University Computer Center

NEWSLETTER

CONTENTS
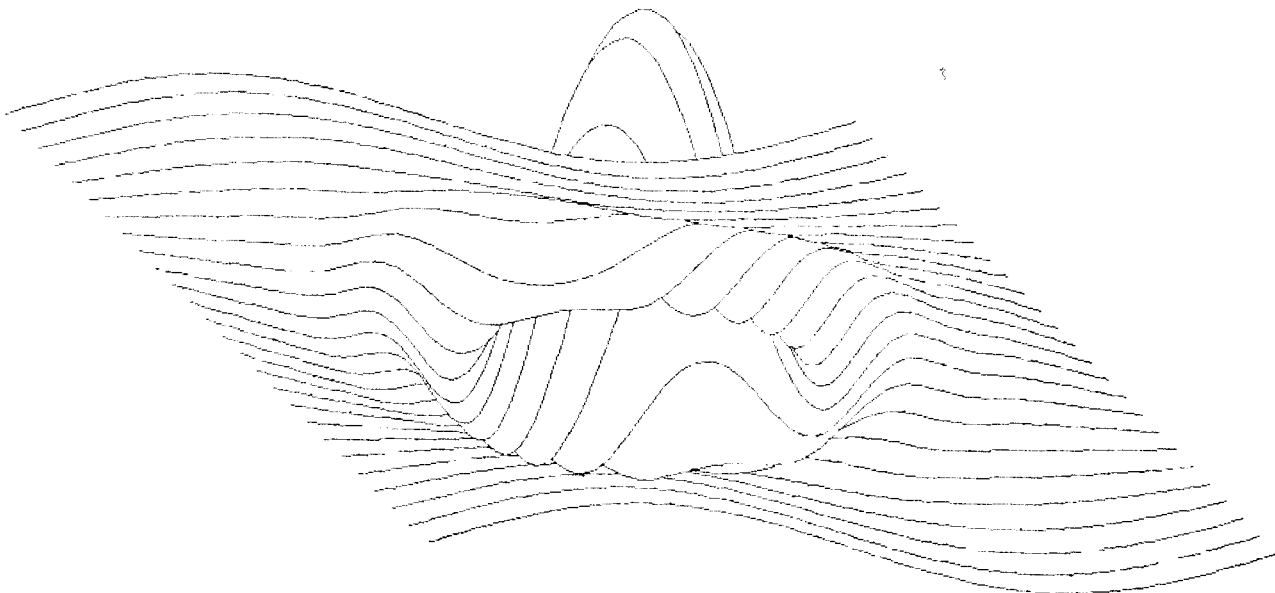
CAN YOU MATCH THIS? SEE PAGE 2 FOR DETAILS.

CHANGES IN PLOTTING PROCEDURES

Several changes have occurred recently with the UCC plotting facilities and procedures. In the following article, we include descriptions of Calcomp pen-and-ink plotting, the Statos electrostatic printer-plotter, and the forthcoming microfilm procedure for microfilm plotting.

WHEN USING THE CALCOMP PLOTTER -- *by R.T. Franta*

UCC has instituted a new procedure to simplify the use of the Calcomp plotter in the Hybrid Computer Laboratory. Users no longer need supply their own tapes, set up their own accounts with HCL, or transport their own tapes to HCL. All of these jobs will now be handled internally by UCC staff members.

To make use of this new procedure, generate your plots on one of the special tapes supplied by UCC and use the standard plot package on the Cyber 74. The control card to do this is:

LABEL,CALCOM,VSN=PT2HCL,LB=KU,PO=W,F=X,D=LO,ID=$ʃʃʃ,pp,cc,ℓℓ,nn$.

where

ʃʃʃ = the size of the plot:
- 10   for 10" plot
- 30   for 30" plot
- 10X for 10" expanded to 30"

pp = the type of pen to use:
- BP   for ballpoint
- IK   for ink

cc = the color of pen to use:
- BK   for black
- BL   for blue
- RD   for red
- GR   for green
- YL   for yellow
- (or call HCL to determine which colors are available)

ℓℓ = the approximate length of the plot in feet.

nn = the approximate number of plots generated.

When this LABEL card is used in conjunction with the standard plot routines, the plotted output will be produced, billed against the user's supply budget, and then returned to the site of job origin. For on-campus sites, this means the shelf provided for that site at Experimental Engineering, Lauderdale, or West Bank. For off-campus sites, the plot will be mailed to the site and then can be picked up from the off-campus site supervisor. (The mailing cost and a $.50 service charge will be assessed to the user's account number.) In order to assure that the proper site is indicated on the plot output, the user of this service must have a BIN card in the deck which generates the plot.

Please note that any non-standard tapes or plot routines must still be handled individually by the user. Any questions on this policy should be directed to User Services.

STATOS PLOTTER IS NOW ON-LINE -- *by M.J. Frisch*

The Varian Statos 31 electrostatic plotter is now running on-line to the Cyber 74. Generated plots can be output to the Statos 31 after the job is completed without need for a magnetic tape; thus, somewhat improved turnaround can be expected.

Users who formerly plotted with the off-line system should remove the LABEL control card (for requesting the plotter magnetic tape) from their decks. All on-line users should either use a plot file named PLOTS (a reserved file name for the Statos 31), or else use the control card

DISPOSE(filename=PL)

following the program that generated the plot on file "filename." Thus, if the name of the plot file is TAPE2, the following control cards might be used:

```
MNF(B)
FETCH,GPR31.
LOAD,LGO,GPR31.
EXECUTE.
DISPOSE(TAPE2=PL)
```

If there are any problems with on-line plotting, please call Mike Frisch at 373-5907.

BEST PLOT CONTEST -- In order to encourage use of the Statos 31 plotter, UCC will hold a contest for the "plot of the month" for six months. The winner each month will be published in the UCC newsletter and a prize of $5 will be awarded to the winner. The contest rules are:
(1) The plot must be generated on the UCC Statos 31 on-line plotter system. It should be sent to Mike Frisch, 227 Experimental Engineering, University of Minnesota, Minneapolis, Mn 55455. Please include your name and address (with zip code).
(2) You may enter as often as you wish during the six month period. The cut-off dates are: May 15, June 15, July 15, August 15, September 15, and October 15.
(3) Winners will be selected by Mike Frisch whose decision is final.
(4) The contest IS NOT OPEN to staff members of UCC.
An example plot from the Statos 31 is shown on page 1   of this newsletter.

