

UNIVERSITY OF MINNESOTA COMPUTER CENTER
Deadstart Systems Newsletter

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NOTICE OF CHANGES TO THE SYSTEM

NOS Changes

The following changes become effective on Thursday, 9 November.

Most notable among this week's changes is the final installment of the common queue mechanism contributed by K. C. Matthews. Though the feature may not be enabled on Thursday, soon thereafter the NOS jobcard will allow a MIxx parameter where xx is either 72 or 74. This seemingly simple jobcard option is represented (in the editors estimation) by about 10,000 lines of code. Many of the JPL modsets and MPL decks making up this code changed with this final installment. A customary elucidating explanation of these changes eludes even this document. Those with questions should see this week's code review listing or, best of all, K. C. Matthews.

Kevin also changed the formula in COMPCVI used to convert the field length validation index to actual field length. The formula used for this conversion is:

$$FL/100 = INDEX*40B + KCMI.$$

under KRONOS, KCMI equals 10B; under NOS, KCMI was accidentally left at 37B. This change restores the KRONOS value of KCMI and has the effect of reducing all users' maximum validated field length to the values published in user documentation. Unfortunately, some users have undoubtedly begun using the additional field length. Help Line personnel and consultants take note.

Tom Lanzatella changed the validation required to execute the command:

```
PASSWOR,NEWPW/UN=...
```

from CSTF (staff) to CMUC (master user). The CSTF requirement is thought to be an error arising during NOS conversion.

Don Mears installed the following changes.

- 1) Several cosmetic changes were made to the queue utility report.
- 2) Don added a kludge (sic) to LTD which corrects treatment of broken 2550 ports.
- 3) Don repaired a disk wrecking bug in QFM where if garbage were accidentally dumped into the FNT, QFM would try to process the garbage, dropping random tracks on random equipments.
- 4) Program TELEX now ROUTE's its dumps after aborting (instead of LFM release).
- 5) Don installed the SWITCH command (operations note).
- 6) The X parameter was removed from the SNOBOL command issued by TELEX (ABM take note).
- 7) Program LCD was changed to not reprint lines containing print errors by default.

Jeff Drummond contributed new versions of COMPCMO, TRANSIT, TRN and COMSTRN. Most importantly, TRN will no longer fill the FNT with intermachine submit files. Program TRANSIT was altered to function better when one machine is down.

Marisa Riviere installed a useful change to RFM which can now be used to flag unused CALLPRG and WRITEUP files. Marisa also installed her proposed change to CALLPRG which will now search a random index (see DSN 4, 20 p. 166).

Tim Salo contributed unspecified changes to LHS, LSB and SUPIO.

KRONOS Changes

The following changes become effective on Thursday, 9 November.

Changes to program LDC to accommodate future BASIC were finally added to JPL after running a binary of the program for more than a year.

A similar though not as astounding milestone was reached with program MODVAL on the 6400 which has also been on the kludge file for almost two months. Corrections were made to modsets TLXFL and DEFALT.

Jeff Drummond installed changes to COMPCMO, TRANSIT, TRN and COMSTRN identical to those described above.

Bill Sackett contributed a new version of NORM.

PROPOSED CHANGES TO THE SYSTEM

Library Subtype Parameter - by S. E. Collins

When my subtype proposal was discussed (DSN 4, 17), the parameter for RETAIN, SAVE, DEFINE and CHANGE was changed to *UC*. While UC (User Control Word) may be meaningful to systems programmers, it is meaningless to the average user. Furthermore, this parameter uses only a part of the UCW. The ASCII and subsystem also use parts of the UCW.

I propose that the parameter to set the library subtype be *LS*.

//////////

Limits - by T. J. Hoffmann

To aid Mater Users, primarily the Help Line, I would like to add a UN parameter to the LIMITS statement. This ability would be allowed only from *CMUC* users, with standard matching of subordinate numbers using matching *'s.

//////////

RWF Again - by T. J. Hoffmann

I propose to add a package containing the entry points: RWF, REWIND, R. This is prompted by the following:

- 1) The R/REWIND entry points caused FILES to be loaded 47,000 times in the last month. This makes FILES the 4th or 5th most called package in the system. ACCFAM is first with 73,000 calls. FILES is currently 1016B words.
- 2) We have neither source nor documentation for RWF.
- 3) The three entry points can be combined into a package of 300B words. Considerably smaller than FILES. Also, FILES can be shortened to 1000B.
- 4) Even though RWF is not presently used by many, it probably would set a high usage if it could be documented for both staff and users.

