| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/RenderedImage.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/image/RasterOp.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/image/ReplicateScaleFilter.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/image/RenderedImage.html)    [**NO FRAMES**](http://docs.google.com/RenderedImage.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#3znysh7) | DETAIL: FIELD | CONSTR | [METHOD](#2et92p0) |

## **java.awt.image**

Interface RenderedImage

**All Known Subinterfaces:** [WritableRenderedImage](http://docs.google.com/java/awt/image/WritableRenderedImage.html) **All Known Implementing Classes:** [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html)

public interface **RenderedImage**

RenderedImage is a common interface for objects which contain or can produce image data in the form of Rasters. The image data may be stored/produced as a single tile or a regular array of tiles.

| **Method Summary** | |
| --- | --- |
| [WritableRaster](http://docs.google.com/java/awt/image/WritableRaster.html) | [**copyData**](http://docs.google.com/java/awt/image/RenderedImage.html#copyData(java.awt.image.WritableRaster))([WritableRaster](http://docs.google.com/java/awt/image/WritableRaster.html) raster)            Computes an arbitrary rectangular region of the RenderedImage and copies it into a caller-supplied WritableRaster. |
| [ColorModel](http://docs.google.com/java/awt/image/ColorModel.html) | [**getColorModel**](http://docs.google.com/java/awt/image/RenderedImage.html#getColorModel())()            Returns the ColorModel associated with this image. |
| [Raster](http://docs.google.com/java/awt/image/Raster.html) | [**getData**](http://docs.google.com/java/awt/image/RenderedImage.html#getData())()            Returns the image as one large tile (for tile based images this will require fetching the whole image and copying the image data over). |
| [Raster](http://docs.google.com/java/awt/image/Raster.html) | [**getData**](http://docs.google.com/java/awt/image/RenderedImage.html#getData(java.awt.Rectangle))([Rectangle](http://docs.google.com/java/awt/Rectangle.html) rect)            Computes and returns an arbitrary region of the RenderedImage. |
| int | [**getHeight**](http://docs.google.com/java/awt/image/RenderedImage.html#getHeight())()            Returns the height of the RenderedImage. |
| int | [**getMinTileX**](http://docs.google.com/java/awt/image/RenderedImage.html#getMinTileX())()            Returns the minimum tile index in the X direction. |
| int | [**getMinTileY**](http://docs.google.com/java/awt/image/RenderedImage.html#getMinTileY())()            Returns the minimum tile index in the Y direction. |
| int | [**getMinX**](http://docs.google.com/java/awt/image/RenderedImage.html#getMinX())()            Returns the minimum X coordinate (inclusive) of the RenderedImage. |
| int | [**getMinY**](http://docs.google.com/java/awt/image/RenderedImage.html#getMinY())()            Returns the minimum Y coordinate (inclusive) of the RenderedImage. |
| int | [**getNumXTiles**](http://docs.google.com/java/awt/image/RenderedImage.html#getNumXTiles())()            Returns the number of tiles in the X direction. |
| int | [**getNumYTiles**](http://docs.google.com/java/awt/image/RenderedImage.html#getNumYTiles())()            Returns the number of tiles in the Y direction. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**getProperty**](http://docs.google.com/java/awt/image/RenderedImage.html#getProperty(java.lang.String))([String](http://docs.google.com/java/lang/String.html) name)            Gets a property from the property set of this image. |
| [String](http://docs.google.com/java/lang/String.html)[] | [**getPropertyNames**](http://docs.google.com/java/awt/image/RenderedImage.html#getPropertyNames())()            Returns an array of names recognized by [getProperty(String)](http://docs.google.com/java/awt/image/RenderedImage.html#getProperty(java.lang.String)) or null, if no property names are recognized. |
| [SampleModel](http://docs.google.com/java/awt/image/SampleModel.html) | [**getSampleModel**](http://docs.google.com/java/awt/image/RenderedImage.html#getSampleModel())()            Returns the SampleModel associated with this image. |
| [Vector](http://docs.google.com/java/util/Vector.html)<[RenderedImage](http://docs.google.com/java/awt/image/RenderedImage.html)> | [**getSources**](http://docs.google.com/java/awt/image/RenderedImage.html#getSources())()            Returns a vector of RenderedImages that are the immediate sources of image data for this RenderedImage. |
| [Raster](http://docs.google.com/java/awt/image/Raster.html) | [**getTile**](http://docs.google.com/java/awt/image/RenderedImage.html#getTile(int,%20int))(int tileX, int tileY)            Returns tile (tileX, tileY). |
| int | [**getTileGridXOffset**](http://docs.google.com/java/awt/image/RenderedImage.html#getTileGridXOffset())()            Returns the X offset of the tile grid relative to the origin, i.e., the X coordinate of the upper-left pixel of tile (0, 0). |
| int | [**getTileGridYOffset**](http://docs.google.com/java/awt/image/RenderedImage.html#getTileGridYOffset())()            Returns the Y offset of the tile grid relative to the origin, i.e., the Y coordinate of the upper-left pixel of tile (0, 0). |
| int | [**getTileHeight**](http://docs.google.com/java/awt/image/RenderedImage.html#getTileHeight())()            Returns the tile height in pixels. |
| int | [**getTileWidth**](http://docs.google.com/java/awt/image/RenderedImage.html#getTileWidth())()            Returns the tile width in pixels. |
| int | [**getWidth**](http://docs.google.com/java/awt/image/RenderedImage.html#getWidth())()            Returns the width of the RenderedImage. |