NEW MICROFILM PLOTTING SERVICE -- *by R.L. Hotchkiss*

A University committee has recommended the use of non-University facilities for microfilm plotting. Arrangements are now being made for this service. When these arrangements are complete, the details will be announced in this newsletter. This plotting is not related to our EBR microfilm printing facility.

NEW KRONOS SYSTEM FEATURES

--by T.W. Lanzatella

In the past weeks, UCC Systems' staff have added several new and useful features to the operating system which are now ready for general use.

(1) A new command, C,J, is now available for TELEX users. The command has two formats. By typing simply C,J, the user obtains the file name and status of the first disposed file belonging to that user which is encountered during a search of the file name table. By typing C,J=jobname, the user obtains the status of the named job. This is used to find the status of submitted jobs.

(2) The abbreviation LIB can now be used for the TELEX command LIBRARY.

(3) A new utility, USERS, is now available to TELEX users. The utility is designed to allow timesharing users access to pertinent information about TELEX. No special validation is required for this. Type HELP,USERS under the batch subsystem to obtain documentation illustrating the use of the USERS utility. An example of its use would be:
                    DISPLAY(SIZE(lfn))

(4) A new parameter has been added to the DAYFILE command. The new parameter is P and must appear as the second parameter on the DAYFILE statement. The effect of the new parameter is to evict the local copy of the user's dayfile.

(5) A dayfile limit is now in force on the Cyber 74. The default limit is 1023B messages. This limit can be changed with the new control card SETDFL. The format of the SETDFL card is SETDFL,nnnnnn. where nnnnnn is the decimal dayfile limit required.

(6) A new KRONOS Control Language function, SIZE, has been implemented. The new function is used to determine the size of a file (size is indicated in PRU's).

(7) Two new mnemonics have been added to the KRONOS Control Language. The two new mnemonics are PD (packed date) and PT (packed time). The format of the packed date is YYMMDD where YY, MM, and DD are octal numbers representing year, month, and day respectively. The format of the packed time is HHMMSS where HH, MM, and SS are octal numbers representing hours, minutes, and seconds respectively.

(8) Two new control cards have been added which enhance tape processing. The first is the NEXTVSN card. This command is used in conjunction with the VSN card. The effect of the card is to invoke end-of-tape processing on the current reel of a multi-reel tape. An example of its use would be:
                    VSN(lfn=VSN1/VSN2/VSN3)
                    LABEL(lfn)
                    CBR(lfn,lfnl)
                    NEXTVSN(lfn)   [VSN2 is now mounted]

The other card is the DENSITY command. The effect of the command is to change the density of a tape file without having to remount the tape. The format of the command is:
                    DENSITY(lfn,D)

where D is one of these:
                    1 meaning 200 BPI
                    2 meaning 556 BPI
                    3 meaning 800 BPI
                    4 meaning 1600 BPI

LIBRARY CHANGES & ADDITIONS

--by M.J. Frisch

February 27, 1975:

PLOTPAC	– Some errors corrected, improved accounting information on plot.
PROCER	– Shorter version.
CDFNI	– Error checking using PROCER added.
RK	– Error checking using PROCER added.
ICPA	– Change made in call to PP routine CPM.
TIMDAT	– IPPTIME, PPTIME entries deleted (KRONOS does not keep track of PP time).
DOTPRD	– New routine: unweighted inner product.
RPAUSE	– Pause and display message to computer operator.

March 6, 1975:

MF501	– Correction of missing account number and problem with recovery from time limit.

March 15, 1975:

IMSL	– Library 3 Edition 4 with latest corrections (replaces Edition 3). See new IMSL Manual.

March 18, 1975:

ARTHUR	– Corrects plots to work correctly on a 6 lines per inch line printer.

FOR PERMANENT FILE USERS

BACKUP SECURITY FOR PERMANENT FILES -- by K.C. Matthews

We wish to remind users of the differences between secured and unsecured permanent files, some policies related to their use, and the control cards which can be used to change file security.

Unsecured permanent files are not backed up by UCC. Therefore, in the event of a hardware or software catastrophe damaging the mass-storage system, each user must restore his own unsecured permanent files at his own expense. The storage charge for unsecured files is .003¢ per sector per hour.

Secured permanent files are dumped to tape by UCC at the end of each operating day. In case of hardware or software damage to the disks, secured permanent files will be restored from the last set of dump tapes. Note, however, that this reload could be up to one day out of date depending on when the malfunction occurred. The cost of secured permanent files is three times that of unsecured files (or .009¢ per sector per hour). Secured files are not a form of back-up in case of user error. Still, since three days back-up of secured files is kept in our library, it may be possible to restore user-damaged files from our dump tapes. This is a time consuming process and usually cannot be done during normal operating hours. If it is necessary (and possible) to restore a secured file that has been accidentally lost, our usual $5.00 restoration fee is charged for each file.

CHANGING FILE SECURITY -- Files SAVEd or DEFINEd from batch terminals are 'unsecured' by default. MIRJE files are 'secured' by default. A file can be ordered secured or unsecured by designating such on the SAVE or DEFINE control cards. The control card

                SAVE,TAPE1/FS=US.

causes TAPE1 to be saved as an unsecured permanent file. The control card

                DEFINE,LGO/FS=SC.

causes the direct access permanent file LGO to be defined as a secured file.

The FS parameter can also be used on the CHANGE control card to change the status of an existing file. For example

                CHANGE,MYFILE/FS=SC.

makes permanent file MYFILE a secured file.

The CATLIST control card can be used to check file security. When the LO=F option is used, secured files will be shown with an asterisk (*) in front of the characters DIR. or IND. (which indicate direct or indirect access). All permanent file users should use the CATLIST control statement occasionally. Check to see if files have the security expected, and to see if there are any unused or unnecessary permanent files taking up disk space and wasting your money.

