| | [**Package**](http://docs.google.com/package-summary.html) | Class | [**Tree**](http://docs.google.com/overview-tree.html) | **Index** | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| PREV   NEXT | [**FRAMES**](http://docs.google.com/index.html?index-all.html)    [**NO FRAMES**](http://docs.google.com/index-all.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

[A](#3znysh7) [C](#2et92p0) [D](#tyjcwt) [E](#3dy6vkm) [F](#1t3h5sf) [G](#4d34og8) [H](#2s8eyo1) [I](#17dp8vu) [L](#3rdcrjn) [M](#26in1rg) [P](#lnxbz9) [R](#35nkun2) [S](#1ksv4uv) [T](#44sinio) [U](#2jxsxqh) [W](#z337ya) [Z](#3j2qqm3)

## **A**

[**actionPerformed(ActionEvent)**](http://docs.google.com/PictureExplorer.html#actionPerformed(java.awt.event.ActionEvent)) - Method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Controls the zoom menu bar [**addMessage(String, int, int)**](http://docs.google.com/SimplePicture.html#addMessage(java.lang.String,%20int,%20int)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to draw a message as a string on the buffered image

## **C**

[**changeToBaseOne()**](http://docs.google.com/PictureExplorer.html#changeToBaseOne()) - Method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Changes the number system to start at one [**checkScroll()**](http://docs.google.com/PictureExplorer.html#checkScroll()) - Method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Method to check that the current position is in the viewing area and if not scroll to center the current position if possible [**close()**](http://docs.google.com/PictureFrame.html#close()) - Method in class [PictureFrame](http://docs.google.com/PictureFrame.html) A method to close a picture frame [**ColorChooser**](http://docs.google.com/ColorChooser.html) - Class in [<Unnamed>](http://docs.google.com/package-summary.html)A class to make working with a color chooser easier for students.[**ColorChooser()**](http://docs.google.com/ColorChooser.html#ColorChooser()) - Constructor for class [ColorChooser](http://docs.google.com/ColorChooser.html)   [**colorDistance(Color)**](http://docs.google.com/Pixel.html#colorDistance(java.awt.Color)) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to get the distance between this pixel's color and the passed color [**colorDistance(Color, Color)**](http://docs.google.com/Pixel.html#colorDistance(java.awt.Color,%20java.awt.Color)) - Static method in class [Pixel](http://docs.google.com/Pixel.html) Method to compute the color distances between two color objects [**copy(Picture, int, int)**](http://docs.google.com/Picture.html#copy(Picture,%20int,%20int)) - Method in class [Picture](http://docs.google.com/Picture.html) copy from the passed fromPic to the specified startRow and startCol in the current picture [**copyPicture(SimplePicture)**](http://docs.google.com/SimplePicture.html#copyPicture(SimplePicture)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method that will copy all of the passed source picture into the current picture object [**createCollage()**](http://docs.google.com/Picture.html#createCollage()) - Method in class [Picture](http://docs.google.com/Picture.html) Method to create a collage of several pictures [**createGraphics()**](http://docs.google.com/SimplePicture.html#createGraphics()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get a Graphics2D object for this picture which can be used to do 2D drawing on the picture [**createLocationPanel(Font)**](http://docs.google.com/PictureExplorer.html#createLocationPanel(java.awt.Font)) - Method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Create the pixel location panel

## **D**

[**DigitalPicture**](http://docs.google.com/DigitalPicture.html) - Interface in [<Unnamed>](http://docs.google.com/package-summary.html)Interface to describe a digital picture.[**displayImage()**](http://docs.google.com/PictureFrame.html#displayImage()) - Method in class [PictureFrame](http://docs.google.com/PictureFrame.html) A method to make sure the frame is displayed [**displayPixelInformation(String, String)**](http://docs.google.com/PictureExplorer.html#displayPixelInformation(java.lang.String,%20java.lang.String)) - Method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Method to display the pixel information from the passed x and y but also converts x and y from strings [**drawString(String, int, int)**](http://docs.google.com/SimplePicture.html#drawString(java.lang.String,%20int,%20int)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to draw a string at the given location on the picture

