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

**Uses of Class**

**java.awt.image.BufferedImage**

| Packages that use [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | |
| --- | --- |
| [**java.awt**](#3znysh7) | Contains all of the classes for creating user interfaces and for painting graphics and images. |
| [**java.awt.image**](#2et92p0) | Provides classes for creating and modifying images. |
| [**javax.imageio**](#tyjcwt) | The main package of the Java Image I/O API. |
| [**javax.imageio.event**](#3dy6vkm) | A package of the Java Image I/O API dealing with synchronous notification of events during the reading and writing of images. |

| Uses of [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) in [java.awt](http://docs.google.com/java/awt/package-summary.html) | |
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| Methods in [java.awt](http://docs.google.com/java/awt/package-summary.html) that return [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | |
| --- | --- |
| abstract  [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **GraphicsConfiguration.**[**createCompatibleImage**](http://docs.google.com/java/awt/GraphicsConfiguration.html#createCompatibleImage(int,%20int))(int width, int height)            Returns a [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) with a data layout and color model compatible with this GraphicsConfiguration. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **GraphicsConfiguration.**[**createCompatibleImage**](http://docs.google.com/java/awt/GraphicsConfiguration.html#createCompatibleImage(int,%20int,%20int))(int width, int height, int transparency)            Returns a BufferedImage that supports the specified transparency and has a data layout and color model compatible with this GraphicsConfiguration. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **Robot.**[**createScreenCapture**](http://docs.google.com/java/awt/Robot.html#createScreenCapture(java.awt.Rectangle))([Rectangle](http://docs.google.com/java/awt/Rectangle.html) screenRect)            Creates an image containing pixels read from the screen. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **TexturePaint.**[**getImage**](http://docs.google.com/java/awt/TexturePaint.html#getImage())()            Returns the BufferedImage texture used to fill the shapes. |

| Methods in [java.awt](http://docs.google.com/java/awt/package-summary.html) with parameters of type [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | |
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| abstract  [Graphics2D](http://docs.google.com/java/awt/Graphics2D.html) | **GraphicsEnvironment.**[**createGraphics**](http://docs.google.com/java/awt/GraphicsEnvironment.html#createGraphics(java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) img)            Returns a Graphics2D object for rendering into the specified [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html). |
| abstract  void | **Graphics2D.**[**drawImage**](http://docs.google.com/java/awt/Graphics2D.html#drawImage(java.awt.image.BufferedImage,%20java.awt.image.BufferedImageOp,%20int,%20int))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) img, [BufferedImageOp](http://docs.google.com/java/awt/image/BufferedImageOp.html) op, int x, int y)            Renders a BufferedImage that is filtered with a [BufferedImageOp](http://docs.google.com/java/awt/image/BufferedImageOp.html). |

| Constructors in [java.awt](http://docs.google.com/java/awt/package-summary.html) with parameters of type [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | |
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| [**TexturePaint**](http://docs.google.com/java/awt/TexturePaint.html#TexturePaint(java.awt.image.BufferedImage,%20java.awt.geom.Rectangle2D))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) txtr, [Rectangle2D](http://docs.google.com/java/awt/geom/Rectangle2D.html) anchor)            Constructs a TexturePaint object. |