NEW CONTROL CARDS FOR MANIPULATING PERMANENT FILES -- by W.J. Elliott

Under the KRONOS system, there exist two types of permanent files: direct access for long files and indirect access for short files. To do most of the existing operations on a permanent file, one has to know first just which type of file he is working with. However, for many of the basic operations, such as bringing a file to the program and storing an updated version back to disk, the need exists for a few commands which would handle both types of files. Therefore, as a first level effort, these new control cards are now available:

ACQUIRE(MYFILE) or A(MYFILE)	ACQUIRE will bring a permanent file to the job whether that file is direct or indirect access. Arguments are specified exactly as for the ATTACH statement. ACQUIRE is recommended if you need only read the file and do not plan to update information kept there. In the latter case, the corresponding ATTACH or GET should be used to eliminate confusion.
FSAVE(MYFILE)	FSAVE means "force SAVE" and as such will pull every trick possible to place the local file MYFILE into permanent file status. If the file is too long to be kept as an indirect file, it will be converted to a direct access file with an appropriate dayfile message being given.
FDEFINE(MYFILE)	FDEFINE means "force DEFINE" which simply means that it will purge the old direct access file before defining it. The intent of this command was to remove the necessity of separately purging direct access files before redefining them. The entire operation can be handled in one statement.

More extensive documentation can be had by executing a WRITEUP(PFILES) control card.

MORE INFORMATION ON TAPES

--by W.J. Elliott

Situation   :   "I have three data tapes each containing one file of information which I need to extract and write to another tape. None of the data tapes is very full, so I can't depend on the end-of-tape marker to be read and I don't relish the thought of having to use a separate LABEL card for each tape. To compound the problem, the second tape is written at 800 BPI while the other two are at 556 BPI. Got any suggestions?"

Captain KRONOS says: "HO, HO, HO! I have just what you need in my bag here, Johnny, and it comes in two parts. First is the VSN card which we talked about last month. The second is the NEXTVSN card which is a new invention of mine. We can set your job up like this.... just watch!"

```
VSN(JOHNNY=SN123/SN456/SN789)             →These are your three input tapes; all are either labeled or
                                            unlabeled but don't mix them up.
RESOURC(MT=2)                             →You will need an output tape, too.
LABEL(RESULT,VSN=SN7777,PO=W)             →Labeled, of course!
LABEL(JOHNNY,LB=KU,ID=$MYSECRET$,D=HI,F=S) →This gets SN123 mounted.
COPYBF(JOHNNY,RESULT,1)                    →Get the data from the first tape.
NEXTVSN(JOHNNY)                            →Unloads SN123 and gets SN456 mounted.
DENSITY(JOHNNY,3)                          →Switches density to 800 BPI (see the article on System Changes in
                                            this newsletter for information on the DENSITY card).

COPYBF(JOHNNY,RESULT,1)
NEXTVSN(JOHNNY)                            →Unloads SN456 and gets SN789 mounted.
DENSITY(JOHNNY,2)                          →Returns to 556 BPI density.
COPYBF(JOHNNY,RESULT,1)
RETURN(JOHNNY,RESULT)                      →Endfiles RESULT and unloads both tapes.
```

"Note that the tapes chained together with the VSN card may be either labeled or unlabeled but you cannot mix them since the original LABEL card parameters hold for all tapes in a multi-reel file. Of course, I would appreciate it if you would use labeled tapes since it's a lot easier on all my helpers at the console and you'll get your job back faster, too."

IN SUMMARY -- the NEXTVSN card and the CLOSER macro (in COMPASS language) invoke end-of-tape processing. They signal the system to act as if the physical end-of-tape marker was sensed. Care should be exercised in REWINDing a multi-reel file (such as JOHNNY) needlessly. The effect of a REWIND is to cause SN123 to be <u>mounted</u> and positioned to the load point!

SPECIAL NOTE -- Jobs using the VSN or NEXTVSN cards with unlabeled tapes must be submitted with a SPECIAL REQUEST SLIP naming each tape in the chain with its corresponding ID as would normally be specified on the LABEL card. Jobs without this information will be dropped to preserve tape security.

MNF NEWS

--by E. Stahl

MNF PSR4 is now the current version of MNF. The following bugs are corrected on the current MNF but are still present in the version of MNF accessed by PAST,MNF.

(1)   A constant parameter of −0 will be passed as a +0.
(2)   A complex constant with a + (plus) before either the real or imaginary value gets a fatal error.
(3)   A COMPASS IDENT card containing an operator in the comments gets a fatal error.
(4)   When UofM routines are used, FT3LIB is selected when the MNF(C=RUN) option is used.
(5)   Actual parameters are cross-referenced to the program END statement, not the CALL statement.
(6)   The USE statement is not available.
(7)   DATA statements may cause loops, time limits, or MODE 1 errors.
(8)   MODIFY files with card images longer than 90 columns are not read correctly.
(9)   Program execution will always occur except when the MNF(B) option is not followed by an LGO.
(10) Sequence numbers are repeated following a CONTINUE statement but are correct on the cross-reference listings.

PAPER SAVING FEATURE OF SPSS VERSION 5.8

--by S.P. Yen

The FUTURE version of SPSS (SPSS 5.8) has the ECOLOGY control card to turn on or off the paper-saving mode of SPSS printout. This control card can appear prior to a procedure card anywhere in the deck and as often as desired. This control card turns the paper-saving mode on:

```
          ECOLOGY         ON
          ↑column 1       ↑column 16
```

This control card turns the paper-saving mode off:

```
          ECOLOGY         OFF
          ↑column 1       ↑column 16
```

UCC will make the paper-saving mode ON as a default in SPSS in the future. If there are any objections to this policy, please tell us: call 373-4886.

UNIVERSITY COMPUTER CENTER SPRING QUARTER SHORT COURSES

These are the short courses offered by UCC during Spring Quarter, 1975. Registration is not required unless noted in the course description and no fees are charged. When a book or manual is recommended, you will find it available in one of the University bookstores. We strongly urge that anyone new to the Computer Center attend the INTRODUCTION TO THE COMPUTER CENTER seminar.