## **E**

[**edgeDetection(int)**](http://docs.google.com/Picture.html#edgeDetection(int)) - Method in class [Picture](http://docs.google.com/Picture.html) Method to show large changes in color [**explore()**](http://docs.google.com/DigitalPicture.html#explore()) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**explore()**](http://docs.google.com/SimplePicture.html#explore()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to open a picture explorer on a copy (in memory) of this simple picture

## **F**

[**FileChooser**](http://docs.google.com/FileChooser.html) - Class in [<Unnamed>](http://docs.google.com/package-summary.html)A class to make working with a file chooser easier for students.[**FileChooser()**](http://docs.google.com/FileChooser.html#FileChooser()) - Constructor for class [FileChooser](http://docs.google.com/FileChooser.html)   [**fillCount()**](http://docs.google.com/IntArrayWorker.html#fillCount()) - Method in class [IntArrayWorker](http://docs.google.com/IntArrayWorker.html) Method to fill with an increasing count [**fillPattern1()**](http://docs.google.com/IntArrayWorker.html#fillPattern1()) - Method in class [IntArrayWorker](http://docs.google.com/IntArrayWorker.html) fill the array with a pattern [**frame**](http://docs.google.com/PictureFrame.html#frame) - Variable in class [PictureFrame](http://docs.google.com/PictureFrame.html) Main window used as the frame

