

90427

UUUU UUUU
UUUU UUUU
UUUU UUUU
UUUU UUUU
UUUU UUUU
UUUU UUUU
UUUU UUUU
UUUU UUUU
UUUU UUUU
UUUUUUUUUUUUUUUUUU
UUUUUUUUUUUUUUUUUU
UUUUUUUUUUUUUUUUUU

N
O
T
E
S

&

C
O
M
M
E
N
T
S

Table of Contents	
Short Courses	p. 2
CPU Time Limits	p. 2
Systems Notes	p. 2
Library Changes/ Additions	p. 5

CCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCC
CCCC
CCCC
CCCC
CCCC
CCCC
CCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCC

N
O
T
E
S

&

C
O
M
M
E
N
T
S

NOTICE

All problem numbers which were completely funded and which had not been used since July 1, 1970 were removed from the accounting system on January 8th. We are assuming that these numbers were for completed projects which were no longer using computer time.

If any problems arise from this action, see James Foster, 235H ExpEng, 373-3757.

***** THIS DOES NOT AFFECT *****
SUBSIDIZED PROJECTS

CCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCC
CCCC
CCCC
CCCC
CCCC
CCCC
CCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCC
CCCCCCCCCCCCCCCC

N
O
T
E
S

&

C
O
M
M
E
N
T
S

NOTES & COMMENTS NOTES & COMMENTS NOTES &
January, 1971 Volume 5, Number 1

University Computer Center
University of Minnesota
Minneapolis, Minnesota

N
O
T

SHORT COURSES

The following short courses will be offered by the UCC during Winter Quarter:

Basic Fortran : January 25 through February 5
SCOPE : February 8 through February 12
Advanced Fortran : February 15 through February 26

All classes will be held in Room 305 Main Engineering from 4:15 through 5:00 PM. The instructor will be Richard Franta.

No registration is necessary for the courses and no fees are charged. We suggest that students who are interested in the Fortran short courses do some preliminary reading before attending the first class. We recommend that Fortran students use the Control Data Fortran Reference Manual (publication number 60174900) and an instructional Fortran book such as McCracken's Fortran IV or Stein and Munro's Fortran Introduction. SCOPE students should use the CDC SCOPE Manual or wait for the UCC User's Manual to be published.

NEW OPTION IN TIME LIMIT CALCULATION

In the near future, the CDC 6600 user will be offered the option of setting (by control card) a PPU time limit parallel to the CPU time limit for his job. The default value will be infinite.

This control card will be described in a future SYSTEM NOTES.

FROM THE SYSTEMS GROUP

The Systems Programming Group (those people who seem to know all the answers and are usually so difficult to contact) generally communicate with users through the SYSTEMS NOTES. However, a few problems and situations have arisen that are important enough to be in this newsletter.

The New Loader

Users will have noticed that the MMLOADR is now the default loader. Happily, the loader has worked successfully for about 90% of the jobs run with it (only a confirmed pessimist would say that it did not work for 10% of the jobs). The following bugs have been fixed:

1. Fatal loading errors no longer produce a cryptic message concerning some file not found.
2. The execution of overlays with passage of arguments works now.

3. Generation and immediate execution of overlays (for example, from

RUN,G.

or

FNAME.

now works correctly but the suggested sequence is:

LOAD,FNAME.

NOGO.

OVLNAME, P1, ..., Pn.

The first two cards are for generating the overlay and the third is for loading and executing the overlaid file.

4. Files are now rewound after library generation.
5. Load times are more nearly correct.
6. The CPU time required to load is much less than was indicated on the first day that the loader was enabled.
7. All overlays are written out on a generation run.
8. Executing RUN/FUN compiled programs with line count specifications now works (e.g., LC=nnn).

Some problems and deficiencies that remain:

1. Only mass storage (emphatically not magnetic tape) files may be used with MMLCADR (library generation input to LIBGEN may be on tape). Users who load overlay systems directly from tape with either CPLOADR or PPLOADR should be aware that these loaders will initiate a slow-speed, rather inefficient copy from the requested tape to disk and then execute the resultant disk file. (The actual process is somewhat more complicated than outlined, but the fact remains that it is inefficient.) For better usage, overlay users are urged to initiate their own copy from tape to disk, "FORGET" the tape and execute the disk file, taking care to name the disk file as the name on which the overlays are expected to reside.
2. Overlay generation has two problems remaining:
 - a) incorrect origin of blank common in special instances (see INFO file).
 - b) "losing" some entry points when unsatisfied externals occur.

Hopefully, both these problems will be fixed shortly.

3. The message "WARNING-LIBRARY NOT DEFINED" is issued intermittantly and not consistently by the loader, usually following a tape assignment. This problem is being investigated and its effects may be overcome by simply including a card of the following form just before LOAD:

LIBRARY,L.

where L is one of the defined system libraries. See the INFO file record MMLOADR for details.

FT3 - FTN Version 3

FT3 has its own share of problems. It has corrections for bugs found in Version 2, but new bugs have been introduced. In addition, it is not strictly upward compatible. Some points to be careful of:

- a) Assigned and computed GO TO statements are compiled to give execution-time diagnostics when a branch is illegal or cannot be taken. The diagnostic processor is ACGOER., which you may have noticed in the load maps.
- b) In debug mode, if the file equivalence

DEBUG=OUTPUT

is not in the program header card, a file of name DEBUG with print disposition is used for debugging printouts. The file DEBUG will not necessarily be printed with the job that created it, and may in fact be misplaced because it will have none of the standard information (e.g., dayfile, bin number, etc.) used as locaters for normal output. When debugging, users are urged to include the file equivalence mentioned above to avoid this problem. (The equivalence may be to any file name, but file OUTPUT seems to make the most sense.)

COBOL

COBOL does not make use of the LC=nnn option which is so useful for student jobs utilizing RUN/FUN.

INFORMATION

In addition to the SYSTEMS NOTES on every output listing, a file of information is maintained describing changes and programs unique to the UCC. This file may be listed in part or in full.

The entire file INFO may be listed with the control cards

ACQUIRE,INFO.

COPYCF,INFO,OUTPUT,1,IR.

Selected sections may be listed with the single control card

WRITEUP,R1,...,Rn.

where Ri is any record name on the file. Any arguments are legal provided that they are ≤ 7 alphanumeric characters in length. Unless some system error occurs, WRITEUP will not abort. Records

that are not found are listed in the dayfile and WRITEUP always lists the titles of the records on the current file.

LIBRARY CHANGES AND ADDITIONS

New Writeup

A new writeup for the routine PLOTPAC is now available in Room 238 Experimental Engineering.

New Routine

A new routine for converting Ø29 source statements into Ø26 equivalents will soon be available. The routine, Ø29Ø26, will have the capability of handling FORTRAN, COBOL, SNOBOL, and special user-defined conversions. Specific information on the routine will appear in the SYSTEM NOTES and the writeup will soon be available in Room 238 Experimental Engineering.

Questions concerning the routine should be referred to Stu Nordberg, Room 217 ExpEng, 376-7291.