UNIVERSITY OF MINNESOTA COMPUTER CENTER
Deadstart Systems Newsletter

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

The following changes will be installed on Tuesday 18 March.

Kevin Matthews contributed the following modifications.

1) The performance measurement code was altered to keep track of the number of times we run out of PPU's and to calculate the distribution of free PPU's. Code was also added to count the number of times a mass storage equipment is accessed. This was done by tapping into the CPUMTR function LDAM (logical to physical disk address conversion). This function is used whenever an I/O operation begins and whenever an I/O operation in progress switches to a new track.

2) A new function was added to CPUMTR. The function will be used by the new DSP and is used to perform assorted operations on the EFNT (the ECS resident file name table). The function has one subfunction (currently) which, given a user index, will return the number of input, rollout and output files on all mainframes.

3) CPUMLD, the CPUMTR preloader, was corrected to work in batch mode.

4) Time limit processing was changed throughout the system to treat the validated time limit as seconds rather than tens of seconds.

5) Kevin (along with Paul Thompson) contributed a new, simplified version of program PDUMP.

Operations recently reported that if a punch test is executed while a file is being plotted, then spacing on the plot is distorted. Don Mears discovered that this problem was caused by channel contention and altered the plotter driver to eliminate this problem.

Tim Hoffmann enhanced the E,P-display to include intensified LOWRATE and NOFRILLS lines. Tim also changed all references to LARGE JOB to NOFRILLS throughout the system.

Marisa Riviere repaired a long-standing error in CALLPRG which caused a statistical message to be placed in the account file for unfound packages. Marisa also added the final library reshuffling change to CALLPRG. Program CALLPRG will now abort when a Past or Future package is not found.

Jeff Drummond installed the following changes.

1) New versions of all the console games were installed with unspecified changes. Additionally, a new game-related program, HOG, was added. This program is used to restrain would be console hogs.

2) Field length management was added to KRONREF, LIBEDIT, LIBGEN, OPLEDIT and VFYLIB. Except for GTR, these are the last programs in the system which could not be used without having a RFL previously declared.

3) Programs BLOCKER and REBLOCK were altered so they could be run from a local file. These programs will soon be moved to Callprg.

4) An error in BLOCK/UNBLOCK was corrected which caused erroneous diagnostics.

5) Program COPYU was corrected to not unconditionally place a Q at the beginning of its destination files. This is an error stemming from the enhancements installed on the last system.

John Larsen installed a new common deck COMCEMP. The routine contains all of Larry Liddiard's mathematical functions developed for MNF.

Brad Blasing installed the following changes.

1) A well known problem in COMPASS is that it cannot handle more than 256 use blocks. We ran into this problem with DSD after we added its 65th overlay. Each overlay in DSD has four use blocks. Brad changed the COMMAND macro which is used by DSD to initiate a new overlay so that a literals block is not generated unless explicitly requested. Most DSD overlays do not require literals blocks so this change reduces the number of blocks by almost 60.

2) A system crashing bug in Brad's "schedule around-hung-control-point" feature was fixed.

Dean Nelson converted DMPCOR from NOS 1.2 to NOS 1.3.

PROPOSED CHANGES TO THE SYSTEM

S2K - by S. A. Reisman

I would like to place the S2K control statement processor on the system library. Currently, S2K and S2KIA are on Callprg. When first referenced, they appear as local files. This sometimes pushes users over their local file limit. Putting these routines on the system library will ease this situation and have two nice side effects. I can recombine the two routines into one with two entry points and I can remove a mod which fudges parameter cracking.

SYSTEM MAINTENANCE: People and Procedures

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

The following proposals were discussed and either accepted or rejected.

1) Dan Germann's proposal to install TXTPLOT as a control card callable package was accepted (see DSN 6,4 p. 33).

2) We all agreed that plot file usage should be a validated privilege but we could not agree on which bit in the access word to use. The bit will be CSUR, CBIO or a new, as yet unnamed, bit (see DSN 6,4 p. 33).

3) Kevin Matthews proposal to resurrect the KRONOS time limit formula was accepted (see DSN 6,4 p. 33).

4) Kevin's proposed treatment of the R parameter on removeable pack requests was accepted with an important added proviso. Jeff Drummond suggested that program EXPLIB be changed so that pack name specifications in the express library include the device type (like DI or DJ). Program RESEX will also be changed to look at the device type in the express library. The advantage of this change is that a proper device type will always appear in the E,P-display.

   Larry mentioned the burgeoning volume of staff permanent files. Everyone should try to be more frugal with disk space. Larry also showed graphs which illustrated a correlation between:
   a) high CPU utilization and low amounts of available memory and
   b) high TELEX usage and low numbers of available PP's.

   The following equipment delivery dates were mentioned.

   FMD disk - 7 March
   10 CLA's - 29 February
   ECS Chassis for 720 - 22 March
   FMD Controller - 20 June

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Callprg and Library Tape News - by M. Riviere

On March 10 Jeff Drummond modified the Cyber 172/74 Callprg index in order to introduce three FETCH type entries: CAL, BLOCKER, and REBLOCK. CAL is an electrostatic calendar generator program. Jeff will soon have a description about it on WRITEUP. The introduction of entries to make the currently control card callable package BLOCKER and REBLOCK available as FETCH types is an anticipation for the removal of these two packages as System products. In the near future, BLOCKER and REBLOCK will be only FETCH type and their level of maintenance will be lowered.

There are no modifications scheduled for March 18.

On March 23, the re-structuring of the UCC Libraries will take place. I will release new Library Tapes and Callprg indices for the three computers on that date. The modifications that will take place at that time will be supplied by Michael Frisch and they are described in his UCC Newsletter article and on the Writeup LIBSET.

The next set of Callprg index and Library Tape modifications will be taking place on April 1. Modifications for that date should be submitted before noon, March 27.

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Cyber 74/172 Deadstart Dump Analysis from Friday, 22 February through Thursday, 7 March

Friday, 22 February

01:41 Cyber 74
Lots of system jobs began failing, followed by a CPU monitor mode error. A level 3 deadstart failed. The memory check on a level 0 deadstart showed a memory error. The engineers were called and the problem corrected.

Tuesday, 4 March

12:50 (DD2023) Cyber 172
A CPUMTR error exit occured. A level 3 deadstart was required. Analysis showed that control point 13 had too much field length - it shared field length with one user job and with MAGNET. A recent mod to the storage move code in MTR was suspected. Brad Blasing has corrected the problem, we hope.

Wednesday, 5 March

12:02 Both Machines
ECS failed solidly. A level 0 deadstart was required on the MMF machines.

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Cyber 170-720 Deadstart Dump Analysis (2/55-3/10) - by R. A. Williams

Date	Description	Tape
800310	A PPU memory parity error in PP 1 seemed to occur at the same time the scopes went blank.	DD-5

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TELEX and TELEX PDP11 Crash Analysis (2/25-3/9) - by D. W. Mears

3/5	14:42	The link on the Cyber 172 failed to return a full after being functioned for a mode 0 read. TELEX automatically recovered from this error.