CS 106A: Programming Methodology
Stanford Graphics Library

based on a similar handout written by Eric Roberts, Mehran Sahami, Keith Schwarz, and Marty Stepp.

This handout shows some of the methods available in the Stanford graphics libraries. See also: Stanford graphics library documentation (discussed below) and Chapter 9 of the textbook.

Constructors

`new GLabel(String text)` *or* `new GLabel(String text, double x, double y)`
   Creates a new **GLabel** object; the second form sets its location as well.

`new GRect(double x, double y, double width, double height)`
   Creates a new **GRect** object; the **x** and **y** parameters can be omitted and default to 0.

`new GOval(double x, double y, double width, double height)`
Creates a new **GOval** object; the **x** and **y** parameters can be omitted and default to 0.

`new GLine(double x1, double y1, double x2, double y2)`
   Creates a new **GLine** object connecting (**x1**, **y1**) and (**x2**, **y2**).

Methods common to all graphical objects

`void setLocation(double x, double y)`
   Sets the location of this object to the specified coordinates.

`void move(double dx, double dy)`
   Moves the object using the displacements **dx** and **dy**.

`double getWidth()`
   Returns the width of the object.

`double getHeight()`
   Returns the height of the object.

`void setColor(Color c)`
   Sets the color of the object.

Methods available for GRect and GOval only

`void setFilled(boolean fill)`
   Sets whether this object is filled (**true** means filled, **false** means outlined).

`boolean isFilled()`
   Returns **true** if the object is filled.

`void setFillColor(Color c)`
   Sets the color used to fill this object. If the color is **null**, filling uses the color of the object.

Methods available for GLabel only

`void setFont(String fontName)`
   Sets the font, as described in Chapter 5.

`double getAscent()`
   Returns the height above the text baseline.

`double getDescent()`
   Returns the height below the text baseline.

Graphics library documentation

The `javadoc` documentation for the ACM libraries is available under the "Links" section of the CS 106A home page. From the "Links" page, click on **Stanford Java library documentation,** then **acm.graphics**, then on the graphics object that you're trying to use. You should see a page listing the methods available for that object.