



AHELP for CIAO 3.4

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Synopsis

Summary of Sherpa/S–Lang module run functions.

Description

Most commands issued in Sherpa cause it to do tasks that are accomplished quickly. However, several cause Sherpa to begin potentially time-consuming tasks, like FIT, PROJECTION, etc. This time consumption could make life difficult for the novice user if he or she was to do something like this:

```
sherpa> projection
[...done 20 minutes later...]
["Hmm, I'd like to save those results in S–Lang scope..."]
sherpa> p = do_projection() # (does not actually exist)
[...done 20 minutes later...and the user is somewhat disturbed...]
```

To avoid this, the Sherpa/S–Lang module utilizes two different kinds of functions: run functions that actually perform time-consuming tasks and return the results, and get analogues to the run functions which simply return the most recent relevant results. Applied to the situation above, the second 20-minute run would be avoided: the results would be carried into S–Lang scope instantly. Or the user could have just typed `run_projection` in the beginning to achieve the same result.

Summary of Sherpa/S–Lang Module run Functions

Name	Description
<code>run_fit</code>	Fits datasets, and retrieves information about the fits
<code>run_unc</code>	Determines confidence intervals, retrieves the parameter bounds
<code>run_proj</code>	Determines confidence intervals, retrieves the parameter bounds
<code>run_cov</code>	Determines confidence intervals, retrieves the parameter bounds
<code>run_intunc</code>	Displays statistics as a function of parameter value, and retrieves the value and statistic arrays
<code>run_intproj</code>	Displays statistics as a function of parameter value, and retrieves the value and statistic arrays
<code>run_regunc</code>	Displays contours of statistics as a function of parameter values, and retrieves arrays of values and statistics
<code>run_regproj</code>	Displays contours of statistics as a function of parameter values, and retrieves arrays of values and statistics

Bugs

Behavior when parameters fail to converge

If a fit is performed and some parameters fail to converge – e.g. when estimating errors using `run_unc()`, `run_proj()`, or `run_cov()` – then the routine will return a NULL even if there are valid results for some of the parameters. Currently the best way to check for this is to see if the corresponding `get_unc()`, `get_proj()`, or `get_cov()` call returns anything.

See the [Sherpa bug pages](#) online for an up-to-date listing of known bugs.

See Also

chandra

[guide](#)

sherpa

[bye](#), [calc_kcorr](#), [dataspace](#), [dcounts](#), [dollarsign](#), [echo](#), [eflux](#), [eqwidth](#), [erase](#), [flux](#), [get](#), [get_dcounts_sum](#), [get_dir](#), [get_eflux](#), [get_eqwidth](#), [get_filename](#), [get_flux2d](#), [get_flux_str](#), [get_lfactorial](#), [get_mcounts_sum](#), [get_pflux](#), [get_source_components](#), [get_verbose](#), [groupbycounts](#), [guess](#), [is](#), [journal](#), [list](#), [list_par](#), [mcounts](#), [numbersign](#), [paramest](#), [plot_eprof](#), [plot_rprof](#), [prompt](#), [reset](#), [set](#), [set_analysis](#), [set_axes](#), [set_coord](#), [set_dataspace](#), [set_dir](#), [set_verbose](#), [setplot](#), [sherpa-module](#), [sherpa_plotfns](#), [sherpa_utils](#), [show](#), [simspec](#), [use](#), [version](#)

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URL:
<http://cxc.harvard.edu/ciao3.4/run.html>
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