

# TECHNICAL FILE

-THE WOFFORD CONNECTION-

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## Software Problems.

One problem with the present BII compiler is that it may print garbage instead of a line number when informing the user of a file format error. This occurs only when data is read both from a DATA line and a file. If data from within the program has been read and a file format error is found, the incorrect file line will not be identified intelligibly. If the program is written to read all the internal data first and then restore that data, the file may then be accessed and file format errors will be properly reported to the user. If the application does not allow this program modification, the trouble will continue and should be reported to Dr. Olds.

The new colon option has been found to have the following limitation: The computer will reply "deleted" when the colon option is used two times in succession. If necessary, avoid using the colon option in this situation. The previous form of the systems commands may be used.

## New Programs

The following statistics and business programs have been developed at the University of Virginia and are available on the C-A-C system. They are in BASIC.

CPDPV\*\*\*\* provides, for a selected interest rate, compound interest factors (annual and cumulative) and present value factors (annual and cumulative) for each of a number of years. The factors are calculated either for compounding at the end of the year or the middle of the year. (UVA-C-468)

MZENU\*\*\*\* furnishes an amortization table. (UVA-C-470)

FNRAE\*\*\*\* and FNUME\*\*\*\* find the rate of return for a series of uniform annual savings plus a terminal value at the end of the last year of the series. In FNRAE, savings are received at the end of the year, with the terminal value received at the end of the last year. FNUME applies to a series of uniform annual savings received over the course of the year, with the terminal value received at the end of the last year. (UVA-C-471)

PVNUS\*\*\*\* determines, at a selected discount rate, the present value of a series of non-uniform annual cash flows. (UNA-C-472R)

STATS\*\*\*\* provides a rapid method for calculating the mean, standard deviation, sample variance, population variance, and the standard error of the mean for sets of individual values or frequency distributions. (UVA-Q-30-5R)

LINRG\*\*\*\* is designed to fit a linear regression line to data points in two variables, using the method of least squares. Predictions may be made and 95 percent confidence limits calculated. (UVA-Q-30-6)

MULTP\*\*\*\* provides a multiple regression analysis for up to six variables. (UVA-Q-30-7R)

POLFT\*\*\*\* provides a least-squares fit to paired data using the orthogonal polynomial method. (UVA-Q-30-8R)

EXSMO\*\*\*\* provides a means for determining the best smoothing constant for making predictions with exponential smoothing. Single and double smoothing are possible. (UVA-Q-30-9)