

MTW  
5 C739

H O L I D A Y ' H O U R S

Hours for the Thanksgiving holiday will be:

Lauderdale: Closed at 4:00 AM Thursday, November 23rd  
Reopened at 8:00 AM Saturday, November 25th  
ExpEng : Closed at Midnight Thursday, November 23rd  
Reopened at 8:00 AM Saturday, November 25th

H A V E A H A P P Y H O L I D A Y

\*\*\*\*\*  
\* Special operating hours: \*  
\* ExpEng I/O will be open from \*  
\* 8 PM-Midnight on Sunday, \*  
\* December 3 and Sunday, Decem-\*  
\* ber 10. \*  
\* \*  
\*\*\*\*\*

TABLE OF CONTENTS

Notes on Special Systems p. 3  
Preparing Job Cards p. 3  
To 1004 Terminal Users p. 3  
Notes on BMD p. 4  
BMD Field Length Tables p. 5  
The Suggestion Box p. 12  
October Use Statistics p. 16

6600 OPERATING HOURS

	12:01AM	3AM	4AM	6AM	8AM	2PM	8PM	midnight
Sunday								
Monday								
Tuesday								
Wednesday								
Thursday								
Friday								
Saturday								

 LAD only

 LAD, EXP, WB

<u>Medium Speed Remote Terminals</u>	<u>Local Supervisor(s)</u>	<u>telephone</u>
Room N640 EltH (Mpls)	R. Swisher	376-3156
Room S191 Kolth (Mpls)	T. Faulkner	376-7024
	J. Abdullah	373-2348
Room 321 MinMet (Mpls)	C. Swanson	373-5475
	R. Lewis	373-2300
Room 38 ElectE (Mpls)	C. Berg	373-5404
	M. Cook	373-3895
Room 321 Hr (St P)	J. Heinen	373-1086
	M. Brenner	373-0949
Room 17 AgEng (St P)	R. Vance Morey	373-0763
	N. Valentine	373-1059
Room 54 BA (WB)	H. Smith	373-3608

Useful Telephone Numbers

- 373-4876 Manager, Operations (R. Folden)
- 373-4599 Manager, User Services (T. Hodge)
- 373-4548 Account Clerk
- 373-4548 EBR Operator
- 373-4596 ExpEng I/O
- 373-2521 Key punch Supervisor
- 373-4940 Lauderdale Shift Supervisor
- 373-4994 Recorded Message
- 373-7744 Reference Librarian
- 373-4995 Tape Librarian
- 373-4360 UCC Office
- 373-4921 Users' Room (Lauderdale)
- 373-3608 West Bank I/O

Locations of UCC Key punches

<u>Mpls</u>		<u>StP</u>	<u>WB</u>	<u>Lauderdale</u>
N640 EltH	130 ExpEng	17 AgEng	90 BlegH	Users' Rm
12A SmithH	321 MinMet	302 CofH		
38 ElectE	69 Phys	384 Hr		
208 ExpEng	125 SpaSci			
131 ExpEng				

TO USERS OF SPECIAL SYSTEMS

SPSS, MARS, TIDY, APEX, TRIAL, PERT, BASIC, PASCAL:

Users of these systems (SPSS means the 500-variable version) may now access them via a single control card:

SPSS.	or	SPSS(parameters)
MARS.	or	MARS(parameters) - (current version is unreliable)
TIDY.	or	TIDY(parameters)
APEX.	or	APEX(parameters)
TRIAL.	or	TRIAL(parameters)
BASIC.	or	BASIC(parameters) - (non-interactive version)
PERT66.	or	PERT66(parameters) - (for PERT-TIME)
PASCAL.	or	PASCAL(parameters)

OMNITAB and SPSS:

On January 1, 1973 OMNITAB will be accessible on the CDC6600 only via the single control card OMNITAB. or OMNITAB(parameters). The 100-variable version of SPSS will be accessible via the single control card SPSS100. or SPSS100(parameters). All previous control card sequences for these two systems will be invalid.

MIX:

Because the MIX1 program is unreliable, the permanent file MIX1 has been removed from the system. A reliable version of MIXAL is available on the system as MIXAL. (See the revised UCC write-up on MIX.)