| Uses of [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) in [java.awt.image](http://docs.google.com/java/awt/image/package-summary.html) | |
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| Methods in [java.awt.image](http://docs.google.com/java/awt/image/package-summary.html) that return [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | |
| --- | --- |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **IndexColorModel.**[**convertToIntDiscrete**](http://docs.google.com/java/awt/image/IndexColorModel.html#convertToIntDiscrete(java.awt.image.Raster,%20boolean))([Raster](http://docs.google.com/java/awt/image/Raster.html) raster, boolean forceARGB)            Returns a new BufferedImage of TYPE\_INT\_ARGB or TYPE\_INT\_RGB that has a Raster with pixel data computed by expanding the indices in the source Raster using the color/alpha component arrays of this ColorModel. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **RescaleOp.**[**createCompatibleDestImage**](http://docs.google.com/java/awt/image/RescaleOp.html#createCompatibleDestImage(java.awt.image.BufferedImage,%20java.awt.image.ColorModel))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [ColorModel](http://docs.google.com/java/awt/image/ColorModel.html) destCM)            Creates a zeroed destination image with the correct size and number of bands. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **LookupOp.**[**createCompatibleDestImage**](http://docs.google.com/java/awt/image/LookupOp.html#createCompatibleDestImage(java.awt.image.BufferedImage,%20java.awt.image.ColorModel))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [ColorModel](http://docs.google.com/java/awt/image/ColorModel.html) destCM)            Creates a zeroed destination image with the correct size and number of bands. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ConvolveOp.**[**createCompatibleDestImage**](http://docs.google.com/java/awt/image/ConvolveOp.html#createCompatibleDestImage(java.awt.image.BufferedImage,%20java.awt.image.ColorModel))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [ColorModel](http://docs.google.com/java/awt/image/ColorModel.html) destCM)            Creates a zeroed destination image with the correct size and number of bands. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ColorConvertOp.**[**createCompatibleDestImage**](http://docs.google.com/java/awt/image/ColorConvertOp.html#createCompatibleDestImage(java.awt.image.BufferedImage,%20java.awt.image.ColorModel))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [ColorModel](http://docs.google.com/java/awt/image/ColorModel.html) destCM)            Creates a zeroed destination image with the correct size and number of bands, given this source. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **AffineTransformOp.**[**createCompatibleDestImage**](http://docs.google.com/java/awt/image/AffineTransformOp.html#createCompatibleDestImage(java.awt.image.BufferedImage,%20java.awt.image.ColorModel))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [ColorModel](http://docs.google.com/java/awt/image/ColorModel.html) destCM)            Creates a zeroed destination image with the correct size and number of bands. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **BufferedImageOp.**[**createCompatibleDestImage**](http://docs.google.com/java/awt/image/BufferedImageOp.html#createCompatibleDestImage(java.awt.image.BufferedImage,%20java.awt.image.ColorModel))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [ColorModel](http://docs.google.com/java/awt/image/ColorModel.html) destCM)            Creates a zeroed destination image with the correct size and number of bands. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **RescaleOp.**[**filter**](http://docs.google.com/java/awt/image/RescaleOp.html#filter(java.awt.image.BufferedImage,%20java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) dst)            Rescales the source BufferedImage. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **LookupOp.**[**filter**](http://docs.google.com/java/awt/image/LookupOp.html#filter(java.awt.image.BufferedImage,%20java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) dst)            Performs a lookup operation on a BufferedImage. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ConvolveOp.**[**filter**](http://docs.google.com/java/awt/image/ConvolveOp.html#filter(java.awt.image.BufferedImage,%20java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) dst)            Performs a convolution on BufferedImages. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ColorConvertOp.**[**filter**](http://docs.google.com/java/awt/image/ColorConvertOp.html#filter(java.awt.image.BufferedImage,%20java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) dest)            ColorConverts the source BufferedImage. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **AffineTransformOp.**[**filter**](http://docs.google.com/java/awt/image/AffineTransformOp.html#filter(java.awt.image.BufferedImage,%20java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) dst)            Transforms the source BufferedImage and stores the results in the destination BufferedImage. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **BufferedImageOp.**[**filter**](http://docs.google.com/java/awt/image/BufferedImageOp.html#filter(java.awt.image.BufferedImage,%20java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) dest)            Performs a single-input/single-output operation on a BufferedImage. |
| abstract  [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **VolatileImage.**[**getSnapshot**](http://docs.google.com/java/awt/image/VolatileImage.html#getSnapshot())()            Returns a static snapshot image of this object. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **BufferedImage.**[**getSubimage**](http://docs.google.com/java/awt/image/BufferedImage.html#getSubimage(int,%20int,%20int,%20int))(int x, int y, int w, int h)            Returns a subimage defined by a specified rectangular region. |