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

### getSources

[Vector](http://docs.google.com/java/util/Vector.html)<[RenderedImage](http://docs.google.com/java/awt/image/RenderedImage.html)> **getSources**()

Returns a vector of RenderedImages that are the immediate sources of image data for this RenderedImage. This method returns null if the RenderedImage object has no information about its immediate sources. It returns an empty Vector if the RenderedImage object has no immediate sources.

**Returns:**a Vector of RenderedImage objects.

### getProperty

[Object](http://docs.google.com/java/lang/Object.html) **getProperty**([String](http://docs.google.com/java/lang/String.html) name)

Gets a property from the property set of this image. The set of properties and whether it is immutable is determined by the implementing class. This method returns java.awt.Image.UndefinedProperty if the specified property is not defined for this RenderedImage.

**Parameters:**name - the name of the property **Returns:**the property indicated by the specified name.**See Also:**[Image.UndefinedProperty](http://docs.google.com/java/awt/Image.html#UndefinedProperty)

### getPropertyNames

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

Returns an array of names recognized by [getProperty(String)](http://docs.google.com/java/awt/image/RenderedImage.html#getProperty(java.lang.String)) or null, if no property names are recognized.

**Returns:**a String array containing all of the property names that getProperty(String) recognizes; or null if no property names are recognized.

### getColorModel

[ColorModel](http://docs.google.com/java/awt/image/ColorModel.html) **getColorModel**()

Returns the ColorModel associated with this image. All Rasters returned from this image will have this as their ColorModel. This can return null.

**Returns:**the ColorModel of this image.

### getSampleModel

[SampleModel](http://docs.google.com/java/awt/image/SampleModel.html) **getSampleModel**()

Returns the SampleModel associated with this image. All Rasters returned from this image will have this as their SampleModel.

**Returns:**the SampleModel of this image.

### getWidth

int **getWidth**()

Returns the width of the RenderedImage.

**Returns:**the width of this RenderedImage.

### getHeight

int **getHeight**()

Returns the height of the RenderedImage.

**Returns:**the height of this RenderedImage.

### getMinX

int **getMinX**()

Returns the minimum X coordinate (inclusive) of the RenderedImage.

