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8C739

UNIVERSITY COMPUTER CENTER
UNIVERSITY OF MINNESOTA, MINNEAPOLIS, MINN 55455

NOTES
AND
COMMENTS

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LABOR DAY HOURS

CLOSE: 2:00 PM Saturday, Sept. 1.
OPEN: 6:00 PM Monday, Sept. 3 (Lauderdale)
8:00 AM Tuesday, Sept. 4 (Other facilities)

NOTICE TO MICROFILM USERS

A new I/O driver for microfilm output has been added to the system. This driver converts directly from an output buffer rather than writing to disk and then using MF501 to convert the disk copy to EBR tape format.

The changes involved are:

- a. The tape used for microfilm output is now requested as an F tape.
- b. The format of the accounting line has been changed.
- c. The format of the block letters used on the leader has been changed.
- d. The system takes care of the generation of the leader.
- e. The complete FORTRAN 63-character set is used.

The following program is an example of using the new driver.

```

jobcard.99999999,2.
REQUEST,EBRTAPE,F.
REQUEST,TAPE1.
MNF.
Δ(7-8-9 card)
PROGRAM TABLES (TAPE1,EBRTAPE,TAPE2=EBRTAPE,OUTPUT)
COMMON X(5),IX(4)
1 READ(1)IX,X
IF(EOF,1)2,3
3 WRITE(2,4)IX(2),X,IX(1),IX(3),IX(4)
GO TO 1
4 FORMAT(2X,I10,5F10.1/3X,3I5)
2 ENDFILE 2
STOP
END

```

The old version of MF501 will be replaced by the new version using this driver sometime during Fall Quarter.

Any problems with the new driver should be reported to James Mundstock, 373-5907.

FORTRAN OBJECT TIME INPUT/OUTPUT ROUTINES

During September, we plan to replace the current RUN/FUN/FTN/MNF object time I/O routines with a common set of I/O routines used by all FORTRAN compilers. Coded I/O will use the MNF routines which are significantly faster than either the RUN or the FTN versions. Binary I/O will use completely new routines. As a whole, the routines are somewhat shorter than the current versions. Specific differences include: 1) S mode tapes handled as stranger tapes rather than simulated internal tapes; 2) binary blocking will be the default condition.

Most user programs should work the same after this change. Due to the changes noted above, programs which read a previously generated unblocked internal tape, or previously generated unblocked binary pack file will have to be changed to declare the file blocked by calling FTNBIN (See section 7.10 in the RUN FORTRAN manual).

A writeup available from the UCC librarian in 227 ExpEng (373-7744) gives details on the differences between the new and old routines.

A preliminary working copy of these routines will be kept on the system permanent file NEWIØ on pack UCC102 as a user library. The following control cards will use the new routines instead of the old:

```
RUN(S) or FUN(S) or FTN.
A,NEWIØ,VR=UCC102.
LØAD,LGØ,NEWIØ.
EXECUTE.
```

or

```
A,NEWIØ,VR=UCC102.
MNF,U=NEWIØ.
```

CHANGES TO SIMSCRIPT

The following is a description of the new SIMSCRIPT compiler which was installed on August 7. Differences between this compiler and the CDC version are indicated. Default values for control card options are in brackets.

CONTROL CARD CALL:

```
SIMS (P1,...PN.)
```

<u>Parameters</u>	<u>Description</u>
I=lfm [INPUT]	File name for source input.
L=lfm [OUTPUT]	File name for source listing.
C=lfm [MAPTP]	File on which Compass code is to be written.
S	Suppress Compass comments from Compass output.
D	DEBUG mode. Compiler attempts to generate code even if compilation errors exist.
CB=lfm [LGØ]	Binary output file from Compass. Only useful if CC option is used.
CL=lfm [Ø]	Compass listing file. Only useful if CC option is used.
CLØ=list options [Compass default]	Compass list options. Only useful if CC and CL options are used.
CC [COMPASS not called]	Call Compass if this option is used. If CC is not specified and the user calls COMPASS himself, then S=SIMTEXT must be added to the COMPASS control card.

