|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Tree**](http://docs.google.com/package-tree.html) | [**Index**](http://docs.google.com/index-all.html) | [**Help**](http://docs.google.com/help-doc.html) | | |  |
| [**PREV CLASS**](http://docs.google.com/Pixel.html)   NEXT CLASS | [**FRAMES**](http://docs.google.com/index.html?SimplePicture.html)    [**NO FRAMES**](http://docs.google.com/SimplePicture.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#lnxbz9) |

## Class SimplePicture

[java.lang.Object](http://java.sun.com/j2se/1.5/docs/api/java/lang/Object.html)  
 **SimplePicture**

**All Implemented Interfaces:** [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Direct Known Subclasses:** [Picture](http://docs.google.com/Picture.html)

public class **SimplePicture**extends [Object](http://java.sun.com/j2se/1.5/docs/api/java/lang/Object.html)implements [DigitalPicture](http://docs.google.com/DigitalPicture.html)

A class that represents a simple picture. A simple picture may have an associated file name and a title. A simple picture has pixels, width, and height. A simple picture uses a BufferedImage to hold the pixels. You can show a simple picture in a PictureFrame (a JFrame). You can also explore a simple picture.

**Author:** Barb Ericson ericson@cc.gatech.edu

|  |  |
| --- | --- |
| **Constructor Summary** | |
| [**SimplePicture**](http://docs.google.com/SimplePicture.html#SimplePicture())()            A Constructor that takes no arguments. |
| [**SimplePicture**](http://docs.google.com/SimplePicture.html#SimplePicture(java.awt.image.BufferedImage))([BufferedImage](http://java.sun.com/j2se/1.5/docs/api/java/awt/image/BufferedImage.html) image)            A constructor that takes a buffered image |
| [**SimplePicture**](http://docs.google.com/SimplePicture.html#SimplePicture(int,%20int))(int width, int height)            A constructor that takes the width and height desired for a picture and creates a buffered image of that size. |
| [**SimplePicture**](http://docs.google.com/SimplePicture.html#SimplePicture(int,%20int,%20java.awt.Color))(int width, int height, [Color](http://java.sun.com/j2se/1.5/docs/api/java/awt/Color.html) theColor)            A constructor that takes the width and height desired for a picture and creates a buffered image of that size. |
| [**SimplePicture**](http://docs.google.com/SimplePicture.html#SimplePicture(SimplePicture))([SimplePicture](http://docs.google.com/SimplePicture.html) copyPicture)            A Constructor that takes a picture to copy information from |
| [**SimplePicture**](http://docs.google.com/SimplePicture.html#SimplePicture(java.lang.String))([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)            A Constructor that takes a file name and uses the file to create a picture |

