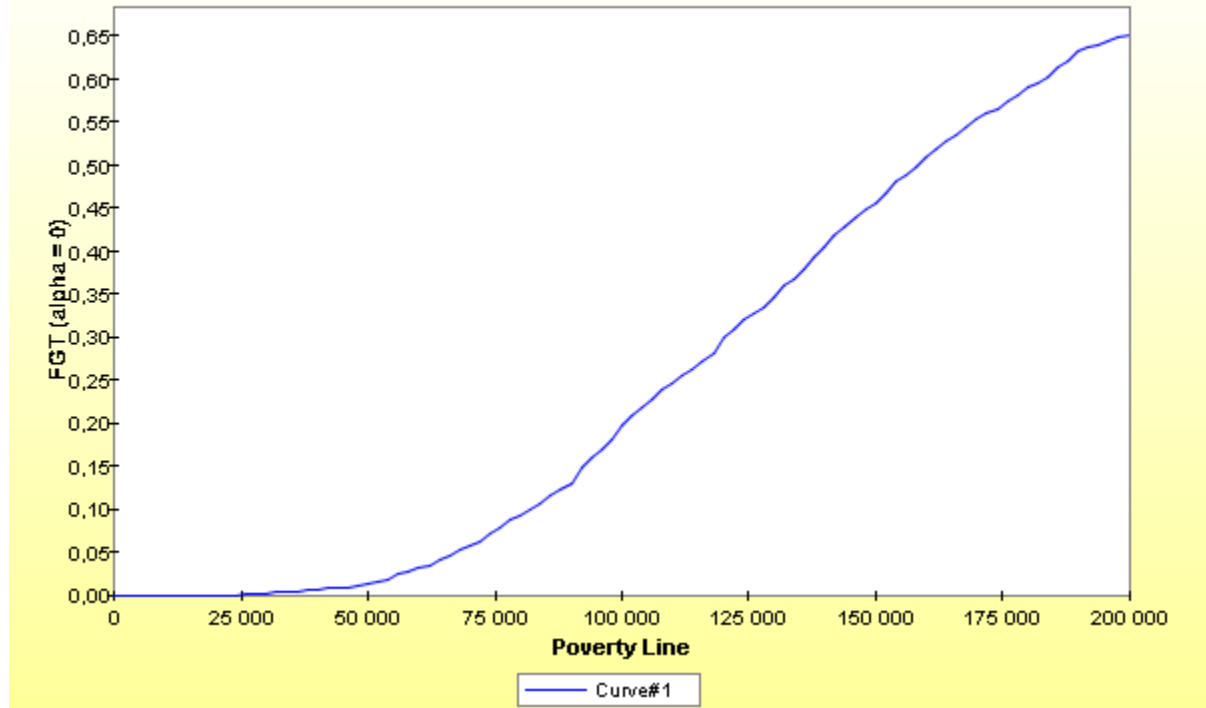


Graphs in DAD

DRAWING GRAPHS

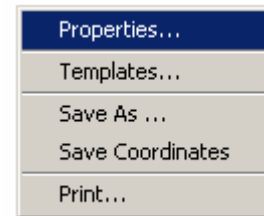
Most applications in DAD offer the possibility of plotting graphs to illustrate the results of those applications. For example, the FGT poverty index application can plot a curve of this index – against the Y axis – according to alternative levels of the poverty line – shown on the X axis – as in the following figure:

