| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Dimension.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/Dialog.ModalityType.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/DisplayMode.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/Dimension.html)    [**NO FRAMES**](http://docs.google.com/Dimension.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: [FIELD](#4d34og8) | [CONSTR](#3rdcrjn) | [METHOD](#1ksv4uv) |

## **java.awt**

Class Dimension

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 [java.awt.geom.Dimension2D](http://docs.google.com/java/awt/geom/Dimension2D.html)  
 **java.awt.Dimension**

**All Implemented Interfaces:** [Serializable](http://docs.google.com/java/io/Serializable.html), [Cloneable](http://docs.google.com/java/lang/Cloneable.html) **Direct Known Subclasses:** [DimensionUIResource](http://docs.google.com/javax/swing/plaf/DimensionUIResource.html)

public class **Dimension**extends [Dimension2D](http://docs.google.com/java/awt/geom/Dimension2D.html)implements [Serializable](http://docs.google.com/java/io/Serializable.html)

The Dimension class encapsulates the width and height of a component (in integer precision) in a single object. The class is associated with certain properties of components. Several methods defined by the Component class and the LayoutManager interface return a Dimension object.

Normally the values of width and height are non-negative integers. The constructors that allow you to create a dimension do not prevent you from setting a negative value for these properties. If the value of width or height is negative, the behavior of some methods defined by other objects is undefined.

**Since:** 1.0 **See Also:**[Component](http://docs.google.com/java/awt/Component.html), [LayoutManager](http://docs.google.com/java/awt/LayoutManager.html), [Serialized Form](http://docs.google.com/serialized-form.html#java.awt.Dimension)

| **Field Summary** | |
| --- | --- |
| int | [**height**](http://docs.google.com/java/awt/Dimension.html#height)            The height dimension; negative values can be used. |
| int | [**width**](http://docs.google.com/java/awt/Dimension.html#width)            The width dimension; negative values can be used. |

| **Constructor Summary** | |
| --- | --- |
| [**Dimension**](http://docs.google.com/java/awt/Dimension.html#Dimension())()            Creates an instance of Dimension with a width of zero and a height of zero. |
| [**Dimension**](http://docs.google.com/java/awt/Dimension.html#Dimension(java.awt.Dimension))([Dimension](http://docs.google.com/java/awt/Dimension.html) d)            Creates an instance of Dimension whose width and height are the same as for the specified dimension. |
| [**Dimension**](http://docs.google.com/java/awt/Dimension.html#Dimension(int,%20int))(int width, int height)            Constructs a Dimension and initializes it to the specified width and specified height. |

| **Method Summary** | |
| --- | --- |
| boolean | [**equals**](http://docs.google.com/java/awt/Dimension.html#equals(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) obj)            Checks whether two dimension objects have equal values. |
| double | [**getHeight**](http://docs.google.com/java/awt/Dimension.html#getHeight())()            Returns the height of this Dimension in double precision. |
| [Dimension](http://docs.google.com/java/awt/Dimension.html) | [**getSize**](http://docs.google.com/java/awt/Dimension.html#getSize())()            Gets the size of this Dimension object. |
| double | [**getWidth**](http://docs.google.com/java/awt/Dimension.html#getWidth())()            Returns the width of this Dimension in double precision. |
| int | [**hashCode**](http://docs.google.com/java/awt/Dimension.html#hashCode())()            Returns the hash code for this Dimension. |
| void | [**setSize**](http://docs.google.com/java/awt/Dimension.html#setSize(java.awt.Dimension))([Dimension](http://docs.google.com/java/awt/Dimension.html) d)            Sets the size of this Dimension object to the specified size. |
| void | [**setSize**](http://docs.google.com/java/awt/Dimension.html#setSize(double,%20double))(double width, double height)            Sets the size of this Dimension object to the specified width and height in double precision. |
| void | [**setSize**](http://docs.google.com/java/awt/Dimension.html#setSize(int,%20int))(int width, int height)            Sets the size of this Dimension object to the specified width and height. |
| [String](http://docs.google.com/java/lang/String.html) | [**toString**](http://docs.google.com/java/awt/Dimension.html#toString())()            Returns a string representation of the values of this Dimension object's height and width fields. |

| **Methods inherited from class java.awt.geom.**[**Dimension2D**](http://docs.google.com/java/awt/geom/Dimension2D.html) |
| --- |
| [clone](http://docs.google.com/java/awt/geom/Dimension2D.html#clone()), [setSize](http://docs.google.com/java/awt/geom/Dimension2D.html#setSize(java.awt.geom.Dimension2D)) |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [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)) |

| **Field Detail** |
| --- |

### width

public int **width**

The width dimension; negative values can be used.

