UNIVERSITY OF MINNESOTA COMPUTER CENTER
Deadstart Systems Newsletter

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NOTICE OF CHANGES TO THE SYSTEM

Don Mears installed additional corrective code into 1TD to deal with a problem
where input characters are sometimes lost during carriage return processing.
Don also repaired a system crashing error in QFM processing of the MQNC
account file message. The problem was that QFM was issuing the message
while a channel was reserved.

Tim Hoffmann altered the call to M77 used by the M77TS subsystem by removing
the CC option (see DSN 6,8 p. 59).

Brad Blasing repaired (yet) another bug in his schedule-around-hung-control-
point feature. The problem was that 1SJ/MTR were not storage-moving the last
control point properly.

Dean Nelson repaired a long-standing error in LISTVAL which occurred when
the LISTVAL report was sorted by user index. User indices with leading
blanks were not treated correctly. Dean also made several changes to LPT,
the line printer test. More tests which check the integrity of upper/lower
case were added and one test which is no longer relevant to the hardware
was removed.

Paul Thompson added a handy option to UNBUSY, the utility used to unbusy direct
access permanent files left busy after a system crash. The new option allows
the user index to be specified (with the UI parameter) instead of the user

number. Paul also repaired an error in UFM which was not determining the default family equipment number correctly.

Andy Hastings corrected EXPLIB so that when a tape is tested, the tape library data base is updated to indicate that the tape is unlabled and without format, conversion mode or density.

PROPOSED CHANGES TO THE SYSTEM

Help for MNF and M77 Users Revisited - by L. A. Liddiard

In our last discussion a change to M77,T=ARRAYS was voted down for the following reasons:

1) M77 should automatically do checking - no need for a T= anything.
2) FTN should be OPT=2, yet isn't.
3) Batch and Timesharing should be the same.

This proposal suggests that reasons 1 and 2 can be accomodated, but that Batch version of MNF and M77 are not currently the same, are not going to be the same and this proposal continues in that GRAND TRADITION!

Proposal: that time sharing versions of MNF and M77 automatically select what is called T=E in M77 i.e.,:

A) Check array subscripts
B) Check do loops
C) Check formats
D) Check GO TO's

and if you do not wish this then RUN,-T will cause those options to disappear. In addition to satisfy those that suggest OPT=2 default, we propose that this be done on both FTN and FTN5.

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CATALOG Option to List 7700 Table - by Mike Frisch

CDC recently changed the macro that is used by CATALOG and several other utilities when the 7700 loader prefix table information is to be listed. They deleted some of the first seven words of information which include the compiler name, date, and time of compilation. This information is very valuable in some cases.

I propose that an option be added to CATALOG to print the full first seven words of the 7700 table, and the first few words of the following comments if the output is going to a non-Telex file.

CALLPRG Access of a User's Permanent File Named CALLPRG — by Mike Frisch

One of CALLPRG's features is that if a local file named CALLPRG exists, it is searched for the desired program name rather than searching the UCC CALLPRG file. This allows users to have their own index of programs. All they have to do is make their file local before attempting to access their program.

The search order is then:
→ search through the SYSTEM file
→ and then search through the user's local file CALLPRG — or the UCC file CALLPRG if there is no local one.

I propose to add something to the end of the search list: search for a CT=PU or CT=S indirect access permanent file named CALLPRG on PN=0 under the user's account number. If the file is not a correct CALLPRG file, output the message "program name — NOT FOUND" rather than flag the bad file. (This protects the user who has a permanent file named CALLPRG which isn't a proper CALLPRG index.)

There is no hurry to install this feature since no user has yet requested it. We would advertise it in the newsletter if it is implemented.

The main advantage of the proposal is that if the program name is unique (i.e. not in the UCC CALLPRG index or on file SYSTEM), then the user who has a permanent file named CALLPRG can access programs indexed on it without doing a GET(CALLPRG) first.

SYSTEM MAINTENANCE: People and Procedures

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

The following proposals were discussed and accepted or rejected.

1) Tim Hoffmann's proposal to change 1AJ to determine when a control statement is illegal due to a missing terminator was narrowly defeated (see DSN 6,8 p. 59). Most people liked the idea of a message identifying such errors and thought that someday the ability should be installed. We also felt, however, that a piecemeal approach to any usability enhancements was not desirable and that a more general solution ought to be sought One adventurous proposition was that we write a very general CP utility to analyze all error messages in order to at least head the user in the right direction.

2) Tim Hoffmann's proposal to change the M77 call made by the M77TS sub-system was defeated (see DSN 6,8 p. 59). See L. A. Liddiards proposal dealing with this topic in this newsletter.

3) Mike Frisch's proposal to make NODROP not create a local file when one attempts to NODROP a nonexistent file was accepted (see DSN 6,8 p. 59).

4) Mike Frisch's proposal to add comments to permanent files was accepted in principles but judged extremely difficult to install. We will have to wait at least until the 16-word PFC has been installed (see DSN 6,8 p. 59).