INTRODUCTION TO THE COMPUTER CENTER (2 hours)
     A general introduction to the computer center; equipment, terminal locations, account numbers, job
     submissions, keypunch sites, tape purchase, necessary forms; how to use the center.
     HOURS & DAYS: 3 - 5 PM: Friday, April 11
     ROOM   : Room 221 MechE
     INSTRUCTOR   : R. Franta
     REFERENCES   : Materials from instructor.

BEGINNING FORTRAN (12 hours)
     A presentation of the basic features of the FORTRAN language. FORTRAN was the first language to be
     used widely for numeric computations and is also used in other computational areas. We teach a version
     of FORTRAN IV.
     HOURS & DAYS: 3 - 5 PM: April 14,16,18,21,23,25 (M,W,F)
     ROOM   : Room 221 MechE
     INSTRUCTOR   : R. Franta
     REFERENCES   : MNF Reference Manual

LISP 1.5 (8 hours)
     This is a programming language based on Church's lambda calculus featuring list structures and list
     processing and having applications in symbol manipulation and recursive programming. It has been used
     extensively in artificial intelligence, particle physics, and natural language analysis research. This
     course provides an introduction to list structures and recursive programming and contains two programming
     assignments.
     HOURS & DAYS: 3:15 - 4:30: April 14,16,18,21,23,25 (M,W,F)
     ROOM   : Room 215 Aero
     INSTRUCTOR   : A. Mickel
     REFERENCES   : Friedman, The Little LISPer (SRA Books, 1974)

COBOL (12 hours)
     An introduction to the COBOL language. COBOL is an English-like language suitable for business data
     processing problems. Areas covered are use of mass storage, program libraries, and other facilities.
     HOURS & DAYS: 3 - 5 PM: May 19,21,23,28,30, June 2 (M,W,F)
     ROOM   : Room 221 MechE
     INSTRUCTOR   : J. Cosgrove
     REFERENCES   : CDC COBOL Version 4 Reference Manual

MODIFY (6 hours)
     MODIFY is a program designed to create, maintain, and update a user's library of source language programs
     and subprograms. This library is stored in permanent files as card images: the course will cover all
     MODIFY commands.
     HOURS & DAYS: 3 - 5 PM: April 28,30, May 2 (M,W,F)
     ROOM   : Room 221 MechE
     INSTRUCTOR   : R. Franta
     REFERENCES   : CDC MODIFY Reference Manual

SYSTEM 2000 (12 hours)
     This course teaches the student how to use System 2000, a generalized data based management system.
     Techniques for defining data bases, retrieving and updating, and using the data base through FORTRAN
     and COBOL are discussed.
     HOURS & DAYS: 3 - 5 PM: May 5,7,9,12,14,16 (M,W,F)
     ROOM   : Room 221 MechE
     INSTRUCTOR   : S. Nachtsheim
     REFERENCES   : System 2000 Reference Manual (MRI Corporation) and UCC System 2000 User's Guide.

STATISTICAL PACKAGES AT UCC (8 hours)
     This course emphasizes the use of SPSS but also discusses BMD, UMST, and OMNITAB. The first 4 hours will
     be devoted to discussing the basic packages. The second 4 hours will be spent in discussing the advanced
     features available with SPSS Version 5.8.
     HOURS & DAYS: 2:15 - 4:00 PM: May 13,15 (basic packages) and May 27,29 (advanced features)
     ROOM   : Room 212 MechE
     INSTRUCTOR   : D. Anderson
     REFERENCES   : SPSS Reference Manual (Nie, et alia) and UCC SPSS Version 5.5 plus the SPSS Version 5.8
                     update for the SPSS advanced features.

* *

► TAPE USERS SEMINAR   ◄──┤──► OPEN USERS' MEETING   ◄
     Open session -- bring any questions.   Open session -- bring any questions.
     UCC staff people will be present to   UCC staff people will be present to answer
       answer questions and offer information.   questions and offer information.
     THURSDAY, MAY 8 from 2:15 - 4:00 PM   THURSDAY, MAY 22 from 1:15 - 4:00 PM
     in Room 25 Arch. Moderator is Rich Franta.   in Room 25 Arch. Moderator is Thea Hodge.
* *

THE SUGGESTION BOX

[Unsigned cards will be ignored. We reserve the right to re-word questions for clarity. The date when each card was received is printed (in parentheses) after the question.]

Q/S   *When the punch is down, tell us. I submitted a job to punch 4000 cards and there was no notice up about the punch being down all day. Hence, I have 80 pages of junk since the operator tells me I will have to rerun the job. Also, on January 28th, I submitted a job to punch 900 cards. They never came out of the punch. What the hell is wrong here, lately? (March 7) 1975)*

A   When the punch is down, notices are put up at Lauderdale and ExpEng to inform users. Punch output generated is saved on tape and loaded back into the system when the punch comes back on-line. No punch output is lost unless the system crashed irrecoverably before the dump was taken. A proposal for the Officer of the Day to inform remote terminals at dial-up time of things such as this (punch being unavailable) is under study. Frequently, SYSNOTE will also contain this information. In cases like yours, you should submit a MISSING OUTPUT form to attempt to trace your lost cards. (N. Reddy)

Q/S   *Recently my output came with this on the dayfile:*
          12.51.06   LABEL,GNU,VSN=SN2394,PO=R.
          14.17.04   MT56, ASSIGNED TO GNU   ,VSN=SN2394.