**Since:** 1.0 **See Also:**[getSize()](http://docs.google.com/java/awt/Dimension.html#getSize()), [setSize(double, double)](http://docs.google.com/java/awt/Dimension.html#setSize(double,%20double))

### height

public int **height**

The height dimension; negative values can be used.

**Since:** 1.0 **See Also:**[getSize()](http://docs.google.com/java/awt/Dimension.html#getSize()), [setSize(double, double)](http://docs.google.com/java/awt/Dimension.html#setSize(double,%20double))

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

### Dimension

public **Dimension**()

Creates an instance of Dimension with a width of zero and a height of zero.

### Dimension

public **Dimension**([Dimension](http://docs.google.com/java/awt/Dimension.html) d)

Creates an instance of Dimension whose width and height are the same as for the specified dimension.

**Parameters:**d - the specified dimension for the width and height values

### Dimension

public **Dimension**(int width,  
 int height)

Constructs a Dimension and initializes it to the specified width and specified height.

**Parameters:**width - the specified widthheight - the specified height

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

### getWidth

public double **getWidth**()

Returns the width of this Dimension in double precision.

**Specified by:**[getWidth](http://docs.google.com/java/awt/geom/Dimension2D.html#getWidth()) in class [Dimension2D](http://docs.google.com/java/awt/geom/Dimension2D.html) **Returns:**the width of this Dimension.**Since:** 1.2

### getHeight

public double **getHeight**()

Returns the height of this Dimension in double precision.

**Specified by:**[getHeight](http://docs.google.com/java/awt/geom/Dimension2D.html#getHeight()) in class [Dimension2D](http://docs.google.com/java/awt/geom/Dimension2D.html) **Returns:**the height of this Dimension.**Since:** 1.2

### setSize

public void **setSize**(double width,  
 double height)

Sets the size of this Dimension object to the specified width and height in double precision. Note that if width or height are larger than Integer.MAX\_VALUE, they will be reset to Integer.MAX\_VALUE.

**Specified by:**[setSize](http://docs.google.com/java/awt/geom/Dimension2D.html#setSize(double,%20double)) in class [Dimension2D](http://docs.google.com/java/awt/geom/Dimension2D.html) **Parameters:**width - the new width for the Dimension objectheight - the new height for the Dimension object**Since:** 1.2

### getSize

public [Dimension](http://docs.google.com/java/awt/Dimension.html) **getSize**()

Gets the size of this Dimension object. This method is included for completeness, to parallel the getSize method defined by Component.

**Returns:**the size of this dimension, a new instance of Dimension with the same width and height**Since:** 1.1 **See Also:**[setSize(double, double)](http://docs.google.com/java/awt/Dimension.html#setSize(double,%20double)), [Component.getSize()](http://docs.google.com/java/awt/Component.html#getSize())

### setSize

public void **setSize**([Dimension](http://docs.google.com/java/awt/Dimension.html) d)

Sets the size of this Dimension object to the specified size. This method is included for completeness, to parallel the setSize method defined by Component.

**Parameters:**d - the new size for this Dimension object**Since:** 1.1 **See Also:**[getSize()](http://docs.google.com/java/awt/Dimension.html#getSize()), [Component.setSize(int, int)](http://docs.google.com/java/awt/Component.html#setSize(int,%20int))

### setSize

public void **setSize**(int width,  
 int height)

Sets the size of this Dimension object to the specified width and height. This method is included for completeness, to parallel the setSize method defined by Component.

**Parameters:**width - the new width for this Dimension objectheight - the new height for this Dimension object**Since:** 1.1 **See Also:**[getSize()](http://docs.google.com/java/awt/Dimension.html#getSize()), [Component.setSize(int, int)](http://docs.google.com/java/awt/Component.html#setSize(int,%20int))

### equals

public boolean **equals**([Object](http://docs.google.com/java/lang/Object.html) obj)

Checks whether two dimension objects have equal values.

**Overrides:**[equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)) in class [Object](http://docs.google.com/java/lang/Object.html) **Parameters:**obj - the reference object with which to compare. **Returns:**true if this object is the same as the obj argument; false otherwise.**See Also:**[Object.hashCode()](http://docs.google.com/java/lang/Object.html#hashCode()), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### hashCode

public int **hashCode**()

Returns the hash code for this Dimension.

**Overrides:**[hashCode](http://docs.google.com/java/lang/Object.html#hashCode()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a hash code for this Dimension**See Also:**[Object.equals(java.lang.Object)](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### toString

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

Returns a string representation of the values of this Dimension object's height and width fields. 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:**[toString](http://docs.google.com/java/lang/Object.html#toString()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a string representation of this Dimension object

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Dimension.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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[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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