



Data Preparation

When Chandra data goes through Standard Data Processing (SDP), the most recently available calibration is applied to it. Since this calibration is continuously being improved, one should check whether there are currently newer files available. Similarly, some science decisions are made during SDP; every user has the option to reprocess the data with different parameters.

- See the current Calibration Status Report
- **Analysis Guides:**
 - ◆ ACIS Data Preparation
 - ◆ HRC Data Preparation
- **General:**
 - ◆ Use Observation-specific Bad Pixel Files
Uses: the `acis_set_ardlib` script
 - ◆ Filtering Data
 - ◆ Filtering Lightcurves
Uses: the `analyze_ltrcv.sl` S-Lang script
 - ◆ Create a New Level=2 Event File
- **Coordinates, Astrometry, & Spatial Filtering:**
 - ◆ Notes on Chandra Astrometric Accuracy
 - ◆ Improving the Astrometry of your Data: Correct for a Known Processing Offset
 - ◆ Correcting Absolute Astrometry with reproject_aspect
 - ◆ Creating Accurate RA, Dec Coordinates for src2 Files
 - ◆ Using CIAO Region Files
 - ◆ Creating Source and Background Files
 - ◆ Using dmcoords to Convert between CHIP and SKY Coordinates
- **ACIS:**
 - ◆ Check the ACIS Data Caveats
 - ◆ Why topic: Continuous Clocking Mode
 - ◆ Calculate CC-mode Times of Arrival
 - ◆ Remove the acis_detect_afterglow Correction
 - ◆ Create a New ACIS Bad Pixel File: Identify ACIS Hot Pixels and Cosmic Ray Afterglows
 - ◆ ***acis_process_events:***
 - ◇ The *Create a New Level=2 Event File thread* simplifies reprocessing data by combining all the `acis_process_events` options into one run of the tool.
 - ◇ Apply the Time-Dependent ACIS Gain Correction
 - ◇ Apply the ACIS CTI Correction
 - ◇ Apply an ACIS Gain Map
 - ◇ Remove ACIS Pixel Randomization
 - ◇ Apply/Remove ACIS PHA Randomization
 - ◇ Clean ACIS Background in VFAINT Mode

Data Preparation Threads – CIAO 3.4

- ◆ Using the ACIS "Blank-Sky" Background Files
Uses: the `acis_bkgrnd_lookup` script; the `lc_clean.sl` S-Lang script
- ◆ Destreak the ACIS-S4 Chip
- ◆ Remove the ACIS Readout Streak
- **HRC:**
 - ◆ Creating a New Observation-Specific HRC Bad Pixel File
 - ◆ ***hrc_process_events:***
 - ◇ The ***Create a New Level=2 Event File thread*** simplifies reprocessing data by combining all the `hrc_process_events` options into one run of the tool.
 - ◇ HRC AMP_SF Correction and Reducing Tap-Ringing Distortions
 - ◇ HRC-I Degap Correction
 - ◇ HRC-S Degap Correction
 - ◆ Computing Average HRC Dead Time Corrections
- **ACA Monitor Window Data:**
 - ◆ Processing ACA Monitor Window Data

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URL:
<http://cxc.harvard.edu/ciao3.4/threads/data.html>
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