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NOTICE OF CHANGES TO THE SYSTEM

Bob Williams repaired a serious bug in NOTICE processing in TELEX. If a user could type fast enough to input a secondary command before the NOTICE message is printed, the user's terminal was hung. Credit N.L. Reddy with discovering this problem.

On the previous new system, Kevin Matthews corrected a channel interlock problem in CMS (see DSN 3, 19 p. 1). This repair, unfortunately, caused problems with CMS processing of disk errors. This problem was discovered soon after the system had been installed and caused little more than some operator confusion. Kevin also repaired a serious bug in ISJ, discovered by N.L. Reddy, which caused some small jobs not to be scheduled despite the fact that ample memory was available. We doubt that this repair will have a large effect on throughput on the Cyber but 6400 throughput may improve substantially as did throughput on the MECC machine.

Brian Hanson installed a minor correction to his field length management enhancement to LINK (see DSN 3, 19 p. 2). This change was actually installed along with the last new system.

Bill Wells installed a change to NOTICE which affects the format of OUTPUT files. Previously, NOTICE always wrote a record mark on file OUTPUT regardless of whether the user was to receive a message or not. Now, a record mark will only result if a message was written. The rationale behind the previous action was that OUTPUT files should be consistently formatted, but a user actually complained when empty records began to appear on the OUTPUT file.

Jeff Drummond installed his proposed change to MODVAL which allows two new commands, ON and OFF (see DSN 3, 19 p. 6). Jeff also contributed new source versions of SIMTALK and COMSTLK.

As a parting gesture, probably intended to make us miss him more than we already do, Bill Elliott installed a change for which operations has been clamoring for years. Operators can now use the new DONT UNLOAD command to defeat the action of AUTOUNLOAD (if enabled) for specific tape drives. The format of the command is

DONTUNLOAD,nn.

where nn is the drive which should not be unloaded. To make room for the DONT UNLOAD command, the DISMOUNT IDLE UNITS command was shortened to simply DISMOUNT. Operators note! Bill also corrected SYSEEDIT to properly distinguish between a OVL and a ABS type program with the same name. Additionally, Bill repaired a system crashing bug in NTC, the nine-track tape certifier. This program is almost never used anymore. Bill also contributed new source versions of TAPES and EXPLIB.

Tim Hoffmann installed T.W. Lanzatella's proposed change to the HELP command which will cause HELP to search the new writeup file CONTROL (see DSN 3, 19 p. 6).

Don Mears installed the following changes.

1. Program LTD was altered by raising the minimum cycle time to 6MS in order to circumvent a hardware problem in the 6676.
2. The TELEX dump (if one ever occurs) will now be disposed to bin 706 and TELEX will no longer produce a dump if the abort was caused by a recovery deadstart.
3. TELEX initialization was altered to allow the number of multiplexors on the system to change even if there are unrecovered users on the SALVARE file.
4. Don installed some code from the MECC system which repairs a drop pot problem found by Dave Fletcher.
5. Don replaced some local code (TXT002) which corrects a variety of hung port problems with some CDC code (TWX A121).
6. Some additional TWX code from CDC (TWX A120) was installed in LTD to repair S-key related hung port problems.
7. A blinking message "LTD HUNG" will now be displayed at the TELEX control point when LTD is hung on the PDP-11 channel.
8. Program PDP was changed to allow equipment PT to be loaded and dumped as a PDP-11.

Tim Salo contributed a source for a new program, LAD - BATCHIO additional drivers. Program LAD currently contains only the driver for ASCII print files. As we do not yet have a 595-6 print train, LAD prints display code files. If an equipment has a print train number of 7, LAD is called to print the file rather than LCD. This allows testing of LAD even though we have no 595-6 print train. Program LAD is complete except for a 595-6 print train, a table of image memory for the 595-6 print train and routines to convert escape code ASCII and 8 or 12 bit ASCII to ASCII.

The addition of LAD may require more PPU's at BATCHIO's control point. This problem will be rectified once LAD is complete by moving the plotter driver to LAD or by moving the ASCII printer driver to LCD.

Additionally, the routines which process the terminal operator commands in SUPPIO were rewritten reducing SUPPIO's field length to 6K from 6.3K. Program LSU now drops correctly on a CHECKPOINT SYSTEM command.

Bill Sackett installed the following changes (most gleaned from PSR's).

1. Program LRI now clears reprieve options when resetting the control point area after a job step has been terminated by a S-key.

2. Program LRI now resets MA correctly if CEJ is disabled.
3. Program LRI was altered to avoid releasing mass storage space if disk parity errors are encountered.
4. Error processing of APPEND commands in PFM was corrected.
5. Processing of DMP= in LRO was corrected to clear the K-display control word DBAW. Previously, DSD could wreck a DMP= program.
6. Program REC was corrected to make proper use of the DEQM monitor function when used to release an allocatable equipment.
7. Program PFM now sets the complete bit and error code prior to aborting the calling program if EP was not set in the FET.
8. Program SFM was altered to correctly handle track interlock rejects.
9. TELEX was altered to provide an informative message when a user attempts a REPLACE command with no primary file. Currently the message is PFILE ARGUMENT ERROR.
10. Program LTD was altered to correct EOS byte processing when the EOS byte is the last in word and pot.

