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NOTICE OF CHANGES TO THE SYSTEM

Kevin Matthews repaired a critical error in 885-disk error recovery. The
problem was that the error recovery overlay, 7WI, was not CM resident as
all disk error overlays must be. Kevin also repaired an error in recovery
of EFNT by QFM.

Don Mears enhanced the performance measurement facility to include a measure
of timesharing response time. This elusive measure is taken to be the
amount of time between when a user enters a carriage return and the request
reaches a control point.

Marisa Riviere repaired a nagging problem in MFEBR wherein occasionally
the 64th line on a frame would be overwritten with a 65th line. Marisa
also fixed CALLPRG so that type resident writeups are retrieved properly
(in most cases).

Jeff Drummond, still busy with PSR 509 corrective code, contributed the
following modsets.

CPM8$ – Eliminate the I/O SEQUENCE ERROR from CPM.

CPM9$ – Rearrange code to prevent overlapping common blocks.

CPM10$ – Add a CPM function to set the intensification bit for line 2
          B-display (blinky bit). This is used by the R5 version of MALET.

CPM11$ – Repair processing of illegal PACKNAM request.

DIS8$ – Set AUTO-ENTRY status for BEGIN statement.

DSD1$ – Disallow control point commands on empty control points.

DSP10$ – Repair an error which occurs when attempting to ROUTE an empty file.

LFM11$ – Repair an error in the ENCSF function.

PFU4$ – Prevent the creation of a bad FST entry.

PFU5$ – Prevent the premature termination of file dump.

RPV1A$ – Repair a coding error in modset RPV1$.

RPV2$ – Recall cpu before altering RA+1.

RPV3$ – Allow RPV parameter block to end at FL-1.

SFP3$ – Process NE tape equipment properly.

1AJ11$ – Validate FET address for buffer flush.

1AJ14$ – Correct a possible hang situation.

1MB1$ – Eliminate double Status/Control Register lines in the error log on a C172.

1MT15$ – Correct unused bit count for L-format tapes.

1MT16$ – Correct a possible 1MT/1LT hang.

1MT17$ – Fix equivalenced VSN problems.

In addition to the above, Jeff also changed BLOCK to improve efficiency with regards to ignoring EOR's on internal files. Jeff also updated BLOCK documentation.

Brad Blasing corrected an error in STL which caused an improper image of CPUMTR to be loaded if the copy happens to be an integral number of tape PRU's.

Paul Thompson changed the way buffer allocation is performed in CONTROL and COPYB in order to shrink the size of the binary image. This saves precious ECS space since these routines are stored there. Paul also installed the following changes to COPYCAT, the program used (partially) to calculate permanent file changes.

1) An N option was added. This option causes the device number to be listed on the COPYCAT report if the device is a member of the default family.

2) The COPYCAT report will now indicate the entire subsystem name (BASIC, M77TS, etc.).

3) Calculation of access, creation and last modification date was generalized.

PROPOSED CHANGES TO THE SYSTEM

Syntax vs. Semantics - by T. J. Hoffmann

As any experienced user knows, the character string "ILLEGAL CONTROL CARD." is often pronounced "U 4-got a . or a) at the end."

I propose to modify 1AJ to issue the message "NO . OR) AT END OF STATEMENT." when that is indeed the error.

/////////

Help for M77 Users - by T. J. Hoffmann

I would like to recommend that the M77 control statement generated for RUN/RNH be changed from M77,CC... to M77,T=ARRAYS...

Since the majority of people who use the M77TS subsystem are students, this change would be beneficial. It is true that many are being told to use "RUN,T", but many don't, plus this command produces various statistical tables that confuse students. The T=ARRAYS only produces output if there are errors.

/////////

Fix NODROP of Nonexistent File - by Mike Frisch

I propose that when a user tries to NODROP a non-existent file, NODROP should issue an error message such as FILE DOES NOT EXIST - NODROP IGNORED. It should not create an empty file as it does now. This causes problems with the user library TEKLIB which our documentation says to FETCH and to NODROP. Earlier, FETCH,TEKLIB created a local file but now it doesn't. NODROP creates an empty file which the loader tries to use instead of the system library file. This causes programs to fail in strange ways, thus showing the need for my proposal.

/////////

Comment Capability for Permanent Files - by Mike Frisch

John Strait's ARCHIVE utility program has a very useful feature. Comments can be given for each file on the archive tape. This makes it much easier to keep track of what is in each file.

I propose that permanent files be given that same capability. The changes needed, from the user's viewpoint, are to add a comment parameter to the SAVE, DEFINE, RETAIN and CHANGE control statements - perhaps, C=$comments$ and to add capabilities to CATLIST and CATLSYS to list the comments for each file.