**Figure 01: The FGT Curve (alpha = 0)
(Benin 1995)**



Changing graph properties

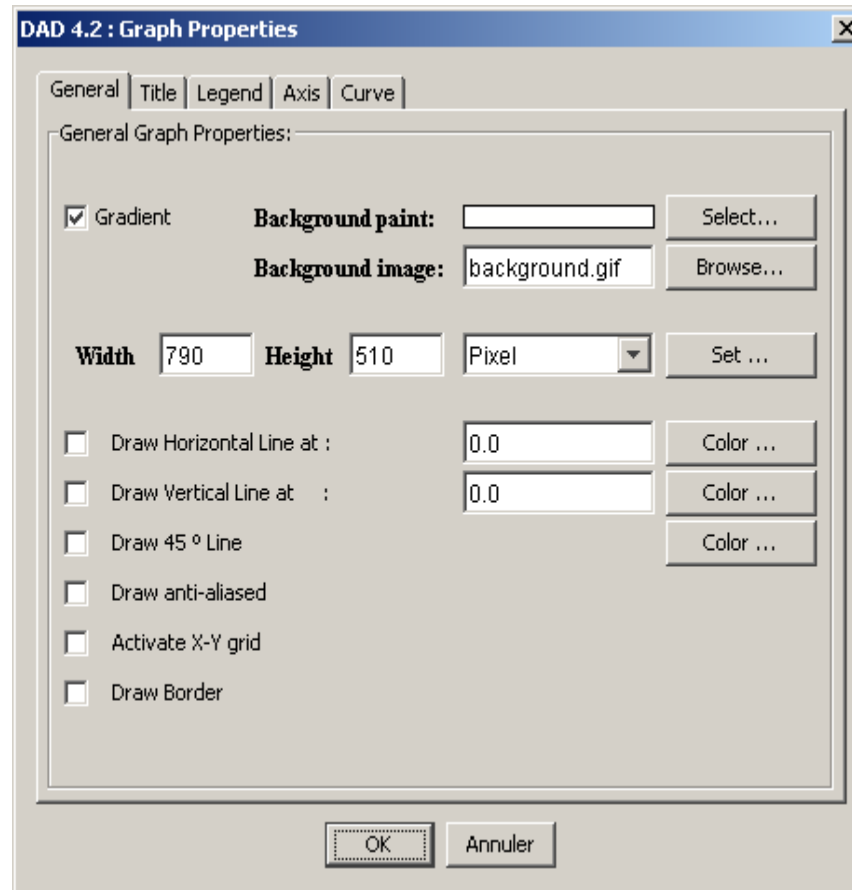
We can change many properties of a graph. For this, select the item: Tools⇒Properties. This can also be done by activating the Popup Menu. To activate the Popup Menu, click on the right button of the mouse when you are within the quadrant of graph. The items shows how to change graph properties in DAD.



The Popup Menu

General

- **Background paint:** to select the background colour of the graph. We can also select the option “Gradient” for the background colour.
- **Background paint:** to browse and select a picture (GIF or PNG) to be the background graph.
- **Width and Height:** to indicate the desired width and height of the graph in pixels, inches or centimetres (click on the button **Set** to confirm your selection).
- **Draw Horizontal Line:** to draw a horizontal line at a giving height of the Y-axis. Indicate that height and click the option.
- **Draw Vertical Line:** to draw a vertical line at a giving value of the X-axis. Indicate that value and click the option.
- **Draw 45° Lines:** to draw a 45° line.
- **Antia-aliasing option:** One of the most important techniques in making graphics and text easy to read and pleasing to the eye on-screen is anti-aliasing. Anti-aliasing