**Returns:**the X coordinate of this RenderedImage.

### getMinY

int **getMinY**()

Returns the minimum Y coordinate (inclusive) of the RenderedImage.

**Returns:**the Y coordinate of this RenderedImage.

### getNumXTiles

int **getNumXTiles**()

Returns the number of tiles in the X direction.

**Returns:**the number of tiles in the X direction.

### getNumYTiles

int **getNumYTiles**()

Returns the number of tiles in the Y direction.

**Returns:**the number of tiles in the Y direction.

### getMinTileX

int **getMinTileX**()

Returns the minimum tile index in the X direction.

**Returns:**the minimum tile index in the X direction.

### getMinTileY

int **getMinTileY**()

Returns the minimum tile index in the Y direction.

**Returns:**the minimum tile index in the X direction.

### getTileWidth

int **getTileWidth**()

Returns the tile width in pixels. All tiles must have the same width.

**Returns:**the tile width in pixels.

### getTileHeight

int **getTileHeight**()

Returns the tile height in pixels. All tiles must have the same height.

**Returns:**the tile height in pixels.

### getTileGridXOffset

int **getTileGridXOffset**()

Returns the X offset of the tile grid relative to the origin, i.e., the X coordinate of the upper-left pixel of tile (0, 0). (Note that tile (0, 0) may not actually exist.)

**Returns:**the X offset of the tile grid relative to the origin.

### getTileGridYOffset

int **getTileGridYOffset**()

Returns the Y offset of the tile grid relative to the origin, i.e., the Y coordinate of the upper-left pixel of tile (0, 0). (Note that tile (0, 0) may not actually exist.)

**Returns:**the Y offset of the tile grid relative to the origin.

### getTile

[Raster](http://docs.google.com/java/awt/image/Raster.html) **getTile**(int tileX,  
 int tileY)

Returns tile (tileX, tileY). Note that tileX and tileY are indices into the tile array, not pixel locations. The Raster that is returned is live and will be updated if the image is changed.

**Parameters:**tileX - the X index of the requested tile in the tile arraytileY - the Y index of the requested tile in the tile array **Returns:**the tile given the specified indices.

### getData

[Raster](http://docs.google.com/java/awt/image/Raster.html) **getData**()

Returns the image as one large tile (for tile based images this will require fetching the whole image and copying the image data over). The Raster returned is a copy of the image data and will not be updated if the image is changed.

**Returns:**the image as one large tile.

### getData

[Raster](http://docs.google.com/java/awt/image/Raster.html) **getData**([Rectangle](http://docs.google.com/java/awt/Rectangle.html) rect)

Computes and returns an arbitrary region of the RenderedImage. The Raster returned is a copy of the image data and will not be updated if the image is changed.

**Parameters:**rect - the region of the RenderedImage to be returned. **Returns:**the region of the RenderedImage indicated by the specified Rectangle.

### copyData

[WritableRaster](http://docs.google.com/java/awt/image/WritableRaster.html) **copyData**([WritableRaster](http://docs.google.com/java/awt/image/WritableRaster.html) raster)

Computes an arbitrary rectangular region of the RenderedImage and copies it into a caller-supplied WritableRaster. The region to be computed is determined from the bounds of the supplied WritableRaster. The supplied WritableRaster must have a SampleModel that is compatible with this image. If raster is null, an appropriate WritableRaster is created.

**Parameters:**raster - a WritableRaster to hold the returned portion of the image, or null. **Returns:**a reference to the supplied or created WritableRaster.

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/RenderedImage.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/image/RasterOp.html)   [**NEXT CLASS**](http://docs.google.com/java/awt/image/ReplicateScaleFilter.html) | [**FRAMES**](http://docs.google.com/index.html?java/awt/image/RenderedImage.html)    [**NO FRAMES**](http://docs.google.com/RenderedImage.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | CONSTR | [METHOD](#3znysh7) | DETAIL: FIELD | CONSTR | [METHOD](#2et92p0) |

[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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