

Graph

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Chapter 1

Graph

1.1 Graph Class implementation for AmigaTalk© 1998-2000:

The Graph Class is a class that uses an Amiga Window to display graphs of functions for the AmigaTalk system.

Its parent Class is Painter .

A programmer should use the following as a guide:

```
g <- Graph new
g initialize: 'graph Screen' winTitle: 'graph Window:'
g open: 16r40D20001 from: 0@0 to: 640@480
...
g close (see AmigaTalk:TestFiles/TestGraphPaper)
```

Methods available for the Graph Class are:

initialize: scrTitle winTitle: title

Set up the instance variables for a new instance of Graph.

setSizeFrom: orPoint to: brtPoint

Internal method (used by open:from:to:), so it's not really necessary to use this method in your programs, unless you want to change the size of your graph (that means YOU get to re-write this class!).

open: screenMode from: oPoint to: brPoint

Opens the Screen & Window for your graph, using the screenMode to determine the type of Screen to use.

refreshGraphPaper

Used to refresh the edges of the Window (if you use a border, default is NO border).

setPen: pen

Change the color used to draw graphic elements.

setXAxisFrom: xmin to: xmax by: deltax

Set the range, x-increment size & (indirectly) the xscale.

setYAxisFrom: ymin to: ymax by: deltay

Set the domain, y-increment size & (indirectly) the yscale.

plotPoint: xpt y: ypt

Put a pixel (in the current pen color) at the coordinates specified.

drawLine: x1 y1: y1 x2: x2 y2: y2

Draw a line (in the current pen color) from one set of coordinates to the next (x2,y2).

drawXTick: xp y: yp

Internal method called by drawXAxis:numTicks:color:

drawYTick: xp y: yp

Internal method called by drawYAxis:numTicks:color:

drawGrid: xticks y: yticks color: pen

Draw a grid of lines (in order to make point finding easier).

drawXAxis: y0 numTicks: nticks color: pen

Draw an X-Axis across the Graph (one side of the Window to the other).

drawYAxis: x0 numTicks: nticks color: pen

Draw an Y-Axis vertically across the Graph (from Top of the Window to the Bottom).

drawLabel: labelstr at: aPoint

Draw a String starting at the location specified.

tellScales

Print a String in the Status Window, indicating what the current values for xscale & yscale are.

tellRange

Print a String in the Status Window, indicating what the current value for the range (x-values) of the Graph is.

tellDomain

Print a String in the Status Window, indicating what the current value for the domain (y-values) of the Graph is.

xScale

Return the value of xscale.

yScale

Return the value of yscale.

range

Return the current range as a String.

domain

Return the current domain as a String.

close

Close the Graph's Window & Screen.