What's this about faster throughput of tape jobs? For labeled tapes? On the day before, at about the same time, a job with the same tape disappeared and had to be reread. Are you sure that tape systems are straightened around? Looks like I should go back to disk. (February 21) 1975)

A   Of course the decision is always left to the project manager just how to manage his budget and available resources. We will continue to insure that magnetic tapes can provide a viable alternative to permanent file usage. (W. Elliott)

Q/S   *A UCC modification has made VA=A default when blanking tapes. This allows a given user to write on a tape (blanked by another user) if the FA field is blank, but if this same user should then set the FA field to A, he could never again access the tape because the UN field of the label is set by the BLANK card and not reset when the FA field is. Security would not be injured by this as the FA field can be set to A or P by an original BLANK card preventing other users from changing the UN field. (Feb. 18)*

A   "Owner only" tapes are just what they imply and transfer of ownership is best demonstrated by BLANKing the tape. Rewriting information in the volume label conditional upon data in the HDR1 label is a significant departure from CDC implementations of the current standard. Tapes already BLANKed with VA=A may be re-BLANKed after certification or by submitting a special request slip with the tape to the tape librarian. (W. Elliott)

Q/S   *Please make available the number of attempts it took to correct a parity (status) error. This is useful information when one is trying to determine whether to continue using a given tape. (Feb. 18)*

A   The complex nature of the tape handling routines do not easily lend themselves to implementing your request. However, it is a good idea and we will put it on our RSM (requested software modifications) list. (W. Elliott)

Q/S   *Will MNF ever work? Today MNF(E=3,T) gave execution with a FORTRAN error! Do you do anything but write cute little routines to write on user's output files? (Feb. 18)*

A   I assume you are complaining about no abort on fatal errors. This is fixed on the current MNF (MNF PSR 4 which was FUTURE,MNF during winter quarter and is now the current MNF). (J. Mundstock)

Q/S   *Fix the D option on MNF. Shut it off! (Feb. 28)*

A   This has been fixed on the version of MNF now current. (J. Mundstock)

Q/S   *I would like to see the action (specifically, MNF) taken on input errors be dependent on job origin, for example, for timesharing jobs don't abort but allow the user to re-enter the line. (March 7)*

A   We have been thinking of doing this and agree it looks like a good idea, but it will take some time to implement. (L. Liddiard)

Q/S   *In regard to my suggestion (answered in December's newsletter) about moving MNF output listing over 20 columns: since you only use 110 columns for listing, why not? (March 7)*

A   Error messages are terminated with a string of stars that extend for those last 20 columns and alert the user to the error occurrence in the source. We will stand pat with the current listing spacing. (L. Liddiard)

Q/S   *How about adding to the information that MNF puts out in 7700 table, e.g., MNF PSR, DATE, T, A, D, etc. options, etc. so that it is clear which compiler was used. I think it would be more informative than the present comments. (March 7)*

A   This is done in MNF PSR 4 (the current version). The time, date, compiler PSR level (=4) and routine name are put into the 77 loader table for each routine. (C. Schofield)

Q/S   *A student in our department forgot a 7/8/9 card between an MNF compiled program and his data. MNF encountered over 8000 fatal errors while compiling his data. I suggest limiting the number of fatal errors allowed in any FORTRAN compile to some number between 50 and 200. (March 7)*

A   This is a good idea and is implemented in MNF PSR4 (the current version). We do two things to limit MNF message output:
(1) If more than 3 consecutive "statements" are encountered which begin with digits (as opposed to letters), error messages will be abandoned with a message such as "not compiling recognizable statements -- E=5 assumed."
(2) The number of error messages (of all levels) that will be printed for a single FORTRAN statement will be limited to 256, and compilation will be abandoned if this number is exceeded. (C. Schofield)

Q/S   *What reason is there for not having compilers go to an EXIT card when errors are encountered? It is rare that a job can continue after a FORTRAN error and the sequence*
          MNF.(or FTN)
          LABEL.
          LGO.
is a natural way to avoid unnecessary tape mountings. Default values should be what most users want most of the time! (March 7)

A   Both MNF and FTN Version 4 abort (with the NODUMP bit set) in the case of fatal source program errors. Under MNF the user can force bad programs to execute by means of MNF(D). Thus, programs containing fatal errors should not execute unless MNF(D) is specified. If you have a job which conflicts with these statements, please bring it to the Systems group. (C. Shofield)

Q/S   *Revive the "*" option in the SETTL(*+sec) command in control card and procedure files. It was very useful, and would continue to be useful. It would also be nice to see some documentation, but that would take only a few lines. (March 7)*

A   At one time UCC had implemented a SETTL,*+N card and published a SYSNOTE explaining its use. Shortly after the announcement, UCC Systems staff decided that the card was poorly implemented in the light of the KRONOS Control Language and quickly removed it hoping that it had not received very much notice. In the future, a new mnemonic will be added to the KCL which represents CP time expended. The new mnemonic will be treated similarly to the current EF or EM mnemonics. (T. Lanzatella)

Q/S   *Why didn't you stick to the standard KRONOS I/O routines in the new FTN under KRONOS? Why are you using UCC I/O routines? We'd like to use FTN as our compiler but random access doesn't work like it should under FTN. It would be nice to have the FTN and the routines it uses to be standard KRONOS. I understand the inconvenience users would have had in conversion but you could have made UCC routines available if a user didn't want to convert. (Jan. 27)*

A   At the time of conversion, the FTN routines were quite shaky (that is, there were large numbers of serious PSR's outstanding). The FTN routines are now, and have been since January, under FUTURE,FTN. (J. Mundstock)

Q/S   *Is it true that MF501 does not rewind the input files before processing them? If true, shouldn't the writeup say something about this? If true, why? Do you think anyone has ever started to microfilm at the middle of a file? (March 7)*

A   The answer to all three questions is YES. The MF501 writeup will be modified to remind users that MF501 will not rewind its input file(s). MF501 has never rewound input files because a user who only wants to film the second file on a logical file could not do this if the logical file were always rewound first. We also plan to change the handling of empty files so that a dayfile message will be generated to warn the user that the file is empty. (M. Frisch)

Q/S   *A note of appreciation for the HELP telephone number. I called on February 25th with a problem with GPR31 that was driving me nuts and in half an hour Mike Frisch returned my call with a recommendation that has solved the problem after four months of frustration. Cheers! Since this seems critical to the user of GPR31, the consultants don't seem to know about it, and it isn't in the writeup, perhaps it should be publicized. (March 7)*

A   To fully explain, because of an error in BUFFER OUT, GPR31 files are written in blocked binary when they should be unblocked. To cure this, the OPN31 routine will be modified to explicitly make its two files unblocked. (M. Frisch)

