [OverlayLayout](http://docs.google.com/javax/swing/OverlayLayout.html), [SpringLayout](http://docs.google.com/javax/swing/SpringLayout.html)

public interface **LayoutManager2**extends [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html)

Defines an interface for classes that know how to layout Containers based on a layout constraints object. This interface extends the LayoutManager interface to deal with layouts explicitly in terms of constraint objects that specify how and where components should be added to the layout.

This minimal extension to LayoutManager is intended for tool providers who wish to the creation of constraint-based layouts. It does not yet provide full, general support for custom constraint-based layout managers.

**See Also:**[LayoutManager](http://docs.google.com/java/awt/LayoutManager.html), [Container](http://docs.google.com/java/awt/Container.html)

| **Method Summary** | |
| --- | --- |
| void | [**addLayoutComponent**](http://docs.google.com/java/awt/LayoutManager2.html#addLayoutComponent(java.awt.Component,%20java.lang.Object))([Component](http://docs.google.com/java/awt/Component.html) comp, [Object](http://docs.google.com/java/lang/Object.html) constraints)            Adds the specified component to the layout, using the specified constraint object. |
| float | [**getLayoutAlignmentX**](http://docs.google.com/java/awt/LayoutManager2.html#getLayoutAlignmentX(java.awt.Container))([Container](http://docs.google.com/java/awt/Container.html) target)            Returns the alignment along the x axis. |
| float | [**getLayoutAlignmentY**](http://docs.google.com/java/awt/LayoutManager2.html#getLayoutAlignmentY(java.awt.Container))([Container](http://docs.google.com/java/awt/Container.html) target)            Returns the alignment along the y axis. |
| void | [**invalidateLayout**](http://docs.google.com/java/awt/LayoutManager2.html#invalidateLayout(java.awt.Container))([Container](http://docs.google.com/java/awt/Container.html) target)            Invalidates the layout, indicating that if the layout manager has cached information it should be discarded. |
| [Dimension](http://docs.google.com/java/awt/Dimension.html) | [**maximumLayoutSize**](http://docs.google.com/java/awt/LayoutManager2.html#maximumLayoutSize(java.awt.Container))([Container](http://docs.google.com/java/awt/Container.html) target)            Calculates the maximum size dimensions for the specified container, given the components it contains. |

| **Methods inherited from interface java.awt.**[**LayoutManager**](http://docs.google.com/java/awt/LayoutManager.html) |
| --- |
| [addLayoutComponent](http://docs.google.com/java/awt/LayoutManager.html#addLayoutComponent(java.lang.String,%20java.awt.Component)), [layoutContainer](http://docs.google.com/java/awt/LayoutManager.html#layoutContainer(java.awt.Container)), [minimumLayoutSize](http://docs.google.com/java/awt/LayoutManager.html#minimumLayoutSize(java.awt.Container)), [preferredLayoutSize](http://docs.google.com/java/awt/LayoutManager.html#preferredLayoutSize(java.awt.Container)), [removeLayoutComponent](http://docs.google.com/java/awt/LayoutManager.html#removeLayoutComponent(java.awt.Component)) |

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

### addLayoutComponent

void **addLayoutComponent**([Component](http://docs.google.com/java/awt/Component.html) comp,  
 [Object](http://docs.google.com/java/lang/Object.html) constraints)

Adds the specified component to the layout, using the specified constraint object.

**Parameters:**comp - the component to be addedconstraints - where/how the component is added to the layout.

### maximumLayoutSize

[Dimension](http://docs.google.com/java/awt/Dimension.html) **maximumLayoutSize**([Container](http://docs.google.com/java/awt/Container.html) target)

Calculates the maximum size dimensions for the specified container, given the components it contains.

**See Also:**[Component.getMaximumSize()](http://docs.google.com/java/awt/Component.html#getMaximumSize()), [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html)

### getLayoutAlignmentX

float **getLayoutAlignmentX**([Container](http://docs.google.com/java/awt/Container.html) target)

Returns the alignment along the x axis. This specifies how the component would like to be aligned relative to other components. The value should be a number between 0 and 1 where 0 represents alignment along the origin, 1 is aligned the furthest away from the origin, 0.5 is centered, etc.

### getLayoutAlignmentY

float **getLayoutAlignmentY**([Container](http://docs.google.com/java/awt/Container.html) target)

Returns the alignment along the y axis. This specifies how the component would like to be aligned relative to other components. The value should be a number between 0 and 1 where 0 represents alignment along the origin, 1 is aligned the furthest away from the origin, 0.5 is centered, etc.

### invalidateLayout

void **invalidateLayout**([Container](http://docs.google.com/java/awt/Container.html) target)

Invalidates the layout, indicating that if the layout manager has cached information it should be discarded.

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/LayoutManager2.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/LayoutManager.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/LinearGradientPaint.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/LayoutManager2.html)    [**NO FRAMES**](http://docs.google.com/LayoutManager2.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#3znysh7) | DETAIL: FIELD | CONSTR | [METHOD](#tyjcwt) |

[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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