## **G**

[**getAlpha()**](http://docs.google.com/Pixel.html#getAlpha()) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to get the amount of alpha (transparency) at this pixel. [**getAverage()**](http://docs.google.com/Pixel.html#getAverage()) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to get the average of the colors of this pixel [**getBasicPixel(int, int)**](http://docs.google.com/DigitalPicture.html#getBasicPixel(int,%20int)) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**getBasicPixel(int, int)**](http://docs.google.com/SimplePicture.html#getBasicPixel(int,%20int)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to return the pixel value as an int for the given x and y location [**getBlue()**](http://docs.google.com/Pixel.html#getBlue()) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to get the amount of blue at this pixel. [**getBlue(int)**](http://docs.google.com/Pixel.html#getBlue(int)) - Static method in class [Pixel](http://docs.google.com/Pixel.html) Method to get the blue value from a pixel represented as an int [**getBufferedImage()**](http://docs.google.com/DigitalPicture.html#getBufferedImage()) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**getBufferedImage()**](http://docs.google.com/SimplePicture.html#getBufferedImage()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get the buffered image [**getCol()**](http://docs.google.com/Pixel.html#getCol()) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to get the column (x value) [**getColor()**](http://docs.google.com/Pixel.html#getColor()) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to get a color object that represents the color at this pixel. [**getCurrentX()**](http://docs.google.com/ImageDisplay.html#getCurrentX()) - Method in class [ImageDisplay](http://docs.google.com/ImageDisplay.html) Method to get the current x [**getCurrentY()**](http://docs.google.com/ImageDisplay.html#getCurrentY()) - Method in class [ImageDisplay](http://docs.google.com/ImageDisplay.html) Method to get the current y [**getExtension()**](http://docs.google.com/SimplePicture.html#getExtension()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get the extension for this picture [**getFileName()**](http://docs.google.com/DigitalPicture.html#getFileName()) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**getFileName()**](http://docs.google.com/SimplePicture.html#getFileName()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get the file name associated with the picture [**getGraphics()**](http://docs.google.com/SimplePicture.html#getGraphics()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get a graphics object for this picture to use to draw on [**getGreen()**](http://docs.google.com/Pixel.html#getGreen()) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to get the amount of green at this pixel. [**getGreen(int)**](http://docs.google.com/Pixel.html#getGreen(int)) - Static method in class [Pixel](http://docs.google.com/Pixel.html) Method to get the green value from a pixel represented as an int [**getHeight()**](http://docs.google.com/DigitalPicture.html#getHeight()) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**getHeight()**](http://docs.google.com/SimplePicture.html#getHeight()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get the height of the picture in pixels [**getImage()**](http://docs.google.com/DigitalPicture.html#getImage()) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**getImage()**](http://docs.google.com/ImageDisplay.html#getImage()) - Method in class [ImageDisplay](http://docs.google.com/ImageDisplay.html) Method to get the image [**getImage()**](http://docs.google.com/SimplePicture.html#getImage()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get an image from the picture [**getMediaDirectory()**](http://docs.google.com/FileChooser.html#getMediaDirectory()) - Static method in class [FileChooser](http://docs.google.com/FileChooser.html) Method to get the directory for the media [**getMediaPath(String)**](http://docs.google.com/FileChooser.html#getMediaPath(java.lang.String)) - Static method in class [FileChooser](http://docs.google.com/FileChooser.html) Method to get the full path for the passed file name [**getMediaPath(String)**](http://docs.google.com/SimplePicture.html#getMediaPath(java.lang.String)) - Static method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get the directory for the media [**getPictureFrame()**](http://docs.google.com/SimplePicture.html#getPictureFrame()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get the picture frame for the picture [**getPictureWithHeight(int)**](http://docs.google.com/SimplePicture.html#getPictureWithHeight(int)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to create a new picture of the passed height. [**getPictureWithWidth(int)**](http://docs.google.com/SimplePicture.html#getPictureWithWidth(int)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to create a new picture of the passed width. [**getPixel(int, int)**](http://docs.google.com/DigitalPicture.html#getPixel(int,%20int)) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**getPixel(int, int)**](http://docs.google.com/SimplePicture.html#getPixel(int,%20int)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get a pixel object for the given x and y location [**getPixels()**](http://docs.google.com/DigitalPicture.html#getPixels()) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**getPixels()**](http://docs.google.com/SimplePicture.html#getPixels()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get a one-dimensional array of Pixels for this simple picture [**getPixels2D()**](http://docs.google.com/DigitalPicture.html#getPixels2D()) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**getPixels2D()**](http://docs.google.com/SimplePicture.html#getPixels2D()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get a two-dimensional array of Pixels for this simple picture [**getPreferredScrollableViewportSize()**](http://docs.google.com/ImageDisplay.html#getPreferredScrollableViewportSize()) - Method in class [ImageDisplay](http://docs.google.com/ImageDisplay.html) Method to return the preferred size [**getRed()**](http://docs.google.com/Pixel.html#getRed()) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to get the amount of red at this pixel. [**getRed(int)**](http://docs.google.com/Pixel.html#getRed(int)) - Static method in class [Pixel](http://docs.google.com/Pixel.html) Method to get the red value from a pixel represented as an int [**getRow()**](http://docs.google.com/Pixel.html#getRow()) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to get the row (y value) [**getScrollableBlockIncrement(Rectangle, int, int)**](http://docs.google.com/ImageDisplay.html#getScrollableBlockIncrement(java.awt.Rectangle,%20int,%20int)) - Method in class [ImageDisplay](http://docs.google.com/ImageDisplay.html) Method to return the block increment for scrolling [**getScrollableTracksViewportHeight()**](http://docs.google.com/ImageDisplay.html#getScrollableTracksViewportHeight()) - Method in class [ImageDisplay](http://docs.google.com/ImageDisplay.html) Method to check if the viewport height is the source height [**getScrollableTracksViewportWidth()**](http://docs.google.com/ImageDisplay.html#getScrollableTracksViewportWidth()) - Method in class [ImageDisplay](http://docs.google.com/ImageDisplay.html) Method to check if the viewport width is the source width [**getScrollableUnitIncrement(Rectangle, int, int)**](http://docs.google.com/ImageDisplay.html#getScrollableUnitIncrement(java.awt.Rectangle,%20int,%20int)) - Method in class [ImageDisplay](http://docs.google.com/ImageDisplay.html) Method to return the unit increment for scrolling [**getTitle()**](http://docs.google.com/DigitalPicture.html#getTitle()) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**getTitle()**](http://docs.google.com/SimplePicture.html#getTitle()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get the title of the picture [**getTotal()**](http://docs.google.com/IntArrayWorker.html#getTotal()) - Method in class [IntArrayWorker](http://docs.google.com/IntArrayWorker.html) Method to return the total [**getTotalNested()**](http://docs.google.com/IntArrayWorker.html#getTotalNested()) - Method in class [IntArrayWorker](http://docs.google.com/IntArrayWorker.html) Method to return the total using a nested for-each loop [**getTransformEnclosingRect(AffineTransform)**](http://docs.google.com/SimplePicture.html#getTransformEnclosingRect(java.awt.geom.AffineTransform)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get the coordinates of the enclosing rectangle after this transformation is applied to the current picture [**getTranslationEnclosingRect(AffineTransform)**](http://docs.google.com/SimplePicture.html#getTranslationEnclosingRect(java.awt.geom.AffineTransform)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get the coordinates of the enclosing rectangle after this transformation is applied to the current picture [**getWidth()**](http://docs.google.com/DigitalPicture.html#getWidth()) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**getWidth()**](http://docs.google.com/SimplePicture.html#getWidth()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to get the width of the picture in pixels [**getX()**](http://docs.google.com/Pixel.html#getX()) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to get the x location of this pixel. [**getY()**](http://docs.google.com/Pixel.html#getY()) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to get the y location of this pixel.