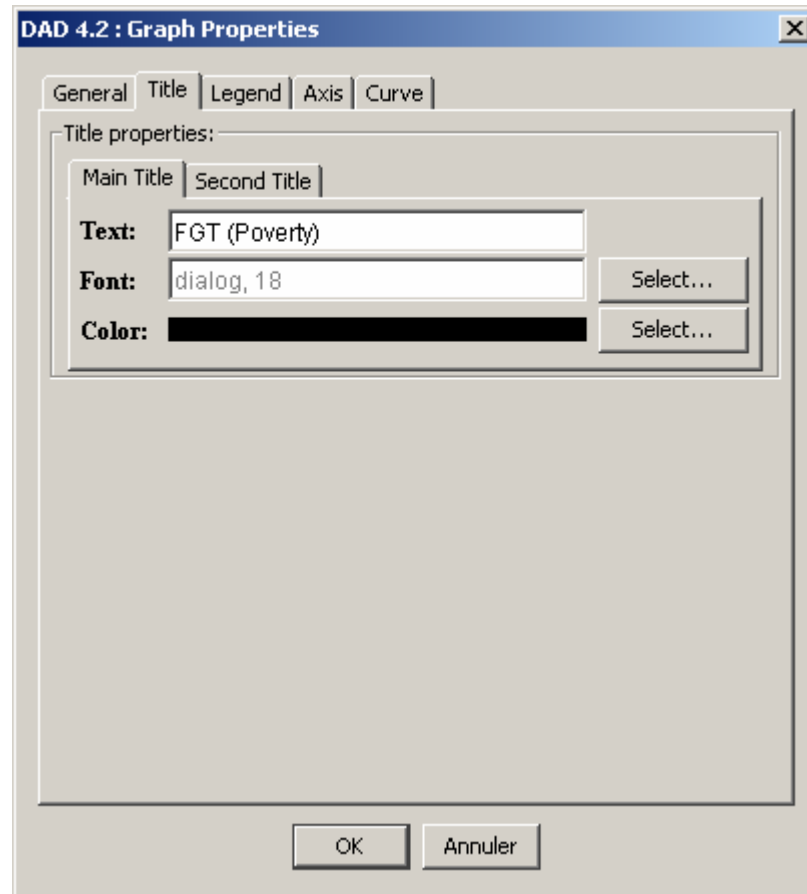


gets around the low 72dpi resolution of the computer monitor and makes objects appear smooth.

- **Activate X-Y grid:** If this option is selected, a grid is plotted in the graph
- **Draw Border:** If this option is selected, a border is plotted around the graph.

Title

- **Main Title:** By default, the main title is the name of the application. You can change the main title in the field **Text**. You can also change its font and its colour. To do this, just click on the button select and indicate the desired font or colour.
- **Second Title:** By default, the second title is *Chart*. You can change or delete the second title in the field **Text**. You can also change its font and its colour. To do this, just click on the button select and indicate the desired font or colour.



Legend

- **Background:** to select the background colour of the legend quadrant.
- **Text font:** to select the font of the text legends.
- **Text color:** to select the colour of the text legends.
- **Legend Marker:** to select Marker legends. By default, the markers have a square shape, but you can select the line form with this option.

