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## NEWS LETTER

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### PL/I COMPILER NOW AVAILABLE

The Computing Center has recently implemented the PL/I Compiler (Programming Language/I) in its operating system. PL/I provides the programmer with a unified problem oriented language for efficiently programming either scientific or commercial applications. PL/I combines into one language the many facilities of the COBOL language (which has data conversion and editing facilities, character and bit manipulation capabilities, and a wide range of input output management control) and the FORTRAN language (primarily a mathematical oriented language). This disk resident compiler may be loaded and executed with the use of the following 'EXEC' card (punching starts in column 1).           // EXEC PL/I

Note: (columns 3 and 8 must be left blank and column 12 is the letter 'I').

The other JOB CONTROL cards necessary have the standard format.

### GENERAL PURPOSE SIMULATION SYSTEM (GPSS) NOW AVAILABLE

GPSS is a broad range general purpose simulation tool for modeling and examining the behavior patterns of time-oriented or flow-type applications. Varying environments may be simply introduced to enable the user to explore alternatives, and identify capacity limitations. Both environment and activities may have random variations. Proposed changes to existing policies, methods, and operations can be subjected to critical performance criteria and evaluated.

The application areas in which GPSS type simulations have been profitable are many and varied -- information system design, communication traffic flow and capacity studies, quality control procedures specification, advanced management planning, analysis of consumer behavior, inventory system design, performance and reliability, transportation loading and scheduling, among others.

Those interested in using this program should contact one of our computer consultants to obtain the proper system control cards.

COMPUTER PROGRAMS OF GENERAL INTEREST NOW AVAILABLE

The Computing Center now has an updated list of computer programs that are of general interest to users. Because there have been many significant additions (and some deletions) since the last 'Programs Available' announcement was made an entirely new list has been created. In the list each program is given a name, number, level and a brief description about its capabilities, inputs, and outputs. The Center now has programs that fall into the following categories:

A. Regression and correlation

- 1) Multiple linear regression
- 2) Polynomial regression
- 3) Stepwise regression
- 4) Factor analysis
- 5) Canonical correlation
- 6) Missing data correlation

B. Analysis of Variance

- 1) Factorial ---- equal frequencies (up to 9 factors)
- 2) Randomized block with 1 or n observations per cell
- 3) Completely randomized design (can handle unequal frequencies)
- 4) Latin square

C. Miscellaneous statistical programs

- 1) Discriminant analysis
- 2) Duncan's multiple range test
- 3) t-test
- 4) Frequency distribution
- 5) Chi-square analysis
- 6) GPSS (General Purpose Simulation System)

D. Data manipulation, tabulation and summarization programs

- 1) Data conversion and rearrangement
- 2) Scattergram
- 3) Cross tabulation and frequency counters
- 4) General summarization
- 5) Limit selection and editing

E. Compilers (4), Utility programs (12), Sorts (2)

Handouts with more detailed information may be picked up in Room 26, North Hall.