PROPOSED CHANGES TO THE SYSTEM

Improve AMSM MTR Function - by D.W. Mears

The AMSM monitor function attempts to assign new files to the best equipment by selecting an equipment with at least one channel not reserved. This works fine for everything except 844's. The 844's have dual access and seek overlap. If an 844 unit has dual access and it is in use by one channel, MTR will assign new files to it because the other channel is available. With seek overlap, the channel is not reserved while the heads are being positioned. This will cause MTR to assign files to an equipment with a channel available but the unit reserved doing a position. My fix is to make MTR treat unit reserved the same as channel reserved. This is a simple change to MTR which should speed up rollouts on MERITSS.

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Use of PDP11 - by D.W. Mears

I would like to start moving users from the 6676 over to the PDP11. The single speed rotaries are now available. As a first step, I propose moving all the 10 cps ports to the PDP11.

SYSTEM MAINTENANCE: People and Procedures

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

The following proposals were rejected or accepted.

1. Marisa Riviere's proposal to alter the treatment of tape resident and XMIT-type CALLPRG files was accepted (see DSN 3, 19 p. 4).
2. T.W. Lanzatella's proposal to remove COMP3\$ and COMP3\$A from the system was accepted (see DSN 3, 19 p. 6).

3. T.W. Lanzatella's proposed enhancement to the HELP utility was accepted (see DSN 3, 19 p. 6). Along with this proposal, we decided that the CONTROL write-up on MERITSS should indicate which packages are available on MERITSS.
4. The new MODVAL commands, ON and OFF, proposed by Jeff Drummond, were accepted (see DSN 3, 19 p. 6).
5. Tim Salo's proposal to install a new account file message (see DSN 3, 19 p. 8) was accepted, but accounting objected to the prefix characters. A. Bramanis and T. Salo will mediate an agreement.
6. Jeff Drummond's proposal to change MAGNET so that it drops out automatically with no tape activity was accepted. We did insist, however, that this feature could be defeated if the operator desires.
8. Tim Hoffmann was not present so his proposals for CPMEM and ENQUIRE were not discussed.

Larry Liddiard was not present. The remainder of the meeting was spent discussing the potential impact of 1200 baud terminals on the system. This discussion led to the resolution that STIMULA should be beefed up to handle a simulated 1200 baud load.

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Callprg and Library Tape News - by M. Riviere

Besides the previously announced modifications the following changes took place on October 18:

James Mundstock removed a record containing a library duplicate entry (CIO=) from the MSUIO library or the Library Tape. This record was causing non-fatal loader error messages.

Kevin Fjelsted installed the past versions of IMSL, SIMPLX and EISPACK as 6400 files.

Tom Lanzatella moved PL1 and its library, PL1RLIB, to Callprg tape files. Tom added a no xmit parameter to both packages.

On October 20, Michael Frisch moved PERT66 from a Callprg tape to a disk file. PERT66 may be having a rather large usage during this quarter due to a class requirement. Michael also added a no xmit parameter in the PERT66 index entry.

Contrary to what was previously announced, Brian Hanson did not install the COPYMF package. The installation of COPYMF is not completely arranged and the package may need to be set up as a System package.

On November 1, Tim Hoffmann will be installing a new Callprg package, PERMITS. PERMITS will be replacing WHO and will be control card callable. At the same time the entry for WHO will be removed. PERMITS generates a list with information similar to the one provided by CATLIST for the L=P (PERMITS) option, but it does it for all the user's files at once. PERMITS will be installed on both computers and its documentation is available through WRITEUP. Tim will also be rotating versions of CATLSYS, making the future one current and the current one past. Tim will also be adding FL parameters in DTIME but these parameters are not going to be as effective as he attempts to make them (300 words) for the time being, since Callprg does not reduce below its minimum field length that is approximately 4000 words. I plan to modify Callprg soon for a better field length adjustment.

Also on November 1, Michael Frisch will be making modifications to the System libraries FORTRAN and MNFCLIB on the Library tape. Michael will be removing the records CHECK and RANBIN, correcting NORMAL and adding GNREAD. Michael will also be extending FORTRAN and MNFCLIB with all the routines that perform Fortran coded I/O now contained in the applications libraries SIMPLX, MEXPLOR, TEKLIB, ALMAP, BESPAC, FUNPACK, FPM and IMSL. This addition is increasing the size of the libraries by 44 records and approximately 2000 octal words.

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

Monday, 10 October through Sunday 23 October

Friday, 14 October

08:10 The system did not get through the SYSPROC run from the initial deadstart at 08:04. It seems that the 808 was not up. There had been a power failure during the maintenance time at 07:30.

10:13 PP hung. LTA was hung with an illegal monitor function, which usually indicates that LTA has discovered something it doesn't like. Unfortunately, no dump was taken.

Sunday, 16 October

16:06 A second level 0 was required because the first at 15:45 didn't work. The problem was with the drive for equipment 13; it would not become ready.

Tuesday, 18 October

15:55 (DD-2)
The system hung when CMS came up to check the disks. This is very suspicious, since we had just mounted a private pack which we wished to initialize. CMS had wrecked some of its direct cells internally, and this caused it to destroy some exchange packages in central memory; thus a level 0 was required. This has not yet been resolved, but KCM is still looking and hopeful.