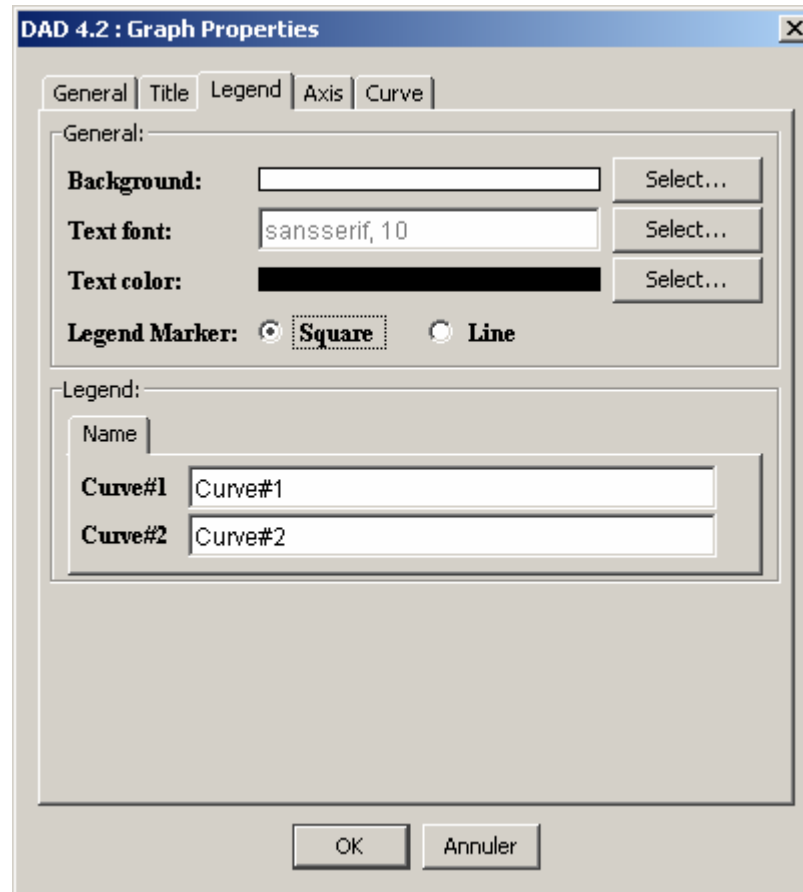
Square Form



Line Form



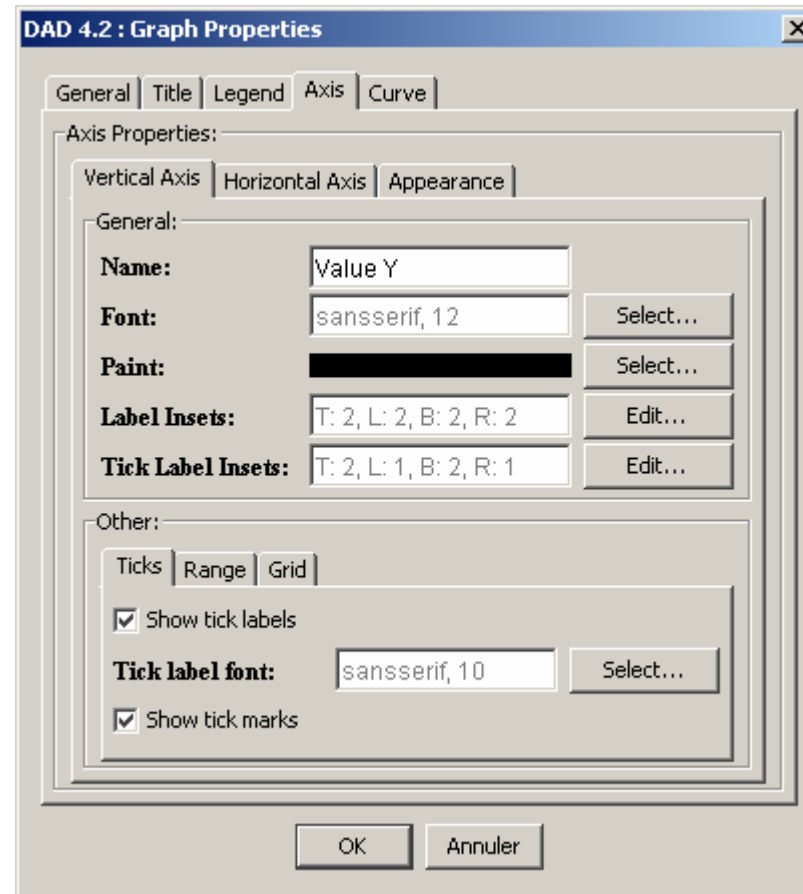
- **Name:** By default, the names of the curves are *curve#1*, *curve#2*, etc. You can change these names in these fields.



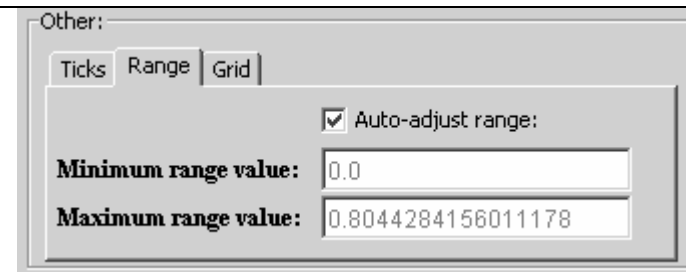
Axis

Remark: The options for the horizontal axis are similar to those for the vertical axis.

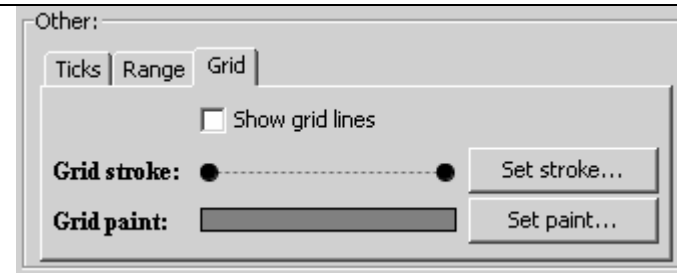
- **Name:** You can change the name of the vertical axis with this field.
- **Font:** to select the font of the name of the vertical axis.
- **Paint:** to select the colour of the name of the vertical axis.
- **Label insets:** to change the labels' position (*Top, Left, Bottom, Right*) indicated in pixels
- **Tick Label Insets:** to change the Tick label position (*Top, Left, Bottom, Right*) indicated in pixels
- **Other-Tick:** to show or not to show the tick labels or the tick markers. You can also select the font of the tick labels.