|  |  |
| --- | --- |
| **Method Summary** | |
| void | [**addMessage**](http://docs.google.com/SimplePicture.html#addMessage(java.lang.String,%20int,%20int))([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) message, int xPos, int yPos)            Method to draw a message as a string on the buffered image |
| void | [**copyPicture**](http://docs.google.com/SimplePicture.html#copyPicture(SimplePicture))([SimplePicture](http://docs.google.com/SimplePicture.html) sourcePicture)            Method that will copy all of the passed source picture into the current picture object |
| [Graphics2D](http://java.sun.com/j2se/1.5/docs/api/java/awt/Graphics2D.html) | [**createGraphics**](http://docs.google.com/SimplePicture.html#createGraphics())()            Method to get a Graphics2D object for this picture which can be used to do 2D drawing on the picture |
| void | [**drawString**](http://docs.google.com/SimplePicture.html#drawString(java.lang.String,%20int,%20int))([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) text, int xPos, int yPos)            Method to draw a string at the given location on the picture |
| void | [**explore**](http://docs.google.com/SimplePicture.html#explore())()            Method to open a picture explorer on a copy (in memory) of this simple picture |
| int | [**getBasicPixel**](http://docs.google.com/SimplePicture.html#getBasicPixel(int,%20int))(int x, int y)            Method to return the pixel value as an int for the given x and y location |
| [BufferedImage](http://java.sun.com/j2se/1.5/docs/api/java/awt/image/BufferedImage.html) | [**getBufferedImage**](http://docs.google.com/SimplePicture.html#getBufferedImage())()            Method to get the buffered image |
| [String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) | [**getExtension**](http://docs.google.com/SimplePicture.html#getExtension())()            Method to get the extension for this picture |
| [String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) | [**getFileName**](http://docs.google.com/SimplePicture.html#getFileName())()            Method to get the file name associated with the picture |
| [Graphics](http://java.sun.com/j2se/1.5/docs/api/java/awt/Graphics.html) | [**getGraphics**](http://docs.google.com/SimplePicture.html#getGraphics())()            Method to get a graphics object for this picture to use to draw on |
| int | [**getHeight**](http://docs.google.com/SimplePicture.html#getHeight())()            Method to get the height of the picture in pixels |
| [Image](http://java.sun.com/j2se/1.5/docs/api/java/awt/Image.html) | [**getImage**](http://docs.google.com/SimplePicture.html#getImage())()            Method to get an image from the picture |
| static [String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) | [**getMediaPath**](http://docs.google.com/SimplePicture.html#getMediaPath(java.lang.String))([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)            Method to get the directory for the media |
| [PictureFrame](http://docs.google.com/PictureFrame.html) | [**getPictureFrame**](http://docs.google.com/SimplePicture.html#getPictureFrame())()            Method to get the picture frame for the picture |
| [Picture](http://docs.google.com/Picture.html) | [**getPictureWithHeight**](http://docs.google.com/SimplePicture.html#getPictureWithHeight(int))(int height)            Method to create a new picture of the passed height. |
| [Picture](http://docs.google.com/Picture.html) | [**getPictureWithWidth**](http://docs.google.com/SimplePicture.html#getPictureWithWidth(int))(int width)            Method to create a new picture of the passed width. |
| [Pixel](http://docs.google.com/Pixel.html) | [**getPixel**](http://docs.google.com/SimplePicture.html#getPixel(int,%20int))(int x, int y)            Method to get a pixel object for the given x and y location |
| [Pixel](http://docs.google.com/Pixel.html)[] | [**getPixels**](http://docs.google.com/SimplePicture.html#getPixels())()            Method to get a one-dimensional array of Pixels for this simple picture |
| [Pixel](http://docs.google.com/Pixel.html)[][] | [**getPixels2D**](http://docs.google.com/SimplePicture.html#getPixels2D())()            Method to get a two-dimensional array of Pixels for this simple picture |
| [String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) | [**getTitle**](http://docs.google.com/SimplePicture.html#getTitle())()            Method to get the title of the picture |
| [Rectangle2D](http://java.sun.com/j2se/1.5/docs/api/java/awt/geom/Rectangle2D.html) | [**getTransformEnclosingRect**](http://docs.google.com/SimplePicture.html#getTransformEnclosingRect(java.awt.geom.AffineTransform))([AffineTransform](http://java.sun.com/j2se/1.5/docs/api/java/awt/geom/AffineTransform.html) trans)            Method to get the coordinates of the enclosing rectangle after this transformation is applied to the current picture |
| [Rectangle2D](http://java.sun.com/j2se/1.5/docs/api/java/awt/geom/Rectangle2D.html) | [**getTranslationEnclosingRect**](http://docs.google.com/SimplePicture.html#getTranslationEnclosingRect(java.awt.geom.AffineTransform))([AffineTransform](http://java.sun.com/j2se/1.5/docs/api/java/awt/geom/AffineTransform.html) trans)            Method to get the coordinates of the enclosing rectangle after this transformation is applied to the current picture |
| int | [**getWidth**](http://docs.google.com/SimplePicture.html#getWidth())()            Method to get the width of the picture in pixels |
| void | [**hide**](http://docs.google.com/SimplePicture.html#hide())()            Method to hide the picture display |
| void | [**load**](http://docs.google.com/SimplePicture.html#load(java.awt.Image))([Image](http://java.sun.com/j2se/1.5/docs/api/java/awt/Image.html) image)            Method to load the buffered image with the passed image |
| boolean | [**load**](http://docs.google.com/SimplePicture.html#load(java.lang.String))([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)            Method to read the contents of the picture from a filename without throwing errors |
| boolean | [**loadImage**](http://docs.google.com/SimplePicture.html#loadImage(java.lang.String))([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)            Method to load the picture from the passed file name this just calls load(fileName) and is for name compatibility |
| void | [**loadOrFail**](http://docs.google.com/SimplePicture.html#loadOrFail(java.lang.String))([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)            Method to load the picture from the passed file name |
| boolean | [**loadPictureAndShowIt**](http://docs.google.com/SimplePicture.html#loadPictureAndShowIt(java.lang.String))([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)            Method to load a picture from a file name and show it in a picture frame |
| void | [**repaint**](http://docs.google.com/SimplePicture.html#repaint())()            Method to force the picture to repaint itself. |
| [Picture](http://docs.google.com/Picture.html) | [**scale**](http://docs.google.com/SimplePicture.html#scale(double,%20double))(double rFactor, double cFactor)            Method to create a new picture by scaling the current picture by the given factors |
| void | [**setAllPixelsToAColor**](http://docs.google.com/SimplePicture.html#setAllPixelsToAColor(java.awt.Color))([Color](http://java.sun.com/j2se/1.5/docs/api/java/awt/Color.html) color)            Method to set the color in the picture to the passed color |
| void | [**setBasicPixel**](http://docs.google.com/SimplePicture.html#setBasicPixel(int,%20int,%20int))(int x, int y, int rgb)            Method to set the value of a pixel in the picture from an int |
| void | [**setFileName**](http://docs.google.com/SimplePicture.html#setFileName(java.lang.String))([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) name)            Method to set the file name |
| void | [**setPictureFrame**](http://docs.google.com/SimplePicture.html#setPictureFrame(PictureFrame))([PictureFrame](http://docs.google.com/PictureFrame.html) pictureFrame)            Method to set the picture frame for this picture |
| void | [**setTitle**](http://docs.google.com/SimplePicture.html#setTitle(java.lang.String))([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) title)            Method to set the title for the picture |
| void | [**setVisible**](http://docs.google.com/SimplePicture.html#setVisible(boolean))(boolean flag)            Method to make this picture visible or not |
| void | [**show**](http://docs.google.com/SimplePicture.html#show())()            Method to show the picture in a picture frame |
| [String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) | [**toString**](http://docs.google.com/SimplePicture.html#toString())()            Method to return a string with information about this picture |
| boolean | [**write**](http://docs.google.com/SimplePicture.html#write(java.lang.String))([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)            Method to write the contents of the picture to a file with the passed name without throwing errors |
| void | [**writeOrFail**](http://docs.google.com/SimplePicture.html#writeOrFail(java.lang.String))([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)            Method to write the contents of the picture to a file with the passed name |

