URL: http://cxc.harvard.edu/ciao3.4/sherpa.plot.html
Last modified: December 2006

AHELP for CIAO 3.4

sherpa.plot

Context: sherpa

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Synopsis

Configure appearance of Sherpa plots.

Syntax

```
sherpa.plot.[field]
```

Description

The Sherpa configuration variable (also called "state object") sherpa.plot controls appearance of most (not all) of the plots generated with the CPLOT, LPLOT, OPLOT and SPLOT commands.

(The exceptions are those plots generated by the commands LPLOT BACK; LPLOT DATA; LPLOT BACKFIT; LPLOT BFIT; LPLOT FIT; LPLOT BDELCHI; LPLOT BRATIO; LPLOT BRESIDUALS; LPLOT DELCHI; LPLOT RATIO; LPLOT RESIDUALS. For these commands, other configuration variables control the plots appearance.)

The following table lists each field of sherpa.plot, with a description and the default value:

Field Name	Description	Default
x_errorbars	Add x−axis error bars to data points (0 = false, 1 = true)	0
y_errorbars	Add y−axis error bars to data points (0 = false, 1 = true)	0
errs_style	Style of error bars	bar
errs_type	Direction of Error bars: up, down (or both)	both
x_log	Log scale for x−axis (0 = false, 1 = true)	0
y_log	Log scale for y−axis (0 = false, 1 = true)	0
curvestyle	Style of curve (e.g., histogram)	step
curvecolor	Curve color	default
symbolstyle	Style of symbols (e.g., triangle, square)	none
symbolcolor	Symbol color	default
symbolsize	Symbol size	2
xlabel_size	Size of x label	1.5
ylabel_size	Size of y label	1.5
zlabel_size	Size of z label	1.5

title_size	Size of title	1.5
tickvals_size	Size of tick values	1.5
prefunc	User S−Lang function executed before the data is plotted	NULL
postfunc	User S−Lang function executed after the data is plotted	NULL

Possible error bar styles: standard, bar.

Possible error bar types: both, none, up, down, dn.

Possible colors: black, blue, cyan, default, green, magenta, red, white, yellow.

Possible curve styles: histo, noline, simpleline, step.

Possible symbol styles: bigpoint, block, circle, cross, diamond, downtri, none, point, soliddiamond, soliddowntri, soliduptri, square, uptri.

The fields sherpa.plot.prefunc and sherpa.plot.postfunc refer to optional user functions that can be applied to plots before and after the plot is created. Please see the ahelp file sherpa−plot−hooks for more information.

Example 1

The sherpa.plot settings can be changed at the command line. When assigning a string to a field, the string should be quoted as shown in the second command:

```
sherpa> sherpa.plot.x_log = 1
sherpa> sherpa.plot.curvecolor = "green"
```

Example 2

Create an alias sp to sherpa.plot and use it.

```
sherpa> variable sp = sherpa.plot
sherpa> sp.x_log = 1
sherpa> sp.curvecolor = "green"
```

Example 3

Use print to obtain the information about the current settings of sherpa.plot:

```
sherpa> print(sherpa.plot)
x_errorbars      =  0
y_errorbars      =  0
errs_style       =  bar
errs_type        =  both
x_log            =  0
y_log            =  0
curvestyle       =  step
curvecolor       =  default
symbolstyle      =  none
symbolcolor      =  default
symbolsize       =  2
xlabel_size      =  1.5
ylabel_size      =  1.5
zlabel_size      =  1.5
title_size       =  1.5
tickvals_size    =  1.5
```

```
prefunc          =  NULL
postfunc         =  NULL
```

Bugs

See the Sherpa bug pages online for an up−to−date listing of known bugs.

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