



FAQ

High-Level Science Products

Software

FITS

Related Sites

NASA Datacenters

MAST Services

MAST and the VO

Newsletters & Reports

Data Use Policy

Dataset Identifiers

Acknowledgments



STScI Archive News

Space Telescope Science Institute

November 17, 1997 --- Volume 1

The STScI Archive Newsletter will disseminate information to users of the various datasets supported by the STScI Archive.

This preliminary issue focuses on the support now being provided at the STScI Archive for International Ultraviolet Explorer (IUE) data. Subsequent issues will include items of interest for the other supported datasets.

IUE Archive at the Space Telescope Science Institute

Assistance for researchers using archival data from the International Ultraviolet Explorer (IUE) is now available through the Space Telescope Science Institute (STScI). Following the advice of the IUE Users Committee, STScI, working jointly with the Laboratory for Astronomy and Solar Physics at the Goddard Space Flight Center (code 680), the IUE Project, and the National Space Science Data Center (NSSDC), developed a concept proposal for providing long-term support for the IUE archive in conjunction with the HST archive. The proposal was approved at the start of the 1998 fiscal year.

Access to IUE data (both NEWSIPS and IUESIPS) is provided through the same WWW and StarView interfaces used for data in the Hubble Data Archive. In addition, experienced IUE staff members are available to assist researchers.

The IUE WWW interface is located at <http://archive.stsci.edu/iue>. Links are provided for users to search the IUE catalog, retrieve data, obtain help, and get access to IUE documentation and analysis software. The search page allows the user to search the IUE catalog using various parameters, select the datasets of interest, and submit the data retrieval request to the NSSDC. The data, in the required format, can then be retrieved via anonymous ftp. Future plans include the possibility of previewing the data before retrieval, combined IUE/HST searches, placing additional documentation online, and the migration of the archive from NSSDC to STScI. In Starview, users can access the IUE Merged Observing Log of observations by selecting "Non-HST Data Searches" in the Welcome Page and then "IUE." The IUE archive can be searched using a variety of parameters, ranging from target name and position to exposure time, observing date, and object class.

Additional ultraviolet and optical data sets will be incorporated into the STScI archive in the future, including data from the Far Ultraviolet Spectroscopic Explorer (FUSE) currently scheduled launch in October 1998. Please continue to direct any email inquiries about the STScI data archives to archive@stsci.edu.

- Paolo Padovani, Cathy Imhoff, [Marc Postman](#)

More About the New IUE WEB Search Page

IUE Archive users have a new means of searching the IUE Merged Observing Log and submitting requests for IUE data from NDADS. The new IUE WWW interface can be found at the URL <http://archive.stsci.edu/iue>. It provides links to the IUE Search Engine, a data retrieval page and additional help page. Although not available yet, the staff will be placing documentation on-line over the next few months.

The search engine provides a means for users to search on selected fields including object name, coordinates, IUE object_class, program id, observation date, camera, dispersion, and image_id. There is an associated help page. The search results may be displayed with default set of fields or the user can select the fields before the search for a customized display.

The user can mark images of interest and use the link on the search results pages to link to the IUE Data retrieval page. The user specifies what type of files are desired, enters his e-mail address and sends the request to the NSSDC data archives system, NDADS. The user is notified when the data have been staged and the files can be retrieved via anonymous ftp from the staging area.

Any questions or problems should be sent to via e-mail to archive@stsci.edu.

Implementation of New LWR Ripple Correction

An improved LWR ripple correction was derived by Angelo Cassatella and was received last month from Vilspa. Tests confirmed that the new correction shows a slight improvement in the ripple correction compared to the earlier version. Unfortunately, the final archive processing of all Goddard LWR images had already been completed using the earlier ripple correction. The Vilspa LWR high dispersion data has not yet been processed.

In order to apply the new correction, and maintain a homogeneous data archive, an IDL program (i.e., MXCOR2) was written which rederives the ripple-corrected and absolutely-calibrated net flux vectors stored in the Goddard LWR MXHI files. Since the correction only affects the MXHI file, it was felt unnecessary to completely reprocess each LWR image. MXCOR2, which runs in less than 1 minute (per image), was used to correct all the archived LWR MXHI files at Goddard. The corrected versions will then be rearchived and made available online at NSSDC. Users will be able to distinguish between the old and new ripple corrections using the version number stored in the history portion of the MXHI file primary FITS header. The new ripple correction will have the line "LWR Ripple Correction Version 2.0 applied". The earlier correction is referred to as "Version 1.0". Note that only users who have already requested LWR MXHI files are affected by the change.

The new ripple correction uses a slightly different algorithm than previously used. Rather than defining the blaze wavelength as K/m , where m is the order number and K is a function of order number, temperature, and/or time (i.e., the SWP correction varies with temperature and the LWP correction varies with time), the new correction defines the blaze wavelength as $(K/M) + \delta(\text{Lambda})$, where K is now a 4th order polynomial varying only as a function of order number, and $\delta(\text{Lambda})$ is a 2nd order polynomial varying as a function of order number and time. The alpha parameter and the ripple correction algorithm itself did not change, and according to Angelo, the inverse sensitivity function does not need to be revised.

