CIAO 2.2 Scripts

cxc.harvard.edu/ciao/download_scripts.html

Unix command line scripts may be used to simplify repetitive basic tasks. 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. Feel free to edit them, but be sure to use them with care.

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

After downloading, make the file executable with the following command:
unix% chmod +x [filename] To run the script, simply type the filename: unix% [filename]

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**

Download and install **all** scripts in your CIAO installation directory. Use the following command-line arguments to copy and untar the file, 'CIAO_scripts.tar':
 	
 `unix% cp CIAO_scripts.tar $ASCDS_INSTALL/CIAO_scripts.tar`
 `unix% cd $ASCDS_INSTALL;tar xvf CIAO_scripts.tar`
	CIAO_scripts.tar

Imaging	
Find the required binning to match two images (see Match Images thread)	**get_sky_limits** (tar file) **README**
Generate ACIS Exposure Maps for *Celldetect* Recursive Blocking	**acis_expmap**

(HRC script not yet available)	**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**
Convert "annnulus & annulus" into Stack of Annuli (see the Obtain a Radial Profile thread)	**fixannuli**
Copy 2-D, sky-coordinate WCS Information to an Image (see the How to Restore WCS Info to Images thread)	**wcscopy**
Use S-Lang to calculate statistics of Images	**sstats.sl**

Imaging Spectroscopy

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

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)	**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.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')

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