Q/S   *Jobs that punch cards should say how many were punched in the dayfile. (March 7)*

A   A message to the user's dayfile has been added wherever a queue file other than the primary output file is released to the queues. Currently, queues are print, punch, and plotter. The form of the message, which appears in the dayfile at the end of the primary output file is: RELEASED TO QT nnnnnn PRUS,FILNAME. where QT is PR, PH, or PL; nnnnnn is the length of files in PRUs. (N. Reddy)

Q/S   *I'm surprised that the fire marshall allows smoking in a place like the Lauderdale Users' Room, especially in the room where the 1004 is. All the output is a real fire hazard. Not only that, but the ventilation in the 1004 room is very poor and cigarette smoke only compounds the matter. I have a headache the way it is when I'm out here. (March 19)*

A   We think your suggestions are reasonable, and will be instituting more 'no smoking' areas at Lauderdale and Experimental Engineering. (R. Hotchkiss)

Q/S   May I suggest that two pieces of information be added to the user's dayfile for determining where the
      slowest part of a job's processing occurs. These two items would be the time when the job was read or
      received by the Cyber 74 and the time when the job finished printing. (March 10)

A   Currently, only the Lauderdale site puts out the time when the job finishes printing. This 'time out'
      message will soon be expanded and will print at the high and medium speed terminals before summer.
      The time when the system began to read the job will be issued as the first message to the user dayfile
      (after the jobcard) after the Spring break. (N. Reddy)

Q/S   There are a number of private disk packs competing for use of the drive, one of which is called SYSTEM.
      Assuming that the name implies that the pack is used by UCC personnel, I strongly urge that SYSTEM
      should swap with the pack STF on the drive dedicated to UCC work. This would provide us private pack
      users with improved turnaround, a matter of some concern given the dollar outlay for leasing and mounting
      a private pack. Thanks. (March 7)

A   A recent investigation showed that the SYSTEM pack was not responsible for the slow turnaround. UCC
      has implemented a check in the KRONOS system that will not allow a private pack to be requested from
      a MIRJE terminal since these requests caused the slow response for other private disk packs. UCC wants
      to provide the least expensive solution for computer users and will continue to support the idea of
      "private packs" even though the $2/mount has never recaptured half the monthly controller and disk
      drive rental and maintenance costs, let alone the operator costs. The leasing cost of the disk pack
      only recovers the cost of the pack and its storage. Also, keep in mind that both SYSTEM and STF packs
      contain routines used by everyone, not just UCC staff members. (L. Liddiard)

Q/S   The dump read instructions which were recently posted (perhaps following one of my earlier suggestions)
      need to modified in one respect. You do not subtract 100 octal if you have subroutines or common
      statements -- you subtaact the number .... well, you know what I mean. (Jan. 14)

A   The dump instructions will be revised. (T. Hodge)

Q/S   Would it be possible to have the operator at ExpEng drop a job that is hanging on the input queue? I
      had a job with T90,CM120000 which took more than 3 1/2 hours to run. I had no tape mounts or other
      fancy requirements. When I asked the operator to drop the job, she said it wasn't possible once it
      had been read. I found that it had been dropped (no reason provided) later. The job was never
      completed. (March 7)

A   I general, we do not drop jobs that have been read into the system, since neither the operator nor
      the KRONOS operating system can handle four to five thousand jobs a day if external intervention is
      required for a significant portion of the jobs. We have always hesitated to let the user drop a job
      because of the chance that another user's job would be dropped by accident since job names as they
      appear in the system are not easily equated to the original job name. Finally, UCC is held responsible
      for the jobs that it accepts and will trace down any missing output (such as seems to have occurred
      for your job). We will investigate some method, probably involving the HELP line,
      to allow a user to stop processing on his job when there is a sufficient reason and/or expected loss
      of computer or user resources. (L. Liddiard)

Q/S   Move bins next to or in the Lauderdale computer room for faster turnaround. Turnaround is more important
      than convenience. Have the BIN card printed on the heading just as the job name is. (March 19)

A   There have been several suggestions under consideration to improve the I/O turnaround at Lauderdale.
      One such is to put the I/O equipment in the space used by the 6400 when it leaves in August. You
      will see improvements in the next several months. The BIN card will not be printed as a header
      with the job name. (L. Liddiard)

Q/S   We would like to take this opportunity to express our appreciation to the tape librarian for his
      expedient and courteous handling of our Statos 31 plot and tape requests during the past several
      weeks. (March 19)

A   Your note has been forwarded to the librarian and we all thank you. (L. Liddiard)

Q/S   Supposedly the white paper output and the cards are recycled -- what about the poorer quality green
      output paper such as one gets on the 1004 at Lauderdale? (March 7)

A   The green paper is recycled as newsprint; put it in the same barrels as other newspapers. (L. Liddiard)

Q/S   Could you please implement some method of submitting special requests from MIRJE? I would like to be
      able to use the Statos plotter and I have had a 2100 card punch job aborted after punching 2000 cards
      simply because I had no special request form. (March 7)

A   The Statos plotter is already available and the problem with the punch is under investigation and
      will be reported on later. (L. Liddiard)

Q/S   Why not flush the buffers following non-normal termination (time, limit, etc.) in SNOBOL on MIRJE.
      This would be an excellent debugging aid on infinite loops, etc. It's nice to know what was written
      if anything was. (March 7)

A   KRONOS only automatically dumps the buffer for the file OUTPUT, both for SNOBOL and SNOBOLC. To
      include code to do so for other files is not in our plans. Also, note that SNOBOLC (which is also
      the SNOBOL subsystem interpreter under timesharing) allows the user to create any number of files
      dynamically. (A. Mickel)

NEWS FROM SYSTEM NOTES

March 3, 1975: Effective today, TELEX performs a rotary check during every log-in; when the maximum number of users with the same rotary code is logged in and another MIRJE user attempts to log-in, the following message will result: "ROTARY FULL - TOO MANY USERS FROM THE SAME PROJECT ON SYSTEM"

March 3, 1975: Effective today a dayfile limit is in force. To set the dayfile limit use: SETDFL,nnnnnn., where nnnnnn is the decimal limit of dayfile messages.

