

Send all comments, criticisms and contributions to the editor: T.W. Lanzatella
University Computer Center, 2520 Broadway Drive, Lauderdale, MN 55113

TABLE OF CONTENTS

NOTICE OF CHANGES TO THE SYSTEM1

PROPOSED CHANGES TO THE SYSTEM.3

 AN INQUIRING USER - T. Hoffmann.3

 RFM PROPOSAL - B. Hanson3

 THE CALLPRG FL PARAMETER - M. Frisch4

 A NEW SYSTEMS TEXT - J. Drummond4

SYSTEM MAINTENANCE.4

 LAST WEEK'S SYSTEMS GROUP MEETING - T.W. Lanzatella.4

 MORE ON ARCHIVING STAFF FILES - by K.C. Matthews5

 CALLPRG AND LIBRARY TAPE NEWS - M. Riviere5

 CYBER 74 DEADSTART DUMP ANALYSIS - by K.C. Matthews.5

 6400 LOG - by R.A. Williams.6

 6400 DUMP ANALYSIS - by R.A. Williams.6

NOTICE OF CHANGES TO THE SYSTEM

Brian Hanson installed the long awaited DROP/NODROP file commands (see DSN 2, 9 p. 2; DSN 2, 13 p. 4 and DSN 2, 23 p. 6). The format of the commands are:

NODROP(lfn1,lfn2,...,lfnk)
DROP(lfn1,lfn2,...,lfnk)

The effect of the NODROP command is that files specified will not be returned after executing an OLD, NEW, LIB or CLEAR command. The files can only be returned by explicitly RETURNing them. The effects of the NODROP command can be rescinded with the DROP command. Commensurate with the NODROP command is the NODROP file ID. A symbol in COMSSSJ was defined for this purpose and given a value of 70B. LFM was also changed to allow non-SSJ= programs to set the NODROP file ID. Brian also installed his proposed enhancements to LDR error processing (see DSN 2, 23 p. 6).

Tim Hoffmann repaired a malfunction in ENQUIRE O option processing.

Jim Mundstock fixed a time limit problem in WRITEUP which occurred if a user attempted to use a local writeup index which was improperly formatted. Jim also removed an extra overlay load and rollout from CALLPRG processing when a program could not be found.

Bob Zalusky changed the LIMITS report to identify user index. Bob also repaired a bug in MODVAL which allowed mischievous users to read execute-only files by specifying them as input files to MODVAL. This problem had been repaired prior to level 10 but reappeared after level 11. Additionally, Bob installed his proposed PFILE KCL function (see DSN 3, 2 p. 2 and DSN 3, 3 p. 3).

Kevin Matthews repaired a bug in PFM which was inadvertently forcing dayfiles to reside on the master device for user index 377777 despite CMRDECK entries to the contrary. Kevin also repaired a problem in MEM which caused improper ECS storage moves if the DE equipment was defined rather than DP.

Bob Williams installed a corrective code modset from Control Data which fixes a problem where the 844 error processor could incorrectly diagnose certain errors as drive not ready. This bug did not cause any system crashes but could certainly have caused many distressing messages in the error log.

Jeff Drummond installed the following modifications.

1. Jeff installed a modification inspired by NOS which alters the PRIMARY LFM function. If the specified file does not already exist, one will be created.
2. Using the above new feature, Jeff repaired a problem in the CLEAR command which occurred if a user attempted a CLEAR command with a primary file which was execute-only.
3. A primary file can now be LOCKed or UNLOCKed.

Bill Sackett corrected a problem in RESEQ which was destroying an FET length field causing the LFM error FET TOO SHORT for certain STATUS functions.

Tim Salo repaired several problems with the SUPIO minicomputer protocol.

Bill Elliott contributed the following collection of modifications.

1. The TAPES utility can now process control statements of the form; \$TAPES, /TAPES or 1,\$TAPES.
2. MAGNET was not previously checking the user processing option bit in the FET for rewind operations.
3. Contrary to documentation, the PACK command would previously allow and foolishly attempt to pack any file specified regardless of file type. This modset restricts packable files to mass storage resident files only.
4. The LISTLB utility can now crack control statements with statement labels.
5. The CATLIST utility will no longer abort if the UN option is used and a non-existent user number is specified. The message, EMPTY CATALOG, will now be returned.
6. The LABEL command was repaired so that the sequence of arguments ...LB=KL, ID=\$----\$, ... causes the same error message as the sequence ...ID=\$----\$, LB=KL, ...
7. LOWRATE was added as a KCL keyword (see DSN 3, 2 p. 4).
8. Bill polished off the documentation for his secure password entry modifications.
9. For help-line personnel, secure password entry for the PASSWOR command was changed so that the commands:

PASSWOR, ,NEWPW/UN=USERNUM. or,
PASSWOR, ,/UN=USERNUM.

will not prompt for the old password.

