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

CIAO 2.1 Scripts

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]
```

Subject	Topic	Script
• General		
	Find the Proper FEF for a Given Chip Position	**acis_fef_lookup**
	Determine if Rescreening is Required	**acis_rescreen**
	Update ardlib.par files to find bad pixel lists	**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

Installation scripts update. This update provides new options and improves performance for some scripting of CIAO (see bug). These scripts will be the default versions for the next patch, CIAO 2.1.1.	**install_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 (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	**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

Choose correct FEF file and extract ACIS spectrum, RMF and ARF for a point source (see also the Extract an ACIS Spectrum thread)	**imagspec.tar** **README_imagspec**
Extract Source and Background Spectra (part of the imagspec.tar group of scripts)	**psextract**
Display the FEF regions covered by a source (see also the thread)	**regions.sl**

- Grating Spectroscopy

Extract Coadded, Grouped Spectra (see also the Extract Coadded and Grouped Nth-Order Source & Background Spectra and ARFs thread)	**add_grating_orders**
Extract Spectra into a Grid for Use in Tools Like *mkgarf*	**mk_tggrid** **README_mk_tggrid**
Make full garfs for an ACIS Observation (see also the Create HETG garf or the Create LETG garf thread)	**mkgarf_acis**
Make full garfs for an LETG/HRC-I Observation (see also the Create LETG/HRCI garf thread)	**mkgarf_hrci**
Make full garfs for an LETG/HRC-S Observation (see also the Create LETG/HRCS garf thread)	**mkgarf_hrcs**
Echo Min Wavelength from a Chandra Grating RMF	**query_heg_grid** **README_query_heg_grid**

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. For example: `/bin/sh -x some_script`)