March 14, 1975: A new control card called UNPAGE to edit carriage control characters is now available. If interested, documentation is available via WRITEUP,UNPAGE.

March 17, 1975: Edition 4 of the IMSL routines is now accessable with FETCH,IMSL. To access Edition 3, use PAST,IMSL.

March 18, 1975: The DISPOSE utility will be available next week to validated users (those whose user numbers have a '6' as the fourth character). The documentation can be obtained with the WRITEUP,DISPOSE command.

March 25, 1975: The FUTURE version of PASCAL is now the current version and the old version is now accessable with a FETCH,PASCAL control card.

UCC PUBLICATIONS/DOCUMENTATION

A *Pocket Guide to UCC Facilities* has been revised and is available in the Reference Room (or call 373-7744).

These machine retrievable documents are available via WRITEUP:

AMEND	4 pages	Unit record manager for coded files.
CALLPRG	5 pages	Locates missing CPU overlays.
CATALOG	2 pages	Locates information about records on a binary medium.
CATLIST	3 pages	Lists all permanent files maintained under a particular user number.
CCINDEX	6 pages	An index to documentation for control cards.
CONTROL	9 pages	Functions for job control.
COPYU	3 pages	Copies SCOPE-packed unit records.
COST	1 page	Prints current job cost in the dayfile.
DISPOSE	8 pages	Permits the sending of files to a site other than the originating one.
DMPCOR	1 page	Permits the dumping of specified areas of Central Memory to the file OUTPUT.
DMPECS	1 page	Permits the dumping of portions of ECS.
DRESS	13 pages	Prepares program source cards for maintenance by MODIFY or UPDATE.
DUMPPF	7 pages	Allows user to dump and reload permanent files within the permanent file catalog of the current job (with LOADPF).
ERRMESS	15 pages	Cross-referenced listing of the UofM KRONOS 2.1 error messages which may appear on a dayfile.
FILES	4 pages	Local file manipulator.
ISIS	45 pages	The Interactive Statistics Instructional System User Manual (formatted for teletype; printed copies available from the Reference Room).
LIBEDIT	3 pages	Program which edits and replaces records on a binary file by records from secondary files.
MF501	3 pages	Formats output file for microfilm.
MODIFY	11 pages	Library maintenance program.
PACKMS	1 page	Reads input FORTRAN-structured random file and writes it to output eliminating unused records from the file.
PASCAL	22 pages	Describes PASCAL 2.1 and explains differences from standard PASCAL.
REBLOCK	2 pages	Converts stranger tapes to KRONOS internal formatted tapes or disk files.
SNOINFO	24 pages	Information on the UofM version of the CAL 6000 SNOBOL version 3.2 interpreter and timesharing SNOBOL at the UofM (formatted for teletype; printed copies are available from the Reference Room).
PFILES		Describes new routines to manipulate permanent files.
TIDY	7 pages	Describes the use of TIDY to improve the readability of FORTRAN programs.
TYPESET	13 pages	Program for editing word-oriented files; formatted for teletype.
UNPAGE	6 pages	Edits carriage control characters.
XEDIT	14 pages	Interactive text editor; formatted for teletype; paper copies are available from the Reference Room.

BRIEF NOTES

The consultants have a problem which requires your cooperation -- (1) Most of the consultants do not smoke and would appreciate it if users would refrain from smoking while at the consulting desk. (2) For evaluation of our service, we ask that users fill out a survey form -- please do this before approaching the consultant. Fill out the form with your name, the first three characters of your user number, and your University status. Please DO NOT write in the space reserved for the consultant.

Working from a teletype? -- Please DO NOT attempt to list EISINFO (information about EISPACK) from a teletype. It is about 150 pages long and is formatted for line printer.

A new reserved word -- Please note that a new word has been added to the reserved word list. The word PLOTS is now reserved and specifies a special STATOS plotting file.