## **H**

[**hide()**](http://docs.google.com/PictureFrame.html#hide()) - Method in class [PictureFrame](http://docs.google.com/PictureFrame.html) A method to hide the frame [**hide()**](http://docs.google.com/SimplePicture.html#hide()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to hide the picture display

## **I**

[**ImageDisplay**](http://docs.google.com/ImageDisplay.html) - Class in [<Unnamed>](http://docs.google.com/package-summary.html)Class to display an image and the current location with a + sign[**ImageDisplay(Image)**](http://docs.google.com/ImageDisplay.html#ImageDisplay(java.awt.Image)) - Constructor for class [ImageDisplay](http://docs.google.com/ImageDisplay.html) Constructor that takes the image to display [**ImageDisplay(Image, int, int)**](http://docs.google.com/ImageDisplay.html#ImageDisplay(java.awt.Image,%20int,%20int)) - Constructor for class [ImageDisplay](http://docs.google.com/ImageDisplay.html) Constructor that takes the image and current x and y [**imageIcon**](http://docs.google.com/PictureFrame.html#imageIcon) - Variable in class [PictureFrame](http://docs.google.com/PictureFrame.html) ImageIcon used to display the picture in the label [**IntArrayWorker**](http://docs.google.com/IntArrayWorker.html) - Class in [<Unnamed>](http://docs.google.com/package-summary.html) [**IntArrayWorker()**](http://docs.google.com/IntArrayWorker.html#IntArrayWorker()) - Constructor for class [IntArrayWorker](http://docs.google.com/IntArrayWorker.html)   [**IntArrayWorkerTester**](http://docs.google.com/IntArrayWorkerTester.html) - Class in [<Unnamed>](http://docs.google.com/package-summary.html) [**IntArrayWorkerTester()**](http://docs.google.com/IntArrayWorkerTester.html#IntArrayWorkerTester()) - Constructor for class [IntArrayWorkerTester](http://docs.google.com/IntArrayWorkerTester.html)  

## **L**

[**load(Image)**](http://docs.google.com/DigitalPicture.html#load(java.awt.Image)) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**load(String)**](http://docs.google.com/DigitalPicture.html#load(java.lang.String)) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**load(Image)**](http://docs.google.com/SimplePicture.html#load(java.awt.Image)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to load the buffered image with the passed image [**load(String)**](http://docs.google.com/SimplePicture.html#load(java.lang.String)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to read the contents of the picture from a filename without throwing errors [**loadImage(String)**](http://docs.google.com/SimplePicture.html#loadImage(java.lang.String)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to load the picture from the passed file name this just calls load(fileName) and is for name compatibility [**loadOrFail(String)**](http://docs.google.com/SimplePicture.html#loadOrFail(java.lang.String)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to load the picture from the passed file name [**loadPictureAndShowIt(String)**](http://docs.google.com/SimplePicture.html#loadPictureAndShowIt(java.lang.String)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to load a picture from a file name and show it in a picture frame