ON PREPARING JOB CARDS

Job cards are usually prepared using commas and a period as separators. For example

```
BOB,T10,CM60000.11111111
```

A job card may be punched using parentheses, for example

```
BOB(T10,CM60000)11111111
```

However, a job using a job card prepared with parentheses will not run if it requests tapes. The tape unit request on the job card will not be read by the system.

Therefore we strongly urge you to use commas and a period when preparing all job cards.

TO 1004 TERMINAL USERS

Problems and failures on the Univac 1004 terminals should be reported to the local supervisor. See page 2 of this newsletter for a list of the stations and the local supervisors.

SOME INFORMATION ON BMDBMD Manual Changes:

On page 262 at line 5; the BMD03R PROBLEM card

Col. 18-70      Blank

should be changed to read:

Col. 18,19      Number of variables added to the  
original set after transgeneration  
( $-9 \leq q \leq 48$ ) ( $2 \leq p+q \leq 50$ )

Col. 20-70      Blank

Tape Usage:

Some BMD programs use one or more tapes for intermediate storage. The following tapes, in addition to tapes 5 and 6, may not be specified as alternate input or output tapes for the indicated programs.

<u>For Program</u>	<u>Do not use Tape</u>	<u>For Program</u>	<u>Do not use Tape</u>
BMD02D	4	BMD09S	1, 2, 3, 4
BMD10D	60	BMD10S	8
BMD03M	3	BMD02V	2, 3
BMD06M	2, 3	BMD03V	2
BMD07M	1, 2	BMD04V	2, 3
BMD02R	2, 3, 8	BMD05V	2
BMD03R	2, 3	BMD06V	2, 3
BMD02S	3	BMD07V	1, 2, 3
BMD05S	2, 3	BMD08V	4

Field Length Tables:

The following field length tables will help you find out how much field length you will require for running your job. The field length equation for the program with dynamic storage is approximate. (See pages 5-11.)



BMD04D FIELD LENGTH = 070000B

BMD05D FIELD LENGTH TABLE

I		I										I	
I NO. OF CASES		NUMBER OF VARIABLES (NVAR = P+Q)										I	
I		5	10	20	30	40	50	100	200	300	400	500	I
I	10	037000	037000	037000	037000	037000	037000	037000	037000	037000	040100	042400	I
I	20	037000	037000	037000	037000	037000	037000	037000	037300	043600	050000	054200	I
I	30	037000	037000	037000	037000	037000	037000	037000	043200	051400	057600	066000	I
I	40	037000	037000	037000	037000	037000	037000	037000	047200	057300	067500	077700	I
I	50	037000	037000	037000	037000	037000	037000	041000	053100	065200	077300	111500	I
I	100	037000	037000	037000	037000	037000	040700	052600	076500	122500	146400	777777	I
I	200	037000	037000	037000	042600	046500	052500	076200	145600	777777	777777	777777	I
I	300	037000	037000	042600	050500	056400	064300	121600	777777	777777	777777	777777	I
I	400	037000	037000	046500	056400	066200	076100	145300	777777	777777	777777	777777	I
I	500	037000	040600	052400	064300	076100	107700	777777	777777	777777	777777	777777	I
I	1000	040600	052400	076100	121500	145100	777777	777777	777777	777777	777777	777777	I
I	2000	052400	076000	145100	777777	777777	777777	777777	777777	777777	777777	777777	I
I	3000	064200	121500	777777	777777	777777	777777	777777	777777	777777	777777	777777	I

(777777 MEANS THAT PROBLEM CANNOT BE RUN ON THE MINN CDC 6600 65 K MEMORY)

BMD05D FIELD LENGTH EQUATION  
 FIELD LENGTH = LENGTH + NVAR \* (N + 1) + CONSTANT  
 WHERE N = NO. OF CASES  
 CURRENTLY, LENGTH = 24700B

