File Content and Format

Each data file is a FITS binary table. The primary FITS header contains the following information:

FITS File primary header

```
SIMPLE  =                    T /image conforms to FITS standard
BITPIX  =                   16 /bits per data value
NAXIS   =                    0 /number of axes
EXTEND  =                    T /file may contain extensions
TARGNAME= 'BD+112998'          /target name
SPECTYPE= 'composite'          /Spectra type
TELESCOP= 'HST     '           /observatory
INSTRUME= 'STIS    '           /instrument
FILENAME= 'h_stis_ngsl_bd+112998_v1.fits' /
RA      =        3713.54743480 /Right Ascension (deg)
DEC     =        10.9976309090 /Declination (deg)
EQUINOX =              2000.00 /equinox of celestial coord. system
APERTURE= '52X0.2          '   /
GRATING = 'G230LB, G430L, G750L' /
OBSDATE = '2004-04-10'         /date of observation YYYY-MM-DD
EXPSTART=        53105.9428153 /Start time of obs. sequence (MJD)
EXPEND  =        53105.9637181 /End time of obs. sequence (MJD)
MINWAVE =        1675.66137068 /Minimum wavelength
MAXWAVE =        10198.7137562 /Maximum wavelength
MAXFLUX =          9.14272E-13 /Maximum Flux in erg/sec/cm^2/Angstrom
OFFSETPX=            -0.324710 /Offset of star from center of slit (pixels)
```

```
DATAQUAL= 'good    '
/Data Quality: good or
suspect
HISTORY STIS Next
Generation Spectral
Library, Version 1, 27-
Feb-2008
HISTORY  ----------------
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-
HISTORY        FILENAME
```

OFFSETPX gives the offset of the target in pixels (0.05 arcsecond) from the center of the slit as measured using the G750L fringe flats (Section 3.2). **DATAQUAL** is used to flag data that may be suspect because of a large centering error within the slit. The data are flagged as suspect if the offset error is more than 0.9 pixels. Mis-centering greater than 0.9 pixels result in large errors in the aperture throughput correction.

The file's binary table extension contains three columns:

WAVELENGTH – wavelength in Angstroms
FLUX – observed flux in ergs/cm^2/second/Angstrom
STATERR – propagated counting statistical errors.