## **M**

[**main(String[])**](http://docs.google.com/ColorChooser.html#main(java.lang.String%5B%5D)) - Static method in class [ColorChooser](http://docs.google.com/ColorChooser.html) Main method for testing the ColorChooser [**main(String[])**](http://docs.google.com/IntArrayWorkerTester.html#main(java.lang.String%5B%5D)) - Static method in class [IntArrayWorkerTester](http://docs.google.com/IntArrayWorkerTester.html) Method to test getColTotal [**main(String[])**](http://docs.google.com/Picture.html#main(java.lang.String%5B%5D)) - Static method in class [Picture](http://docs.google.com/Picture.html)   [**main(String[])**](http://docs.google.com/PictureExplorer.html#main(java.lang.String%5B%5D)) - Static method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Test Main. [**main(String[])**](http://docs.google.com/PictureTester.html#main(java.lang.String%5B%5D)) - Static method in class [PictureTester](http://docs.google.com/PictureTester.html) Main method for testing. [**mirrorTemple()**](http://docs.google.com/Picture.html#mirrorTemple()) - Method in class [Picture](http://docs.google.com/Picture.html) Mirror just part of a picture of a temple [**mirrorVertical()**](http://docs.google.com/Picture.html#mirrorVertical()) - Method in class [Picture](http://docs.google.com/Picture.html) Method that mirrors the picture around a vertical mirror in the center of the picture from left to right [**mouseClicked(MouseEvent)**](http://docs.google.com/PictureExplorer.html#mouseClicked(java.awt.event.MouseEvent)) - Method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Method called when the mouse is clicked [**mouseDragged(MouseEvent)**](http://docs.google.com/PictureExplorer.html#mouseDragged(java.awt.event.MouseEvent)) - Method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Called when the mouse is dragged (button held down and moved) [**mouseEntered(MouseEvent)**](http://docs.google.com/PictureExplorer.html#mouseEntered(java.awt.event.MouseEvent)) - Method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Method called when the component is entered (mouse moves over it) [**mouseExited(MouseEvent)**](http://docs.google.com/PictureExplorer.html#mouseExited(java.awt.event.MouseEvent)) - Method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Method called when the mouse moves over the component [**mouseMoved(MouseEvent)**](http://docs.google.com/PictureExplorer.html#mouseMoved(java.awt.event.MouseEvent)) - Method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Method called when the mouse is moved with no buttons down [**mousePressed(MouseEvent)**](http://docs.google.com/PictureExplorer.html#mousePressed(java.awt.event.MouseEvent)) - Method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Method called when the mouse button is pushed down [**mouseReleased(MouseEvent)**](http://docs.google.com/PictureExplorer.html#mouseReleased(java.awt.event.MouseEvent)) - Method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Method called when the mouse button is released