BMD06D FIELD LENGTH = 075000B

BMD07D FIELD LENGTH = 064000B

BMD08D FIELD LENGTH = 064000B

BMD09D FIELD LENGTH = 077000B

BMD10D FIELD LENGTH = 074000B

BMD11D FIELD LENGTH = 075000B



BMD01M FIELD LENGTH = 067000B

BMD02M FIELD LENGTH = 071000B

BMD03M FIELD LENGTH TABLE

I	-----													I	
I	NO. OF VARIABLES	5	10	15	20	25	30	35	40	45	50	60	70	80	I
I	FIELD LENGTH	042000	042000	042000	042000	042000	042000	042000	042000	043200	046000	054400	064100	074700	I
I	-----													I	

(777777 MEANS THAT PROBLEM CANNOT BE RUN ON THE MINN CDC 6600 65 K MEMORY)

BMD03M FIELD LENGTH EQUATION

$FIELD LENGTH = LENGTH + 3 * P ** 2 + 411$

WHERE P = NO. OF VARIABLES IF INPUT IS RAW DATA OR FACTOR MATRIX

OR P = ORDER OF MATRIX IF INPUT IS A CORRELATION MATRIX

CURRENTLY, LENGTH= 26400B

BMD04M FIELD LENGTH = 077000B

BMD05M FIELD LENGTH = 063000B

BMD06M FIELD LENGTH TABLE

I	-----										I
I	Q = NO. OF VAR OF THE 2ND SET	P = NUMBER OF VARIABLES OF THE FIRST SET								I	
I		1	5	10	15	20	25	30	35	I	
I	1	043000	777777	777777	777777	777777	777777	777777	777777	I	
I	5	043000	043000	777777	777777	777777	777777	777777	777777	I	
I	10	043000	043000	043000	777777	777777	777777	777777	777777	I	
I	15	043000	043000	043000	043000	777777	777777	777777	777777	I	
I	20	043000	043000	043000	043000	043000	777777	777777	777777	I	
I	25	043000	043000	043000	043000	043000	043600	777777	777777	I	
I	30	043000	043300	044100	045000	045700	047000	050100	777777	I	
I	35	046100	046600	047400	050400	051400	052500	053700	055200	I	
I	-----										I

(777777 MEANS THAT PROBLEM CANNOT BE RUN ON THE MINN CDC 6600 65 K MEMORY)

BMD06M FIELD LENGTH EQUATION

$FIELD LENGTH = LENGTH + P ** 2 + 2 * P * Q + 5 * Q ** 2 + 8 * Q + 2 * P + 639$

CURRENTLY, LENGTH= 30100B

BMD07M FIELD LENGTH = 074000B

FIELD LENGTH TABLES

10/31/72

BMD01S FIELD LENGTH = 062000B

BMD02S FIELD LENGTH = 077700B

BMD03S FIELD LENGTH = 052000B

BMD04S FIELD LENGTH = 077000B

BMD05S FIELD LENGTH = 066000B

BMD06S PROGRAM NOT AVAILABLE

BMD07S PROGRAM NOT AVAILABLE

BMD08S PROGRAM NOT AVAILABLE

BMD09S FIELD LENGTH = 060000B

BMD10S FIELD LENGTH = 071000B

BMD01T FIELD LENGTH TABLE

I	NUMBER OF RESOLUTIONS	NUMBER OF POINTS IN THE SERIES										I	
		50	100	200	300	400	500	1000	2000	3000	4000		5000
I	10	044000	044000	044000	044000	044000	044000	044000	045500	053400	061300	067200	I
I	20	044000	044000	044000	044000	044000	044000	044000	045500	053400	061300	067200	I
I	30	044000	044000	044000	044000	044000	044000	044000	045600	053400	061300	067200	I
I	40	044000	044000	044000	044000	044000	044000	044000	045600	053500	061400	067200	I
I	50	044000	044000	044000	044000	044000	044000	044000	045600	053500	061400	067300	I
I	100	044000	044000	044000	044000	044000	044000	044000	046000	053700	061500	067400	I
I	200	044000	044000	044000	044000	044000	044000	044000	046300	054200	062100	067700	I
I	300	044000	044000	044000	044000	044000	044000	044000	046600	054500	062400	070300	I
I	400	044000	044000	044000	044000	044000	044000	044000	047100	055000	062700	070600	I
I	500	044000	044000	044000	044000	044000	044000	044000	047400	055300	063200	071100	I
I	1000	044000	044000	044000	044000	044000	044000	044000	051400	057300	065200	073000	I
I	2000	044000	044000	044000	044000	044000	044500	047400	055300	063200	071100	077000	I
I	3000	045700	046100	046600	047300	047700	050400	053300	061200	067100	075000	102700	I
I	4000	051600	052100	052500	053200	053700	054300	057300	065200	073000	100700	106600	I

