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 AHELP for CIAO 3.4

# sherpa.plot

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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 `CLOT`, `LLOT`, `OLOT` and `SLOT` commands.

(The exceptions are those plots generated by the commands `LLOT BACK`; `LLOT DATA`; `LLOT BACKFIT`; `LLOT BFIT`; `LLOT FIT`; `LLOT BDELCHI`; `LLOT BRATIO`; `LLOT BRESIDUALS`; `LLOT DELCHI`; `LLOT RATIO`; `LLOT 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
<code>x_errorbars</code>	Add x-axis error bars to data points (0 = false, 1 = true)	0
<code>y_errorbars</code>	Add y-axis error bars to data points (0 = false, 1 = true)	0
<code>errs_style</code>	Style of error bars	bar
<code>errs_type</code>	Direction of Error bars: up, down (or both)	both
<code>x_log</code>	Log scale for x-axis (0 = false, 1 = true)	0
<code>y_log</code>	Log scale for y-axis (0 = false, 1 = true)	0
<code>curvestyle</code>	Style of curve (e.g., histogram)	step
<code>curvecolor</code>	Curve color	default
<code>symbolstyle</code>	Style of symbols (e.g., triangle, square)	none
<code>symbolcolor</code>	Symbol color	default
<code>symbolsize</code>	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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URL:  
<http://cxc.harvard.edu/ciao3.4/sherpa.plot.html>  
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