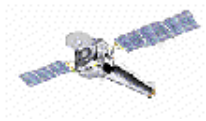

CIAO 2.2.1 Scripts

http://cxc.harvard.edu/ciao/download_scripts.html

These science scripts have been developed to simplify useful tasks in CIAO analysis. Several of the CIAO threads have been semi-automated using scripts. Sometimes scripts are needed in "work-arounds" for CIAO bugs.

The scripts presented here are designed and tested by users. They are made available "as-is" (see the comment at the end of this page). Feel free to edit them, but be sure to use them with care.

There are two general types of scripts: shell scripts and S-Lang scripts. Shell scripts may be run simply by typing the name of the script on the command-line, if the user has execute permission. S-Lang is currently designed to be run from within ChIPS or Sherpa. The ahelp file slang-tips has useful info on how to run a S-Lang script.

To view the text of the script, simply click. To download the script, shift-click.

You may download **all** the scripts featured here, via this CIAO_scripts_25Apr02.tar file. To install the scripts, simply do the following:

```
unix% cp CIAO_scripts_[date].tar $ASCDS_INSTALL/CIAO_scripts_[date].tar
unix% cd $ASCDS_INSTALL;tar xvf CIAO_scripts_[date].tar
```

Subject	Topic	Script
• General		
	Update ardlib.par files to find bad pixel lists (see also the Use Observation-specific Bad Pixel Files	**acis_set_ardlib**
	Example of grating-event data inspection, using ChIPS and S-Lang (see also the Introduction to ChIPS thread)	**chips_tgscript.ch** **get_evt_data.sl** **README_ch_sl**
	Example of lightcurve analysis, using ChIPS and S-Lang (see also the Filtering Light Curves thread)	**analyse_ltcrv.sl**
• Imaging		
	Find the required binning to match two	**get_sky_limits_20aug01.tar**

images (see Match Images thread)	**README**
Generate ACIS Exposure Maps for *Celldetect* Recursive Blocking (HRC script not yet available)	**acis_expmap** **README_acis_expmap**
Make a Color jpg Image (see also the Create "True Color" Images thread)	**color_image**
Combine Two Different Obsids (see also the Merging Data from Multiple Imaging Observations)	**combine_obsid**
Diffuse Image associated scripts (see also the Create an Image of Diffuse Emission)	**diff.scripts.tar**
Convert "annnulus & annulus" into Stack of Annuli (see the Obtain a Radial Profile thread)	**fixannuli**
Combine arbitrary number of ObsIDs, create exposure maps and fluxed images (see also the Use merge_all Script to Compute ACIS Exposure Maps and Fluxed Images thread)	**merge_all_27Mar02.tar**
Calculate spectral weights for creating an instrument map, using S-Lang (see the Calculating Spectral Weights thread)	**spectrum.sl**
Use S-Lang to calculate statistics of Images	**sstats.sl**
Copy 2-D, sky-coordinate WCS Information to an Image (see the How to Restore WCS Info to Images thread)	**wcscopy**

- Imaging Spectroscopy

Extract point-like and extended ACIS spectra with weighted responses or coadd acis spectra	**acisspec_17dec01.tar**
Find the ACIS "blank-sky" datasets in the CALDB matching your observation (see also the ACIS Background thread)	**acis_bkgrnd_lookup**
Clean a lightcurve to match the ACIS "blank-sky" datasets (see also the ACIS Background thread)	**lc_clean.sl**
An alternative algorithm for cleaning	

light curves (see also the Filtering Light Curves thread)	**analyze_ltcrv.sl**
Display the FEF regions covered by a source (see also the thread)	**regions.sl**
Examine the weights file created by `mkwarf` (see also the Weighted ARFs & RMFs thread)	**show_wgt.sl**

- Grating Spectroscopy

Create a Grating ARF for a particular order (see also the Compute HETG/ACIS-S Grating ARFs thread, or the corresponding ACIS-S/LETG thread)	**fullgarf_23nov01.tar**
Extract Spectra into a Grid for Use in Tools Like *mkgarf*	**mk_tggrid** **README_mk_tggrid**
Create PHA Background File for Use in XSPEC (see also the Create PHA Background File for Use in XSPEC thread)	**tg_bkg**
Echo Min Wavelength from a Chandra Grating RMF	**query_heg_grid** **README_query_heg_grid**

- S-Lang

Code and examples of use from ahelp slang-tips (also see the README file).	**slang-tips_23oct01.tar.gz**

A Comment/Warning Regarding these Scripts:

These scripts are provided as-is, with the understanding that they will be useful as-is, or with modifications by the user. We hope to get feedback so that we can eventually turn the more useful scripts into fully supported CIAO utilities. Until that happens, however, we consider them to be relatively unsupported products. If you find a problem with a script, please report the specific tool and command-line generating the error or producing bad output.

(Note: the Bourne and C shells have the option "-x" which will print commands before they are executed. When problems occur, using this will allow us to determine whether there is a bug in a supported (i.e., configuration-controlled) tool, or if it is a scripting error. e.g, ’/bin/sh -x some_script’)