(777777 MEANS THAT PROBLEM CANNOT BE RUN ON THE MINN CDC 6600 65 K MEMORY)

BMD01T FIELD LENGTH EQUATION

FIELD LENGTH = LENGTH + 3 \* N + 2 \* M + 1110

WHERE N = NO. OF POINTS IN THE SERIES

M = NO. OF RESOLUTIONS

CURRENTLY, LENGTH = 27500B

BMD02T FIELD LENGTH = 101100B

FIELD LENGTH TABLES

10/31/72

BMD01V FIELD LENGTH TABLE

I-----I		I-----I										I-----I	
I	NO. OF TREATMENT GROUPS	MAXIMUM NUMBER OF OBSERVATIONS AMONG THE GROUPS										I	I
I		10	20	50	100	200	500	1000	5000	10000	20000	I	I
I	2	035000	035000	035000	035000	035000	035000	035000	035000	045400	071000	I	I
I	5	035000	035000	035000	035000	035000	035000	035000	035000	045400	071000	I	I
I	10	035000	035000	035000	035000	035000	035000	035000	035000	045400	071000	I	I
I	20	035000	035000	035000	035000	035000	035000	035000	035000	045400	071100	I	I
I	50	035000	035000	035000	035000	035000	035000	035000	035000	045500	071100	I	I
I	100	035000	035000	035000	035000	035000	035000	035000	035000	045600	071200	I	I
I	500	035000	035000	035000	035000	035000	035000	035000	035000	046400	072000	I	I
I	1000	035000	035000	035000	035000	035000	035000	035000	035600	047400	073000	I	I
I	2000	035000	035000	035000	035000	035000	035000	035000	037500	051300	075000	I	I
I	5000	035000	035000	035000	035000	035000	035000	035600	045400	057200	102600	I	I

(777777 MEANS THAT PROBLEM CANNOT BE RUN ON THE MINN CDC 6600 65 K MEMORY)

BMD01V FIELD LENGTH EQUATION

FIELD LENGTH = LENGTH + M + N + 274

WHERE M = MAXIMUM NUMBER OF OBSERVATIONS AMONG THE GROUPS

N = NO. OF TREATMENT GROUPS

CURRENTLY, LENGTH= 21300B

BMD02V FIELD LENGTH = 101000B

BMD03V FIELD LENGTH = 075000B

BMD04V FIELD LENGTH = 064000B

BMD05V FIELD LENGTH = 104000B

BMD06V FIELD LENGTH = 061000B

BMD07V FIELD LENGTH = 067000B

BMD08V FIELD LENGTH = 072000B

THE SUGGESTION BOX

Q. WHY NOT MAKE MNF FT3 COMPATIBLE?

- A. This is an example of a suggestion which does not supply enough information. Our first reply was that MNF is source language upwards compatible with FT3 except for
- 1) the RETURNS statement
  - 2) the debugging package
  - 3) files assumed if not PROGRAM card
  - 4) intermixed COMPASS
  - 5) two-branch IF
  - 6) computed GO TO if not in range in FT3
- and 7) DATA statement ordering.

After calling this user, we found that the real problem here was that in the control card sequence:

FT3.

MNF(BC)

the FT3 subprogram had a COMPUTED GO TO statement which required ACGOER\$ which is on FT3LIB, not FTNLIB (which MNF requests). MNF will be changed to request FT3LIB to satisfy its Fortran Extended externals. This will not affect FTN-MNF users since, for them, the libraries are identical.

Q. WHAT IS THE STRAIGHT STORY ON DISK PACK TROUBLES? WHY DON'T YOU ISSUE BLOW-BY-BLOW ACCOUNTS OF THE TRAUMAS IN SYSNOTES? SHOULDN'T YOU BE TAKING MORE OF AN INTEREST IN BACK-UP COPIES OF DISK CONTENTS A'LA MERITSS?