| Methods in [java.awt.image](http://docs.google.com/java/awt/image/package-summary.html) with parameters of type [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | |
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| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **RescaleOp.**[**createCompatibleDestImage**](http://docs.google.com/java/awt/image/RescaleOp.html#createCompatibleDestImage(java.awt.image.BufferedImage,%20java.awt.image.ColorModel))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [ColorModel](http://docs.google.com/java/awt/image/ColorModel.html) destCM)            Creates a zeroed destination image with the correct size and number of bands. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **LookupOp.**[**createCompatibleDestImage**](http://docs.google.com/java/awt/image/LookupOp.html#createCompatibleDestImage(java.awt.image.BufferedImage,%20java.awt.image.ColorModel))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [ColorModel](http://docs.google.com/java/awt/image/ColorModel.html) destCM)            Creates a zeroed destination image with the correct size and number of bands. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ConvolveOp.**[**createCompatibleDestImage**](http://docs.google.com/java/awt/image/ConvolveOp.html#createCompatibleDestImage(java.awt.image.BufferedImage,%20java.awt.image.ColorModel))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [ColorModel](http://docs.google.com/java/awt/image/ColorModel.html) destCM)            Creates a zeroed destination image with the correct size and number of bands. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ColorConvertOp.**[**createCompatibleDestImage**](http://docs.google.com/java/awt/image/ColorConvertOp.html#createCompatibleDestImage(java.awt.image.BufferedImage,%20java.awt.image.ColorModel))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [ColorModel](http://docs.google.com/java/awt/image/ColorModel.html) destCM)            Creates a zeroed destination image with the correct size and number of bands, given this source. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **AffineTransformOp.**[**createCompatibleDestImage**](http://docs.google.com/java/awt/image/AffineTransformOp.html#createCompatibleDestImage(java.awt.image.BufferedImage,%20java.awt.image.ColorModel))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [ColorModel](http://docs.google.com/java/awt/image/ColorModel.html) destCM)            Creates a zeroed destination image with the correct size and number of bands. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **BufferedImageOp.**[**createCompatibleDestImage**](http://docs.google.com/java/awt/image/BufferedImageOp.html#createCompatibleDestImage(java.awt.image.BufferedImage,%20java.awt.image.ColorModel))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [ColorModel](http://docs.google.com/java/awt/image/ColorModel.html) destCM)            Creates a zeroed destination image with the correct size and number of bands. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **RescaleOp.**[**filter**](http://docs.google.com/java/awt/image/RescaleOp.html#filter(java.awt.image.BufferedImage,%20java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) dst)            Rescales the source BufferedImage. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **LookupOp.**[**filter**](http://docs.google.com/java/awt/image/LookupOp.html#filter(java.awt.image.BufferedImage,%20java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) dst)            Performs a lookup operation on a BufferedImage. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ConvolveOp.**[**filter**](http://docs.google.com/java/awt/image/ConvolveOp.html#filter(java.awt.image.BufferedImage,%20java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) dst)            Performs a convolution on BufferedImages. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ColorConvertOp.**[**filter**](http://docs.google.com/java/awt/image/ColorConvertOp.html#filter(java.awt.image.BufferedImage,%20java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) dest)            ColorConverts the source BufferedImage. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **AffineTransformOp.**[**filter**](http://docs.google.com/java/awt/image/AffineTransformOp.html#filter(java.awt.image.BufferedImage,%20java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) dst)            Transforms the source BufferedImage and stores the results in the destination BufferedImage. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **BufferedImageOp.**[**filter**](http://docs.google.com/java/awt/image/BufferedImageOp.html#filter(java.awt.image.BufferedImage,%20java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) dest)            Performs a single-input/single-output operation on a BufferedImage. |
| [Rectangle2D](http://docs.google.com/java/awt/geom/Rectangle2D.html) | **RescaleOp.**[**getBounds2D**](http://docs.google.com/java/awt/image/RescaleOp.html#getBounds2D(java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src)            Returns the bounding box of the rescaled destination image. |
| [Rectangle2D](http://docs.google.com/java/awt/geom/Rectangle2D.html) | **LookupOp.**[**getBounds2D**](http://docs.google.com/java/awt/image/LookupOp.html#getBounds2D(java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src)            Returns the bounding box of the filtered destination image. |
| [Rectangle2D](http://docs.google.com/java/awt/geom/Rectangle2D.html) | **ConvolveOp.**[**getBounds2D**](http://docs.google.com/java/awt/image/ConvolveOp.html#getBounds2D(java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src)            Returns the bounding box of the filtered destination image. |
| [Rectangle2D](http://docs.google.com/java/awt/geom/Rectangle2D.html) | **ColorConvertOp.**[**getBounds2D**](http://docs.google.com/java/awt/image/ColorConvertOp.html#getBounds2D(java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src)            Returns the bounding box of the destination, given this source. |
| [Rectangle2D](http://docs.google.com/java/awt/geom/Rectangle2D.html) | **AffineTransformOp.**[**getBounds2D**](http://docs.google.com/java/awt/image/AffineTransformOp.html#getBounds2D(java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src)            Returns the bounding box of the transformed destination. |
| [Rectangle2D](http://docs.google.com/java/awt/geom/Rectangle2D.html) | **BufferedImageOp.**[**getBounds2D**](http://docs.google.com/java/awt/image/BufferedImageOp.html#getBounds2D(java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) src)            Returns the bounding box of the filtered destination image. |