I would like to add this to both NOS and KRONOS. While the 6400 does not have such a high usage of rewind operations, adding this would allow us to be compatible with MECC since they have an RWF facility.

SYSTEM MAINTENANCE: People and Procedures

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

- 1) The following proposals were rejected or accepted.
 - a) Marisa Riviere's proposal to add a directory to the CALLPRG index was accepted (see DSN 4, 20 p. 166).
 - b) Larry Ozga's proposal to enforce a SRU limit for batch jobs (albeit an infinite limit) was accepted (see DSN 4, 20 p. 168).
 - c) Jeff Drummond's proposal to install the utility SEND64 was accepted but with some stipulated changes which we hope will end the three year old snafu surrounding XMIT/SEND. Instead of installing a new command SEND64, the ASEND entry/point in ALTER will be changed to SEND and a TY parameter will be added. The default MID on the SEND command will be changed to 64 if the command is entered on the CYBERS or 74 if the command is entered on the 6400. The destination MID will also be included in the dayfile. Tim Hoffmann has agreed to perform the work on ALTER while Jeff will work on the PP code (see DSN 4, 20 p. 168).

- d) Tim Hoffmann's proposal to add a new option NC to the COPY command (NC - number of copies) was approved. We stipulated that the option should be added to the COPYEI command also (see DSN 4, 20 p. 169).
2. Mary Boyd spoke briefly on the goals of the documentation group. Mary would like all staff members (so inclined) to take a stab at answering the questions posed in her memo (sent to all staff) dated 78/10/12.
3. Kevin Matthews reviewed the capabilities of the shared queue file mechanism which is scheduled for installation on 9 November.

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Callprg and Library Tape News - by M. Riviere

The previously announced introduction of SPSS on the Library Tape was postponed for another time. There is a conflict with SPSS overlay loading that forces it to remain as a Callprg file for the time being.

On November 14 I will resequence the 6400 Callprg index program library (Fetch, CPOPL64). This resequencing is necessary in order to remove sections of the library containing the old Cyber 74 index.

For the time being, there are no other modifications requested for November 21.

I will be implementing modifications to Callprg and the Library Tape on November 21 and 28. The deadline for November 28 is noon, November 17.

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Steve's Reply - by Steve Reisman

I feel the point of my argument about MNF was lost. I mentioned MNF in my article because Andy Mickel used MNF's incompatibility with the FORTRAN common library at level 472 as a reason for staying at level 460. If I stepped on any MNF toes, then I apologize. As a debugging compiler I think MNF is great.

The current level of COBOL 5 (level 460) has a very poorly implemented code generator. This has been completely rewritten at level 472. This will speed the compiler up. Remember, first cuts of products should not be taken as final. Like MNF, COBOL 5 needs to evolve. As time passes, bugs are caught and improvements are made. Look at where MNF started from.

Finally, I'm not saying Record Manager should replace MSUIO. Each package has a place. For users who don't need the full capability of Record Manager, MSUIO should be used. Record Manager is for the user who needs powerful data structures, an interactive data storage and retrieval system (Query Update), access to data tapes written at other installations, or other applications requiring I/O processing beyond the abilities of the host language.

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Cyber 74/172 Deadstart Dump Analysis from Monday, 24 October through Thursday, 2 November - by K. C. Matthews

Thursday, 26 October

10:32(DD-25) Cyber 74
Export hung. The PP would not drop. A level three deadstart was required.

Tuesday, 31 October

23:20 Cyber 172
The 172 was deadstarted without queue recovery to keep two delay queue jobs from running during end-of-month accounting.

23:58 Cyber 74
Same as above on the 172.

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6400 Deadstart Dump Analysis (10/23 - 11/5) - by R. A. Williams

| <u>Date</u> | <u>Description</u> | <u>Tape</u> |
|-------------|--|-------------|
| 781101 | The system hung following a track limit situation on a rollout device that RPV failed to deal with, hanging on ABTM. After clearing the output register, CIO hung on DTKM. | DDT-2 |