Other-Range: to select the minimum and maximum values for the range of the vertical axis. To do this, unselect the option *Auto-adjust range*



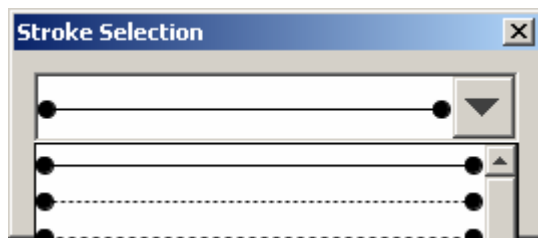
Other-Grid: To plot the horizontal grid lines, select the option *Show grid lines*. You can also select the stroke and the colour of these grid lines.



Curve

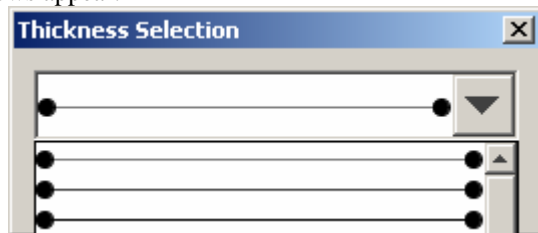
For every curve, a combination of the three following options can be chosen:

Curve Stroke: To choose the stroke of a giving curve, click on the button **Set stroke**. The following widows appear:



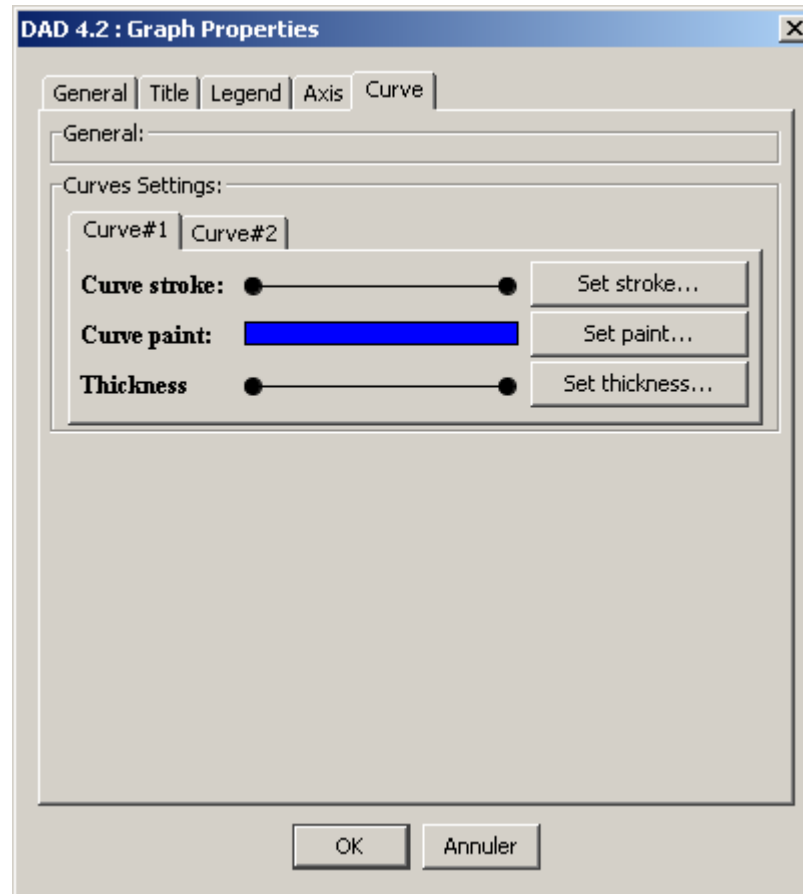
Select the desired stroke and click on the button OK to confirm your selection.

