

UNIVERSITY OF MINNESOTA COMPUTER CENTER
Deadstart Systems Newsletter

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NOTICE OF CHANGES TO THE SYSTEM

NOS 1.2 Changes

Jeff Drummond repaired MAGNET termination processing so that a dump is routed properly to his bin.

Marisa Riviere changed CALLPRG so that when a tape copy job fails the dayfile for the job is saved.

Tom Lanzatella added some TWX code from CDC to LMT. The modset allows users whose labeled tapes were blanked on a system with a default family of binary zero to access their tapes on a system where the default family is not binary zero. Tapes with FA=A in the HDRL label (owner only access) cannot be accessed unless the user number and family of the job attempting to access the tape match the user number and family in the VOL1 label. The change was necessary at our site for two reasons: 1) All tapes which are blanked at our site have FA=A by default and 2) We recently changed our default family name from binary zero to UOFM in preparation for NOS 1.3.

Tim Hoffmann changed COPYC so that up to 150 ASCII characters per line can be handled. Tim also changed the format of the ACCN message issued by CHARGE so that it is a fixed format. This change was requested by the accounting group.

Don Mears repaired l10 so that the plotter is not turned off in the EST simply for being busy. Don also repaired an error message issued by the link test utility, LKT.

KRONOS Changes

Jeff Drummond contributed new versions of TRANSIT, TRN and COMSTRN which work in conjunction with password hashing.

Tim Hoffmann delivered a new version of ALTER which ensures that a queue file is assigned to a shared device when AROUTEing from the 6400 to the C172.

NOS 1.3 Changes

John Larsen added an entry point, Z, to the NOTE utility.

Tom Lanzatella installed the following changes.

- 1) Express tape processing in LMT was repaired to avoid garbled MOUNT messages in the E,P-display.
- 2) DISMOUNT processing in DSD was corrected so that channel 0 does not hang and the scopes blank after a DISMOUNT command is entered.
- 3) TWX code to LMT described above was installed.

Kevin Matthews installed the following changes.

- 1) RETAIN processing was altered to behave like the SAVE command in that the original file is left rewound and of the same type as before the RETAIN. A good explanation of this change is contained in WRITEUP(UPGRADE=COMMAND).
- 2) UOMSRU, the mod which defines the U of M SRU formula weights, was converted.
- 3) A temporary change was applied to PFM which clears the enhanced EOI bit in the system sector of all permanent files referenced by PFM. The change prevents error idle from being set when R4 permanent files are used under R3 and then reused under R4. This change will be removed after we have permanently changed to R4.
- 4) An initial version of a rotary validation check was added with modset ROTARY.
- 5) Program COST was converted to work at R4. Tim Hoffmann has a new version which will be installed with the next system.

Don Mears installed the following changes.

- 1) Modset DELAYQ which installs the delay queue was converted.
- 2) Decimal time limit processing in OVJ was reworked to retrieve some space.
- 3) TIME syntax in DSD resident was moved to make room for LOWRATE message.
- 4) QAP was repaired to not hang during lace card processing.
- 5) The END BATCHIO command should now work.
- 6) LIO was repaired to not turn off the plotter in the EST simply because it is busy.
- 7) LSB was altered so that BATCHIO can use the routine to generate banner pages.
- 8) Delay queue support was added to UQM.

- 9) Program ØDV was altered so that large EA bound files divert to BC and so that all plot and punch files divert to BC.

Tim Hoffmann installed the following changes.

- 1) ACCN messages issued by CHARGE were altered as above.
- 2) COPYC was altered as above.
- 3) Modset FUIFIX was converted. This change ensures that the MODVAL FUI command actually results in a reserved user index on the VALINDZ file.
- 4) Modset SUBMOD, which facilitates the MI option on the SUBMIT command, was converted.
- 5) An initial version of auto-divert of output files was introduced.

Marisa Riviere added code to CALLPRG which causes tape copy jobs to save their dayfiles if they fail.

Jeff Drummond contributed new version of TRANSIT, TRN and COMSTRN chiefly because the names of the TRN overlays conflicted with an overlay of ITO.

PROPOSED CHANGES TO THE SYSTEM

The GRAB Utility - by S. E. Collins

Now that the use of the UC parameter finally seems to be debugged, it is time to put it to some functional use. I propose a new CALLPRG entry: the GRAB control card. The parameters for the GRAB control card are similar to those of the ACQUIRE control card, with the addition of the UC parameter.

GRAB/UC=x,PN=x,PL=x,R=x,NA,WB,~~WD~~=..)