## **P**

[**paintComponent(Graphics)**](http://docs.google.com/ImageDisplay.html#paintComponent(java.awt.Graphics)) - Method in class [ImageDisplay](http://docs.google.com/ImageDisplay.html) Method to handle displaying this object [**pickAColor()**](http://docs.google.com/ColorChooser.html#pickAColor()) - Static method in class [ColorChooser](http://docs.google.com/ColorChooser.html) Method to let the user pick a color and return the color object. [**pickAFile()**](http://docs.google.com/FileChooser.html#pickAFile()) - Static method in class [FileChooser](http://docs.google.com/FileChooser.html) Method to let the user pick a file and return the full file name as a string. [**pickPath(JFileChooser)**](http://docs.google.com/FileChooser.html#pickPath(javax.swing.JFileChooser)) - Static method in class [FileChooser](http://docs.google.com/FileChooser.html) Method to pick an item using the file chooser [**Picture**](http://docs.google.com/Picture.html) - Class in [<Unnamed>](http://docs.google.com/package-summary.html)A class that represents a picture.[**Picture()**](http://docs.google.com/Picture.html#Picture()) - Constructor for class [Picture](http://docs.google.com/Picture.html) Constructor that takes no arguments [**Picture(String)**](http://docs.google.com/Picture.html#Picture(java.lang.String)) - Constructor for class [Picture](http://docs.google.com/Picture.html) Constructor that takes a file name and creates the picture [**Picture(int, int)**](http://docs.google.com/Picture.html#Picture(int,%20int)) - Constructor for class [Picture](http://docs.google.com/Picture.html) Constructor that takes the width and height [**Picture(Picture)**](http://docs.google.com/Picture.html#Picture(Picture)) - Constructor for class [Picture](http://docs.google.com/Picture.html) Constructor that takes a picture and creates a copy of that picture [**Picture(BufferedImage)**](http://docs.google.com/Picture.html#Picture(java.awt.image.BufferedImage)) - Constructor for class [Picture](http://docs.google.com/Picture.html) Constructor that takes a buffered image [**PictureExplorer**](http://docs.google.com/PictureExplorer.html) - Class in [<Unnamed>](http://docs.google.com/package-summary.html)Displays a picture and lets you explore the picture by displaying the row, column, red, green, and blue values of the pixel at the cursor when you click a mouse button or press and hold a mouse button while moving the cursor.[**PictureExplorer(DigitalPicture)**](http://docs.google.com/PictureExplorer.html#PictureExplorer(DigitalPicture)) - Constructor for class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Public constructor [**PictureFrame**](http://docs.google.com/PictureFrame.html) - Class in [<Unnamed>](http://docs.google.com/package-summary.html)Class that holds a digital picture and displays it using a JFrame[**PictureFrame()**](http://docs.google.com/PictureFrame.html#PictureFrame()) - Constructor for class [PictureFrame](http://docs.google.com/PictureFrame.html) A constructor that takes no arguments. [**PictureFrame(DigitalPicture)**](http://docs.google.com/PictureFrame.html#PictureFrame(DigitalPicture)) - Constructor for class [PictureFrame](http://docs.google.com/PictureFrame.html) A constructor that takes a picture to display [**PictureTester**](http://docs.google.com/PictureTester.html) - Class in [<Unnamed>](http://docs.google.com/package-summary.html)This class contains class (static) methods that will help you test the Picture class methods.[**PictureTester()**](http://docs.google.com/PictureTester.html#PictureTester()) - Constructor for class [PictureTester](http://docs.google.com/PictureTester.html)   [**Pixel**](http://docs.google.com/Pixel.html) - Class in [<Unnamed>](http://docs.google.com/package-summary.html)Class that references a pixel in a picture.[**Pixel(DigitalPicture, int, int)**](http://docs.google.com/Pixel.html#Pixel(DigitalPicture,%20int,%20int)) - Constructor for class [Pixel](http://docs.google.com/Pixel.html) A constructor that takes the x and y location for the pixel and the picture the pixel is coming from [**print()**](http://docs.google.com/IntArrayWorker.html#print()) - Method in class [IntArrayWorker](http://docs.google.com/IntArrayWorker.html) print the values in the array in rows and columns

## **R**

[**repaint()**](http://docs.google.com/PictureExplorer.html#repaint()) - Method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Repaints the image on the scrollpane. [**repaint()**](http://docs.google.com/PictureFrame.html#repaint()) - Method in class [PictureFrame](http://docs.google.com/PictureFrame.html) Method to force the picture frame to repaint (redraw) [**repaint()**](http://docs.google.com/SimplePicture.html#repaint()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to force the picture to repaint itself.