Work to apply the new LWR ripple has been completed. The LWR data has been corrected and is currently being rearchived at the NSSDC. We anticipate completing the rearchiving effort during the early part of this week. - [Randy Thompson](#), [Karen Levay](#)

Status of the Archiving NEWSIPS data

During October, NEWSIPS data for more than 8600 Vilspa images were archived. Most of the data were LWR low dispersion images. There were also a fair number of SWP and LWP low dispersion images included in that number. As batches of additional VILSPA images are received, they will be archived as quickly as possible.

The GSFC side of the IUE Project completed processing all the scientific data in early October. All of the GSFC data processed has been archived. - [Karen Levay](#)

IUEDAC Software Support (changes since 01-Oct-1997):

09-Oct

A new version of NORM was implemented which allows more user-selected points to be stored in the output vector "mode" and preserves all the coefficients for polynomial fits.

21-Oct

The new LWR ripple correction received from Vilspa was implemented in the IUEDAC calibration routines. New versions of the following programs were implemented:
IUERIP - calculates the new LWR K & alpha values,
TIMELWR - a new subroutine to derive the $\delta(\text{lambda})$ terms used in the LWR ripple correction,
NSRIPL - calculates the new ripple correction for a given image and order number, and

MXCOR2 - corrects LWR MXHI files processed with ripple correction version 1.0.
23-Oct

A bug was discovered in TABINV which caused the output indices to be truncated integers when the input xarr and x parameters were both byte or integer vectors. The new version properly returns floating point indices.

07-Nov

The following routines were modified:

VECFITS - allow 2 more vectors to be written to output FITS file and makes linearization of vectors optional rather than required,

READMX - stores the order numbers and wavelength range of the data extracted from the MXHI files in the output FITS header,

MXCOR2 - modify history line in FITS header to say version 2.0 ripple correction applied,

TIMELWR - pass order number as a floating-point value to TABINV.

11-Nov

A program to remove SWP scattered light from NEWSIPS low dispersion spectra was added to the experimental library. The program, called SLBOXCAR, was donated to the IUEDAC by Mark Vincent from the University of Michigan. Interested users should send inquiries to archive@stsci.edu for more information.

- [Randy Thompson](#)

IUE to IRAF/STSDAS Conversion Scripts Planned

Within the next month, two scripts will be written that will convert the IUE FITS files into formats that can be used by the IRAF/STSDAS software packages. One will rename the file and expand the initial and delta wavelengths into wavelength arrays enabling analysis with several STSDAS tasks. A second script will produce multispec format images for analysis with the NOAO onedspec package (e.g., splot). Users will need to have IRAF v2.11 and STSDAS v2.0 installed on their systems to utilize this functionality. At this time, IRAF v2.11 and STSDAS v2.0 have only been distributed for SunOS/SOLARIS systems.

Information about these conversion scripts will be posted on the IUE Web pages. If you are interested in these scripts, send a message to archive@stsci.edu to request that you be sent a notification when the scripts are ready.

- Dick Shaw

The Sevilla 'Beyond the Final IUE Archive' Conference

The ESA-sponsored conference, "Ultraviolet Astrophysics: Beyond the Final IUE Archive," hosted by W. Wamsteker, was held in Sevilla, Spain on November 11-14th. This conference was attended by well over 100 astronomers from around the world who were familiar with IUE data in their own research fields. It was largely framed in a context of multiwavelength studies with many other space-borne missions and ground-based observatories. It was an intense (no excursion breaks!), but informative four-day meeting which consisted of some 70 invited papers and many more poster papers by specialists among a great variety of astronomical fields as well as officers of several space agencies from N. America, Europe, and the UK. Many of us who attended could not recall when we had last been to a conference in which we learned so much of the current state of one another's fields.

The conference also consisted of a report on the NEWSIPS processing system and of several posters reporting on its performance and to possible improvements which can be made by future users. Another development in the meeting was the announcement of the formation of a working group for a prospective UV satellite called the World Space Observatory ("WSO") which would become accessible to astronomers in all countries; this concept has just been endorsed by a UNESCO resolution. The US representation on this working group consists (so far) of Dr. Steve Shore.

The scientific program for this conference may be found on the Web site: www.vilspa.esa.es/iue/sevilla/program.html. The proceedings will be published in February.

-[Myron Smith](#)

To Subscribe or Unsubscribe to the Newsletter

If you would like remove yourself from the mailing list send mail to archive_news-request@stsci.edu and put the single word UNSUBSCRIBE in the BODY of the message. Do not put this information on the subject line.

If someone would like to subscribe to the mailing list send mail to archive_news-request@stsci.edu and put the single word SUBSCRIBE in the BODY of the message. Do not put this information on the subject line.