Curve Thickness: To choose the thickness of a giving curve, click on the button **Set Thickness**. The following widows appear:



Select the desired thickness, and click on the button OK to confirm your selection.

Curve Paint: To choose the colour of a giving curve, click on the button **Set Paint** and choose the new colour.

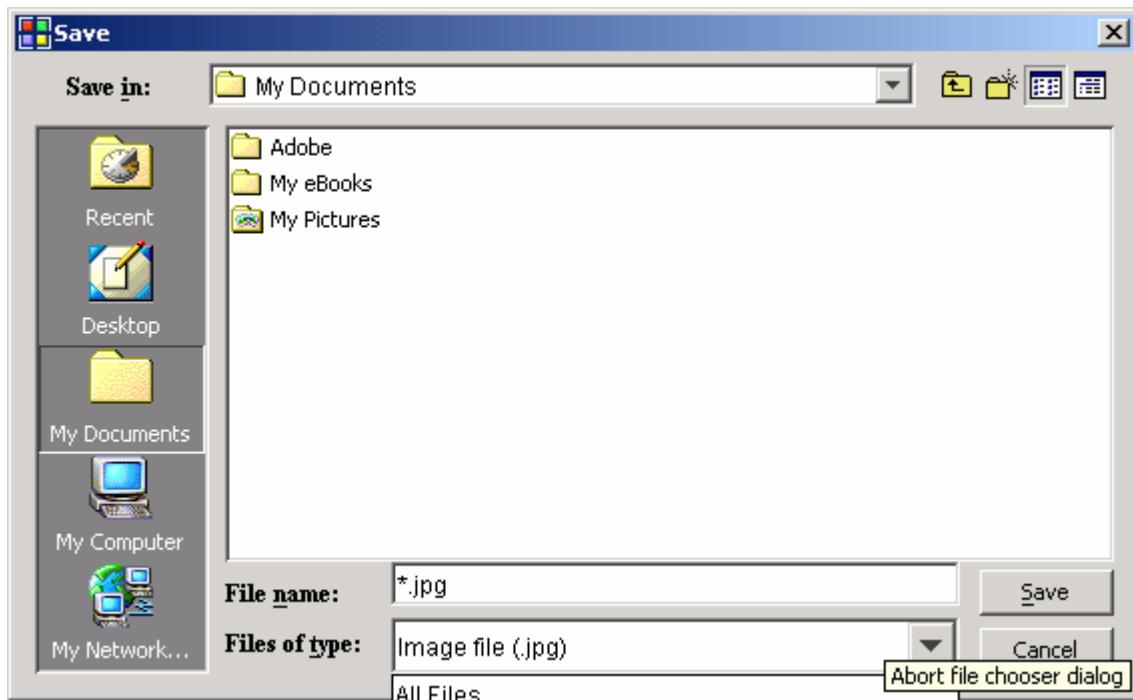


Saving graphs

Starting with version 4.3 of DAD, we can save and load graphs using DAD's Graph Format (*.dgf). You can also save and use graphs in many popular text processors (including Word and Excel). The available formats are:

Extension	Description
*.dgf	DAD Graph Format
*.png	Portable Network Graphic
*.jpg	JPEG File Interchange Format
*.pdf	Portable Document Format
*.ps	Postscript
*.tif	Tag Image File Format
*.bmp	Bitmat Image File

To save a graph drawn in DAD, select: File⇒Save and select the format by selecting the extension of the file.



