URL: http://cxc.harvard.edu/ciao3.4/threads/imag.html
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Imaging

The Imaging threads cover a wide range of topics that include source detection, creating exposure maps and normalized images, and calculating image statistics. How to create color images for publication is addressed, as well as merging data from multiple observations.

- **Analysis Guides:**
  - HRC Imaging
  - Extended Sources
- **General:**
  - Using the ACIS "Blank−Sky" Background Files
    Uses: the `acis_bkgrnd_lookup` script; the `lc_clean.sl` S−Lang script
  - Updating dmgroup Syntax for CIAO 3
  - Match the Binning of an Image
    Uses: the `get_sky_limits` script
  - Create A True Color Image
    Uses: the `color_image` script
  - Create A True Color Image in ds9
  - Create an Image of Diffuse Emission
    Uses: the `mkBgReg.pl` script; the `mkSubBgReg.pl` script
  - Using Data Cubes
- **Reprojecting Data:**
  - Merging Data from Multiple Imaging Observations
    Uses: the `merge_all` script
  - Overview: Reprojecting Files
  - Correcting Absolute Astrometry with reproject_aspect
  - Reprojecting Images: Making an Exposure−corrected Mosaic
  - Reprojecting Coordinates of a Solar System Object
- **Coordinates, Astrometry, & Spatial Filtering:**
  - Notes on Chandra Astrometric Accuracy
  - Using SAOImage ds9
  - Using CIAO Region Files
  - Creating Source and Background Files
  - Using dmcoords to Convert between CHIP and SKY Coordinates

- **Source Counts, Surface Brightness, & Statistics:**
  - ♦ Estimate Source Counts in an Image
  - ♦ Obtain and Fit a Radial Profile
  - ♦ Calculating Statistics of Images
    Uses: the `sstats.sl` S−Lang script
- **PSFs:**
  - ♦ ChaRT: the Chandra Ray Tracer
  - ♦ Create a PSF
  - ♦ *Sherpa*: Using A PSF Image As The Convolution Kernel
- **Detect:**
  - ♦ Overview: Detecting Sources in Imaging Observations
  - ♦ Running celldetect
    Uses: the `acis_expmap` script
  - ♦ Running vtpdetect
  - ♦ Running wavdetect
  - ♦ Using the Output of Detect Tools
- **Exposure Maps:**
  - ♦ Use merge_all Script to Compute ACIS Exposure Maps and Fluxed Images
    Uses: the `merge_all` script
  - ♦ Compute Single Chip ACIS Exposure Map and Fluxed Image Step−by−Step
  - ♦ Compute Multiple Chip ACIS Exposure Map and Fluxed Image Step−by−Step
  - ♦ Compute an HRC−I Exposure Map and Build Fluxed Image
  - ♦ Compute an HRC−S Exposure Map and Build Fluxed Image
  - ♦ Match the Binning of an Image
    Uses: the `get_sky_limits` script
  - ♦ Calculating Spectral Weights
    Uses: the `spectrum.sl` S−Lang script

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