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| **Methods inherited from class java.lang.**[**Object**](http://java.sun.com/j2se/1.5/docs/api/java/lang/Object.html) |
| [clone](http://java.sun.com/j2se/1.5/docs/api/java/lang/Object.html#clone()), [equals](http://java.sun.com/j2se/1.5/docs/api/java/lang/Object.html#equals(java.lang.Object)), [finalize](http://java.sun.com/j2se/1.5/docs/api/java/lang/Object.html#finalize()), [getClass](http://java.sun.com/j2se/1.5/docs/api/java/lang/Object.html#getClass()), [hashCode](http://java.sun.com/j2se/1.5/docs/api/java/lang/Object.html#hashCode()), [notify](http://java.sun.com/j2se/1.5/docs/api/java/lang/Object.html#notify()), [notifyAll](http://java.sun.com/j2se/1.5/docs/api/java/lang/Object.html#notifyAll()), [wait](http://java.sun.com/j2se/1.5/docs/api/java/lang/Object.html#wait()), [wait](http://java.sun.com/j2se/1.5/docs/api/java/lang/Object.html#wait(long)), [wait](http://java.sun.com/j2se/1.5/docs/api/java/lang/Object.html#wait(long,%20int)) |

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| **Constructor Detail** |

### SimplePicture

public **SimplePicture**()

A Constructor that takes no arguments. It creates a picture with a width of 200 and a height of 100 that is all white. A no-argument constructor must be given in order for a class to be able to be subclassed. By default all subclasses will implicitly call this in their parent's no-argument constructor unless a different call to super() is explicitly made as the first line of code in a constructor.