Code Generation Changes:

The local variables may be unique in the first 8 characters. The CDC compiler's documentation specified 7 character uniqueness.

More registers are used than in the CDC compiler. This may pose problems for users of Compass inserts if they expect registers to remain intact over several Simscript statements.

Slightly improved execution times will result from better code generation (especially in the report generation).

CHANGES TO MODIFY

In order to make our version of MODIFY compatible with the KRONOS 2.1 version, the following changes were made July 10.

New control card options are:

WE Write end of record between decks on COMPILE file.
 NC No comment cards (asterisk in column 1) written on COMPILE file.
 NS No sequence numbers written on COMPILE file.
 Z Input directives taken from the control card following the right parenthesis or period.

New input file directives include: *LIST, *NOLIST

A set of messages was added to inform the user of actions taken when the present list options or default list file (OUTPUT) was changed. Central processor time has been added to the completion messages.

A writeup on the new version of MODIFY is available through the control card WRITEUP, MODIFY.

SEMINAR FOR NEW FACULTY AND STUDENTS

An introductory seminar will be given next month for new faculty members and graduate students who expect to use the 6400 and/or the 6600 computer systems. The areas of information to be covered include: UCC policies and philosophy, information on charges and scheduling, availability of existing documentation and plans for the future, basic information on hardware and systems, consulting procedures, and instructional and training programs for users.

We urge department heads and computer representatives to encourage attendance at this seminar by potential computer users. The seminar will be held from 1-5 PM on Tuesday, September 20 in Room 120 Blegen Hall (West Bank). For further information contact Thea Hodge 373-4599.

SHORT NOTES

I/O Messages

Anyone interested in TAB Products "Unit Space Finder" Magnetic Tape Storage Racks (single and double sided stands, 17 and 24 tape shelves) should contact Walter Carlson, 103 Space Science Center, phone: 373-5492.

In response to one user's request for a time machine, in the future we hope to get the newsletter out before announced events occur. New printing arrangements should make this possible.

Library Changes

On September 15, the routines CELIPFE and IELIPFE will be removed from the system. They are duplicated by the routines CEINT1, XCENINT1, CEINT2, and XCEINT2. Users who used a copy of either routine should call Mike Frisch, 373-5907.

MNF Users

In September, along with the changeover to common I/O drivers mentioned elsewhere in this newsletter, MNF and MNF Batch default format-processing will become ANSI (instead of CDC as at present). The MNF manual discussion of the A parameter in Appendix A will then be correct. Differences between ANSI and CDC format processing are explained in Chapter 8 of the MNF manual.

CDC 6600 USAGE FOR JULY

Total jobs: 43,087

From ExpEng	28.5%
From Lauderdale	19.7%
From West Bank	12.9%
From Other Remotes	28.9%
For Maintenance	10.0%

Average Times:

On input queue	29.6 minutes
At control point	7.0 minutes
On output queue	5.8 minutes
Printing	1.7 minutes

THE SUGGESTION BOX

(Questions may be re-worded for clarity. Unsigned suggestions are not considered.)