## **S**

[**scale(double, double)**](http://docs.google.com/SimplePicture.html#scale(double,%20double)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to create a new picture by scaling the current picture by the given x and y factors [**setAllPixelsToAColor(Color)**](http://docs.google.com/SimplePicture.html#setAllPixelsToAColor(java.awt.Color)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to set the color in the picture to the passed color [**setAlpha(int)**](http://docs.google.com/Pixel.html#setAlpha(int)) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to set the alpha (transparency) to a new alpha value [**setBasicPixel(int, int, int)**](http://docs.google.com/DigitalPicture.html#setBasicPixel(int,%20int,%20int)) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**setBasicPixel(int, int, int)**](http://docs.google.com/SimplePicture.html#setBasicPixel(int,%20int,%20int)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to set the value of a pixel in the picture from an int [**setBlue(int)**](http://docs.google.com/Pixel.html#setBlue(int)) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to set the blue to a new blue value [**setColor(Color)**](http://docs.google.com/Pixel.html#setColor(java.awt.Color)) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to set the pixel color to the passed in color object. [**setCurrentX(int)**](http://docs.google.com/ImageDisplay.html#setCurrentX(int)) - Method in class [ImageDisplay](http://docs.google.com/ImageDisplay.html) Method to set the current x [**setCurrentY(int)**](http://docs.google.com/ImageDisplay.html#setCurrentY(int)) - Method in class [ImageDisplay](http://docs.google.com/ImageDisplay.html) Method to set the current y [**setFileName(String)**](http://docs.google.com/SimplePicture.html#setFileName(java.lang.String)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to set the file name [**setGreen(int)**](http://docs.google.com/Pixel.html#setGreen(int)) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to set the green to a new green value [**setImage(Image)**](http://docs.google.com/ImageDisplay.html#setImage(java.awt.Image)) - Method in class [ImageDisplay](http://docs.google.com/ImageDisplay.html) Method to set the image [**setMatrix(int[][])**](http://docs.google.com/IntArrayWorker.html#setMatrix(int%5B%5D%5B%5D)) - Method in class [IntArrayWorker](http://docs.google.com/IntArrayWorker.html) set the matrix to the passed one [**setPicture(Picture)**](http://docs.google.com/PictureFrame.html#setPicture(Picture)) - Method in class [PictureFrame](http://docs.google.com/PictureFrame.html) Method to set the picture to show in this picture frame [**setPictureFrame(PictureFrame)**](http://docs.google.com/SimplePicture.html#setPictureFrame(PictureFrame)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to set the picture frame for this picture [**setRed(int)**](http://docs.google.com/Pixel.html#setRed(int)) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to set the red to a new red value [**setTitle(String)**](http://docs.google.com/DigitalPicture.html#setTitle(java.lang.String)) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**setTitle(String)**](http://docs.google.com/PictureExplorer.html#setTitle(java.lang.String)) - Method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Set the title of the frame [**setTitle(String)**](http://docs.google.com/PictureFrame.html#setTitle(java.lang.String)) - Method in class [PictureFrame](http://docs.google.com/PictureFrame.html) Method to set the title for the picture frame [**setTitle(String)**](http://docs.google.com/SimplePicture.html#setTitle(java.lang.String)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to set the title for the picture [**setVisible(boolean)**](http://docs.google.com/PictureFrame.html#setVisible(boolean)) - Method in class [PictureFrame](http://docs.google.com/PictureFrame.html) A method to set the visible flag on the frame [**setVisible(boolean)**](http://docs.google.com/SimplePicture.html#setVisible(boolean)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to make this picture visible or not [**show()**](http://docs.google.com/DigitalPicture.html#show()) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**show()**](http://docs.google.com/SimplePicture.html#show()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to show the picture in a picture frame [**SimplePicture**](http://docs.google.com/SimplePicture.html) - Class in [<Unnamed>](http://docs.google.com/package-summary.html)A class that represents a simple picture.[**SimplePicture()**](http://docs.google.com/SimplePicture.html#SimplePicture()) - Constructor for class [SimplePicture](http://docs.google.com/SimplePicture.html) A Constructor that takes no arguments. [**SimplePicture(String)**](http://docs.google.com/SimplePicture.html#SimplePicture(java.lang.String)) - Constructor for class [SimplePicture](http://docs.google.com/SimplePicture.html) A Constructor that takes a file name and uses the file to create a picture [**SimplePicture(int, int)**](http://docs.google.com/SimplePicture.html#SimplePicture(int,%20int)) - Constructor for class [SimplePicture](http://docs.google.com/SimplePicture.html) A constructor that takes the width and height desired for a picture and creates a buffered image of that size. [**SimplePicture(int, int, Color)**](http://docs.google.com/SimplePicture.html#SimplePicture(int,%20int,%20java.awt.Color)) - Constructor for class [SimplePicture](http://docs.google.com/SimplePicture.html) A constructor that takes the width and height desired for a picture and creates a buffered image of that size. [**SimplePicture(SimplePicture)**](http://docs.google.com/SimplePicture.html#SimplePicture(SimplePicture)) - Constructor for class [SimplePicture](http://docs.google.com/SimplePicture.html) A Constructor that takes a picture to copy information from [**SimplePicture(BufferedImage)**](http://docs.google.com/SimplePicture.html#SimplePicture(java.awt.image.BufferedImage)) - Constructor for class [SimplePicture](http://docs.google.com/SimplePicture.html) A constructor that takes a buffered image