| Uses of [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) in [javax.imageio](http://docs.google.com/javax/imageio/package-summary.html) | |
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| Fields in [javax.imageio](http://docs.google.com/javax/imageio/package-summary.html) declared as [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | |
| --- | --- |
| protected  [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ImageReadParam.**[**destination**](http://docs.google.com/javax/imageio/ImageReadParam.html#destination)            The current destination BufferedImage, or null if none has been set. |

| Fields in [javax.imageio](http://docs.google.com/javax/imageio/package-summary.html) with type parameters of type [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | |
| --- | --- |
| protected  [List](http://docs.google.com/java/util/List.html)<? extends [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html)> | **IIOImage.**[**thumbnails**](http://docs.google.com/javax/imageio/IIOImage.html#thumbnails)            A List of BufferedImage thumbnails, or null. |

| Methods in [javax.imageio](http://docs.google.com/javax/imageio/package-summary.html) that return [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | |
| --- | --- |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ImageTypeSpecifier.**[**createBufferedImage**](http://docs.google.com/javax/imageio/ImageTypeSpecifier.html#createBufferedImage(int,%20int))(int width, int height)            Creates a BufferedImage with a given width and height according to the specification embodied in this object. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ImageReadParam.**[**getDestination**](http://docs.google.com/javax/imageio/ImageReadParam.html#getDestination())()            Returns the BufferedImage currently set by the setDestination method, or null if none is set. |
| protected static [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ImageReader.**[**getDestination**](http://docs.google.com/javax/imageio/ImageReader.html#getDestination(javax.imageio.ImageReadParam,%20java.util.Iterator,%20int,%20int))([ImageReadParam](http://docs.google.com/javax/imageio/ImageReadParam.html) param, [Iterator](http://docs.google.com/java/util/Iterator.html)<[ImageTypeSpecifier](http://docs.google.com/javax/imageio/ImageTypeSpecifier.html)> imageTypes, int width, int height)            Returns the BufferedImage to which decoded pixel data should be written. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **IIOImage.**[**getThumbnail**](http://docs.google.com/javax/imageio/IIOImage.html#getThumbnail(int))(int index)            Returns a thumbnail associated with the main image. |
| static [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ImageIO.**[**read**](http://docs.google.com/javax/imageio/ImageIO.html#read(java.io.File))([File](http://docs.google.com/java/io/File.html) input)            Returns a BufferedImage as the result of decoding a supplied File with an ImageReader chosen automatically from among those currently registered. |
| static [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ImageIO.**[**read**](http://docs.google.com/javax/imageio/ImageIO.html#read(javax.imageio.stream.ImageInputStream))([ImageInputStream](http://docs.google.com/javax/imageio/stream/ImageInputStream.html) stream)            Returns a BufferedImage as the result of decoding a supplied ImageInputStream with an ImageReader chosen automatically from among those currently registered. |
| static [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ImageIO.**[**read**](http://docs.google.com/javax/imageio/ImageIO.html#read(java.io.InputStream))([InputStream](http://docs.google.com/java/io/InputStream.html) input)            Returns a BufferedImage as the result of decoding a supplied InputStream with an ImageReader chosen automatically from among those currently registered. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ImageReader.**[**read**](http://docs.google.com/javax/imageio/ImageReader.html#read(int))(int imageIndex)            Reads the image indexed by imageIndex and returns it as a complete BufferedImage, using a default ImageReadParam. |
| abstract  [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ImageReader.**[**read**](http://docs.google.com/javax/imageio/ImageReader.html#read(int,%20javax.imageio.ImageReadParam))(int imageIndex, [ImageReadParam](http://docs.google.com/javax/imageio/ImageReadParam.html) param)            Reads the image indexed by imageIndex and returns it as a complete BufferedImage, using a supplied ImageReadParam. |
| static [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ImageIO.**[**read**](http://docs.google.com/javax/imageio/ImageIO.html#read(java.net.URL))([URL](http://docs.google.com/java/net/URL.html) input)            Returns a BufferedImage as the result of decoding a supplied URL with an ImageReader chosen automatically from among those currently registered. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ImageReader.**[**readThumbnail**](http://docs.google.com/javax/imageio/ImageReader.html#readThumbnail(int,%20int))(int imageIndex, int thumbnailIndex)            Returns the thumbnail preview image indexed by thumbnailIndex, associated with the image indexed by ImageIndex as a BufferedImage. |
| [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | **ImageReader.**[**readTile**](http://docs.google.com/javax/imageio/ImageReader.html#readTile(int,%20int,%20int))(int imageIndex, int tileX, int tileY)            Reads the tile indicated by the tileX and tileY arguments, returning it as a BufferedImage. |