CYBER 74 OPERATING HOURS

```
         12:01AM  2AM  3AM  4AM  8AM    4PM   Midnight
Sunday    
Monday    
Tuesday   
Wednesday 
Thursday  
Friday    
Saturday  
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::::::  Lauderdale only

||||||  Lauderdale, ExpEng

//////  Lauderdale, ExpEng, West Bank
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MEDIUM SPEED REMOTE TERMINAL SITES (RJE)

site	supervisor
38 ElectE (East Bank)	J. Guentzel/373-5404
	M. Cook/373-3895
N640 EltH (East Bank)	J. DeWitt/376-7377
	N. DeWitt/376-7377
S191 KoltH (East Bank)	T. Faulkner/376-7024
	J. Duff/373-2348
321 MinMet (East Bank)	C. Swanson/373-5475
	R. Oelfke/373-5680
69 Physics (East Bank)	R. Scarlett/373-0243
	D. Olson/376-7175
167 SocSci (West Bank)	J. Shea/373-3608
257 BioSci (St. Paul)	R. Comstock/373-0979
	R. Cardellino/376-3407
125G ClaOff (St. Paul)	C. Bingham/373-0988
415 CofH (St. Paul)	D. Nelson/376-7003
	T. Ehlen/376-7003
24 NorH (St. Paul)	J. Colten/373-0990
	D. Rignell/373-0990
Users' Room (Lauderdale)	Shift Supervisor/373-4940

CONSULTING SITES & HOURS ‡

LAUDERDALE USERS' ROOM (general consulting)*
    Monday - Friday   1:30 - 3:30 PM
    Monday - Thursday   7:30 - 9:30 PM

EXPERIMENTAL ENGINEERING 140 (general consulting)*
    Monday - Friday   9:00 AM - 5:00 PM
    Monday - Thursday   7:00 PM - 9:00 PM
    Saturday   10:00 AM - 2:00 PM
    Sunday   7:00 PM - 9:00 PM

EXPERIMENTAL ENGINEERING 140 (statistics packages)
    See the schedule posted in 140 ExpEng.

SOCIAL SCIENCES 167 (statistics packages)
    See the schedule posted in 167 SocSci (West Bank)

CLASSROOM OFFICE BUILDING 125
    See the schedule posted in 125 ClaOff (St. Paul)

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*These general consultants can also answer questions
about the statistics packages: D. Eggers, B. Hinkley,
and S.P. Yen.

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‡ The consulting sites remain the same throughout the
year. However, the hours will vary. The Lauderdale
and ExpEng general consulting hours will be shortened
during the weeks when classes are not in session and
during Summer Session. Hours at other sites vary
from quarter to quarter, depending on available
staff.

REFERENCE MANUALS

[Copies are available for reference in 140 ExpEng,
Lauderdale Users' Room, West Bank Computer Center,
all the medium speed terminal sites, and in the
Reference Room (235a ExpEng).]

Revision D	ALGOL Version 3 Reference Manual
Revision C	APL*CYBER Reference Manual
Revision A	BASIC Reference Manual
1973	BMD Reference Manual
Revision E	COBOL Version 3 Reference Manual
Revision D	COBOL Version 4 Reference Manual
Revision E	COMPASS Version 3 Reference Manual
Revision F	FORTRAN 2.3 (RUN23) Reference Manual
Revision D	FTN Version 3 Reference Manual
Revision F	FTN Version 4 Reference Manual
Revision B	FTN DEBUG User's Guide
1973	IMSL Library 3, Edition 3 Reference
Revision C	KRONOS 2.1 Reference Manual
1974	MNF Reference Manual
Revision E	MODIFY Reference Manual
	OMNITAB II Programmer's Reference Manual
1974	OMNITAB II, An Introduction to
Revision C	SIMSCRIPT Version 2 Reference Manual
Revision G	SORT/MERGE Version 4 Reference Manual
1970	SPSS: Statistical Package for the Social Sciences
1974	SPSS Version 5.5
	SYSTEM 2000 Reference Manual
1973	SYSTEM 2000 Users' Guide
Revision C	T/S User's Reference Manual
Revision A	Text Editor (EDIT) Reference Manual
Revision E	UPDATE Reference Manual

TELEPHONE NUMBERS

373-4548	Account Clerk
376-3963	Educational Services (R. Franta)
373-4596	ExpEng I/O
376-7067	Field Engineering
373-2521	Keypunch Supervisor
373-4940	Lauderdale Shift Supervisor
373-4995	Microfilm Operator
373-4876	Operations (R. Folden)
373-7744	Reference Librarian
376-3963	RJE Services (R. Franta)
373-4995	Tape Librarian
373-4360	UCC Main Offices
373-4599	User Services (T. Hodge)
373-4921	Users' Room (Lauderdale)
373-3608	West Bank I/O

REMEMBER THE HELP-LINE: 376-5592

KEYPUNCH LOCATIONS

[The number of keypunches at each site is in parentheses.]

East Bank		St. Paul		West Bank	
38 ElectE	(1)	257 BioSci	(1)	90 BlegH	(1)
N640 EltH	(1)	125G ClaOff	(1)	86 BlegH	(11)
130 ExpEng	(2)	415 CofH	(1)	167 SocSci	(1)
131 ExpEng	(1)	24 NorH	(1)		
208 ExpEng	(14)*				
S191 KoltH	(1)				
321 MinMet	(1)	Lauderdale			
69 Physics	(1)	Users' Room	(5)*		

*includes 1 interpreting card punch.

Q/S   *Why not handle primary and secondary files the same for LNH and LIST on MIRJE? Currently, secondary files are not rewound but primaries are. Rewind both types. (March 7)*

A   Identical treatment of primary and secondary files by the TELEX LIST utility would be very difficult. In general, all listing operations against primary files are handled by TELEX while all listing operations against secondary files are handled as simple control card requests to the BATCH system. UCC Systems staff do not believe that the convenience justifies the substantial labor necessary to implement this feature. (T. Lanzatella)

Q/S   *Several times, I've DISPOSED data files on MIRJE forgetting to do a shifted copy, such as to bypass the printer control. This is a bit stupid on my part but it is easy to do and results in considerable wasted paper. My suggestion is that an additional parameter be included on DIPOSE which can be used to enable/disable the printer control. It may even be a good idea to have a default of suppressed printer control for jobs of MIRJE origin. (March 7)*

A   We will revise the DISPOSE writeup warning MIRJE users about this. (D. Hamnes)

T O   M I R J E   U S E R S

-- from the HELP-line consultants

Problems encountered when using the MIRJE system should be handled in a manner similar to problems on Batch. If you cannot solve a programming problem yourself, go see a consultant rather than calling the HELP-line first. Be prepared to give the consultant this information: (1) the nature of the problem, (2) the type of terminal, its transmission rate, and its identifying number if it has one, (3) the telephone number you dialed, (4) the lines you typed in just before the problem occurred (bring your terminal listing if you have one), (5) your name and a number where you can be reached.

There are a few situations when you should try something else first:
(1) You pick up the phone to dial and hear a busy signal after dialing only the first or second digit and hear nothing at all after the dialing is completed. Hang up and try again in a few minutes. This is probably the result of overloading of the switching mechanism and the only solution is to wait.
(2) You dial the computer and receive the high-pitched tone, place the phone in the acoustic coupler, press the carriage return, and nothing happens. First, be sure the handset of the phone is properly seated in the coupler; second, be sure all switch settings are correct. Make sure that the Line/Local switch is in the Line position and, if the terminal has more than one speed capability, make sure that it is set to the proper line speed. If you do not know what a particular switch does or if you cannot find the switches, please ask.
(3) You dial the computer, the phone rings, but there is no answer. Call 373-3940 (the main site), to find out if the system is down. If not, then check with a consultant or call the HELP-line and give the needed information.
(4) You dial the computer and get a busy signal. Hang up and keep trying since all incoming lines are busy.
(5) You are typing at your terminal and all at once you lost contact. The terminal fails to respond. The system may be down, please check first. If the system is up, save your terminal listing because the consultant will want to see it. If you don't have a terminal listing, jot down the last few lines that you typed prior to the incident.