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Callprg and Library Tape News - by M. Riviere

On April 28, the Cyber 74/172 Callprg index was modified in order to delete an old GPM entry that was forgotten during the library reshuffling and to toggle versions of ARCHIVE. The GPM entry was removed at the request of M. Frisch and the ARCHIVE entries were modified by Y. Murray.

On May 1, however, problems with the future version of ARCHIVE caused the entry to be removed and that version of the package is now offered as a fetch type package.

Also on April 28, on the Cyber 720 Callprg index, a control card callable entry for UMTIMER was added by M. Frisch. UMTIMER was not available, however, until April 30. There were problems with the file and the index entry.

On May 13, S. Yen will toggle versions of SPSS. Version 8.0, offered currently as FUTURE,SPSS will become the current version while the current version becomes past. The change is taking place with prior notice to users since future and current versions are quite different.

Also, on May 13, I plan to set a Callprg index entry for FTN5 and its library, FTN5LIB. The entry will be, for the time being, fetch type since the compiler, which is level 509, does not link properly with our current Compass (Level485) and its binaries may not work with the current record Manager Libraries. The compiler will be available, in any case, for testing with some simple fortran decks. Once the installation stage is over, I will place FTN5 on the Library Tape or make it control card callable. FNT5 will be available on the Cyber 74 and Cyber 172.

The next set of callprg indices and library tape modifications will be taking place on May 27. Modifications for that date should be submitted by May 15 before noon.

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ERRATA - by T. W. Lanzatella

In the last DSN (6,8 p. 60) I presented a recap of the Systems Group proceedings
from 16 April 1980. In that article I made reference to UCC's withdrawal
from research activities. This statement was false. Here is a statement
of correction from L. A. Liddiard.

The sentence "This change signals a withdrawal of UCC from research activities"
is not the correct interpretation of what I said. In general it is true
that research will be done in the micro electronics research center, but
UCC is still authorized to obtain research grants from outside the University
- such as we've obtained from CDC to do various projects. In addition UCC
still has a charter for implementation of new and other improvements to the
system.

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Cyber 74/172 Deadstart Dump Analysis from Wednesday, 16 April to Thursday,
1 May - by K. C. Matthews

Saturday, 19 April
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08:10   Cyber 74
A solid CPU failure occurred on the Cyber 74. A level 0 attempt failed
after the problem was fixed because a table was bad in ECS. Both the 172
and the 74 were deadstarted when the 74 was repaired to get around this
problem.

Monday, 21 April
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23:07 (DD2020)   Cyber 74
The system hung up for unknown problems. Analysis showed that QFM, in processing
the delay queue, was issuing a dayfile message with a disk channel reserved.
This can cause the observed problem occasionally. The problem was fixed
several days later.

Tuesday, 22 April
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23:04 (DD2011)   Cyber 74
The same problem occurred as on 21 April.

Thursday, 24 April
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10:29 (DD2017)   Cyber 74
The system seemed to grind to a halt with no obvious indications as to the
problem. Dump analysis showed that EQ17, a dual access disk, was reserved.
After the previous access the hardware reservation must not have been dropped.
I have been unable to find a mechanism by which this might have happened.

12:42 (DD2020)   Cyber 172
1RI hung because the tracks for a rollout file were not reserved. Don Mears
traced this back to an erroneous scheduling of the job by TELEX.

Thursday, 1 May

09:31 (DD2021)   Cyber 74
The console darkened when a DIS was dropped from a job. I think this can
happen (rarely) if two copies of DIS are brought to the same control point.
When the last one drops, it can think it has to display equipment and hangs
trying to drop it.

20:30 (DD2022)   Cyber 74
CIO hung at the BATCHIO control point while trying to process a queue file.
This crack is still being examined.

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TELEX and TELEX PDP11 Dump Analysis (4/7 to 5/4) - by D. W. Mears

The 2551 power supply which broke on 4/6 was replaced during the day on
4/7 and all the 2551 ports were back in service Tuesday morning 4/8.

4/9   16:35,   1649 1TD on the Cyber 172 hung on the 2551 channel twice.
                The 2551 had to be reloaded both times.

4/18   13:50   The TELEX link on the 172 failed to return a full when 1TD
                requested a mode 1 read. 1TD recovered from the error.

4/21   14:55   Same as 4/18 problem.

4/22   16:13   Same as 4/18 problem.

4/22   19:46   1TD on the Cyber 172 hung repeatedly on the 2551 channel.
                The 2551 had to be reloaded each time. The problem was re-
                paired by 23:25 by swapping power supplies between the 2551
                and its expansion cabinet.

4/22   20:00   TELEX on the Cyber 74 was stopped and the PDP11 was reloaded
                in an effort to get TELEX working on the 172. This did not
                help since nothing was wrong with the PDP11.

4/24   11:51   Same as 4/18 problem.