## **T**

[**testCollage()**](http://docs.google.com/PictureTester.html#testCollage()) - Static method in class [PictureTester](http://docs.google.com/PictureTester.html) Method to test the collage method [**testEdgeDetection()**](http://docs.google.com/PictureTester.html#testEdgeDetection()) - Static method in class [PictureTester](http://docs.google.com/PictureTester.html) Method to test edgeDetection [**testFillPattern1()**](http://docs.google.com/IntArrayWorkerTester.html#testFillPattern1()) - Static method in class [IntArrayWorkerTester](http://docs.google.com/IntArrayWorkerTester.html) Method to test fillPattern1 [**testGetTotal()**](http://docs.google.com/IntArrayWorkerTester.html#testGetTotal()) - Static method in class [IntArrayWorkerTester](http://docs.google.com/IntArrayWorkerTester.html) Method to test getTotal [**testGetTotalNested()**](http://docs.google.com/IntArrayWorkerTester.html#testGetTotalNested()) - Static method in class [IntArrayWorkerTester](http://docs.google.com/IntArrayWorkerTester.html) Method to test getTotalNested [**testMirrorTemple()**](http://docs.google.com/PictureTester.html#testMirrorTemple()) - Static method in class [PictureTester](http://docs.google.com/PictureTester.html) Method to test mirrorTemple [**testMirrorVertical()**](http://docs.google.com/PictureTester.html#testMirrorVertical()) - Static method in class [PictureTester](http://docs.google.com/PictureTester.html) Method to test mirrorVertical [**testSetMatrix()**](http://docs.google.com/IntArrayWorkerTester.html#testSetMatrix()) - Static method in class [IntArrayWorkerTester](http://docs.google.com/IntArrayWorkerTester.html) method to test setMatrix [**testZeroBlue()**](http://docs.google.com/PictureTester.html#testZeroBlue()) - Static method in class [PictureTester](http://docs.google.com/PictureTester.html) Method to test zeroBlue [**toString()**](http://docs.google.com/Picture.html#toString()) - Method in class [Picture](http://docs.google.com/Picture.html) Method to return a string with information about this picture. [**toString()**](http://docs.google.com/Pixel.html#toString()) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to return a string with information about this pixel [**toString()**](http://docs.google.com/SimplePicture.html#toString()) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to return a string with information about this picture

## **U**

[**updateImage()**](http://docs.google.com/PictureFrame.html#updateImage()) - Method in class [PictureFrame](http://docs.google.com/PictureFrame.html) A method to update the picture frame image with the image in the picture [**updateImageAndShowIt()**](http://docs.google.com/PictureFrame.html#updateImageAndShowIt()) - Method in class [PictureFrame](http://docs.google.com/PictureFrame.html) A method to update the picture frame image with the image in the picture and show it [**updatePicture(int, int, int, int)**](http://docs.google.com/Pixel.html#updatePicture(int,%20int,%20int,%20int)) - Method in class [Pixel](http://docs.google.com/Pixel.html) Method to update the picture based on the passed color values for this pixel

## **W**

[**write(String)**](http://docs.google.com/DigitalPicture.html#write(java.lang.String)) - Method in interface [DigitalPicture](http://docs.google.com/DigitalPicture.html)   [**write(String)**](http://docs.google.com/SimplePicture.html#write(java.lang.String)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to write the contents of the picture to a file with the passed name without throwing errors [**writeOrFail(String)**](http://docs.google.com/SimplePicture.html#writeOrFail(java.lang.String)) - Method in class [SimplePicture](http://docs.google.com/SimplePicture.html) Method to write the contents of the picture to a file with the passed name

## **Z**

[**zeroBlue()**](http://docs.google.com/Picture.html#zeroBlue()) - Method in class [Picture](http://docs.google.com/Picture.html) Method to set the blue to 0 [**zoom(double)**](http://docs.google.com/PictureExplorer.html#zoom(double)) - Method in class [PictureExplorer](http://docs.google.com/PictureExplorer.html) Zooms in the on picture by scaling the image.[A](#3znysh7) [C](#2et92p0) [D](#tyjcwt) [E](#3dy6vkm) [F](#1t3h5sf) [G](#4d34og8) [H](#2s8eyo1) [I](#17dp8vu) [L](#3rdcrjn) [M](#26in1rg) [P](#lnxbz9) [R](#35nkun2) [S](#1ksv4uv) [T](#44sinio) [U](#2jxsxqh) [W](#z337ya) [Z](#3j2qqm3)

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