

IDL Plotting Quick Reference/Cheat Sheet

Remember: IDL is NOT case sensitive.

Introduction

This sheet primarily covers the plotting area of IDL.

Important routines

2D Data

<code>plot,x,y</code>	Basic plotting function. See man pages for list of keywords to control the layout of the plot.
<code>oplot,x,y</code>	Overplots on the same axis as plot
<code>errplot,...</code>	Plots error bars on a previously drawn plot.
<code>ploterr,...</code>	Plots individual data points with error bars.
<code>oploterr,...</code>	Draws error bars over a previously-drawn plot.
<code>iplot,..</code>	Creates an itool and associated user interface configuration to display and manipulate plot data.
<code>contour,...</code>	Produces a contour plot in the x-y plane.
<code>bar_plot</code>	Creates a bar plot.
<code>polyfill</code>	Fills the interior of a polygon

Time Series Data

<code>label_date</code>	Labels axes with dates and/or times. Used in conjunction with <code>[xyz]tickformat</code> keyword in the plot procedure (See the man pages) and the <code>timegen</code> function.
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General Display Routines

<code>axis</code>	Adds an extra axis on top of the existing plot
<code>IDLgrAxis</code>	Displays a plot axis object that may include tick marks text and a title.
<code>IDLgrLegend</code>	Provides a simple interface for displaying a legend.
<code>xyouts</code>	Draws text on currently-selected graphics device.

3D Scalar Data

<code>surface,z</code>	Plots a 3d mesh plot.
<code>shad_surf,z</code>	Plots a 3d shaded surface.

Important plotting keywords

<code>[xyz]range:</code>	Plotting range
<code>title</code>	Plot title
<code>[xyz]title:</code>	Axis titles
<code>psym:</code>	Symbol for data points: 0 - (default, connect points with line), 1(+), 2(*),3(.),4(Diamond),5(triangle),6(square), 7(x), 8(user defined), 10(Histogram Mode)
<code>linestyle:</code>	Type of connecting lines: 0 -(default, bold line), 1-(dotted), 2-(dashed), 3-(dashed and dotted), 4-(dashed dotted dotted),5 (long dashed)

Colors

<code>Device,Decomposed=0</code>	True color display?
<code>xloadct</code>	Displays a tool for selecting and settings the current color table.
<code>loadct,n</code>	Colour-table number <i>n</i> is chosen.
<code>xpalette</code>	Displays the current colour palette.
<code>tek_color</code>	Loads color table based on the tektronix printer.
<code>efont</code>	Interactive vector font editor and display tool.

Multiple plots and Window Management

<code>!p.multi=[0,C,R]</code>	Places plots in a table <i>C</i> columns wide by <i>R</i> rows long.
<code>!p.multi=0</code>	for single plot mode.
<code>!x.margin</code>	The margin of the x axis.

Hardcopy

<code>set_plot,'ps'</code>	switches to postscript device, default filename idl.ps
<code>device,file='name.ps',color</code>	writes to file <i>file_name.ps</i>
<code>device, /close</code>	Closes plotting to ps-device
<code>set_plot,'x'</code>	switches back to terminal display.

Useful Links

www.itervis.com
www.itervis.com/ProductServices/IDL/ProductDocumentation/tabid/206/language/en-US/Default.aspx - Product documentation
www.astro.washington.edu/deutsch/idl/htmlhelp - Searchable index of publicly available IDL procedures or functions.
comp.lang.idl-pvwave - Usenet group.

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