

UNIVERSITY OF MINNESOTA COMPUTER CENTER
Deadstart Systems Newsletter

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NOTICE OF CHANGES TO THE SYSTEM

No changes were applied to the NOS 1.2 or to the KRONOS operating systems this week.

NOS 1.3 Changes

Tom Lanzatella contributed the following changes.

- 1) AUTOUNLOAD processing in DSD was corrected so that the proper bit position in SSTL is referenced when enabling or disabling the function.
- 2) The E,P display was corrected to properly reflect which DSD functions are disabled.
- 3) A PSR mod from CDC was added to 026 which repairs record processing commands when the record name has an odd number of characters. Modset 026U1 was adjusted to avoid a clash in the mod scheme.

Kevin Matthews installed the following changes.

- 1) Modset CHECKSY was corrected so that online initialization works in MSM.
- 2) Modset LFMSH was corrected so that the command ASSIGN,SH,file works when the shared device is at a track limit.
- 3) Modset DISSJ1 was converted to R4. This mod corrects MODVAL so that users cannot use the program to exceed PRU limits or to read execute-only files.
- 4) Modset PFKIDG was converted from R3 and renamed NOIDLE. This mod prevents the PF utilities from setting error idle status on a permanent file device.
- 5) Program LDS was corrected to check the ECS resident FNT entry when purging a queue file.
- 6) The local implementation of user ECS was corrected so that maximum ECS FL is

properly represented.

- 7) The symbol MASS was removed from the systems sector. The function of this byte is now performed by QFSS which was added by CDC at R4.
- 8) The DSD MSAL command processing was corrected in modset NOSB3.
- 9) The modset DISSJ was corrected so that the SSJ drop file ID is now the user file protected ID. User file protection is a CDC feature similar to the local drop file feature which was added at R4.

Don Mears corrected plot file processing so that a trailing banner is appended to the plot. Don also repaired several BATCHIO accounting messages.

Tim Hoffmann reinstalled modsets BRIEF and EBRIEF with unspecified changes.

Hesung Byun, although no longer in our employ, generously finished converting all of the mods which were originally assigned to him. His final contributions are the modsets MAINT (automatic maintenance job scheduling), ECMS (adds DDF command to DIS) and RSBBIT (allow RSB calls to users with CSTP). Hesung also delivered all of the MPL decks associated with the MAINTENANCE subsystem.

Marisa Riviere altered CALLPRG so that 9-track is the default track type for tape resident CALLPRG packages.

Jeff Drummond converted the mods COPT (add coded tape processing ability to several utilities) and PURGEM (purge rolled or running job with message). Jeff also provided MPL decks LDU, LEM, LMD, TRANSIT, TRN and COMSTRN.

Brad Blasing added GOFO, the mod which installs the KCL GOFO command.

SYSTEM MAINTENANCE: People and Procedures

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

The following proposals were discussed.

- 1) John Strait's extensive proposal dealing with a general utility to handle ASCII/EBCDIC 9-track tapes was well received and accepted in principle. (See DSN 5,11 pp 93-97.) The open questions posed at the end of the proposal were decided as follows.
 - a) The name of the utility will be COPYCH - for copy character data.
 - b) The N parameter will refer to the number of files to copy, ignoring record marks.
 - c) A control card option will be provided which indicates whether or not padded blocks will be treated as errors.
 - d) IBM naming conventions will be used in referring to tape formats.
 - e) HDR2 label processing will not be included in the first version of COPYCH but will be considered an important future enhancement.
 - f) 7-track tapes will not be supported.
 - g) A positionally dependent parameter structure will be provided.

In addition to the above, several other features were suggested.

- a) A line count (LC) parameter was approved.
- b) A verify option should be considered in the future although this will be hard.
- c) A "preserve parity" option should be considered in the future.

