



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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