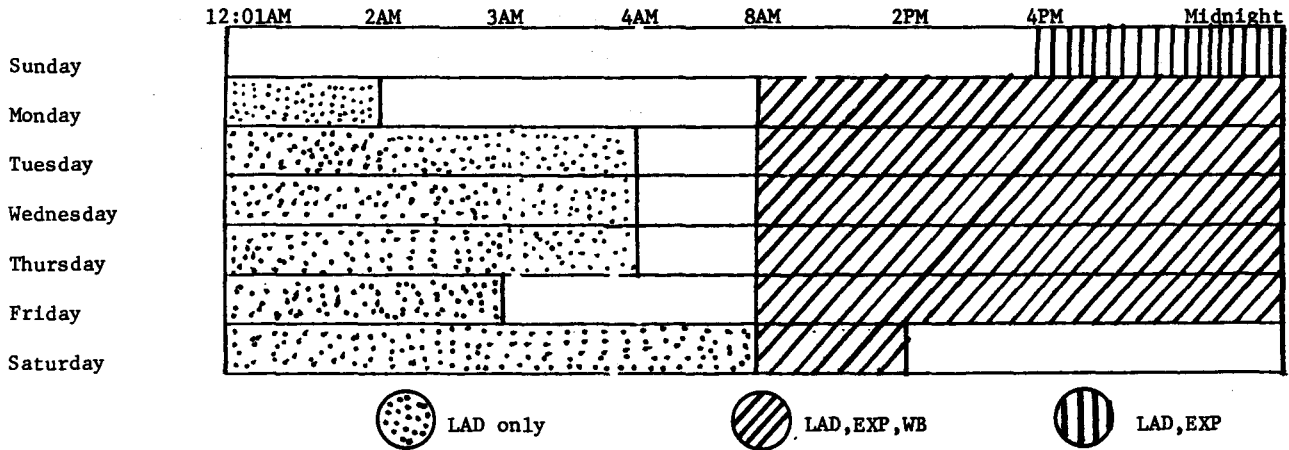
- Q/S *Why not permit COPYU to be abbreviated to CU? This would make it similar to COPYCF=CCF or COPYBF=CBF.*
- A Short names are placed into the system to save keypunching long names for routines which are used frequently. Out of about 400,000 jobs run last fiscal year, COPYU was used 10,000 times. Neither the length of the name nor the usage would seem to warrant the use of an additional word of memory required for the abbreviated name.
- Q/S *Improve physical access to Lauderdale for St. Paul Campus users. The medium speed terminals are not an adequate substitute for direct use of the facilities.*
- A Our transportation situation is being studied (especially costs).
- Q/S *Lights and repairs for the Lauderdale parking lot please!*
- A We've answered this before. The University leases the building at Lauderdale. Repairs and lights would be costly (and would probably have to be recovered from users of the lot). No improvements are planned at present.
- Q/S *Could you please re-arrange the Lauderdale Users Room by either:*
- 1) *removing the 1004 terminal (very noisy),*
 - 2) *put the terminal in a sound proof room, or*
 - 3) *accept the noise and bring the keypunches back to the work area.*
- A The 1004 terminal is at Lauderdale on an experimental basis to see if it is feasible to have a terminal there. We are working on plans for the Lauderdale building. The set-up of the user area is also under consideration.
- Q/S *The graveyard shift operators are often too busy to answer the doorbell. It may be 5 or more minutes before we can get in. Any chance of improving the situation?*
- A The operator opens the door as soon as is possible. The only solution is to come before midnight or wait as patiently as possible.
- Q/S *The combined usage of the 1004's as terminals and as listers seems to wear out ribbons quickly in the first few print positions. Why not try to distribute the load by having the 80-80 listings start after column 20 on the paper?*
- A This 1004 change is being considered and may be implemented in the near future.
- Q/S *Recently when pack UCCL02 was down for half a day, the only information as to pack status was rumor and trial-and-error. May I suggest:*
- 1) *Post signs (a) stating the problem and (b) indicating which packages are affected.*
 - 2) *Return MEANINGFUL error messages.*
 - 3) *Use SYSNOTES to report not only the hardware failures but also the affects on commonly used software.*
 - 4) *Arrange for alternative access to programs stored on the packs.*
- A 1a) As soon as the 6600 shift supervisor knows what has failed and for how long a period it may affect operations, he calls the high speed I/O station supervisors who then post informative notes.
- A set of programs is being developed that will make it possible to send messages to the medium speed remote terminals as long as communications exist or as soon as communications are restored. Procedures will be worked out with the medium speed station supervisors for accessing and posting these messages. Because of the large number and geographic distribution of the stations, notifying each station by telephone is impossible.
- 1b) Frequently we cannot tell what effect a particular failure will have. Normally we attempt to tell you in SYSNOTES what we have discovered as soon as we can.
- 2) The program that responds when you enter a control card for a package like SPSS is called CALLPRG. If this program for some reason cannot find SPSS, it will now tell you SPSS NOT FOUND instead of CONTROL CARD ERROR.