- A. The straight story will be reported when we discover what is going on ourselves. This "straight story" will tell what happened but it will not be a blow-by-blow account. We don't run a gossip column.

As we have previously reported (see past newsletters) our disk pack storage is the most economical around. We have considered back-up types of permanent files for the CDC 844-disks which will be purchased (not leased as is the current CDC 841). Please note that cost considerations indicate that backed-up disk files will run at least twice the cost of not-backed-up files. Are you willing to help foot this cost? We are very interested in responses to this question.

Q. IN REGARD TO THE 1004 TERMINAL IN MECH ENG, YOU NEED:  
1) INFORMATION ON WHOM TO CALL IF TROUBLE OCCURS, 2) GENERAL INFORMATION ON DECK MAKEUP AS IT DIFFERS FROM THE OPERATION IN EXP ENG, 3) EXTRA PRINTER PAPER, AND 4) A RECYCLING BARREL.

- A. We assume you mean the basement of ElecE. A notice will be posted indicating the person to call for help. See page 2 of this newsletter for a list of local representatives. Items 3 and 4 are being taken care of by Electrical Eng.

Q. IS THERE ANY REASONABLE WAY OF KEEPING THE VISUAL DISPLAY ON AT LAUDERDALE? I REALIZE IT TIES UP A MODEM THAT IS NECESSARY AT PEAK HOURS BUT I LIKE IT.

A. The display will be restored as soon as we receive delivery of another data set controller. The device you like takes a dedicated controller but we have none free at present. We're happy that you (any many others) like the display and we'll keep it up for you whenever we have a controller free.

Q. WHY DON'T YOU GET AN ERROR WHEN YOU (CONTROL CARD) TRY TO REWIND A FILE NAME THAT IS 8 OR MORE CHARACTERS? WHAT HAPPENS?

A. Specific inquiries concerning errors in the system should be referred to the consultant, not the suggestion box. When you see the consultant, bring supporting documentation.

Q. PLEASE LIST MINIMUM CM FOR UTILITY ROUTINES?

A. Currently, all utility routines will run with the default field length. By omitting CMxxxxxx from your job card you will have no problem.

We plan (in future) to implement the KRONOS feature RFL=. This allows the loader to know how much field length is required by each different control card and the loader accordingly requests just that much core. Those control cards that do not have the RFL= feature will obtain the amount given on the job card or the default value.

Q. COULD YOU PLEASE HAVE YOUR FORTRAN SHORT COURSE IN THE MORNING?

A. Short courses are taught when and where the demand is. Classes have been in the afternoon since this time usually best fits most schedules. However, if you can find at least a dozen people who want a morning class we will schedule it.

Q. WHY DON'T YOU PRINT BETTER STATISTICS ON 6600 USE?

A. A more meaningful set of statistics is forthcoming. As we said before, this is a programming problem, not a policy problem. We'll give you these statistics as soon as we can.

Q. ON THE 1004 TERMINALS, THE \*A,num COMMAND DOES NOT WORK. THE WHOLE TERMINAL APPEARS TO BECOME DISCONNECTED. ALSO, PLEASE HAVE THE OPERATORS OR SUPIO PUT A SPACE BEFORE EACH MESSAGE BEFORE SENDING IT TO A TERMINAL.

A. The command \*A,num has been checked and found to be working. The 'num' should be an octal number, less than 777 and specifies units of 10 sectors, to be backspaced over. A

decimal number would do nothing. As the 1004 has no CRT, most of the error messages sent to 200 user terminals are inhibited for the 1004 so that the messages do not get mixed up with some other user's valuable output. It is possible that the \*A card was not followed by enough 6-7-8-9 cards, thereby hanging the terminal.

Operators have been instructed (as of 11/13/72) to put in one or more blanks before messages so that the message reaches the user intact.

