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*****ANNOUNCEMENT*****

The IBM 514 reproducing card punch and the IBM 407 accounting machine will be replaced in the near future with a UNIVAC 1004 card processor, which will provide more versatile service. Users who will need assistance with the new equipment should see Ted Patterson, Room 210 Experimental Engineering (3-2521).

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University Computer Center
University of Minnesota

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AUXILIARY STORAGE CHARGES

As discussed in last month's Newsletter, UCC plans to institute a charging schedule for user-owned or controlled storage media effective July 1, 1971. The purpose of these charges will be to help recover costs for facilities so that they can be expanded as needed to improve overall user service.

After extensive discussion among UCC staff members, the following rate schedule is proposed. These rates should be considered as tentative only; UCC staff people would welcome comments or criticism from affected users.

I. Charges for physical media storage at Lauderdale

<u>Storage Medium</u>	<u>Charge</u>
Magnetic tape	\$1.00 per quarter
841 Disk Pack (user owned)	\$5.00 per quarter

II. Mounting Charges

<u>Storage Medium</u>	<u>Charge</u>
Tapes: Stored tape	\$0.10 per mount
Transient tape	\$0.50 per mount
Disk Packs	\$1.00 per mount

III. Permanent File Maintenance

\$1.25 per RB per month

A record block (RB) is 35,840 characters and is the unit of mass storage reservation in the operating system.

These charges are based on actual costs. The media storage at Lauderdale uses space, and requires maintenance of a library and an accounting system. Mounting charges for tapes and disks are based on operator salary costs, and the accounting and book-keeping costs. The permanent file storage charges are calculated on the basis of actual rental costs of the mass storage equipment.

CONCERNING A PLANNED CHANGE IN FORTRAN I/O

In order to increase the efficiency of Fortran binary input/output to scratch files, the default blocking parameter of all Fortran binary files will be set blocked. That is, all Fortran binary files will be blocked unless the user expressly negates the blocking with the appropriate call to FTNBIN.

Currently the default value is unblocked. Users have been encouraged to use the blocked mode but jobs which needlessly run all day still occur. Since we have been able to reduce the real running time of a specific job from 15 hours to 6 minutes (with a corresponding drop in PP time) with the use of FTNBIN, we have

decided to set the default mode as blocked in order to strongly encourage the use of FTNBIN.

This change will be announced in the SYSTEMS NOTES when a specific date has been established. Also, current problems with FTNBIN will be corrected prior to the change.

Users who have tapes written in unblocked binary (from Fortran) will discover that their jobs will cease working when this change is made. It will be necessary for them to include the FTNBIN call to obtain correct execution of their jobs. We hope that these users will suffer the inconvenience in light of the fact that turn-around is greatly hindered by a job which runs for 15 hours. (A most extreme case, we realize.) We do suggest that users affected watch the SYSTEMS NOTES for announcements on the exact dates for change to save themselves the frustration of losing time on runs. Better yet, all affected jobs should be altered to expressly set the blocking factor.

Description of FTNBIN

The calling sequence is

```
CALL FTNBIN(I,N,IRRAY)
```

I is the blocking flag indicator. If I=1, the blocking option is selected. If I=0, the file(s) will not be blocked.

IRRAY is an array with a single subscript (one dimensional) which lists the file numbers to which this call applies (see Example, below).

N is the number of entries in IRRAY. If N=0, all files of the job are processed. (The third argument may be omitted if N=0.)

The call has effect only if the file is used as a binary file. Coded (formatted) files are not affected. Also, the call will override either default value.

Examples

- 1) Set all files blocked
CALL FTNBIN(1,0)
- 2) Set all files unblocked
CALL FTNBIN(0,0)
- 3) Set tape 1 and tape 2 blocked, set tapes 5, 6, and 7 unblocked
DIMENSION IRRAY(3)
IRRAY(1)=1 \$ IRRAY(2)=2
CALL FTNBIN(1,2,IRRAY)
IRRAY(1)=5 \$ IRRAY(2)=6 \$ IRRAY(3)=7
CALL FTNBIN(0,3,IRRAY)

Please refer to the CDC 6600 Fortran Reference Manual, page 7-10 and Appendix M for more detailed information.

