

Introduction to the New Extended Line-by-Line File

As noted in the "IUE News" section of this issue, on October 1, 1985 the current spatially-resolved spectral file for low dispersion images (known as the Line-by-Line file) will be replaced. After that date, the Guest Observers' tapes will contain the new Extended Line-by-Line (ELBL) file. This output file is designed to provide greater spatial resolution than the present LBL.

It is highly recommended that all users of low dispersion IUE data review the following article to determine what effect this change will have on their analysis techniques and software. Some important differences to be noted are:

- (1) The new software produces extracted spectral flux values (in the MELO file) which may differ from those generated by the current software. The differences typically amount to only one-half of one percent.
- (2) The flux values in the ELBL files will be approximately one-half of those found in the LBL files. This is due to a reduction in the effective area of the image used to calculate these values. The units and the scaling have not been changed to compensate for this. Also, those researchers who re-extract the gross flux from the LBL will need to make the change described in the article to do the same with the ELBL.
- (3) The "pseudo-order" numbering sequence for LWP camera images will be reversed by the new software. The result will be that the numbers will always increase in the large aperture to small aperture direction.
- (4) A number of changes have been made to the format of the scale-factor record (data record zero). Consult the article for the new format.

We anticipate that many research programs will benefit from the enhanced spatial resolution provided by the ELBL file. We do not expect the corresponding file format changes to cause major problems for most users. Any comments or questions can be addressed to me at GSFC, Code 684.9, Greenbelt, MD 20771

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