

20.4 Headers, Keywords, and Relationship to Phase II

As with previous HST instruments, the FITS header keywords in STIS data files store important information characterizing the observations and telemetry received during the observations and describe the post-observation processing of your dataset. Each keyword follows FITS conventions and is no longer than eight characters. Values of keywords can be integer, real (floating-point), or character string. Many are HST and STIS specific. Knowledge of the keywords and where to find them is an important first step in understanding your data. By examining your file headers, using either **infostis**, **catfits**, **imhead**, or **hedit**, you will find detailed information about your data including:

- Target name, coordinates, proposal id, and other proposal level information.
- Observation and exposure timing information such as observation start and duration.
- Instrument configuration information such as detector, grating, central wavelength setting, and filter.
- Readout definition parameters such as binning, gain, subarray parameters.
- Exposure-specific information such as more detailed timing, world coordinate system information, fine guidance sensor identification.
- Calibration information such as the calibration switches and reference files used by the pipeline and parameters derived from the calibration, such as image statistics, wavelength shifts.

The easiest way to quickly identify the observational parameters of a given dataset is to run the task **infostis** (see Figure 20.3 below) which prints selected header information for STIS FITS images. Wildcard characters or a file list may be used for input (e.g., *.fits or @fitslist).

Figure 20.3: Using infostis to Display Header Keywords

```

cl> infostis o3xi03alm_raw.fits
-----
                                S T I S
-----

      Rootname: O3XI03AlM          Detector: CCD
      Proposal ID: 7071           Obs Type: IMAGING
      Exposure ID: 3.031         Obs Mode: ACQ
                                   Lamp: NONE
      Target Name: GD153-1       Aperture: F28X50LP
      Right Ascension: 12:57:02.3 Filter: Long_Pass
      Declination: +22:01:53.2   Opt Element: MIRVIS
      Equinox: 2000.0           CCD amp: D
                                   Gain: 4
      Axis 1 binning: 1          CR-split: 1
      Axis 2 binning: 1
      Subarray: yes

      Total Exp. Time: 0.3 sec
      Number of imsets: 3
    
```