10. Bill installed a new common deck received from Naval Air Defense called COMPTFL. The new common deck tests field length. With RA and FL, you specify a relative central address and it returns on absolute address. If relative address is beyond FL, a -0 is returned.

PROPOSED CHANGES TO THE SYSTEM

An Inquiring User - by Tim Hoffmann

I would like to propose that the device name and number, i.e., DJ01, be added to the OP=F and FN= output of ENQUIRE. Other than satisfying simple curiosity, this feature would allow a user to distinguish between a file assigned to Null equipment, a file assigned to a TT unit and an empty mass storage file. At present, ENQUIRE would only indicate that the files exist, and that they have zero length.

Here is an example output:

FILENAM	LENGTH	EQ	TYPE	STATUS
INPUT		DI00	IN.	EOR READ
TTY		TT27	LO.	EOR READ
NULL		NE77	LO.	EOR WRITE
ZZZ		DJ01	LO.	EOR READ
XXX	3	DJ02	PM.	EOR READ

This output does not change the number of characters output since it inserts the device name and number between the file length and the file type.

//////////

RFM Proposal - by B. Hanson

If one uses RFM to change several CALLPRG and WRITEUP files at one time, it is very easy to accidentally save a WRITEUP on YZE6008 and save a CALLPRG file on YZE6000. On MIRJE one also has the nuisance of adding the PN=SP to the card. It would be much simpler if one could just tell RFM that it is a WRITEUP or a CALLPRG file. Therefore, I propose that the RA (Resident Account) parameter be added to the RFM control cards.

	System	Usernum	Packnam
RA = CALLPRG sets	MIRJE	YZE6008	SP
	MERITSS	YZE6008	0
RA = WRITEUP sets	MIRJE	YZE6000	SP
	MERITSS	YZE6000	0

This parameter would simplify a card like

RFMOD(FN=CONSULT,UN=YZE6000,PN=SP)	(MIRJE)
RFMOD(FN=CONSULT,UN=YZE6000)	(MERITSS)

to

RFMOD(FN=CONSULT,RA=WRITEUP)	(BOTH)
------------------------------	--------

//////////

The CALLPRG FL Parameter - by M. Frisch

I propose that the FL parameter in the CALLPRG index card be modified so that if the current field length is not large enough, CALLPRG will increase the field length to that given by FL. Only if the user is not validated for this large a field length will his job be terminated. In all cases, the programmer who sets up the CALLPRG index card knows exactly what field length is needed ahead of time.

This will also handle the case of SPSS where a minimum field length is needed just to begin execution. SPSS internally adjusts the field length up and down from this point as the size of the statistical problem changes.

The advantage of this is that, short of running out of validated field length, the user will never be terminated for lack of space while running a canned program from CALLPRG. The user will not waste a computer run just because his field length was slightly too small for a BMD program, for example.

//////////

A New Systems Text - J.J. Drummond

I propose creation of an alternate systems text for use by COMPASS programs via the S= option. This alternate systems text would incorporate CPCOM, COMCMAC and portions of PPCOM (file types, origin types, etc.). This is precipitated by several factors:

1. CDC has placed general purpose macros (like DISTC, TSTATUS, etc.) in COMCMAC instead of system-only orientated macros.
2. With the death of XTEXT, a program like

```

IDENT A
XTEXT COMCMAC
END

```

will not assemble in 55K!

MR says we also need COMCMAC also should be fixed

This new system text should not replace the current SYSTEXT, but rather, be made available as an alternative and be publicized.

//////////

SYSTEM MAINTENANCE: People and Procedures

Last Week's Systems Group Meeting - by T.W. Lanzatella

1. The following proposals were rejected or accepted.
 - a. Leo May's suggestion that the ENQUIRE command be changed so that E,T worked while a job was executing (see DSN 3, 3 p. 2) was rejected as being potentially much too hard on the system and too difficult to implement. An alternative, however, was agreed upon in principle which allows such enquiries if a job is interrupted. We could not agree on a format for such a command. Don Mears will propose a format in the future.

