



AHELP for CIAO 3.4

sherpa.intproj

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Synopsis

Configure INTERVAL–PROJECTION in Sherpa.

Syntax

```
sherpa.intproj.[field]
```

Description

The Sherpa configuration variable (also called "state object") `sherpa.intproj` contains settings of INTERVAL–PROJECTION for plotting the fit statistic as a function of parameter value, using the PROJECTION algorithm in Sherpa. See `ahelp INTERVAL–PROJECTION` for more details.

The `sherpa.intproj` fields are specified in the table:

Field	Description
fast	If 1, use a fast optimization algorithm (LEVENBERG–MARQUARDT or SIMPLEX) regardless of the current METHOD. If 0, use the current METHOD.
expfac	A multiplicative factor that expands the grid limits estimated by the COVARIANCE algorithm, if the grid limits are determined automatically (see <code>arange</code> , and below).
arange	If 1, the grid limits are to be determined automatically. If 0, the grid limits are specified (see <code>min</code> and <code>max</code>).
min	Specifies the grid minimum. This is always a linear quantity, regardless of the setting of <code>log</code> (see below). The setting is ignored if <code>arange = 1</code> .
max	Specifies the grid maximum. This is always a linear quantity, regardless of the setting of <code>log</code> (see below). The setting is ignored if <code>arange = 1</code> .
log	Specifies whether to use a linear (0) or logarithmic (1) spacing of grid points.
nloop	Specifies the number of grid points.
sigma	Specifies the number of sigma (i.e., the change in statistic) for the plot.

To restore the default settings of the structure at any time, use the Sherpa/S–Lang module function `restore_intproj`.

Example 1

List the current and default values of the intproj structure, and restore the default values:

```
sherpa> sherpa.intproj.arange = 0
sherpa> sherpa.intproj.log = 1
sherpa> sherpa.intproj.sigma = 5
sherpa> list_intproj
```

Parameter	Current	Default	Description
fast	1	1	Switch to LM/simplex: 0(n)/1(y)
expfac	3	3	Expansion factor for grid
arange	0	1	Auto-range: 0(n)/1(y)
min	0	0	Minimum value
max	0	0	Maximum value
log	1	0	Log-spacing: 0(n)/1(y)
nloop	20	20	Number of grid points
sigma	5	1	Number of sigma

```
sherpa> restore_intproj
sherpa> list_intproj
```

Parameter	Current	Default	Description
fast	1	1	Switch to LM/simplex: 0(n)/1(y)
expfac	3	3	Expansion factor for grid
arange	1	1	Auto-range: 0(n)/1(y)
min	0	0	Minimum value
max	0	0	Maximum value
log	0	0	Log-spacing: 0(n)/1(y)
nloop	20	20	Number of grid points
sigma	1	1	Number of sigma

Example 2

Create aliase for sherpa.intproj

```
sherpa> variable si = sherpa.intproj
sherpa> si.fast = 0
```

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.intproj.html>
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