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This can probably be done when we change to a 16 word permanent file catalog entry later this year.

SYSTEM MAINTENANCE: People and Procedures

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

Thanks to Bob Williams for standing in for me during my absence at last week's meeting.

The following proposals were discussed.

1) Tom Lanzatella's proposal to eliminate the GETVSN macro was rejected (see DSN 6,7 p. 52). Jeff Drummond recalled that at least one user is using the macro and this is sufficient reason to continue supporting the feature. The alternative suggestion to remove the feature to a FILINFO option was also nixed as violating a long standing practice of keeping U of M features discreet from CDC features.

2) Greg Jenson's proposal to append additional information to the ABSY and ARSY account file message was approved (see DSN 6,7 p. 52).

A discussion of the imminent purchase of a 11-inch Versatek plotter ensued.

1) Don Mears remarked that installing the Versetek would provide a welcome opportunity to rewrite the plotter driver. He indicated that the Versetek plot file queue would be called HL.

2) Larry indicated that he preferred the Versetek because it can handle a large volume of business.

3) Some individuals inquired about a color plotter. Larry's opinion is that color is too slow and too costly at this time.

4) Larry remarked that he would like to see some kind of plotting ability with the Printronics printer used in our new RJE Terminals.

Larry announced that the SICL lab at Space Science is being disolved to make way for the new micro electronics research center. This change signals a withdrawal of UCC from research activities. Bill Wells will be joining the systems group under Arnie Nelson on 1 July.

/////////

Callprg and Library Tape News - by M. Riviere

On April 16, the Cyber 720 Callprg index was modified at the request of Michael Frisch in order to include an entry for the control card callable package MPOS. The MPOS package is a multi purpose optimization system and was available until now only on the Cyber 172/74.

There are no modifications requested for April 29.

The next set of Callprg and Library Tape modifications will be taking place on May 13. Modifications for that date should be submitted up to May 2 by noon.

////////////

CDC Presents the LCN - by L. A. Liddiard

On Thursday, 8 May at 9:00 AM, Control Data representatives will deliver a 1 hour talk on the Loosly Coupled Network facility. A half hour following the talk will be reserved for questions. This time slot corresponds with a usual systems group meeting.

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Cyber Deadstart Dump Analysis from Friday, 4 April through 15 April
- by K. C. Matthews

Friday, 4 April
_____

12:19 (DD2006)   Cyber 74
The system hung for reasons that were not obvious. Analysis of the dump (and a previous one) revealed a problem in our 885 code for a certain type of error. The problem has been corrected.

20:28 (DD2007)   Cyber 74
The system hung while testing the new 885 disks, due to the error described above.

21:00 (DD2010)   Cyber 74
The system hung again during 885 testing, the testing was halted at this point.

Sunday, 6 April
_____

17:00 (DD2012)   Cyber 74
Another hang due to the 885 problem.

Monday, 7 April
_____

09:20   Both Machines
One of the motor generators shut off, bringing both machines down.

13:17 (DD2013)   Cyber 172
PP DSP hung because our shared queue device pack SHA, was full. KCM hopes to eliminate this DSP problem some day. SHA was full because some very large (non-staff) permanent files had been placed there.

13:21 (DD2014)   Cyber 172
DSP hung again in the same manner.

Tuesday, 8 April

23:35 (DD2005)   Both Machines
Some sort of power fluctuation occured which brought each machine down.

Thursday, 10 April

14:29 (DD2007)   Cyber 172
The system hung with a dead CPU monitor. There is no explanation yet.

Monday, 14 April

12:13 (DD2016)   Cyber 74
The Cyber 74 hung up when 1CD was hung on channel 32. No jobs were being
scheduled into the available memory. A level 3 deadstart was done and that
cleared the scheduling problem. We have no idea what caused the original
problem.

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Cyber 170-720 Deadstart Dump Analysis (4/7-4/20) - by R. A. Williams

Date	Description	Tape
800407	A power fluctuation caused the system to go down.	N.A.
800407	844 disk unit 2 hung rolling in a job. This was the third instance of this problem today. In the first two cases, the channel was disconnected but this time a deadstart had to be done.	N.A.
800408	A power fluctuation caused the system to go down. This problem deserves study since the new 2.5 second ride through MG units should have prevented it. Unfortunately, no dump was taken this time.	N.A.
800413	A few hours after the system came up, the operator tried to log in unsuccessfully. The trouble was traced to a 6676 multiplexer that had, presumably, been down since the beginning of operations. A warning was put up and it was repaired the next morning by the CE's.	Fixed