| Methods in [javax.imageio](http://docs.google.com/javax/imageio/package-summary.html) that return types with arguments of type [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | |
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| [List](http://docs.google.com/java/util/List.html)<? extends [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html)> | **IIOImage.**[**getThumbnails**](http://docs.google.com/javax/imageio/IIOImage.html#getThumbnails())()            Returns the current List of thumbnail BufferedImages, or null if none is set. |

| Methods in [javax.imageio](http://docs.google.com/javax/imageio/package-summary.html) with parameters of type [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | |
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| protected static void | **ImageReader.**[**computeRegions**](http://docs.google.com/javax/imageio/ImageReader.html#computeRegions(javax.imageio.ImageReadParam,%20int,%20int,%20java.awt.image.BufferedImage,%20java.awt.Rectangle,%20java.awt.Rectangle))([ImageReadParam](http://docs.google.com/javax/imageio/ImageReadParam.html) param, int srcWidth, int srcHeight, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) image, [Rectangle](http://docs.google.com/java/awt/Rectangle.html) srcRegion, [Rectangle](http://docs.google.com/java/awt/Rectangle.html) destRegion)            Computes the source region of interest and the destination region of interest, taking the width and height of the source image, an optional destination image, and an optional ImageReadParam into account. |
| protected  void | **ImageReader.**[**processImageUpdate**](http://docs.google.com/javax/imageio/ImageReader.html#processImageUpdate(java.awt.image.BufferedImage,%20int,%20int,%20int,%20int,%20int,%20int,%20int%5B%5D))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) theImage, int minX, int minY, int width, int height, int periodX, int periodY, int[] bands)            Broadcasts the update of a set of samples to all registered IIOReadUpdateListeners by calling their imageUpdate method. |
| protected  void | **ImageReader.**[**processPassComplete**](http://docs.google.com/javax/imageio/ImageReader.html#processPassComplete(java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) theImage)            Broadcasts the end of a progressive pass to all registered IIOReadUpdateListeners by calling their passComplete method. |
| protected  void | **ImageReader.**[**processPassStarted**](http://docs.google.com/javax/imageio/ImageReader.html#processPassStarted(java.awt.image.BufferedImage,%20int,%20int,%20int,%20int,%20int,%20int,%20int,%20int%5B%5D))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) theImage, int pass, int minPass, int maxPass, int minX, int minY, int periodX, int periodY, int[] bands)            Broadcasts the beginning of a progressive pass to all registered IIOReadUpdateListeners by calling their passStarted method. |
| protected  void | **ImageReader.**[**processThumbnailPassComplete**](http://docs.google.com/javax/imageio/ImageReader.html#processThumbnailPassComplete(java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) theThumbnail)            Broadcasts the end of a thumbnail progressive pass to all registered IIOReadUpdateListeners by calling their thumbnailPassComplete method. |
| protected  void | **ImageReader.**[**processThumbnailPassStarted**](http://docs.google.com/javax/imageio/ImageReader.html#processThumbnailPassStarted(java.awt.image.BufferedImage,%20int,%20int,%20int,%20int,%20int,%20int,%20int,%20int%5B%5D))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) theThumbnail, int pass, int minPass, int maxPass, int minX, int minY, int periodX, int periodY, int[] bands)            Broadcasts the beginning of a thumbnail progressive pass to all registered IIOReadUpdateListeners by calling their thumbnailPassStarted method. |
| protected  void | **ImageReader.**[**processThumbnailUpdate**](http://docs.google.com/javax/imageio/ImageReader.html#processThumbnailUpdate(java.awt.image.BufferedImage,%20int,%20int,%20int,%20int,%20int,%20int,%20int%5B%5D))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) theThumbnail, int minX, int minY, int width, int height, int periodX, int periodY, int[] bands)            Broadcasts the update of a set of samples in a thumbnail image to all registered IIOReadUpdateListeners by calling their thumbnailUpdate method. |
| void | **ImageReadParam.**[**setDestination**](http://docs.google.com/javax/imageio/ImageReadParam.html#setDestination(java.awt.image.BufferedImage))([BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) destination)            Supplies a BufferedImage to be used as the destination for decoded pixel data. |