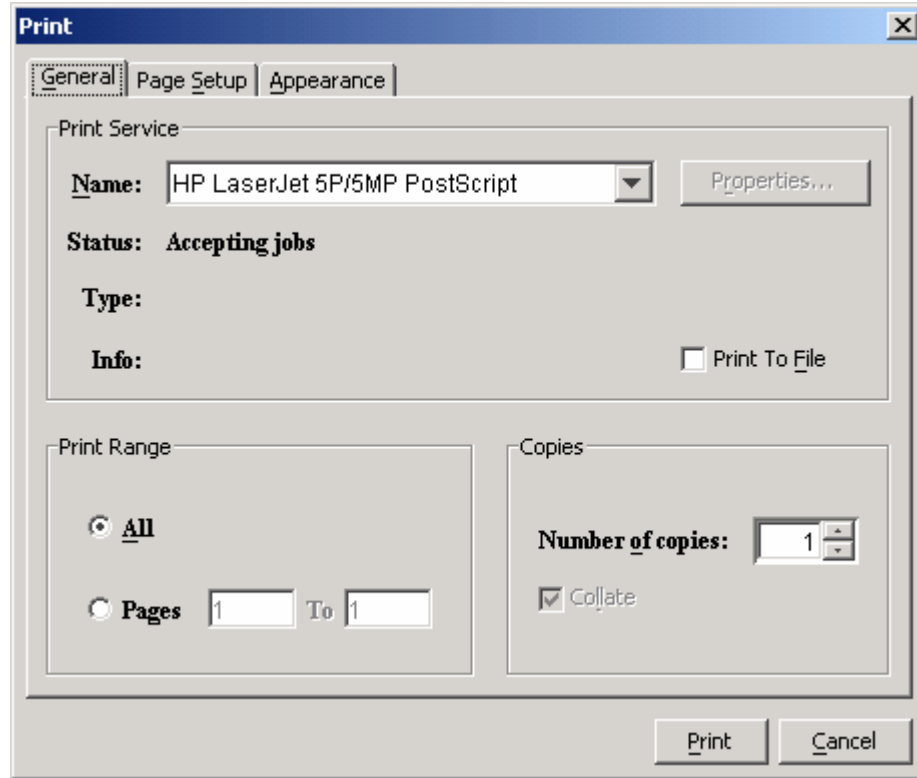
SAVING COORDINATES OF CURVES

To save the graph coordinates in ASCII format, select “File ⇒Save coordinates”. The generated ASCII file takes the following format:

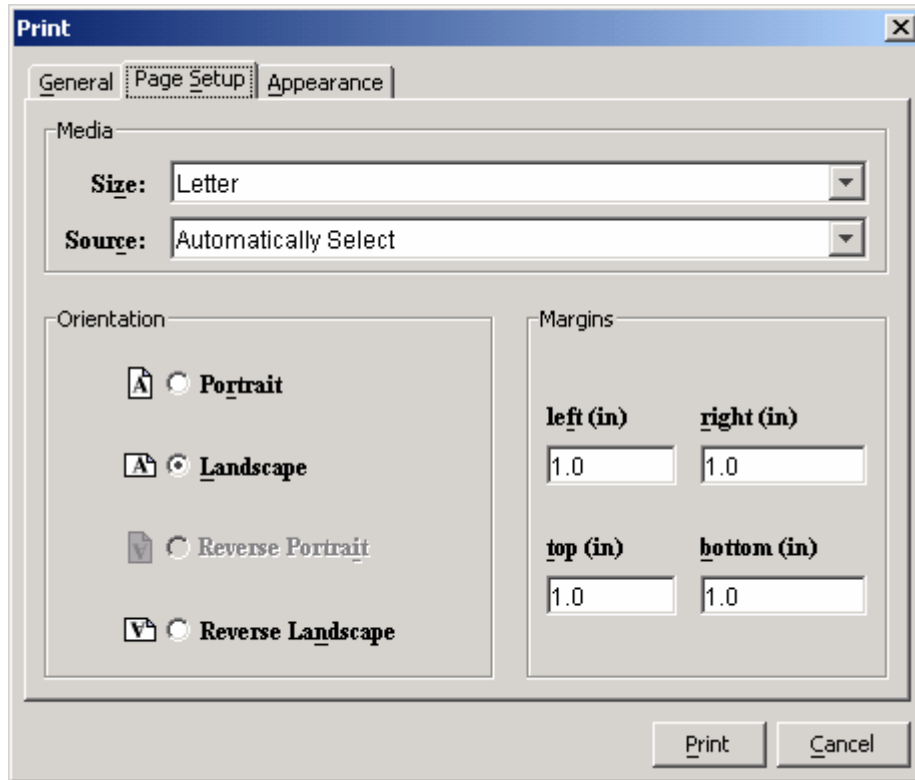
$$\begin{array}{cc} \text{Curve1} & \text{Curve2} \\ \text{X1} & \text{Y1} & \text{X2} & \text{Y2} \dots \text{etc} \dots \end{array}$$

