URL: http://cxc.harvard.edu/ciao3.4/dataspace.html
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AHELP for CIAO 3.4

dataspace

Context: sherpa

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Synopsis

Creates a data grid on which models may be evaluated.

Syntax

```
sherpa> DATASPACE [#] (<range> [, <range>, ...]) [HISTOGRAM]

where # specifies the number of the dataset to be associated with the
dataspace (default dataset number is 1); <range> is defined below; and
HISTOGRAM tells Sherpa to define bins (with lower and upper boundaries)
rather than single gridpoints.
```

Description

<range> = <start>:<stop>:<delta>, where

Input Arguments for DATASPACE

Argument	Definition
<start>	The start (minimum) value for the grid.
<stop>	The stop (maximum) value for the grid.
<delta>	The step size between gridpoints.

If HISTOGRAM is specified, the models will be evaluated by integrating over bins of width <delta>; otherwise, models will be evaluated at points on the specified grid.

Note: HISTOGRAM must be specified in order to evaluate XSPEC models additive models (e.g., xsbremss).

A dataspace may also be defined using the Sherpa/S−Lang module functions set_axes and set_baxes. (In CIAO 3.0, set_baxes is the only means by which background dataspaces may be defined.)

Example 1

Set a 1−D value range on which a source model may be evaluated:

```
sherpa> DATASPACE (1:5:1)
```

This command sets the value range, from values 1 through 5, with a step−size of 1, over which a source model may be evaluated.

Example 2

Set a 2−D value range on which a source model may be evaluated:

```
sherpa> DATASPACE (1:5:1,1:2:1)
```

This command sets the value ranges, for two dimensions, over which a source model may be evaluated.

Example 3

Set a 1−D value range on which a source model may be evaluated, for dataset number 2:

```
sherpa> DATASPACE 2 (1:10:1)
```

This command sets the value range, from values 1 through 10, with a step−size of 1, over which a source model may be evaluated, for dataset number 2.

Bugs

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

See Also

chandra

guide

sherpa

autoest, back, berrors, bsyserrors, bye, calc_kcorr, coord, data, dcounts, dollarsign, echo, eflux, eqwidth, erase, fakeit, feffile, 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, group, groupbycounts, guess, is, is_subtracted, journal, list, list_par, load, load_arf, load_ascii, load_back_from, load_backset, load_dataset, load_fitsbin, load_image, load_inst, load_inst_from, load_pha, load_pha2, load_rmf, mcounts, numbersign, paramest, plot_eprof, plot_rprof, prompt, read, reset, run, set, set_analysis, set_axes, set_backscale, set_coord, set_data, set_dataspace, set_dir, set_exptime, set_subtract, set_verbose, set_weights, setback, setdata, setplot, sherpa−module, sherpa_plotfns, sherpa_utils, show, simspec, subtract, ungroup, unsubtract, use, version

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