### SimplePicture

public **SimplePicture**([BufferedImage](http://java.sun.com/j2se/1.5/docs/api/java/awt/image/BufferedImage.html) image)

A constructor that takes a buffered image

**Parameters:**image - the buffered image

### SimplePicture

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

A constructor that takes the width and height desired for a picture and creates a buffered image of that size. This constructor doesn't show the picture. The pixels will all be white.

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

### SimplePicture

public **SimplePicture**(int width,  
 int height,  
 [Color](http://java.sun.com/j2se/1.5/docs/api/java/awt/Color.html) theColor)

A constructor that takes the width and height desired for a picture and creates a buffered image of that size. It also takes the color to use for the background of the picture.

**Parameters:**width - the desired widthheight - the desired heighttheColor - the background color for the picture

### SimplePicture

public **SimplePicture**([SimplePicture](http://docs.google.com/SimplePicture.html) copyPicture)

A Constructor that takes a picture to copy information from

**Parameters:**copyPicture - the picture to copy from

### SimplePicture

public **SimplePicture**([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)

A Constructor that takes a file name and uses the file to create a picture

**Parameters:**fileName - the file name to use in creating the picture

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| **Method Detail** |

### addMessage

public void **addMessage**([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) message,  
 int xPos,  
 int yPos)

Method to draw a message as a string on the buffered image

**Parameters:**message - the message to draw on the buffered imagexPos - the x coordinate of the leftmost point of the stringyPos - the y coordinate of the bottom of the string

### copyPicture

public void **copyPicture**([SimplePicture](http://docs.google.com/SimplePicture.html) sourcePicture)

Method that will copy all of the passed source picture into the current picture object

**Parameters:**sourcePicture - the picture object to copy

### createGraphics

public [Graphics2D](http://java.sun.com/j2se/1.5/docs/api/java/awt/Graphics2D.html) **createGraphics**()

Method to get a Graphics2D object for this picture which can be used to do 2D drawing on the picture

### drawString

public void **drawString**([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) text,  
 int xPos,  
 int yPos)

Method to draw a string at the given location on the picture

**Parameters:**text - the text to drawxPos - the left x for the textyPos - the top y for the text

### explore

public void **explore**()

Method to open a picture explorer on a copy (in memory) of this simple picture

**Specified by:**[explore](http://docs.google.com/DigitalPicture.html#explore()) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)

### getBasicPixel

public int **getBasicPixel**(int x,  
 int y)

Method to return the pixel value as an int for the given x and y location

**Specified by:**[getBasicPixel](http://docs.google.com/DigitalPicture.html#getBasicPixel(int,%20int)) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Parameters:**x - the x coordinate of the pixely - the y coordinate of the pixel **Returns:**the pixel value as an integer (alpha, red, green, blue)

### getBufferedImage

public [BufferedImage](http://java.sun.com/j2se/1.5/docs/api/java/awt/image/BufferedImage.html) **getBufferedImage**()

Method to get the buffered image

**Specified by:**[getBufferedImage](http://docs.google.com/DigitalPicture.html#getBufferedImage()) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Returns:**the buffered image

### getExtension

public [String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) **getExtension**()

Method to get the extension for this picture

**Returns:**the extension (jpg, bmp, giff, etc)

### getFileName

public [String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) **getFileName**()

Method to get the file name associated with the picture

**Specified by:**[getFileName](http://docs.google.com/DigitalPicture.html#getFileName()) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Returns:**the file name associated with the picture

### getGraphics

public [Graphics](http://java.sun.com/j2se/1.5/docs/api/java/awt/Graphics.html) **getGraphics**()

Method to get a graphics object for this picture to use to draw on

**Returns:**a graphics object to use for drawing

### getHeight

public int **getHeight**()

Method to get the height of the picture in pixels

**Specified by:**[getHeight](http://docs.google.com/DigitalPicture.html#getHeight()) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Returns:**the height of the picture in pixels

### getImage

public [Image](http://java.sun.com/j2se/1.5/docs/api/java/awt/Image.html) **getImage**()

Method to get an image from the picture

**Specified by:**[getImage](http://docs.google.com/DigitalPicture.html#getImage()) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Returns:**the buffered image since it is an image