- 2) Jeff Drummond's BLOCK and UNBLOCK proposal was approved (see DSN 5,11 p 99). The following changes were stipulated.
 - a) We were confused about the term block size. We decided that the term should be buffer size or buffer length and that the parameter should be changed to BL.
 - b) The parameters B1 and B2 were not well received and we thought they ought to be different. In fact we suggested B1 and B0. After the meeting however, Jeff found a precedent in COPY where parameters of this type are used, so this is still an open question.
 - c) The R parameter will be changed to LC meaning line count.
 - d) The RL parameter will be changed to LL meaning line limit.
- 3) Steve Collins' proposed changes to XEDIT were approved. We requested that window processing be extended to the PRINT command.
- 4) Tim Hoffmann's restatement of his RELOAD proposal was accepted (see DSN 5,11 p 98).

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Callprg and Library Tape News - by M. Riviere

On June 20 the BASIC compiler used on both Cybers (level 460) and the CDC 6400 was replaced by the version used up until June 14. Some problems with the current compiler caused the replacement.

On June 14 an entry for M77 (Fetch type) was added on the CDC 6400 Callprg index.

Also on June 14 the NOS485 Library Tape was updated with a new NOS485 version of PASCAL and its library provided by John Strait and with several products provided by Steve Reisman. Steve's additional or replaced products can be divided into three groups:

- 1) The ones common to both Cybers (AAMLID, BAMLIB, BIT8LIB, CRMEP, IOTEXT, TXTCRM, and the BAM section of SYSLIB). Record CTL\$RM on the BAM section of SYSLIB was modified in order to be compatible for both computers. CTL\$RM was the only difference on SYSLIB caused by the selection/no selection of the CMU feature.
- 2) The ones that are available in both machines, although there are or may be differences due to their machine dependent characteristics (SORTMRG, SMTEXT, COPYCL, COBERTX, COBOL, CB4LIB, COMOL5, CB5TEXT, CB5LIB).
- 3) The ones that are available only on the Cyber 172 (DDL3, Query Update and DMSLIB).

A new NOS485 Library Tape will be released next weekend. The only modification on this tape so far is a new version of the Permanent File routines for the FORTRAN Library, that I provided.

The Callprg index now in usage on NOS485 is different from the one on the 460 level. (Please refer to last DSN Callprg article for information about the future Callprg index). The future index already reflects the Callprg Tape Library change from 7-track to 9-track.

The next set of modifications for NOS460 library tape and Callprg index will take place on July 17. Modifications for that date should be submitted by noon on July 5. Modifications for the NOS485 level will be implemented as they are requested.

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Cyber Deadstart Dump Analysis (Monday, 11 June through Sunday, 24 June) - K. C. Matthews

Friday, 15 June

09:52 (DD-3)

Cyber 172

The scopes blanked while 026 was up at a control point. At the same time, some engineers were looking at the 172 (but not doing anything to it). A quick analysis of the dump showed nothing wrong.

Friday, 22 June

09:40 (DD-11)

Cyber 74

Disk parity error on DN73 hung 1TA at the TELEX control point. A level 3 recovery was required. There have been several errors on DN73 recently. Most are not hard errors - that is, they will go away if the disk sector is rewritten.

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TELEX and TELEX PDP-11 Crash Analysis - by D. W. Mears

6/11 16:00 Channel 4 on the Cyber 74 (the TELEX PDP-11 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.

6/12 13:20 Channel 4 on the Cyber 74 hung empty again. This time the PDP-11 was reloaded although the reload was probably not necessary.

These channel hangs occur approximately once a month (we had 2 this month to make up for the lack of any in May). On 6/14 we attempted to swap the plotter link with the Cyber 74 TELEX link on the assumption that if the TELEX link failed in the plotter we would get BATCHIO's better diagnostics and the failure would not be noticeable to the users.

When we tried to swap links we discovered that the plotter link is not compatible with the Cyber 172 TELEX link. The link test runs fine on both links independently, but when the test is run concurrently on both links, data is corrupted. Because of this problem, we had to swap links back. We can expect another TELEX channel hang on the Cyber 74 in July.

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Plotter and Plotter PDP-11 Crash Analysis - by D. W. Mears

There were 3 plotter crashes caused by junk plot files. There were 2 plotter crashes which appear to have been caused by link malfunctions. On 6/18 the link started corrupting data, but the problem cleared up before Field Engineering was notified. On 6/20 there was a solid link error which was repaired by Field Engineering.