- b. Don Mears' second field length control proposal (see DSN 3, 3 p. 2) was painfully discussed but virtually nothing was decided. The topic is extremely complex. We decided to form a Field Length Control Task Group composed of Kevin Matthews, Don Mears and Brian Hanson.
2. News that unused permanent files on packs STF and SP would be archived drew several complaints and objections. We decided that the usual archiving schedule was too frequent. The final agreement was that direct access files will be archived monthly while indirect access files will be archived every three months.
3. Larry Liddiard reported that all managers (and above) in the systems group must prepare mission statements which justify our existence. These statements will be published in the DSN and should be completed before July 1.

//////////

More on Archiving Staff PF Devices - by K.C. Matthews

At the last system group meeting, it was decided to archive only direct access files on STF and SP that had not been accessed for one month. Once every calendar quarter (1 January, 1 April, 1 July, 1 October) we will archive all indirect access files that have not been accessed for 3 months.

About 2 weeks before the indirect archive we will send a memo to each staff person listing which files are going to be archived unless they are used soon. A list of the archived files will be given to the Help Line office, and a copy posted in the Lauderdale terminal room.

//////////

CALLPRG and Library Tape News - by M. Riviere

On March 1, the following modifications will take place among the CALLPRG and Library Tape files:

FT3LIB on the Library Tape will be modified by request of M. Frisch and J. Mundstock. Michael will add a new routine POLYGN, to be used to draw shaped polygons on the Statos 31. James will be correcting a bug in coded I/O concerning a problem with printing on the output file when coded input is used on a time-sharing terminal.

FUTURE FORTRAN in CALLPRG will be modified to include, as FT3LIB, the new routine POLYGN and also to replace the routine CNTOUR with a new version provided by M. Frisch. The current version of CNTOUR was compiled with OPT=2 which failed to be correct. The new version is compiled using OPT=1.

The next modification to the Library Tape and the CALLPRG Index will take place on March 15. Requests for modifications should be submitted by March 3.

//////////

Cyber 74 Deadstart Dump Analysis - by K.C. Matthews

Friday, 4 February - Thursday, 17 February

Friday, 4 February

09:20 (DD-1)

System was hung. Analysis revealed what looked like our old PPU problem.

MTR was executing a little piece of code left over from deadstart.

11:50 (DD-4)
System was hung again. A PPU had somehow fallen out of its idle loop into a trap of hang instructions. Again, our old PPU problem is suspected. The engineers are looking at the problem but are having little success, mainly because it is so intermittent.

Monday, 7 February

There were lots of problems.

08:24 (DD-5)
08:34 (DD-14)
09:06 (DD-16)
All were odd system hangs in which we suspect the one bank of PPU's of executing instructions from the wrong location.

21:42 ECS went down. They ran with ECS and SUPPIO down until 22:55, when the problem was fixed by the engineers.

Tuesday, 8 February

04:00 (DD-15)
It appeared as if 2MT had hung. Really, the PPU to which 1MT was assigned was bad because of our old problem. This was the last occurrence of this problem in our current string. They seem to come in spurts.

Monday, 14 February

There were many problems around 22:20. There was a problem with the console keyboard, which was fixed by the CDC engineer. Then, the system kept on hanging up on one 844-41 disk unit (not a new one). Murray cleared the disk controller, and there were no problems afterwards.

Tuesday, 17 February

19:43 Export hung and would not stop. A level 3 recovery was successful.

//////////

6400 Log - by R.A. Williams

Because of recent conflicts between staff members who wish to use the 6400 at the same time, we have started a log (not like those used in math or forestry) in which all 6400 system time use should be requested in advance. This log is located next to the console in the bottom shelf of the IN/OUT baskets along with the remote problem log book. You simply enter your name, initials, or some other identification for the time period you desire. Signing up insures that you have the use of the 6400 during that period unless contacted beforehand and told that something has come up that takes precedence. It does NOT insure that the building will be unsecured. This must be arranged through Cyber operations. Contact me with suggestions or questions about this log.

//////////

6400 Dump Analysis - by R.A. Williams

<u>Date</u>	<u>Description</u>	<u>Tape</u>
770210	Channel 12 (tape channel) hung full as a central memory stack	Fixed

went out. This also caused files on 844 disk unit 1 to be lost.

770210	The scopes went blank for unknown reasons.	DDT-2
770211	844 disk controller on channel 6 hung on a function time out on a general status request.	DDT-7