(CR)

GRAB will search the users permanent file catalog and ACQUIRE all files whose UC fields match the UC field specified.

SYSTEM MAINTENANCE: People and Procedures

CALLPRG and Library Tape News - M. Riviere

On July 7, the NOS 485 CALLPRG Index had the following modifications and additions:

T. Hoffmann changed the entries for DEBUG and CATLSYS in order to have the NOS 485 versions of those packages retrieved on the 485 level.

D. Germann replaced the PLOT31 entry on level 485, making the new version of PLOT31 available on the 485 level. Dan also removed the Past entry for PLOT31 on the new CALLPRG Index.

M. Dunham introduced the FETCH type procedure, REFROOM. REFROOM is a procedure to access the S2000 Reference Room Library Data Base. This modification was also implemented on the current index.

The NOS 485 Library Tape was modified with the replacement of TSF and MNF by reassembled versions provided by J. Mundstock. The major change in the new compilers was made in order to link them to the 477 version of COMPASS (current), instead of having them accessing the 485 System default level of the assembler. To complement this change, COMP5\$ and COMP5\$A, renamed COMPASS LEVEL 477 overlays provided by B. Blasing, were also included in the tape.

In addition, COMP4\$ and COMP4\$A, the old COMPASS overlays used by a past version of MNF, were placed on the 485 Library Tape. COMP4\$A and COMP4\$ are on the Dead Start tape in the current level.

There were no modifications implemented on the current Library Tape. The next set of CALLPRG and Library Tape modifications for the current System will be taking place on July 31. Modifications for that date should be submitted up to noon July 19. Modifications for the future System will keep being implemented as they are requested.

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Cyber Deadstart Dump Analysis from Monday, 25 June through Saturday, 7 July -
by K. C. Matthews

Tuesday, 26 June

14:30 Both Machines
A quick power failure blanked the scopes on all three machines. A recovery deadstart was possible on all machines.

14:45(DD35) Cyber 172
The 172 hung with errors on permanent file device DN61. Analysis of the pack showed two track chains which terminated in an unreserved track. The cause of the problem was probably the level 3 recovery, but it is hard to determine how the error actually occurred.

Wednesday, 27 June

09:50(DD-12) Cyber 74
The display console stopped displaying. A copy of DIS had been up. Probably a channel hung in some way, and DIS was waiting for a storage move.

19:24 Cyber 172
Disk drive ØKL went bad, giving numerous errors. This drive had recently been moved. A level Ø deadstart was required, with the pack from ØKL moved to the UCC drive. The pack recovered with no errors.

Saturday, 30 June

11:45(DD-13) Cyber 74
Channel 7 (the plotter) was hung and could not be disconnected. A level 3 deadstart was required.

Friday, 6 July

09:18 Cyber 74
Errors occurred on disk drive LCD, hanging the system. The drive was adjusted and a level 3 deadstart performed.

11:18(DD-16) Cyber 74
PP31 was broken, causing a PP HUNG message. Tests revealed PP31 was bad. The CDC engineers repaired the problem and a level Ø deadstart was performed.

12:08

Cyber 74

Tape Channel 33 had been hanging. A copy of DIS was brought up, and when the next channel hang occurred, DIS hung waiting to storage move. A level 3 recovery was required.

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TELEX and TELEX PDP11 Crash Analysis (6/25 - 7/9) - by D. W. Mears

6/28 11:14 Channel 4 on the Cyber 74 (the TELEX PDP11 channel) hung empty due to a link malfunction. Everything was O.K. after the operators did a disconnect on the channel and turned the equipment back on in the EST.

6/29 09:40 Channel 4 hung empty again. The operators got things running again the same as on 6/28. (The operators are getting good at this.)

After many hours of running the link test failed to find any problem with this link (The test did find an instance of data being corrupted by the TELEX link on the Cyber 172, but this also is unreproducible.). I have changed TELEX and LTD to give a better indication of what was going on at the time of the hang and field engineering continues to investigate the problem.

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Plotter PDP11 Crash Analysis (6/25 - 7/8) - by D. W. Mears

There were many crashes caused by a problem with the plotter link from 6/26 to 7/1. Each time field engineering was called in, the link would fix itself before the actual source of the problem was isolated. On 7/2 a backup link was swapped in. Although the link test indicates that this link corrupts data being read from the PDP11, no link related crashes have occurred since the links were swapped.

The plotter PDP11 had to be reloaded several times after it ran out of paper.