- Q. I WOULD LIKE TO SUBMIT JOBS AT EXP ENG AFTER HOURS.
- A. The I/O rooms, the tab rooms and the user room in ExpEng are normally open whenever the building is open. If you can get into the building you can submit a job. (Occasionally, for special reasons such as cleaning and maintenance these rooms will be temporarily locked.)
- Q. PUT UP A SET OF DECK MAKEUP INSTRUCTIONS AT THE I/O STATIONS. MAKE SURE THAT THE PUNCH INFORMATION IS SHOWN, NOT JUST THE COLORS OF THE CARDS.
- A. Good point. We'll do it. Also, we'll try making up some special cards that are not color coded.
- Q. WHY DON'T YOU HAVE LIGHTS IN THE PARKING LOT AT LAUDERDALE?
- A. Lights have been requested (as a security measure) from the Administration but there are 2 problems: money's tight and the University only rents (not owns) the building in which the 6600 is housed.
- Q. PLEASE ASK THE HIGHWAY DEPARTMENT (AGAIN) TO INSTALL TRAFFIC LIGHTS AT ROSELAWN AND HIGHWAY 280 SO WE CAN ENTER AND LEAVE THE LAUDERDALE PARKING LOT SAFELY.
- A. The Highway Department is not going to put semaphores at this intersection. In the next newsletter we'll be printing a map of the various approaches so you can avoid a left turn on Highway 280.
- Q. WHY DON'T YOU NOTIFY A USER EACH QUARTER BY LETTER OF THE STATUS OF HIS BACK-UP TAPES?
- A. At the request of a user, stored (SN) tapes may be backed-up and the back-up tapes stored (by UCC) off-site. We don't charge for this service and we expect users to create their own back-up tapes and keep their own records.

- Q. WHY DO YOU LOCK THE DOOR AT LAUDERDALE AFTER MIDNIGHT?
- A. Our staff is reduced after midnight and the door must be locked for security and insurance purposes. We would appreciate your cooperation.
- Q. THE THREE MINUTE PUNCHING LIMIT ON THE 'CORRECTION ONLY' KEYPUNCH AT LAUDERDALE IS NOT BEING OBSERVED.
- A. We do not have the staff to closely supervise these machines for you. You will have to (courteously we hope) remind people when they are in error.

\*\*\*\*\*

We have received a number of suggestions and complaints about the furnishing of the user rooms and the I/O rooms. The following is an attempt to answer them all together.

- 1) THE LAUDERDALE SITE: The Lauderdale site will not be receiving any more keypunches, tables, or chairs. Piped in music would be nice but would also be expensive. Is anyone willing to contribute the funds to pay for it? An automatic door opener will be impossible (again, for security reasons).
- 2) ROOM 140 EXP ENG: This user area is gradually being improved. Tables and chairs have been ordered to give the room a more orderly appearance. Manuals will be secured to prevent loss. A clock and pencil sharpeners have been (or will be) installed. Vending machines will not be installed; they are available in the Main Engineering Building. We realize that this work area is spartan but if you want ping pong tables, soft couches, and magazines you will have to bring your own.
- 3) EXP ENG I/O ROOMS: Room 130 will be equipped with stand up tables (no chairs), a clock and some pencil sharpeners. The output bins will be rearranged for easier access. We'll see about a clock for room 131.
- 4) MEDIUM SPEED TERMINAL ROOMS: These terminal rooms are being furnished and supervised by the host departments (see page 2 of this newsletter). Operating hours and instructions for use will be posted at each station.

CDC 6600 USE FOR OCTOBER

52,429 jobs were run

From ExpEng	41.0 %
From Lauderdale	17.4 %
From West Bank	20.9 %
From all other remote terminals	17.2 %
For Maintenance	3.5 %

Average times

On input queue	9.6 minutes
At control point	6.2 minutes
On output queue	3.8 minutes
Printing	1.5 minutes

A FEW ADDITIONAL NOTES

\* We are planning to offer the following short or short-short courses during winter quarter:

- Introduction to FORTRAN
- Dump Reading
- File Structures
- SNOBOL
- ALGOL
- MODIFY

\*\* The December Notes & Comments will have a complete schedule.

\*\*\* A new technical report on APL by W. Franta and G. Mansfield is available in the UCC library, Room 227 ExpEng.

A CDC 200 User Terminal is temporarily available at the Lauderdale site. The terminal is available to all users and the hours are from 8 AM - 5 PM.