3 + 4) Normally, the portion of CALLPRG (which locates SPSS, SPSS100, all the BMD's and UMST) resides on UCC102. However, a back-up copy is now available should UCC102 go down, and you should no longer be seriously inconvenienced. We continue to urge all users to keep back-ups of their pack files since we cannot guarantee the "permanence" of these files.

S There must be a problem with flag cards to read multiple-punched cards under GENREAD from West Bank. After a month of random errors I took a deck to Lauderdale, and it ran perfectly with no change of control cards. Please warn others, fix it, and give me paper credit for a fantastic waste.

The problem was caused by the transmission of short PRU's to the 6600. The problem was corrected on August 6, 1973. Credit will be given for the wasted time. Sorry for the inconvenience.

6600 OPERATING HOURS



<u>Medium Speed Remote Terminals</u>	<u>Local Supervisor(s)</u>
Room 38 ElectE (Mpls)	C. Berg/373-5404 M. Cook/373-3895
Room N640 EltH (Mpls)	J. DeWitt/376-7377
Room S191 KoltH (Mpls)	T. Faulkner/376-7024 J. Abdullah/373-2348
Room 321 MinMet (Mpls)	C. Swanson/373-5475
Room 69 Physics (Mpls)	Bob Scarlett/373-0243 Dave Olson/373-0044
Room 24 No Hall (St. P)	J. Colton/373-0990 D. Rignell/373-0990
Room 257 BioSci (St. P)	R. Comstock/373-0928 L. Hulbert/376-3067
Room 384 HortS (St. P)	J. Heinen/373-1086 M. Brenner/373-0949
Room 125G COB (St. P)	C. Bingham/373-0988
Room 54 BA (WB)	H. Smith/373-3608
User Room (Lauderdale)	Shift Supervisor/373-4940

Useful Telephone Numbers

- 373-4876 Operations (R. Folden)
- 373-4599 User Services (T. Hodge)
- 373-4548 Account Clerk, 6600
- 373-7753 Account Clerk, 6400
- 373-4596 ExpEng I/O
- 376-7584 Field Engineering
- 373-2521 Key punch Supervisor
- 373-4940 Lauderdale Shift Supervisor
- 373-4995 Microfilm Operator (leave a message)
- 373-4994 Recorded Message
- 373-7744 Reference Librarian
- 373-4995 Tape Librarian (leave a message)
- 373-4360 UCC Office
- 373-4921 Users' Room (Lauderdale)
- 373-3608 West Bank I/O

Locations of UCC Keypunches (Number in Parenthesis After Site)

<u>East Bank</u>		<u>St. Paul</u>		<u>West Bank</u>		<u>Lauderdale</u>
38	ElectE (2)	223	ExpEng (4)	125G	COB (1)	90 BlegH (2)
N640	EltH (1)	S191	KoltH (1)	302	CofH (1)	Users Room (4)*
130	ExpEng (2)	321	MinMet (1)	384	HortS (1)	
131	ExpEng (1)	69	Physics (1)			
208	ExpEng (8)*					

*Includes 1 interpreting card punch

INPUT / OUTPUT

Users who wish to exchange information on programs, equipment, etc. with other UCC users may use this form to submit the information.

To: Editor, N & C
University Computer Center
Room 227 Experimental Engineering
University of Minnesota
Minneapolis, Minnesota 55455

Please publish the following message in the INPUT/OUTPUT section of the next UCC Newsletter:

Message: _____

Contact:
Name _____
Address _____

Telephone _____