### getMediaPath

public static [String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) **getMediaPath**([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)

Method to get the directory for the media

**Parameters:**fileName - the base file name to use **Returns:**the full path name by appending the file name to the media directory

### getPictureFrame

public [PictureFrame](http://docs.google.com/PictureFrame.html) **getPictureFrame**()

Method to get the picture frame for the picture

**Returns:**the picture frame associated with this picture (it may be null)

### getPictureWithHeight

public [Picture](http://docs.google.com/Picture.html) **getPictureWithHeight**(int height)

Method to create a new picture of the passed height. The aspect ratio of the width and height will stay the same.

**Parameters:**height - the desired height **Returns:**the resulting picture

### getPictureWithWidth

public [Picture](http://docs.google.com/Picture.html) **getPictureWithWidth**(int width)

Method to create a new picture of the passed width. The aspect ratio of the width and height will stay the same.

**Parameters:**width - the desired width **Returns:**the resulting picture

### getPixel

public [Pixel](http://docs.google.com/Pixel.html) **getPixel**(int x,  
 int y)

Method to get a pixel object for the given x and y location

**Specified by:**[getPixel](http://docs.google.com/DigitalPicture.html#getPixel(int,%20int)) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Parameters:**x - the x location of the pixel in the picturey - the y location of the pixel in the picture **Returns:**a Pixel object for this location

### getPixels

public [Pixel](http://docs.google.com/Pixel.html)[] **getPixels**()

Method to get a one-dimensional array of Pixels for this simple picture

**Specified by:**[getPixels](http://docs.google.com/DigitalPicture.html#getPixels()) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Returns:**a one-dimensional array of Pixel objects starting with y=0 to y=height-1 and x=0 to x=width-1.

### getPixels2D

public [Pixel](http://docs.google.com/Pixel.html)[][] **getPixels2D**()

Method to get a two-dimensional array of Pixels for this simple picture

**Specified by:**[getPixels2D](http://docs.google.com/DigitalPicture.html#getPixels2D()) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Returns:**a two-dimensional array of Pixel objects in row-major order.

### getTitle

public [String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) **getTitle**()

Method to get the title of the picture

**Specified by:**[getTitle](http://docs.google.com/DigitalPicture.html#getTitle()) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Returns:**the title of the picture

### getTransformEnclosingRect

public [Rectangle2D](http://java.sun.com/j2se/1.5/docs/api/java/awt/geom/Rectangle2D.html) **getTransformEnclosingRect**([AffineTransform](http://java.sun.com/j2se/1.5/docs/api/java/awt/geom/AffineTransform.html) trans)

Method to get the coordinates of the enclosing rectangle after this transformation is applied to the current picture

**Returns:**the enclosing rectangle

### getTranslationEnclosingRect

public [Rectangle2D](http://java.sun.com/j2se/1.5/docs/api/java/awt/geom/Rectangle2D.html) **getTranslationEnclosingRect**([AffineTransform](http://java.sun.com/j2se/1.5/docs/api/java/awt/geom/AffineTransform.html) trans)

Method to get the coordinates of the enclosing rectangle after this transformation is applied to the current picture

**Returns:**the enclosing rectangle

### getWidth

public int **getWidth**()

Method to get the width of the picture in pixels

**Specified by:**[getWidth](http://docs.google.com/DigitalPicture.html#getWidth()) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Returns:**the width of the picture in pixels

### hide

public void **hide**()

Method to hide the picture display

### load

public void **load**([Image](http://java.sun.com/j2se/1.5/docs/api/java/awt/Image.html) image)

Method to load the buffered image with the passed image

**Specified by:**[load](http://docs.google.com/DigitalPicture.html#load(java.awt.Image)) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Parameters:**image - the image to use

### load

public boolean **load**([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)

Method to read the contents of the picture from a filename without throwing errors

**Specified by:**[load](http://docs.google.com/DigitalPicture.html#load(java.lang.String)) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Parameters:**fileName - the name of the file to write the picture to **Returns:**true if success else false

### loadImage

public boolean **loadImage**([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)

Method to load the picture from the passed file name this just calls load(fileName) and is for name compatibility

