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WFC3 Example Datasets

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ABSTRACT

Flight-like example datasets for the WFC3 UVIS and IR channels have been constructed and are publicly available for observers to use for learning and testing WFC3 data processing and analysis software.

The Datasets

Simple WFC3 UVIS and IR datasets are publically available for observers to download and use for testing and becoming familiar with WFC3 calibration and analysis software. The example datasets were constructed by taking the raw FITS files for a few exposures recently obtained on-orbit as part of the WFC3 Servicing Mission Orbital Verification (SMOV) program and replacing the image portions with data from non-proprietary ground-test observations. Thus the file formats and header contents are completely flight-like and faithfully reflect what observers will get from standard pipeline processing of on-orbit science data. Details of the WFC3 file formats and contents, as well as the calibration processing performed by the `calwf3` program, can be found in the WFC3 Data Handbook (Kim Quijano et al. 2009). The Data Handbook is availabe from the WFC3 web site.

Two UVIS datasets have been constructed, which form an example of a CR-SPLIT=2 pair of exposures and are members of a CR-SPLIT association. The two datasets are from full-frame, unbinned CCD exposures and have been given root names of "`iaaabbc1q`" and "`iaaabbc2q`". The association name is "`iaaabb010`". Raw and spt files for the

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two exposures are available, as well as the asn table. Calibration products produced by the latest version of `calwf3` are also available and include the flt files for the two individual exposures and the crj product formed by combining the two exposures. A drizzled version of the combined crj product is also included. The image portions of the two exposures contain simple point sources from ground testing.

A single IR dataset has been constructed from a full-frame exposure that uses the RAPID readout sequence and the maximum number of readouts (15). The root name of the dataset is "`iaaabbc3q`". Raw and spt files are available, as well as the ima and flt products produced by `calwf3` and the drz product from `multidrizzle`. The image portions of the dataset contain a single, somewhat extended source from ground testing.

All of the Calibration Database System (CDBS) reference files needed for processing/calibrating these datasets are also available along with the science datasets. Having the reference files allows observers to process the science datasets with programs like `calwf3` and `multidrizzle`.

Retrieving The Data

The data files have been packaged into two tar files, "uvis_datatset.tar" and "ir_dataset.tar", which are available for download from the STScI anonymous ftp site, in the directory /pub/instruments/wfc3. Complete directions are available on the WFC3 web site in the User Forum area.

References

Kim Quijano, J., et al. 2009, "WFC3 Data Handbook", Version 1.0, (Baltimore: STScI).