

URL: <u>http://cxc.harvard.edu/ciao3.4/slang.html</u> Last modified: December 2006

AHELP for CIAO 3.4

slang

Context: slang

Jump to: Description CHANGES IN CIAO 3.0 See Also

## **Synopsis**

The S-Lang programing language

# Description

While ChIPS and Sherpa have their own languages which can be used to read in data, plot graphs, or fit data, they do not contain a general–purpose language which can be used to write macros or manipulate data. This capability is instead provided by the S–Lang language, a popular interpreted language created by John Davis of the Center for Space Research at MIT. For a list of topics related to S–Lang and its use in CIAO, type "about slang" (or "ahelp –k slang") and "ahelp –c slang".

- See "ahelp overview" for an overview of the S-Lang language
- See "ahelp slangrtl" for a list of functions in the S-Lang Run-Time librart
- See "ahelp chips" for specific information on using S-Lang in ChIPS.
- See "ahelp sherpa" for specific information on using S-Lang in Sherpa. The use of S-Lang to create models for Sherpa is described in "ahelp slang usermodel".
- See "ahelp variables" for the use of variables in S-Lang.
- See "ahelp math" for mathematical operations available in S-Lang.
- See "ahelp tips" for S-Lang tips and examples.
- See "ahelp varmm" for a discussion of the Variables, Math and Macros library.
- See "ahelp varmmrl" for the information on the Varmm readline module.
- See "ahelp caldb caldb" for a discussion of the S-Lang version of the CALDB library.
- See "ahelp paramio" for a discussion of the S–Lang version of the parmaeter library.
- See "ahelp group" for a discussion of the S–Lang version of the grouping library.
- See "ahelp stackio" for a discussion of the S-Lang version of the stack library.
- See "ahelp pixlib" for a discussion of the S–Lang version of the pixlib library.

#### Notes

- The Grating User Interactive Data Extension (GUIDE) derives most of its power from the S-Lang language; the scripts it uses are available in the \$ASCDS\_INSTALL/contrib/share/slsh/local-packages/ directory.
- Additional S–Lang scripts are provided on the CIAO download page.

### **CHANGES IN CIAO 3.0**

The integration of S–Lang into CIAO has been greatly extended and improved with CIAO 3.0. Sherpa and ChIPS have an increased number of S–Lang functions and a number of libraries – caldb, paramio, group, region, stackio, and pixlib – are also now importable from S–Lang. See their respective ahelp documents for further information.

# See Also

```
calibration
        caldb
chandra
        coords, guide, isis, level, pileup, times
chips
        chips, chips_eval
concept
        autoname, parameter, stack, subspace
dm
        dm, dmbinning, dmcols, dmfiltering, dmimages, dmimfiltering, dmintro, dmopt, dmregions, dmsyntax
gui
        <u>gui</u>
modules
        paramio, pixlib, stackio, varmm
sherpa
        sherpa_eval
slang
        math, overview, tips, variables
tools
        ascii2fits
```

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