| Method parameters in [javax.imageio](http://docs.google.com/javax/imageio/package-summary.html) with type arguments of type [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | |
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| void | **ImageWriter.**[**prepareInsertEmpty**](http://docs.google.com/javax/imageio/ImageWriter.html#prepareInsertEmpty(int,%20javax.imageio.ImageTypeSpecifier,%20int,%20int,%20javax.imageio.metadata.IIOMetadata,%20java.util.List,%20javax.imageio.ImageWriteParam))(int imageIndex, [ImageTypeSpecifier](http://docs.google.com/javax/imageio/ImageTypeSpecifier.html) imageType, int width, int height, [IIOMetadata](http://docs.google.com/javax/imageio/metadata/IIOMetadata.html) imageMetadata, [List](http://docs.google.com/java/util/List.html)<? extends [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html)> thumbnails, [ImageWriteParam](http://docs.google.com/javax/imageio/ImageWriteParam.html) param)            Begins the insertion of a new image with undefined pixel values into an existing image stream. |
| void | **ImageWriter.**[**prepareWriteEmpty**](http://docs.google.com/javax/imageio/ImageWriter.html#prepareWriteEmpty(javax.imageio.metadata.IIOMetadata,%20javax.imageio.ImageTypeSpecifier,%20int,%20int,%20javax.imageio.metadata.IIOMetadata,%20java.util.List,%20javax.imageio.ImageWriteParam))([IIOMetadata](http://docs.google.com/javax/imageio/metadata/IIOMetadata.html) streamMetadata, [ImageTypeSpecifier](http://docs.google.com/javax/imageio/ImageTypeSpecifier.html) imageType, int width, int height, [IIOMetadata](http://docs.google.com/javax/imageio/metadata/IIOMetadata.html) imageMetadata, [List](http://docs.google.com/java/util/List.html)<? extends [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html)> thumbnails, [ImageWriteParam](http://docs.google.com/javax/imageio/ImageWriteParam.html) param)            Begins the writing of a complete image stream, consisting of a single image with undefined pixel values and associated metadata and thumbnails, to the output. |
| void | **IIOImage.**[**setThumbnails**](http://docs.google.com/javax/imageio/IIOImage.html#setThumbnails(java.util.List))([List](http://docs.google.com/java/util/List.html)<? extends [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html)> thumbnails)            Sets the list of thumbnails to a new List of BufferedImages, or to null. |

| Constructor parameters in [javax.imageio](http://docs.google.com/javax/imageio/package-summary.html) with type arguments of type [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | |
| --- | --- |
| [**IIOImage**](http://docs.google.com/javax/imageio/IIOImage.html#IIOImage(java.awt.image.Raster,%20java.util.List,%20javax.imageio.metadata.IIOMetadata))([Raster](http://docs.google.com/java/awt/image/Raster.html) raster, [List](http://docs.google.com/java/util/List.html)<? extends [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html)> thumbnails, [IIOMetadata](http://docs.google.com/javax/imageio/metadata/IIOMetadata.html) metadata)            Constructs an IIOImage containing a Raster, and thumbnails and metadata associated with it. |
| [**IIOImage**](http://docs.google.com/javax/imageio/IIOImage.html#IIOImage(java.awt.image.RenderedImage,%20java.util.List,%20javax.imageio.metadata.IIOMetadata))([RenderedImage](http://docs.google.com/java/awt/image/RenderedImage.html) image, [List](http://docs.google.com/java/util/List.html)<? extends [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html)> thumbnails, [IIOMetadata](http://docs.google.com/javax/imageio/metadata/IIOMetadata.html) metadata)            Constructs an IIOImage containing a RenderedImage, and thumbnails and metadata associated with it. |