PRINTING GRAPHS

To print a graph, select “File ⇒Print”. The following windows appears:

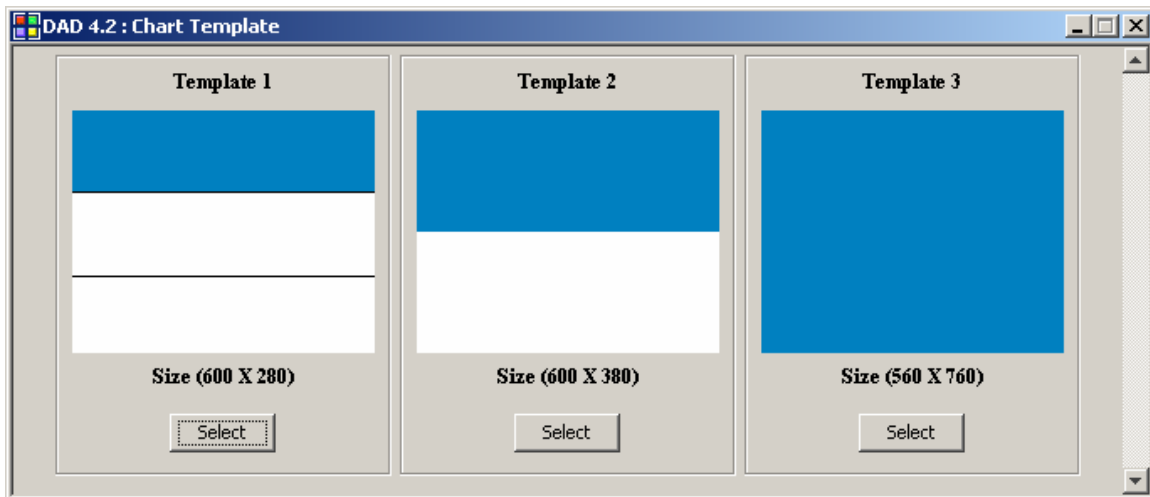


Select the desired Printer. To change orientation or margins, select “Page Setup”. When the following window appears, select the desired orientation and margins.



TEMPLATES

You can select one of DAD's several graphical templates to change the properties of a graph. These templates only use black and white colours. To select a template, select "Edit ⇒ Templates". The following window appears:



- Template 1 can be inserted within a third of a page of a Word document.
- Template 2 can be inserted within half a page of a Word document.
- Template 3 can be inserted within a page of a Word document, with landscape orientation.

EDITING COORDINATES

To edit coordinates of curves, select “Edit ⇒Edit Coordinates”. The following window appears:

Index	X-Curve1	Y-Curve1	X-Curve2	Y-Curve2
0.0	0,000000	0,000000	0,000000	0,0
1.0	0,060000	0,000000	1,500000	0,0
2.0	0,120000	0,000000	3,000000	0,0
3.0	0,180000	0,000000	4,500000	0,0
4.0	0,240000	0,000000	6,000000	0,0
5.0	0,300000	0,000000	7,500000	0,1
6.0	0,360000	0,000000	9,000000	0,1
7.0	0,420000	0,000000	10,500000	0,2
8.0	0,480000	0,000000	12,000000	0,2
9.0	0,540000	0,000000	13,500000	0,3
10.0	0,600000	0,000000	15,000000	0,4
11.0	0,660000	0,000000	16,500000	0,5
12.0	0,720000	0,000000	18,000000	0,7
13.0	0,780000	0,000000	19,500000	0,8
14.0	0,840000	0,000000	21,000000	0,9
15.0	0,900000	0,000000	22,500000	1,1

You can change the decimal number by using the item “Tools”. To close this window, click on the button “OK”.