**Parameters:**fileName - the file name to use to load the picture from **Returns:**true if success else false

### loadOrFail

public void **loadOrFail**([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)  
 throws [IOException](http://java.sun.com/j2se/1.5/docs/api/java/io/IOException.html)

Method to load the picture from the passed file name

**Parameters:**fileName - the file name to use to load the picture from **Throws:** [IOException](http://java.sun.com/j2se/1.5/docs/api/java/io/IOException.html) - if the picture isn't found

### loadPictureAndShowIt

public boolean **loadPictureAndShowIt**([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)

Method to load a picture from a file name and show it in a picture frame

**Parameters:**fileName - the file name to load the picture from **Returns:**true if success else false

### repaint

public void **repaint**()

Method to force the picture to repaint itself. This is very useful after you have changed the pixels in a picture and you want to see the change.

### scale

public [Picture](http://docs.google.com/Picture.html) **scale**(double rFactor,  
 double cFactor)

Method to create a new picture by scaling the current picture by the given factors

**Parameters:**rFactor - the amount to scale in the height (rows)cFactor - the amount to scale in the width (columns) **Returns:**the resulting picture

### setAllPixelsToAColor

public void **setAllPixelsToAColor**([Color](http://java.sun.com/j2se/1.5/docs/api/java/awt/Color.html) color)

Method to set the color in the picture to the passed color

**Parameters:**color - the color to set to

### setBasicPixel

public void **setBasicPixel**(int x,  
 int y,  
 int rgb)

Method to set the value of a pixel in the picture from an int

**Specified by:**[setBasicPixel](http://docs.google.com/DigitalPicture.html#setBasicPixel(int,%20int,%20int)) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Parameters:**x - the x coordinate of the pixely - the y coordinate of the pixelrgb - the new rgb value of the pixel (alpha, red, green, blue)

### setFileName

public void **setFileName**([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) name)

Method to set the file name

**Parameters:**name - the full pathname of the file

### setPictureFrame

public void **setPictureFrame**([PictureFrame](http://docs.google.com/PictureFrame.html) pictureFrame)

Method to set the picture frame for this picture

**Parameters:**pictureFrame - the picture frame to use

### setTitle

public void **setTitle**([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) title)

Method to set the title for the picture

**Specified by:**[setTitle](http://docs.google.com/DigitalPicture.html#setTitle(java.lang.String)) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Parameters:**title - the title to use for the picture

### setVisible

public void **setVisible**(boolean flag)

Method to make this picture visible or not

**Parameters:**flag - true if you want it visible else false

### show

public void **show**()

Method to show the picture in a picture frame

**Specified by:**[show](http://docs.google.com/DigitalPicture.html#show()) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)

### toString

public [String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) **toString**()

Method to return a string with information about this picture

**Overrides:**[toString](http://java.sun.com/j2se/1.5/docs/api/java/lang/Object.html#toString()) in class [Object](http://java.sun.com/j2se/1.5/docs/api/java/lang/Object.html) **Returns:**a string with information about the picture

### write

public boolean **write**([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)

Method to write the contents of the picture to a file with the passed name without throwing errors

**Specified by:**[write](http://docs.google.com/DigitalPicture.html#write(java.lang.String)) in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html) **Parameters:**fileName - the name of the file to write the picture to **Returns:**true if success else false

### writeOrFail

public void **writeOrFail**([String](http://java.sun.com/j2se/1.5/docs/api/java/lang/String.html) fileName)  
 throws [IOException](http://java.sun.com/j2se/1.5/docs/api/java/io/IOException.html)

Method to write the contents of the picture to a file with the passed name

**Parameters:**fileName - the name of the file to write the picture to **Throws:** [IOException](http://java.sun.com/j2se/1.5/docs/api/java/io/IOException.html)

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Tree**](http://docs.google.com/package-tree.html) | [**Index**](http://docs.google.com/index-all.html) | [**Help**](http://docs.google.com/help-doc.html) | | |  |
| [**PREV CLASS**](http://docs.google.com/Pixel.html)   NEXT CLASS | [**FRAMES**](http://docs.google.com/index.html?SimplePicture.html)    [**NO FRAMES**](http://docs.google.com/SimplePicture.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#lnxbz9) |