| Uses of [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) in [javax.imageio.event](http://docs.google.com/javax/imageio/event/package-summary.html) | |
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| Methods in [javax.imageio.event](http://docs.google.com/javax/imageio/event/package-summary.html) with parameters of type [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) | |
| --- | --- |
| void | **IIOReadUpdateListener.**[**imageUpdate**](http://docs.google.com/javax/imageio/event/IIOReadUpdateListener.html#imageUpdate(javax.imageio.ImageReader,%20java.awt.image.BufferedImage,%20int,%20int,%20int,%20int,%20int,%20int,%20int%5B%5D))([ImageReader](http://docs.google.com/javax/imageio/ImageReader.html) source, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) theImage, int minX, int minY, int width, int height, int periodX, int periodY, int[] bands)            Reports that a given region of the image has been updated. |
| void | **IIOReadUpdateListener.**[**passComplete**](http://docs.google.com/javax/imageio/event/IIOReadUpdateListener.html#passComplete(javax.imageio.ImageReader,%20java.awt.image.BufferedImage))([ImageReader](http://docs.google.com/javax/imageio/ImageReader.html) source, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) theImage)            Reports that the current read operation has completed a progressive pass. |
| void | **IIOReadUpdateListener.**[**passStarted**](http://docs.google.com/javax/imageio/event/IIOReadUpdateListener.html#passStarted(javax.imageio.ImageReader,%20java.awt.image.BufferedImage,%20int,%20int,%20int,%20int,%20int,%20int,%20int,%20int%5B%5D))([ImageReader](http://docs.google.com/javax/imageio/ImageReader.html) source, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) theImage, int pass, int minPass, int maxPass, int minX, int minY, int periodX, int periodY, int[] bands)            Reports that the current read operation is about to begin a progressive pass. |
| void | **IIOReadUpdateListener.**[**thumbnailPassComplete**](http://docs.google.com/javax/imageio/event/IIOReadUpdateListener.html#thumbnailPassComplete(javax.imageio.ImageReader,%20java.awt.image.BufferedImage))([ImageReader](http://docs.google.com/javax/imageio/ImageReader.html) source, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) theThumbnail)            Reports that the current thumbnail read operation has completed a progressive pass. |
| void | **IIOReadUpdateListener.**[**thumbnailPassStarted**](http://docs.google.com/javax/imageio/event/IIOReadUpdateListener.html#thumbnailPassStarted(javax.imageio.ImageReader,%20java.awt.image.BufferedImage,%20int,%20int,%20int,%20int,%20int,%20int,%20int,%20int%5B%5D))([ImageReader](http://docs.google.com/javax/imageio/ImageReader.html) source, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) theThumbnail, int pass, int minPass, int maxPass, int minX, int minY, int periodX, int periodY, int[] bands)            Reports that the current thumbnail read operation is about to begin a progressive pass. |
| void | **IIOReadUpdateListener.**[**thumbnailUpdate**](http://docs.google.com/javax/imageio/event/IIOReadUpdateListener.html#thumbnailUpdate(javax.imageio.ImageReader,%20java.awt.image.BufferedImage,%20int,%20int,%20int,%20int,%20int,%20int,%20int%5B%5D))([ImageReader](http://docs.google.com/javax/imageio/ImageReader.html) source, [BufferedImage](http://docs.google.com/java/awt/image/BufferedImage.html) theThumbnail, int minX, int minY, int width, int height, int periodX, int periodY, int[] bands)            Reports that a given region of a thumbnail image has been updated. |

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | [**Class**](http://docs.google.com/java/awt/image/BufferedImage.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/image//class-useBufferedImage.html)    [**NO FRAMES**](http://docs.google.com/BufferedImage.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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