

Feb. 26, 1985

IUE Regional Data Analysis Facilities
Bulletin No. 3

1) General Announcements

Acknowledgment of Principal Investigators:

The IUE Project has requested that people publishing results from data obtained from the IUE archives acknowledge the principal investigators who acquired the original data. The staff of the RDAF's will assist users in obtaining the names of the principal investigators of archived data, although this information can generally be obtained from the published IUE merged log. It is also requested that RDAF and NSSDC users publishing results from IUE data acknowledge the source of their data.

Improved Version of IDL:

Mike Van Steenberg of the Colorado RDAF, in conjunction with Dave Stern (creator of IDL), has developed an improved version of the PDP IDL software which will soon be available at both facilities. The major improvements for users will be the ability to specify double precision and the improved compatibility with the VAX version of IDL.

2) News from GSFC

Staff Changes:

Carol Grady has replaced Nancy Evans as RDAF Astronomer. Carol previously worked at the Colorado RDAF in pursuing her Ph.D. and more recently worked on the calibration effort at the Space Telescope Science Institute. Carol's experience using both facilities should greatly improve our software compatibility. Nancy Evans has joined the science operations staff as an IUE Resident Astronomer.

Hardware Changes:

A 500 megabyte disk drive is now available to RDAF users. A separate disk area has been reserved for RDAF visitors and remote users which will be managed entirely by the RDAF staff. This configuration will allow the RDAF to guarantee any visitor or remote user at least 18,000 blocks of disk space. The added disk space will also allow an expansion of the standard star atlas and the addition of the IUE UV flux catalog.

Software Changes:

The entries below describe the software modifications implemented at Goddard between July 1st, 1984 and February 26th of this year:

11-JUL The latest version of the merged observing log was installed.

- 24-JUL Users wanting more plotting flexibility than offered by the routine XYPLOT should consider using the procedure PLT in the experimental library. See the DOC file in [210,22] for further information.
- 25-JUL The following routines are now available in the experimental library:
 CRSCOR - cross-correlates 2 spectra & calculates velocity difference
 GAUSSFIT - fits Gaussians & a polynomial baseline to data points
 WPOLYFIT - fits a polynomial to weighted data points
 WFIT - fits a nonlinear function to weighted data points
 LINFIT - performs a linear least squares fit to weighted data points
 BASEREM - fits up to a 2nd order polynomial to a user-specified region (i.e. to remove a baseline from a spectral feature)
 DETERM - calculates the determinant of a square matrix
 GAUSS - calculates a Gaussian function
 CHISQ - evaluates the reduced chi square for a fit to data
 The procedures GAUSSFIT, WPOLYFIT, WFIT, LINFIT, DETERM, GAUSS & CHISQ are IDL versions of programs from Bevington. See the corresponding DOC files in [210,22] for further documentation.
- 09-AUG [210,21]LINFIT.PRO improved (see DOC file in [210,22]).
- 20-SEP Experimental versions of GAUSSFIT.PRO AND WFIT.PRO were updated (see DOC files in [210,22]).
 A new version of the BACKUP.DOC file has been added to the RDAF library [177,2]. This file describes how to use the RMSBCK and RMSRST utility routines.
 Several RDAF users have recently reported having IDL errors such as 'VARIABLE NOT DEFINED' or 'TASK IDL... TERMINATED'. No hardware errors have been found which could cause these problems. The IDL TSK file was reinstalled from a recent back-up tape.
- 25-SEP New versions of LINFIT and GAUSS have been added to the experimental library [210,21]. See DOC files in [210,22] for a description of the modifications.
- 10-OCT A new version of IDL is now available for RDAF users on an experimental basis. See the bulletin board in the terminal room for further details.
- 12-OCT New version of IUEMERGE was added to experimental library [210,21] which prevents duplicate wavelength entries when using 'splice' mode. DOC file in [210,22] was also corrected for errors.
- 22-OCT The routine IUEHELP will now list out documentation on procedures stored in the experimental library. To find out more about the new version of IUEHELP, compile [210,21]IUEHELP.PRO and specify: IUEHELP, 'IUEHELP'
- 19-NOV The IUE merged observing log has been updated. Entries up to 18 Oct. 1984 are included (i.e. GMT 292).
- 10-DEC A new version of the experimental IDL has been installed for user

testing. See bulletin board for further details.

- 13-DEC The following procedures were added to the experimental library:
- XYPLOT - prevents truncation of arrays in multiple executions of XYOPLOT
 - IUEHI3 - prevents overwriting of order numbers, improved YMAX calculation for scaling y axis, uses new version of IUEPLOT and uses new alpha values for echelle constants
 - IUEHI - uses new versions of QIUEHI3 and IUEPLOT
 - QIUEHI3 - includes LWP ripple constants and uses new version of IUEMERGE
 - IUEPLOT - uses new version of FORMAT
 - CALIB - prevents LWP high dispersion images from being flagged as having been absolutely calibrated.

- 13-DEC Modifications were made to the following experimental routines in [210,21]:
- IUEIM - uses new version of TABINV and IUEPLOT
 - UNRED - uses new IUEPLOT
 - IUELO - uses new IUEPLOT and CALIB
- Also, redundant versions of procedures in [210,21] and DOC files in [210,22] were deleted. Please see a member of the RDAF staff if this causes any problems.

- 14-DEC As a result of the fifth RDAF Software Review Committee meeting (held today) the following experimental routines were implemented on the dates shown:

ROUTINE:	New Library:	Date Moved:
ASSESS	[210,1]	12-28-84
FORMAT	[177,1]	12-28-84
EXPTIME	[210,1]	12-31-84
IPLIST	[210,1]	12-31-84
IUEHELP	[210,1]	12-31-84
TABINV	[1771,]	1-01-85
YXOUT	[177,1]	1-01-85
IUEMERGE	[210,1]	1-01-85
IUEHI	[210,1]	1-03-85
QIUEHI3	[210,1]	1-03-85
IUEPLOT	[210,1]	1-03-85
CALIB	[210,1]	1-03-85
IUEHI3	[210,1]	1-03-85
IUEIM	[210,1]	1-04-85
UNRED	[210,1]	1-04-85

See the appropriate DOC files (or run IUEHELP) for a description of the modifications incorporated into the new versions.

- 18-DEC A new version of ERRBAR was added to the experimental library which allows plotting of single error bars. See DOC file in [210,22] for further information.
- 3-JAN A new version of the RDAF.HLP file was installed in [210,2]. The HELP utility can now be used to obtain information on

recently installed RDAF procedures, IDL routines received from the Colorado RDAF, and listings of the online standard star atlas. Users can obtain more information by typing: (from IDL) SPAWN, 'HELP RDAF'.

- 18-FEB The RDAF data and procedure files have been moved from DR0 to VDO. The files on DR0 will not be deleted; however the RDAF staff will no longer support these routines. Users wishing to access the procedures from VDO should see a member of the RDAF staff. Visitors are not affected by these changes.
- 20-FEB The experimental version of WPOLYFIT has been modified to allow scalar WEIGHT and floating pt. NFIT input variables.
- 26-FEB A new procedure called GEX1 has been added to the experimental library which fits a Gaussian function to cross-cuts of a line-by-line spatially resolved (LBS) file. See DOC file in [210,22] for more information.

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