SPRING QUARTER SHORT COURSES

UCC will be offering the following short courses during Spring Quarter:

Fortran	April 12-23 (M-F)	4:15-5:15 PM	305 E
SCOPE	April 26-30 (M-F)	4:15-5:15 PM	305 E

Short courses will also be offered on the West Bank during the quarter. However, time and place have not yet been determined. These will be announced in the April Newsletter and in the Official Daily Bulletin.

*****MANUALS*****

MNF - A few copies of chapters 1-7 of the new MNF manual are still available. Any person presently using MNF or any Instructor of students who use MNF who is interested in reading and criticizing the manual should see Larry Liddiard (235E ExpEng) or Mike Frisch (235D ExpEng) to obtain a copy.

UCC Users Manual- The Users Manual is presently available at the Engineering Bookstore for \$3.35 per copy. Unfortunately, no provision was made in the manual for reader's comments. However, we would be most happy if each reader would make note of any problems he has in using the manual and either write or call

Amy Koepke
227 ExpEng
373-7744

CDC Manuals- Control Data Reference manuals which are not available in the Engineering Bookstore may be ordered from UCC. Call Amy Koepke (373-7744) for further information.

?QUESTIONS?

Question: Why must I submit a "tape request slip" with my job?

Answer: To prevent errors and to expedite service.

Originally, the purpose of the "Tape Request Slip" was to assist the operator in distinguishing tape jobs from non-tape jobs when reading jobs in at the card reader. The operating system now handles tape job scheduling but the "Tape Request Slip" is still very necessary for efficient operations.

There have been many changes in the past four years: new equipment, remote terminals, new operating systems, and expanded user services. During this period the number of jobs run each day has increased from a few dozen to several thousand. Correspondingly, the number of magnetic tapes requested and assigned has risen from perhaps less than ten a day to more than 500 on a recent busy day. We now have so many tapes in storage that there is no space for them in the computer room. Tapes are stored outside the computer room and only frequently used tapes are kept in an EXPRESS tape rack in the computer room.

The Tape Librarian at Lauderdale uses the "tape request slip" when deciding which tapes are used frequently enough to warrant storage in the EXPRESS rack. The Librarian also uses the "tape request slip" to bring tapes from storage so that they will be immediately available when the job requesting the tape is run. "Tape request slips" are vital for transient tapes (TT). The Tape Librarian tries to return transient tapes with the deck and output but if the job should abort without requesting tapes, the tape may be left in the computer room if the "request slip" is missing or is not checked. The "request slip" has prevented many tapes from being lost or unnecessarily delayed in returning.

The Operator also uses the "request slip" to speed service. The "request slips" permit the Operator to leave a tape mounted on or near a tape drive if it is to be used again or if it is used frequently. The Operator also uses the "request slips" to check the status of tape jobs in the system.

The operator uses the "tape request slips" to protect the integrity of user tapes. Some users have reported that in the process of filling out their "request slip", they have caught themselves requesting the wrong tape. Even though tapes are often assigned when there is a small discrepancy between the "request slip" and the "request card", the Operator may, and does, either issue a comment to the job or drop the job if there is a reasonable doubt as to whether the correct tape has been requested.

Needless to say, without "tape request slips", multiple tape jobs or multi-reel tape jobs could not be run, since the Operator would not know which tape to mount in what order. Consider, for example

"if End of Tape (EOT), mount SN____"

or

"at PAUSE, mount SN____"

The "tape request slip" may also be used to communicate to the Operator such special instructions and requests as "Do Not Mount on Unit 50" or "If WPE Unrecovered, Drop Job".

In conclusion, we would remind you that tape assignments are made by the Operator. He must match the tape number and name found on the "request slip" to the tape number and name found on the label of the reel. Any procedure that aids this operation is important. When filling out the next "tape request slip", remember that those few seconds will help us continue our near perfect record for correct tape assignments without needless delay or penalty.

Also remember that operating procedures are continually being reviewed. If you are aware of changes that will improve overall service, please send your suggestions to the Operations Supervisor, University Computer Center, Room 227 Experimental Engineering.